



Supplementary Notebook (RTEP - Brazilian academic journal, ISSN 2316-1493)

TRANSFORMATION OF THE BANKING SECTOR AND PROSPECTS FOR THE DEVELOPMENT OF SYSTEMICALLY IMPORTANT CREDIT INSTITUTIONS IN RUSSIA

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Abstract: Given that systemically important banks are a relatively new concept for the Russian banking system, issues of identification, control and regulation of their activities in the world and in Russia are topical and will be constantly improved. In this regard, it is important to improve the methodology for classifying credit institutions as "systemically significant", which will improve the quality of the banking system's influence on the real economy in the country. The authors of the article were basing on the analysis of activities of systemically important credit institutions, the proposed use in the Russian banking practice giving the status of "systemically significant" credit institutions based on a differentiated approach, with system separation of into two types: quantitative and qualitative. During the analysis, based on the reporting data on the Russian banking system development for 2016-2019, authors determined the correlation between the dynamics of the systemically important credit institutions development and the banking system. The main conclusions presented in the article can be used in scientific and practical activities to strengthen and develop banking regulation and supervision of the largest Russian banks.

Keywords: systemically important credit institutions, banking sector, Central Bank, banking regulation and supervision.

INTRODUCTION

In the world banking practice, approaches to regulation and identification of systemically important financial institutions that have the greatest impact on the state of

the banking system on a regional and global scale are constantly updated (3). The current identification system of systemically important banks in Russia, according to the recommendations of the Basel Committee, is aimed at identifying key banks across the country, though there are large banking structures in the regions that determine and influence the state of the economy of the entire region, this aspect is not considered by the Bank of Russia (10). In the European Union, such a factor as "geographical location of business" is highlighted as the additional indicator (each country has the right to select indicators and consider them at its discretion) for the group of "Importance for the economy and interchangeability for the banking system including concentration indicators" in the "Value for the economy" subgroup (11). Therefore, if we project the European practice on the national banking sector, then this criterion can be considered as one of the additional opportunities to improve the regulation system of systemically important banks at the level of a particular region.

The second issue that is relevant for Russian practice in the framework of the SICI regulation is recognizing the NKO AO National Clearing Center as a SICI, which occupies a leading position on a single interbank lending platform, on the REPO market, etc. This credit institution cannot be considered systemically significant only by the criterion of population deposits, whereas in other parameters, this NKO could well be considered systemically significant. It should be noted that there is also a precedent abroad when the credit institution activity in the framework of settlement, clearing and payment services is considered as the additional indicator (9). The third issue is the systemically important banks that have a high share of customer transactions (deposits and loans to customers) with a wide banking network classification, since their liquidation leads to negative large-scale consequences in the whole region. They should also be recognized as systemically significant (of course, if the other indicators are also at the level that allows one defining a credit institution as a system) (3).

This article allows suggesting the use of a differentiated approach to determining the systemic significance of credit institutions based on the experience of Hong Kong, which uses a differentiated approach to this issue, to the Bank of Russia (3). Considering the differentiated approach, we can consider another experience of an Asian country - Singapore, which uses the following classification for the purpose of identifying and regulating nationally significant banks (2): banking groups registered in the country; foreign banking groups; branches of foreign banks.

The given classification allows applying different supervisory measures to each group. To sum up, we can say that the national rules for identifying systemically important banks are based on an indicator approach with established weighting coefficients. In many countries, it is proposed to rank credit institutions by the level of systemic significance. The Supervisory authority decides to include certain credit institutions in the list of systemically important ones based on additional indicators, considering the national characteristics of the country's banking sector. The experience that is applicable in foreign banking markets can and should be adapted to Russian system. Domestic experience in regulating and recognizing systemically important banks is relatively young, so there will be certain changes. Having identified the problems of identification and regulation of system banks in Russia and the possibility of their elimination due to the experience of foreign countries, we will try to determine the possibility of changing the stability of systemically important banks in Russia in the near future by means of modeling.

METHODOLOGY

Once determining the vectors of changes in the parameters and criteria for identifying systemically significant banks in Russian practice, it is necessary to formulate one's own vision for an updated set of indicators (parameters), based on which one will need to determine the feasibility of classifying a Bank as a systemically significant one. First, in our opinion, it is necessary to maintain the parameters that have been developed in Russian practice, i.e., the size of the credit institution (estimated in terms of assets), population deposits amount of the Bank should be more than 10 billion rubles, as well as two correlation indicators in attracted and placed funds with other financial market participants. Secondly, it is necessary to identify an additional set of indicators that can be borrowed from the foreign practice of determining systemically important credit institutions: bank's activity in the field of settlement and clearing services (the indicator is very close to the correlation indicators); interchangeability and infrastructure of the Bank (meaning a group of related banks, which naturally includes the main Bank); geographical location of the Bank's business with an active impact on other areas of activity related to the financial sphere.

