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RANKING SYSTEM FOR UKRAINIAN BANKS BASED ON FINANCIAL STANDING

The paper provides a new approach to determining the financial standing of Ukrainian banks in the long and short terms. Using the European assessing indices and the national ones, a new ranking system is created. The authors ranked 20 biggest Ukrainian banks by assets and grouped them into corresponding financial groups.
Keywords: *bank; financial standing; "black swan" event; financial fragility.*
JEL classification: G21.

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РЕЙТИНГУВАННЯ УКРАЇНСЬКИХ БАНКІВ НА ОСНОВІ ФІНАНСОВИХ ПОЗИЦІЙ

У статті наведено новий підхід до визначення фінансових позицій українських банків на довго- та короткострокову перспективу. Використовуючи європейські та національні показники розроблено нову систему рейтингування банків. Оцінено 20 найбільших банків України за активами і згрупувано їх у відповідні фінансові групи.
Ключові слова: *банк; фінансова позиція; подія «чорний лебідь»; фінансова крихкість.*
Табл. 11. Літ. 16.

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РЕЙТИНГОВАНИЕ УКРАИНСКИХ БАНКОВ НА ОСНОВЕ ФИНАНСОВЫХ ПОЗИЦИЙ

В статье приведен новый подход к определению финансовых позиций украинских банков на долго- и краткосрочную перспективу. Используя европейские и национальные показатели, создана новая система рейтингования банков. Оценено 20 крупнейших банков Украины по активам и сгруппировано их в соответствующие финансовые группы.
Ключевые слова: *банк; финансовая позиция; событие «черный лебедь»; финансовая хрупкость.*

Problem setting. Since the Ukrainian society is developing in technical and technological aspects, banks should correspond to the new requirements in order to survive. Each client has own desires and needs. During the last decades significant diversification in clients' needs occured. It lead to further diversification in bank products and services. Fortunately, banks still can satisfy clients' demands, but in future it will become more expensive for them. Modern banks shift to more personal approach which costs a lot of money. Such investments are still beneficial for banks in order to increase:

- market share;
- clients' loyalty;
- long-term profit.

This problem is very actual for Ukrainian market as it is not still observed and analyzed. Banks spend a lot of money on traditional advertising and this instrument is prevalent. Moreover, the leaders of Ukrainian bank system rely on their financial power rather than on marketing.

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Recent research and publications analysis. Among Ukrainian the scientists, who studied this issue we could make I.V. Alekseev (2006) and I.V. Voloshko (2003) investigated marketing strategies of banks disregarding financial background. Among European and American researches, the greatest attention should be paid to the works of K. De Ruyter and M. Wetzels (2000), D. Mullineaux and M. Pyles (2010), M. Lovett and J. MacDonald (2005), M. Hyman and I. Mathur (2005).

G. Zinkhan and J. Verbrugge (2000) argued that the link between marketing and finance becomes critical as firms focus on enhancing economic value. R. Srivastava et al. (1998) analyzed how marketing would be affected by central economic planning.

The research objective. The main aim of this paper is to determine the key financial factors which influence banks' financial standing. On the basis of the analysis undertaken, a new ranking system for Ukrainian banks is created. Their financial positions are determined as long- and short-term. The biggest banks by assets in Ukraine are ranked according to this new ranking system.

Key research findings. Key factors which influence bank strategies are determined and grouped into corresponding clusters for further analysis. After cluster and correlation analyses, new ranking system was elaborated in order to rank Ukrainian banks. In addition, each bank cluster is described basing on its financial position.

Data and methods. As primary sources of data, financial statements of 20 largest commercial banks in Ukraine by assets are used. According to Table 1, these 20 banks account 77.97% of the whole bank system in the country. The biggest bank accounts 15.54% of the whole system, 3 biggest banks – 34.84%, 10 biggest ones – 59.75%. Consequently, the key parameters and features of Ukrainian bank system, which is rather concentrated, are provided in the sample.

Selection and calculation of the key financial coefficients. To determine the key financial coefficients, which describe bank financial position within Ukrainian banking system, the following must be considered:

1. Basel principles of bank supervision, also included in legal control documents of the National Bank of Ukraine.
2. Profitability/unprofitableness as one of the most important indicators of bank efficiency.

