## UKRAINIAN BANKING SYSTEM: FUNCTIONING FEATURES AND REALITY

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Annotation. The article deals with studying the models of forming the banking system in the transformation conditions. The authors compare the banking system of Ukraine to the banking system of Germany. The article elaborates on the urgent problems of factors restraining the development of the domestic banking sector. The authors of the article suggest a range of measures aimed at the general economic stabilization and returning the trust to the banking sector.

**Key words:** banking system, banking sector, models of banking system formation.

Nowadays, the world is on the stage of global transformations that include various areas of the social and economic life of inhabitant from different countries the results of which inevitably affect the financial system of various levels that is evident from the crisis phenomena and the enhancement of the level of the social tension in the society. All these destructive factors negatively influence the economic stability in the state and the level of the prosperity of its citizens.

The banking sector is the most prone to transformational changes and the impact of external and internal shocks. Therefore, at the present stage of development, the banking sector is undergoing significant structural changes and changes in approaches in the organization of their business processes. Customers' expectations, technological changes, tightening of regulatory requirements, crisis phenomena in the real economy sector together create the imperative of transformations in the banking system.

Thus, the banking system of Ukraine is a key part of the country's financial system, an important element of the economic mechanism.

The establishment of the banking system in Ukraine began with the declaration of independence in 1991. Legislative framework was born that made it possible to develop banking activities in Ukraine. The Law of Ukraine "On Banks and Banking" adopted in 1991 defined the legal bases of banks, the establishing procedure and the basic principles of their activity [15].

On September 18, 1991, the Cabinet of Ministers of Ukraine adopted the resolution "On creating facilities for the production of national currency and securities", according to which a directorate for the construction of necessary facilities was created [15].

All responsibility for organizing the work of making its own national money was entrusted with the National Bank of Ukraine.

The theoretical and methodological bases of the study are the fundamental principles of modern economic theory and scientific works of scientists. The following methods were used in the study. Methods of theoretical generalization, analysis and synthesis, induction and deduction are used to generalize theoretical and methodological approaches to the question concerning the study of the model of formation of the banking system in the conditions of transformation. Methods of logical-structural analysis, generalization, decomposition and formalization are used to study the state of the banking system in modern business conditions and develop practical recommendations for the application of these methods.

The model of forming the banking system in the transformation conditions. With the transition to market principles, Ukrainian banks have transformed from highly specialized to universal commercial financial institutions. It has led to the expansion of the range of services, the improvement of banking technologies and the customer service quality [8, 9].

By its structure, the banking system of Ukraine (Figure 1) is similar to the structure of the German banking sector, which is considered one of the strongest and most stable in the world, since the level of overdue loans in this country does not exceed the two percent threshold that is less only in the USA and Japan [11].

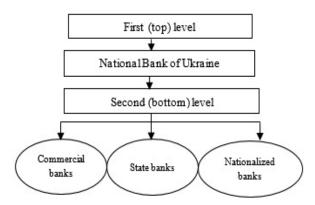


Fig. 1. Ukrainian bank system Source: compiled by the authors according to [5, 10]

The German banking system, like in many other developed countries, is characterized by a two-level structure (Figure 2). The top level is occupied by the Bundesbank, the central bank of Germany, which main task is to implement the country's monetary policy, control over its financial system and the implementation of the monetary policy.

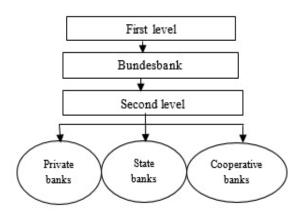


Fig. 2. German bank system Source: compiled by the authors according to [2, 7]

According to [3], more than 36,000 banks (their branches and affiliates) were registered in Germany at the beginning of 2016.