Third, we can consider whether a potential Bank is an agent of the Deposit insurance Agency (DIA) for insurance cases. An important point in identifying a Bank and classifying it as systemically important is the possibility of using a differentiated approach: if all eight indicators show significant positions of a credit institution, and the Bank is an agent of the DIA for insurance cases, then the Bank can be considered absolutely systemically significant (full, unconditional system significance); if a larger number of Bank indicators highlight the significance in the banking sector, then there is a limited systemic significance (the factor of the DIA agent for insurance cases is not considered); if the Bank's positions are significant only within the regional system, then the system significance is considered in the regional aspect (the factor of the DIA agent for insurance cases is not considered).

Thus, the ideas formed to expand the list of indicators when classifying the Bank as systemically significant with the implementation of a differentiated approach can be presented in the form of a diagram, which is demonstrated in Figure 1.

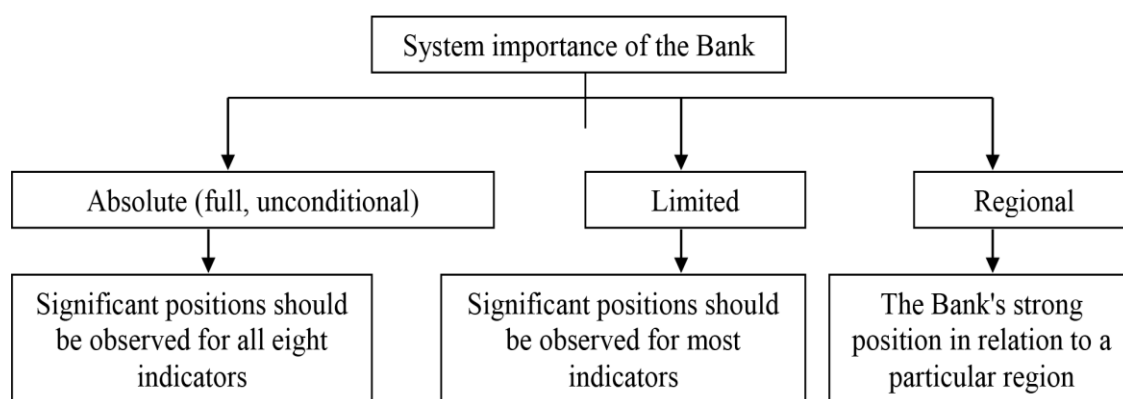


Fig. 1. Algorithm for determining systemically significant banks in Russia based on a differentiated approach based on extended criteria.

Next, we calculate the generalized result of the systemic significance for existing banks, according to the formula from the Instruction of the Central Bank of the Russian

Federation No. 3737-U (On the method of determining systemically significant credit organizations):

$$Op = \sum_{j=1}^4 B_j \times \frac{\sum_{i=1}^n P_{ji}}{n}, \quad (1)$$

where: Op - summary result (as a percentage);

P_{ji} - value of the j -th indicator (the size of the Bank (P), correlation indicators (BC1 and BC2) and attracted deposits (VC)) (as a percentage) for the i -th financial year, calculated on the annual reporting date for each financial year of the three years preceding the date of calculation of indicators, or for each completed financial year, if the credit institution operates for less than three years;

n - number of years preceding the date of indicators calculation (must not exceed three years), or the number of completed financial years if the credit institution has been operating for less than three years;

B_j - weights of j -th indicator (P , BC1, BC2, VC) in the summary result (as a percentage), the values of which are: $B_P = 50\%$; $B_{BC1} = 12,5\%$; $B_{BC2} = 12,5\%$; $B_{BK} = 25\%$.

RESULTS

The calculated generalized values of the Russian banks system significance are shown in dynamics in Figure 2.