In Table 2 key 11 financial coefficients as input variables are defined and then structured into 5 units: capital adequacy, liquidity risks, credit risks, financial stability and effectiveness.

Reducing the number of chosen financial indicators. Before the hierarchical cluster analysis, the reduction of input data must be done. For this we use the principal components analysis within factor analysis, in SPSS 21.

Expediency of factor analysis is determined with correlation among variables. In Table 3 the results of pairwise comparison of the key financial factors are provided. High correlation value, observed for ARC-CL, LCR-ROA, MLGS1I-MLGSI, ROA-ROE pairs, appears to be the reason for their combination into one group during factor analysis.

According to Tables 4, 5 factors have value of more than 1, thus, they were taken for further analysis. The first main component explains 25.233% of the whole dispersion, the second – 21.708%, third – 21.153%, fourth – 11.605%, and fifth – 10.257%. In total – 89.957%

Table 1. **Largest Ukrainian banks by assets,**
official sites of the mentioned above banks

#	Bank	Assets, mln USD
1	Privatbank	12,974.28
2	State Savings Bank of Ukraine	8,124.03
3	Ukreximbank	7,990.60
4	Delta Bank	3824.29
5	Prominvestbank	3,339.33
6	UniCredit Bank (Ukrsotsbank)	3,060.43
7	Raiffeisen Bank Aval	2,971.71
8	Subsidiary Bank Sberbank of Russia	2,964.16
9	Alfa-Bank Ukraine	2,327.04
10	VTB Bank Ukraine	2,314.88
11	Bank Nadra	2275.29
12	First Ukrainian International Bank	2,247.48
13	Finance and Credit Bank	2,169.07
14	UkrSibbank (BNP Paribas Group)	1,670.21
15	OTP Bank	1,363.83
16	Credit Agricole Bank	1,336.80
17	Ukrgasbank	1,333.54
18	Financial Initiative Bank	1112.25
19	Pivdennyi Bank	940.08
20	ING Bank Ukraine	767.20
…	…	…
158	**The whole banking system**	**83,503.05**

Table 2. **List of input variables, which describe a bank's financial standings**
(NBU official web site; Basel 2 official web site)

Unit	Denomination	Acronym
capital adequacy	The scale of regulatory capital, %	SRC
capital adequacy	The adequacy of regulatory capital, %	ARC
liquidity risks	Current liquidity, %	CL
liquidity risks	Quick assets	QA
credit risks	Large credit risks, %	LCR
credit risks	Maximum credit risk to a single counterparty, %	MR1C
credit risks	Maximum size of loans, guarantees and sureties granted to one insider, %	MLGS1I
credit risks	Maximum aggregate amount of loans, guarantees and sureties issued to insiders, %	MLGSI
financial stability	Financial leverage, %	FL
effectiveness	Return on assets, %	ROA
effectiveness	Return on equity, %	ROE

Preliminary description of the identified factors. Using grouping of variables by factor model components from Table 4, we determine such factors:
- factor 1 – "Profitability and high credit risks";
- factor 2 – "Insiders' influence";
- factor 3 – "Relationship between capital adequacy and liquidity";
- factor 4 – "Relationship between quick assets and scope of activities";

- factor 5 – "Relationship between financial leverage and a single concentration of credit risk".

Table 3. **Correlation matrix,** *authors'*

	SRC	ARC	CL	QA	MR1C	LCR	MLGS1I	MLGSI	ROA	ROE	FL
SRC	1.000	-0.008	0.329	0.119	-0.383	-0.352	-0.091	-0.089	-0.252	-0.039	-0.337
ARC	-0.008	1.000	0.675	0.104	-0.364	0.310	-0.105	-0.143	0.012	-0.006	-0.253
CL	0.329	0.675	1.000	0.201	-0.415	-0.001	-0.186	-0.191	-0.123	-0.015	-0.296
QA	0.119	0.104	0.201	1.000	-0.387	-0.496	0.257	0.306	0.036	0.027	0.250
MR1C	-0.383	-0.364	-0.415	-0.387	1.000	0.254	-0.092	-0.066	-0.108	-0.189	0.038
LCR	-0.352	0.310	-0.001	-0.496	0.254	1.000	-0.136	-0.168	0.512	0.440	-0.347
MLGS1I	-0.091	-0.105	-0.186	0.257	-0.092	-0.136	1.000	0.985	0.206	0.202	-0.267
MLGSI	-0.89	-0.143	-0.191	0.306	-0.066	-0.168	0.985	1.000	0.215	0.208	-0.251
ROA	-0.252	0.012	-0.123	0.036	-0.108	0.512	0.206	0.215	1.000	0.947	-0.247
ROE	-0.039	-0.006	-0.015	0.027	-0.189	0.440	0.202	0.208	0.947	1.000	-0.419
FL	-0.337	-0.253	-0.296	0.250	0.038	-0.347	-0.267	-0.251	-0.247	-0.419	1.000