The authors analyse the banking system of Germany and summarize the following features:

- the German bank sector is divided into two parts: private, state, cooperative;
- the main state bank, the role of which is played by the German Federal Bank, or the Bundesbank, as well as several state-owned banks with special functions, mainly savings and loan;
  - state-owned banks play an important role in the country's banking sector;
  - tight regulation of the activities of the credit and other financial institutions;
- the most stringent reporting requirements, restrictions on the rights of business owners;
  - BaFin, a unified authority over all types of financial services;
- consolidation of the second-level banks into unions and associations (e.g. Deutscher Sparkassen-und Giroverband eV Savings Bank Union)

Despite the development and significant changes in the qualitative and quantitative context of the banking system, its functioning as a market-type system is in the development process. This fact alone indicates the need for further improvement. The substantiation and efficiency of the banking system depends on the mechanism of its functioning (Figure 3).

Maintaining the current conditions of the banking system development and pursuing constantly the improvement policy are possible only in the strategic management system.

The tendency to increase the role of strategy, strategic approaches and methods of strategic business management in the context of ensuring their competitive advantages has appeared in the activity of banks. The need for strategic management is becoming imminent, mainly when the new goals that cannot be achieved within the current strategy are emerging.

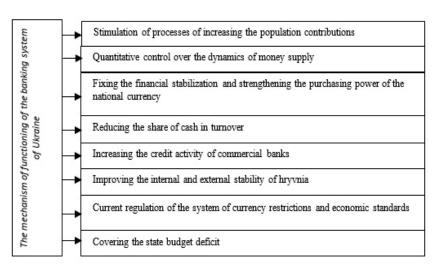


Fig. 3. Functioning of the banking system of Ukraine Source: compiled by the authors according to [8, 10, 15]

The reasons for this are the fact that it is often difficult for banks, in the face of rapid changes that they have not encountered before, to determine which line of business needs improvement and reform, and what is the best way to do it. Therefore, each bank should make its own strategic choices, considering both its capabilities and risks, as well as ensuring its effective management and minimizing the costs associated with changing management strategies.

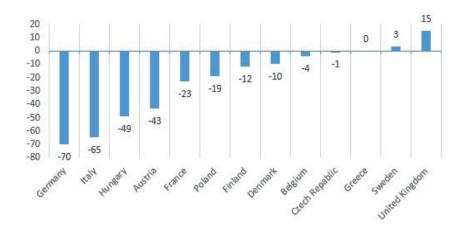
Thus, the authors consider the content of the basic theories of the banking structure, its management and functioning, which help economists, bankers and entrepreneurs to understand better the system of banking activities, as well as how to regulate, develop and control the purposeful actions of the bank management. These theories do not always correspond to reality, but it makes it possible to understand the realities facing global business. The combination of theories is used in the practice of banking to obtain the best result.

The state of the banking system in current economic conditions. Considering the current state of the Ukrainian banking system, it should be noted that political and military instability, significant inflation and general economic instability have negatively affected the banking sector and the performance of banks operating in Ukraine. Another important factor characterizing the current state of the banking system is the active involvement of the NBU in the functioning of the banking system.

According to the National Bank of Ukraine [12], 82 commercial banks operated in Ukraine as of August 1, 2018. Their number has not changed since the beginning of 2018. Two of them obtained the NBU's consent to abandon banking and transform into financial companies. Another two banks have agreed with NBU to join other banks. After realizing these intentions, the number of banks in Ukraine will be reduced to 78.

Although there were 180 commercial banks operating in Ukraine in 2014.

There is also a decline in the number of banking institutions in the European Union, and the number of credit institutions in the EFTA has decreased from 413 to 410 in 2017 [2]. Germany experienced the largest decline in the number of banks in 2017 among other EU countries (Graph 1). The number of banks in Germany has decreased by 52% compared to 1995. Bank consolidation in Germany [7].



Graph 1 – Changes in the number of banking institutions in the European Union in 2017 Source: compiled by the authors according to [1, 2]

On the one hand, there was a situation where the transparency of the banking system was positively affected by the liquidation of insolvent banks and banks that violated Ukrainian law. On the other hand, such a situation could adversely affect the terms of the banking products and lead to the deterioration of the competitive environment in the banking sector.