Table 4. **Total variance explained,** *authors'*

Component	Rotation sums of squared loadings		
	Total	% of variance	Cumulative, %
1	2.776	25.233	2.776
2	2.388	21.708	2.388
3	2.327	21.153	2.327
4	1.277	11.605	1.277
5	1.128	10.257	1.128
6			0.497
7			0.270
8			0.184
9			0.126
10			0.018
11			0.010

Factor 1 is labeled as "Profitability and high credit risks" because it consists of two variables: profitability from the output data on "Efficiency" and "High credit risks" from the output data on "Credit risks". There is a nonlinear dependence between profitability and concentration of credit risks in loan portfolio. On the example of largest banks in Ukraine by assets, banks obtain profits only if they lend money in largest sums and only to a limited range of clients. Such a credit policy leads to risks with asymmetrical consequences. According to the approach, proposed by N. Taleb (2007), when the event of "black swan" type arises, bank's losses on these operations will be huge (the effect of convexity is observed), bank can even go bankrupt. On the axis "Fragility-Vulnerability-Antifragility" of the model, proposed by N. Taleb (2012), this factor reflects the level of fragility of bank financial position. The more the value of the observed factor is, the more will be the level of fragility of bank financial position.

Factor 2 is called "Insiders' influence" because in consists of two variables: "Maximum size of loans, guarantees and sureties granted to one insider" and "Maximum size of loans, guarantees and sureties granted to insiders" from the block "Credit risks". This factor describes the risks which occur when the bank carries out operations with insiders and which influence directly or indirectly its performance. The dependence between two variables of factor 2 is linear. The more is the value of factor 2, the stronger influence have the related parties on the bank.

Factor 3 is called "Relationship between capital adequacy and liquidity" because it combines two variables: "Adequacy of regulatory capital" from the block "Capital adequacy" and "Current liquidity" from the block "Liquidity risks". This factor describes bank's ability to perform its liabilities fully and in time, that derive from trade, credit and other operations of monetary nature in a short-term period (during one month). On the one hand, low liquidity and capital adequacy parameters worsen bank's financial stability. On the other, too high value of these parameters, according to the classical approach, leads to ineffective use of resources and, thus, to losses. But when the event of "black swan" type arises, banks with high value of factor 3 will survive and their capital adequacy also will be high. On the axis "Fragility-Vulnerability-Antifragility" of the model, proposed by N. Taleb (2012), this factor will be on the level "Vulnerability", i.e., these banks will survive while others, whose liquidity and capital adequacy parameters were "optimal" according to the classical theory, will suffer from financial outer disasters.

Factor 4 is called "Relationship between quick assets and scope of activities" as it includes "quick assets" from the block "Liquidity risks" and "the scale of regulatory capital" from "Capital adequacy". This factor reflects liquidity and ability of bank assets to convert cash quickly also considering the normative level of regulatory capital. The more is the value of factor 4, the higher is the level of bank liquidity and regulatory capital.

Factor 5 is labeled "Relationship between financial leverage and a single concentration of credit risk" cause it consists of variables "Financial leverage" from the block "Financial stability" and "Maximum credit risk to a single counterparty" from the block "Credit risks". This factor characterizes the level of loan capital and bank's ability to attract financial resources accounting the degree of credit risk concentration on one counterpart who is not insider. High credit risk concentration on one counterpart can have negative consequences, increasing nonlinearly the value of "Financial leverage" and closing access to financial markets to attract additional resources. The more is the value of factor 5, the more will be the value of "Financial leverage" and the level of credit risk concentration on one counterparty, who is not insider.

Detection of homogeneous bank groups on the basis of hierarchical cluster analysis with the identified factors. Our calculation results for 5 factors as of 31.12.2014 are provided in Table 5.

The results of cluster analysis are provided in Table 6.

Leap of the coefficient is observed after the twelfth step. It means that for the data, which contains 20 observations, the optimal quantity of clusters is 8. After defining the quantity of clusters, banks are allocated to appropriate clusters (Table 7).

To describe the obtained results of bank classification by their financial position we review cluster profiles, which are the average of 5 factors for each of 8 obtained clusters and for further analysis we odd the ratio of marketing expenses to assets (MEA). The results are provided in Table 8.

Basing on the conducted financial analysis and cluster profiles of commercial banks in Ukraine, we have to create a uniform ranking system for Ukrainian banks.

This ranking system consists of two components: long-term and short-term financial standing. Description of ranking components is provided in Table 9.

Table 5. **Output data for hierarchical cluster analysis using Ward's method,** *authors'*

Bank	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Privatbank	0.68924	0.01797	-0.60188	0.72076	-1.59247
State Savings Bank of Ukraine	-0.41483	-0.14942	0.24334	-0.09326	-2.74312
Ukreximbank	-0.8594	-0.3785	0.70891	0.51751	-1.4046
Delta Bank	0.84365	-0.76855	-0.91222	1.06929	0.21104
Prominvestbank	-0.77081	-0.39686	1.58759	0.03842	-0.87861
UniCredit Bank (Ukrsotsbank)	-0.65957	0.56684	-0.79142	-1.61458	0.131
Raiffeisen Bank Aval	-0.02612	0.91196	-0.25118	0.80023	-0.42643
Subsidiary Bank Sberbank of Russia	0.86727	-0.77457	-0.43796	-0.21025	0.2684
Alfa-Bank Ukraine	0.19811	-0.45687	0.06896	0.49025	0.11382
VTB Bank Ukraine	0.84051	-0.30856	-0.70624	-1.88147	0.23558
Bank Nadra	-0.12527	-0.53987	-0.89936	-0.63956	-0.18
First Ukrainian International Bank	0.22399	3.77408	-0.04376	0.22966	0.1793
Finance and Credit Bank	0.68324	-0.62252	-0.59006	-0.10997	0.59022
UkrSibbank (BNP Paribas Group)	-0.25507	-0.17148	-0.01544	2.31582	0.99294
OTP Bank	-1.91941	-0.32406	-0.58976	-0.03558	0.99552
Ukrgasbank	-2.68056	-0.13314	0.22071	-0.49681	1.07072
Credit Agricole Bank	0.66389	-0.44351	-0.31221	1.2462	1.0052
Financial Initiative Bank	0.81916	-0.44606	0.16801	-1.366	-0.03062
Pivdennyi Bank	0.82957	0.74094	-0.25105	-0.52644	0.41969
ING Bank Ukraine	1.05241	-0.09783	3.40502	-0.45421	1.04242

Table 6. **Agglomeration schedule of cluster analysis,** *authors'*

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	8	13	0.097	0	0	6
2	10	18	0.657	0	0	9
3	4	17	1.237	0	0	10
4	3	5	1.880	0	0	12
5	15	16	2.626	0	0	16
6	8	9	3.462	1	0	7
7	8	11	4.649	6	0	13
8	1	7	6.049	0	0	14
9	10	19	7.752	2	0	11
10	4	14	9.787	3	0	15
11	6	10	12.004	0	9	13
12	2	3	14.497	0	4	14
13	6	8	18.622	11	7	15
14	1	2	23.490	8	12	17
15	4	6	35.553	10	13	16
16	4	15	49.100	15	5	18
17	1	12	63.418	14	0	19
18	4	20	78.247	16	0	19
19	1	4	95.000	17	18	0