Dynamics of change in the number of banks for the period 2014-2018 is shown in Table 1 according to which it can be concluded that the number of banks has decreased significantly in recent years.

Table 1
The number of existing banks and banks with foreign capital for the period 2014-2018

Indicator	2014	2015	2016	2017	2018
Number of active banks	180	163	117	96	82
With foreign capital	49	51	41	38	38
With 100% of foreign capital	19	19	17	17	18

Source: compiled by the authors according to [13, 14]

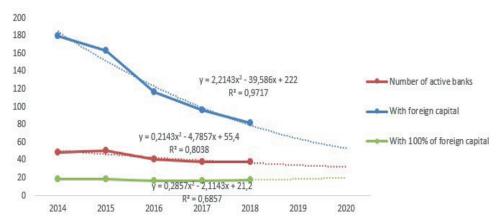
As we can see from Table 1, number of existing banks for the period 2014 - 2018 decreased from 180 units at the beginning of 2014 to 82 units at the beginning of 2018.

The banks with foreign capital also experienced reductions despite a slight increase at the beginning of 2015: the number of banks was 49 at the beginning of 2014, and it dropped to 38 at the beginning of 2018. However, it should be noted that their share in the structure of banks has almost doubled in the period of 2014-2018: 27.22% in 2014 to 46.34% in 2018

Based on the existing statistics, it is advisable to make an estimate of the number of banks in Ukraine based on data for the period 2014-2018 (Graph 2).

Using the polynomial function with the value of approximation reliability R2 = 0.97 (for the total number of banks), R2 = 0.80 (for the banks with foreign capital participation), R2 = 0.68 (for the banks with 100% of foreign capital) the following results are obtained.

As can be seen from Graph 2, there will be a significant decrease in the total number of banks against the backdrop of an almost constant number of banks with foreign capital in 2019 and 2020. This fact proves the significant changes in the domestic bank system. Similarly, the decrease of the number of banks occurs in European countries (Graph 1).



Graph 2 – Forecast of the number of banks in Ukraine for 2019-2020 Source: compiled by the authors according to [5, 13, 14]

It is worth emphasising that the assets of the system banks in Ukraine are increasing while the number of banks is decreasing that allows concluding there is the increase of their capacity and stability. When comparing the Ukrainian banking system with the German one, it should be noted that the German banking system consists of almost 1,800 banks, which include 200 private banks, 400 state-owned banks and 1100 corporate banks [4].

Table 2 shows competitive positions of the leading banks of Ukraine and Germany. According to Table 2, it can be concluded that as of 2018, Privatbank took the top position in terms of assets and financial results, but Oschadbank was the leader in terms of loan portfolio. In particular, the German banking system is stable due to the stable economy, low unemployment, which enable banks to maintain stable financing, both

from the state and from the citizens.

Table 2
Competitive positions of the leading banks of Ukraine and
Germany on key performance indicators

	Ukrainian bank assessment criteria							
No.	No. Assets Million UAH		Loan portfolio Million UAH		Financial result	Million UAH		
1	Privatbank	475,977.78	Oshchadbank	71,958.72	Privatbank	3,653.81		
2	Oshchadbank	297,746.56	Ukreksimbank	60,918.07	Raiffeisen Bank Aval	1,381.31		
3	Ukreksimbank	229,926.84	Privatbank	41,566.65	OTP Bank	612.61		
4	Ukrgasbank	85,078.13	Raiffeisen Bank Aval	38,577.23	UKRSIBBANK	611.89		
5	Raiffeisen Bank Aval	77,303.17	Ukrgasbank	30,911.06	30,911.06 PUMB			
6	Sberbank	64,961.25	Sberbank	29,906.48	Credit Agricole	439.94		
7	PUMB	58,580.72	Alfa-Bank	27,345.24	Citybank Ukraine	289.68		
8	Alfa-Bank	58,135.29	PUMB	24,516.37	Ukreksimbank	258.59		
9	Ukrsotsbank	54,630.71	UKRSIBBANK	20,178.10	Alfa-Bank	211.54		
10	UKRSIBBANK	52,982.80	Credit Agricole	19,443.25	ProCredit bank	165.89		
	Bank assessment criteria							
	Assets		US doll.	Financial result		US doll.		
1	Deutsche Bank		1.88 trillion	Deutsche Bank		35.4 billiard		
2	UniCredit Bank AG		938 billiard	Commerzbank		1 5 . 9 4 billiard		
3	DZ Bank		600 billiard	DZ Bank		7.2 billiard		
4	KFW Bankgruppe		598 billiard	UniCredit Bank AG		6.3 billiard		
5	Commerzbank		513.07 billiard	Landesbank Baden-Württemberg		3.1 billiard		
6	Landesbank Baden- Württemberg		287 billiard	Norddeutsche Landesbank		2.3 billiard		
7	Bayerische Landesbank		250 billiard	KFW Bankgruppe		2.2 billiard		
8	Norddeutsche Landesbank		205 billiard	Bayerische Landesbank		1.6 billiard		
9	Landesbank Hessen- Thüringen (Helaba)		193 billiard	Landesbank Hessen- Thüringen (Helaba)		636 million		
10	NRW Bank		167 billiard		W Bank	263 million		