Table 7. **Studied banks by cluster,** *authors'*

Bank	Cluster
Privatbank	1
State Savings Bank of Ukraine	2
Ukreximbank	2
Delta Bank	3
Prominvestbank	2
UniCredit Bank (Ukrsotsbank)	4
Raiffeisen Bank Aval	1
Subsidiary Bank Sberbank of Russia	5
Alfa-Bank Ukraine	5
VTB Bank Ukraine	4
Bank Nadra	5
First Ukrainian International Bank	6
Finance and Credit Bank	5
UkrSibbank (BNP Paribas Group)	3
OTP Bank	7
Ukrgasbank	7
Credit Agricole Bank	3
Financial Initiative Bank	4
Pivdennyi Bank	4
ING Bank Ukraine	8

Table 8. **Cluster profiles,** *authors'*

	Quantity of banks	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Cluster 1	2	0.3315618	0.4649647	-0.4265301	0.7604954	-1.0094491
Cluster 2	3	-0.6816789	-0.3082578	0.8466127	0.1542238	-1.6754395
Cluster 3	3	0.4174891	-0.4611781	-0.4132906	1.5437709	0.7363900
Cluster 4	4	0.4574178	0.1382893	-0.3951761	-1.3471213	0.1889126
Cluster 5	4	0.4058382	-0.5984572	-0.4646039	-0.1173845	0.1981092
Cluster 6	1	0.2239877	3.7740797	-0.0437562	0.2296571	0.1792974
Cluster 7	2	-2.2999865	-0.2285992	-0.1845245	-0.2661980	1.0331210
Cluster 8	1	1.0524067	-0.0978313	3.4050195	-0.4542128	1.0424199

Long-term financial standing is characterized with the factor "Profitability and high credit risks":

1. S (stable) – banks in this sector have high level of profitability along with optimal level of high credit risks. Here banks in long-term perspective have strong and sufficient financial resources for maintaining long-lasting strategies.

2. F (fragile) – banks are characterized by high level of high credit risks, that lead to financial destabilization in the long term. Such a bank does not own enough financial resources for long-lasting strategies.

Short-term financial standing is characterized with other 4 factors, which determine bank's ability to change its business direction without harming to its financial condition and stability.

Basing on long-term and short-term financial standing, the following ranking positions of commercial banks in Ukraine are suggested:

1. S+ – banks of this sector have high values of both long-term and short-term financial position, own sufficient financial resources for long-lasting campaigns and

Table 9. **Ranking components of bank's financial standing,** *authors'*

		Short-term financial standing														
		+	I-	R-	A-	L-	IR-	IA-	IL-	RA-	RL-	AL-	IRA-	IRL-	IAL-	RAL-	--
Long-term financial standing	S	S+	SI-	SR-	SA-	SL-	SIR-	SIA-	SIL-	SRA-	SRL-	SAL-	SIRA-	SIRL-	SIAL-	SRAL-	S--
	F	F+	FI-	FR-	FA-	FL-	FIR-	FIA-	FIL-	FRA-	FRL-	FAL-	FIRA-	FIRL-	FIAL-	FRAL-	F--

possess high values of assets and regulatory capital, that help commercial banks change their strategies in the short term without negative influence on their financial condition.

2. F+ — banks of this sector have high credit risks that negatively influence their financial stability in the long term. In the short term bank has sufficient financial resources for correcting and changing strategies.

3. SI- — banks of this sector have stable long-term financial position, but in the short-term period they are limited mostly to operations with insiders. The more significant is insiders' influence, the less possibilities the bank has to change its strategy and the more it faces the problem of restrained financial resources.

4. FI- — banks of this sector have fragile financial position in the long term and in the short term they restricted mostly to operations with insiders. The more significant is insiders' influence, the less possibilities the bank has to change its strategy and the more it faces the problem of restrained own financial resources.

5. SR- — banks of this sector have stable long-term financial position, but in the short term they have insufficient regulatory capital and liquidity, and this decreases their ability to fulfill liabilities fully and timely.

6. FR- — banks of this sector have fragile financial position in the long term, and in the short term they have insufficient regulatory capital and liquidity, which are decreasing their ability to fulfill liabilities fully and timely.

7. SA- — banks of this sector have stable long-term financial position, but low share of quick assets which is decreasing the ability in short-term period to fulfill liabilities fully and in time and to find the needed resources.

8. FA- — banks of this sector have fragile financial position in long-term period and low share of quick assets within all assets. This decreases their ability in short-term period to fulfill liabilities and in time and to find the needed resources for it.