Source: compiled by the authors according to [4, 5, 13, 14]

The financial results of the bank activities of Ukraine for the period 2014-2018 are presented in Table 3.

Table 3
Income and expenses of the banks of Ukraine for the period of 2014-2018, UAH million

2011 2010, 01111 111111011									
Indicator	2014	2015	2016	2017	2018	Deviation 2014- 2018, UAH	Deviation 2014-2018, %		
Income:	210,201	199,193	190,691	178,054	180,433	-29,768	-14.16		
Interest income	151,257	135,145	135,807	124009	126334	-24,923	-16.48		
commission income	28,276	28,414	31,362	37,138	46,223	17,947	63.47		
the result from revaluation and from sale and purchase operations	15,511	21,490	8,243	7,224	-1,524	-17,035	-109.83		
other operational income	10,093	9,567	9,605	7,264	7,298	-2,795	-27.69		
other income	2,165	2,729	3,946	1,349	1,582	-583	-26.93		
return of the written off assets	2,899	1,848	1,728	1,070	520	-2,379	-82.06		
Expenses:	263,167	265,793	350,078	204,545	160,441	-102,726	-39.03		
percentage expenses	97,171	96,079	91,638	70,971	61,882	-35,289	-36.32		
commission expenses	4,889	5,846	7,182	9,650	11,910	7,021	143.61		
other operational expenses	15,579	12,991	10,920	11,719	12,031	-3,548	-22.77		
total administrative expenses	44,614	36,742	39,356	44,202	47,058	2,444	5.48		
other expenses			3,089	15,116	1,466	-1,623	-52.54		
provisioning into reserves	103,297	114,541	198,310	49,206	21,705	-81,592	-78.99		
income tax	-2,383	-406	-418	3,681	4,388	6,771	284.14		
Net profit (loss)	-52,966	-66,600	-159,388	-26,491	19,992	72,958	-		

Source: compiled by the authors according to [4, 5, 13, 14]

As we can see from Table 3, bank income decreased by UAH 29,768 million in the period of 2014-2018, which is -14.16% in relative terms. This decrease was the result of the fall in interest income by UAH 24,923 million (-16.48%), increase in commission income by UAH 17,947 million (53.81%), UAH 17,497 million (438.19%) and other operating income by UAH 3,841 million (63.47%).

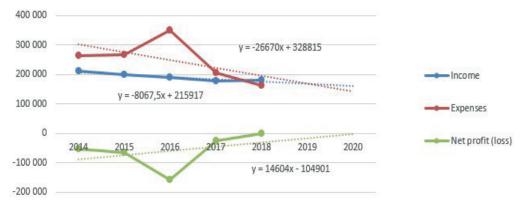
Bank expenditures for the period of 2014-2018 decreased by UAH 102,726 million (which was -39.03% in relative terms). This decrease in total expenses was due to the decrease in interest expenses of UAH 35,289 million (-36.32%), an increase in commission expenses is by UAH 7,021 million (143.61%), total administrative expenses – by UAH 2,444 million (5.48%), decrease of provisioning in reserves – by UAH 81,592 million (-78.99%).