9. SL- — banks of this sector have stable long-term financial position, but in the short term — high values of credit risks on one party, falling financial leverage and, as a consequence — bank's ability to attract additional financial resources in the short term declines.

10. FL- — banks of this sector have fragile financial position in long-term period and high values of credit risks on one party, falling financial leverage. As a consequence, the ability to attract additional financial resources in the short term declines.

11. SIR- — banks of this sector have stable long-term financial position, but in the short term they have not high enough level of regulatory capital and high level of insiders' influence. This limit bank's effective marketing strategies.

12. FIR- — banks of this sector have fragile financial position in a long-term period and in a short-term period they have not high enough level of regulatory capital and also high level of insiders' influence. This limits bank;s effective strategy.

13. SIA- — banks of this sector have stable long-term financial position, but in the short term they have high level of insiders' influence and low level of quick assets. This declines they ability to fulfill liabilities fully and timely.

14. FIA- — banks of this sector have fragile financial standing in the long-term period and in the short-term period they have high level of insiders' influence and low rate of quick assets, that decline bank's ability to fulfill liabilities fully and timely.

15. SIL- — banks of this sector have stable long-term financial standing, but in the short term they have high level of insiders' influence and are not able to attract

additional financial resources using financial leverage and thereby credit risks on one counterparty rise.

16. FIL- – banks of this sector have fragile financial position in the long term period and in the short term they have high level of insiders' influence and are not able to attract additional financial resources using financial leverage and thereby have credit risks on one counterparty.

17. SRA- – banks of this sector have stable long-term financial standing, but in the short term they have insufficient level of regulatory capital and quick assets, restricting their ability to fulfill liabilities fully and in time.

18. FRA- – banks of this sector have fragile financial position in the long term period and in the short term they have insufficient volume of regulatory capital and quick assets, that restrict bank's ability to fulfill liabilities fully and timely.

19. SRL- – banks of this sector have stable long-term financial standing, but in the short term – insufficient volume of regulatory capital and high credit risks on one counterparty. As a consequence, they have low financial leverage to attract additional financial resources.

20. FRL- – banks of this sector have fragile financial position in the long term and in the short term they have insufficient regulatory capital and high credit risks on one counterparty. As a consequence – low financial leverage to attract additional financial resources.

21. SAL- – banks of this sector have stable long-term financial standing, but small share of quick assets within all assets which declines their ability to attract additional financial resources quickly in the short term, while low level of financial leverage does not let attract enough funds.

22. FAL- – banks of this sector have fragile financial position in the long term and small share of quick assets within all assets. This reduces their ability to attract additional financial resources quickly in the short term, while low level of financial leverage does not let attract enough funds.

23. SIRA- – banks of this sector have stable long-term financial position, but strong insiders' influence, low levels of regulatory capital and quick assets critically decline their ability to fulfill liabilities fully and timely.

24. FIRA- – banks of this sector have fragile financial position in the long term and strong insiders' influence, low levels of regulatory capital and quick assets – all of which critically decline their ability to fulfill liabilities fully and timely.

25. SIRL- – banks of this sector have stable long-term financial position, but strong insiders' influence, low levels of regulatory capital and financial leverage do not let them attract the required level of financial resources to fulfill liabilities fully and timely.

26. FIRL- – banks of this sector have fragile financial position in the long term and strong insiders' influence, low levels of regulatory capital and financial leverage do not let them attract required financial resources to fulfill liabilities fully and timely.

27. SIAL- – banks of this sector have stable long-term financial standing, but strong insiders' influence, low levels of quick assets and financial leverage do not let them attract required financial resources.

28. FIAL- – banks of this sector have fragile financial position in the long term and strong insiders' influence, low levels of quick assets and financial leverage do not let them attract required financial resources.

29. SRAL- – banks of this sector have stable long-term financial standing, but low levels of regulatory capital, quick assets and financial leverage do not let them attract required level of financial resources to fulfill liabilities fully and timely.

30. FRAL- – banks of this sector have fragile financial position in the long term and low levels of regulatory capital, quick assets and financial leverage do not let them attract required financial resources to fulfill liabilities fully and timely.

31. S-- – banks of this sector have stable long-term financial standing, but in the short term they are not able to carry out their liabilities, limited in the amount of operations and have insufficient resources for lifting liquidity.