There is also a decrease in other operating expenses by UAH 3,548 million (-22.77%), an increase in income tax by UAH 6,771 million.

As shown in the above analysis of indicators for the period under review, bank income exceeded their expenses only in 2018. In other years, the following losses were observed: UAH 52,966 million in 2014, UAH 66,600 million in 2015, UAH 159,387 million in 2016 and UAH 26,491 million in 2017. Thus, for the period under review, the amount of the net profit increased by 72,958 million.

Further, it is advisable to make a forecast of the income and expenses of Ukrainian banks for 2019-2020 based on the data for the previous four years (Graph 3).

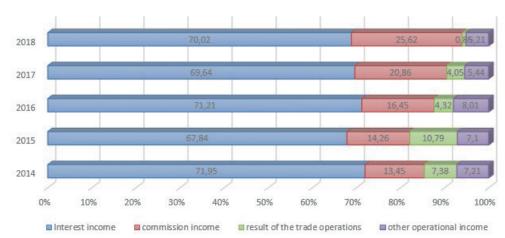
Using the linear trend smoothing, the following results are obtained. As can be seen from Graph 3 in 2019 and 2020, there is a gradual increase in income due to the decrease in expenses against a background of declining income. Therefore, a more detailed analysis is required to find out due to what kind of indicators these changes have taken place.



Graph 3 – Income and expenditure forecast for the banks of Ukraine for 2019-2020 Source: compiled by the authors according to [13, 14]

Unlike the banking system of Ukraine, EU banks hold strong positions in terms of income, as evidenced by the growth of banks' capital in 2017 by 13.8% compared to 2016 and doubled compared to 2011 [2].

Interest income has traditionally been dominated, in the structure of Ukrainian banks' income (Graph 4), but its share has declined substantially: from 76.9% in 2014 to 69.6% in 2018. Instead, commission income has become more significant: growth from 14.8% in 2014 to 20.9% in 2018 and trading income from 2.0% in 2014 to 4.1% in 2018.

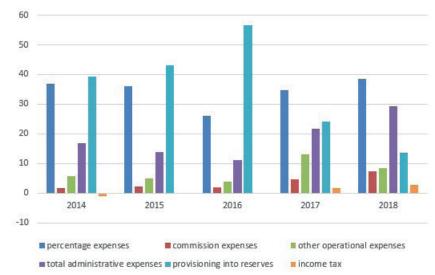


Graph 4 – The structure of income of Ukrainian banks in 2014-2018, % *Source: compiled by the authors according to [10, 13, 14]* 

As can also be seen from Graph 4, the share of other operating income also increased, although slightly from 3% to 4.1%.

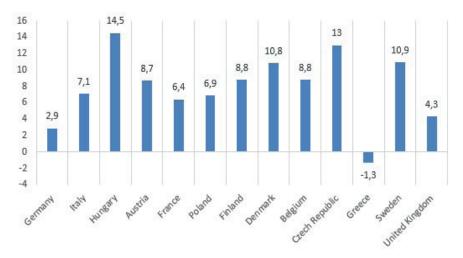
The structure of expenses of the banks of Ukraine in the period of 2014-2018 was more diverse (Graph 5).

Interest expenses accounted for the largest share of costs, and their minimum value (36.1%) was observed in 2016 and the maximum (48.3 %) – in 2014. In general, banks spend their expenditures according to the situation and in accordance with the requirements of the time without thorough and long-term planning.



Graph 5 – The structure of expenses of Ukrainian banks in 2014-2018, % *Source: compiled by the authors according to [10, 13, 14]* 

The performance of the banking system in European countries is determined by the Return on Equity (ROE) and is the key indicator for slowly declining the attractiveness of the banking sector to investors. ROE of the European banks was 5.6% in 2017 and has been the highest since 2007 [2] (Graph 6).



Graph 6 – The Return on Equity (ROE) of the European banks in 2017 *Source: compiled by the authors according to [1, 2]* 

As can be seen from Graph 6, in the largest EU countries in 2017 ROE was 8.8% in the Netherlands, 7.1% in Italy, 7.0% in Spain, 6.4% in France, 4.3% in the UK and 2.9% in Germany.

Despite the slight increase in return on equity, the German banking system remains stable. Low interest rates and overall favourable financing conditions for Germany helped boost lending to companies and individuals to EUR 886 billion in 2017, that is 3.7% more comparing to the previous year. In connection with the transition of Germany to the implementation of the new EU Sustainable Financing Plan, banks have recently launched a number of initiatives to promote sustainable financing [7].

The analysis of the current state of the banking system of Ukraine and its comparison with the banking system of the European Union raises an objective need to specify the urgent problems and factors that impede the development of the domestic banking sector. The biggest problems of the modern banking system include the following:

- distrust of banks is increasing;
- quality of the banks' credit portfolio deteriorates;
- the impact of political processes is negative;
- the national currency is being devalued;
- the refinancing mechanism of Ukrainian banks is controversial;
- credit resources in Ukraine are becoming more expensive.

According to the survey conducted by the NBU [12], Ukrainian banks mostly continue

to forecast corporate lending growth by mid-2019, as reported by 81% of respondents (the balance of positive and negative responses was 37%) and the increase in lending to households -67% (51% response rate). Most respondents do not expect changes in the quality of loan portfolios, but some banks hope that the quality of household loans will moderately improve. Expectations of deposit inflow remain the following: 57% (balance of answers is 42%) of respondents predict the population growth; 68% (balance of answers is 34%) of respondents – the increase in business funds.

**Conclusions.** In order to address issues that have arisen in the banking sector and normalize its functioning, we further present the system of measures aimed at stabilizing the economy and restoring trust in the banking sector. These measures should enhance the efficiency of the banking system control and regulation.

The following are the key measures to improve the performance of Ukrainian banks. First. General measures. Namely,

- Consolidated counteraction to unregulated financial intermediation, ensuring transparency of financial services;
  - Increasing financial literacy of the population and microbusiness;
  - Promoting fair competition in regional financial markets.

Second. Measures aimed at improving the quality of financial services. Namely,

- Development and promotion of new investment services to the population in the market;
  - Minimization of investment and credit risks;
  - Transparency of pricing and reduction of the cost of investment loans;
  - Expansion of refinancing channels;
  - Improvement of staff qualification and level of service, trainings for staff;
  - Disclosure of information to the fullest extent possible.

Third. Measures to increase the availability of retail financial services. Namely,

- Improvement of the availability of bank loan and investment products in the territorial space;
- It is important to increase the availability of retail financial services in order to develop financial services in small cities;
- Development of the agency model for providing financial services, as well as the model of remote banking;
  - Development of electronic cash technologies, including mobile payments.

Moreover, the last one. Measures to improve customer service. Namely,

- Improving the content of the site regarding the information about the bank;
- Adding additional features to the site such as: various credit and investment calculators, analytical tables, comparison by type of deposits and tariffs;
  - Organizing newsletters to customers about new products, birthday greetings, etc;
  - Interactive consultations;
- Conducting trainings for developing professional and communication skills of call centre employees;
  - Improving the quality of consulting services;

- Reducing dialling time, contacting a consultant and waiting;
- Ongoing monitoring of customer service quality, including with the "mystery client" methodology.

Therefore, an effective development strategy is an important factor in the successful operation of both the banking system as a whole and of individual banks. That is why the above study identifies the strategic positions of banks and proposes measures to develop their activities. Issues related to improving the performance of both banks and the banking system, as a whole are important. They need further development considering the features of the national economy of Ukraine.

The implementation of the proposed measures will reduce the impact of negative factors in the short term and will create the conditions for accelerated development of the banking system of Ukraine in the future.

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