32. F-- – banks of this sector have fragile financial position in the long term period, and in the short term they are not able to carry out their liabilities, limited in the amount of operations, they also have insufficient resources for lifting liquidity. Banks in this sector are equal to bankrupts.

Basing on the proposed ranking model of commercial banks in Ukraine, clusters of commercial banks the following ranks (Table 10).

Table 10. **Rating of banks,** *authors'*

Cluster	Ranking
1	FIR-
2	S+
3	FRL-
4	FIRA-
5	FRAL-
6	FI-
7	SAL-
8	FIAL-

Commercial banks of the first cluster (Privatbank and Raiffeisen Bank Aval) are characterized by fragile long-term financial position and in the short term they have insufficient amount of regulatory capital and strong insiders' influence, that lower their ability to correct strategies effectively.

Banks of the cluster 2 (State Savings Bank of Ukraine, Ukreximbank, Prominvestbank) have stable long- and short-term financial standing, and also sufficient financial resources for long-term campaigns, high values of owned assets and regulatory capital, that enable changes in their strategies in the short-term period any damage without to their financial condition.

The third cluster (Delta Bank, UkrSibbank (BNP Paribas Group), Credit Agricole Bank) has fragile long-term financial standing and in the short term – low amounts of regulatory capital and high credit risks on one counterparty, insufficient financial leverage to attract additional financial resources.

Banks of the fourth cluster (UniCredit Bank (Ukrsotsbank),VTB Bank Ukraine, Pivdennyi Bank, Financial Initiative Bank) have fragile long-term financial standing and strong insiders' influence, low amounts of regulatory capital and quick assets decrease critically the banks' ability to fulfill their liabilities fully and timely.

The fifth cluster of commercial banks (Subsidiary Bank Sberbank of Russia, Alfa-Bank Ukraine, Finance and Credit Bank, Bank Nadra) has fragile long-term financial standing and, owing low levels of regulatory capital, quick assets and financial leverage, these banks are unable to attract additional resources from outside financial environment and to fulfill their liabilities fully and timely.

The only bank of the cluster six (First Ukrainian International Bank) has fragile long-term financial standing and in the short term is limited in its activity by operations with insiders.

The banks of the seventh cluster (OTP Bank, Ukrgasbank) have stable long-term financial position, but low share of quick assets within total assets, and this lowers their ability to fulfill liabilities fully and timely in the short term while low level of financial leverage does not attract needed financial resources.

The bank of the cluster eight (ING Bank Ukraine) has fragile long-term financial standing and in the short-term period, experiencing strong insiders' influence, low levels of quick assets and financial leverage do not let this bank attract sufficient volume of financial resources.

Table 11. **Banks' assets,** *authors'*

Bank	Rank
Privatbank	FIR-
State Savings Bank of Ukraine	S+
Ukreximbank	S+
Delta Bank	FRL-
Prominvestbank	S+
UniCredit Bank (Ukrsotsbank)	FIRA-
Raiffeisen Bank Aval	FIR-
Subsidiary Bank Sberbank of Russia	FRAL-
Alfa-Bank Ukraine	FRAL-
VTB Bank Ukraine	FIRA-
Bank Nadra	FRAL-
First Ukrainian International Bank	FI-
Finance and Credit Bank	FRAL-
UkrSibbank (BNP Paribas Group)	FRL-
OTP Bank	SAL-
Credit Agricole Bank	SAL-
Ukrgasbank	SAL-
Financial Initiative Bank	FIRA-
Pivdennyi Bank	FIRA-
ING Bank Ukraine	FIAL-

Conclusions and future research. The banking sector in Ukraine is characterized by unstable situation. Most of the banks have fragile financial position in the long-term period, i.e. they have low profits or are unprofitable, with high credit risks sue to ineffective planning.

Banks with high values of assets are not as profitable as small banks, which effectively use their financial resources. Big banks rely on their financial power and hope to enlarge their market share using rather aggressive campaigns.

Basing on the conducted research of Ukrainian banks, the matrix "Finance-Marketing" will be developed in our further study. This matrix will represent the combination of "optimal" marketing strategy subject to bank financial position, determined through the banking system suggested above.

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