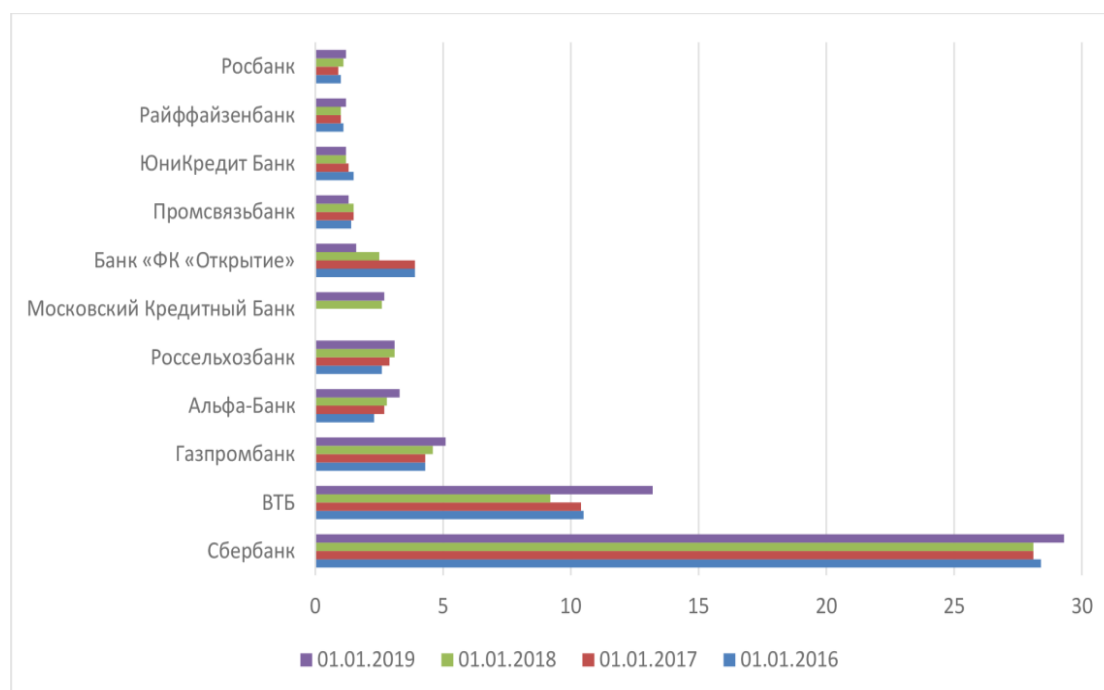


Fig. 2. Systemic significance generalized result of Russian banks, %.

If the aggregated result at the reporting date is at least 1%, then according to Russian practice, the Bank can be considered as systemically significant. Figure 2

demonstrates that this criterion was met by all banks except for PAO ROSBANK at the end of 2016. However, there is a huge gap in performance between Sberbank and all other banks, as well as between VTB and all banks. Starting from the third position, the gap is less. In this regard, it seems logical to integrate differentiated regulation of systemically important banks into the current Russian practice.

1. We offer the following groups of systemically important banks for accounting with a differentiated SICI approach: if banks are identified as absolutely systemically significant and the overall result is higher than 25%, then the system significance surcharge may be 1%, and the capital adequacy surcharge may be 2.5%, i.e., the maximum reference points are considered for the two allowances; if banks are identified as absolutely systemically significant and the overall result is from 10% to 25%, then the system significance may be 1%, and the capital adequacy will then be 2%; if banks are identified as absolutely systemically significant and the overall result is from 1% to 10%, then the system significance may be 0.75%, and the capital adequacy will then be 1.5%; if banks are defined as limited systemically significant, the first surcharge may be 0.5%, and the second surcharge will be 1.5%; if banks are significant in the regional system, and not in nationwide, then these allowances should be at a small level, the system significance allowance can be determined at 0.5%, and the capital adequacy allowance can be determined at 1%.

2. We suggest considering the differentiation in terms of the Bank's status, following the example of Singapore: Bank that leads the banking group; Bank with foreign participation; Standard bank.

For the first two categories of banks, the maximum allowances should be considered in terms of regulation, while for the last category, one can use the gradation discussed above. Thus, having accumulated the above-mentioned proposals, we sum them up into one Table 1.

Table 1. Recommendations for regulating systemically important banks using a differentiated approach

Criteria	Full system significance		Limited system significance	Significance at the regional level
Factor of the DIA agent for insurance cases	always		not important	
Allowance for systemic importance (for standard banks)	if $Op > 10\%$, then 1%.	if $10\% > Op > 1\%$, then 0,75%.	allowance = 0,5%	
Allowance for maintenance of capital adequacy (for standard banks)	If $Op > 25\%$, then 2,5%.	If $25\% > Op > 10\%$, then 2%.	If $10\% > Op > 1\%$, then 1,5%.	allowance = 1,5% allowance = 1%
If the Bank: - leads the banking group; - is considered to be controlled by non-residents,	then the maximum allowances are considered: - for systemic importance – 1%; - for the maintenance of capital requirements – 2.5%.			

Next, it is necessary to test the proposed mechanism on the example of the largest banks in Russia, to determine the list of systemically important banks, as well as to determine the feasibility of using the proposed differentiated regulation of the SICI.

To begin with, we will highlight the banks that have attracted deposits as for the beginning of 2019 exceeded 10 billion rubles. According to the Banki.ru rating, there are 104 such banks in Russia for the selected period (Help page of Banki.ru). Not all banks from this list can be considered systemically significant even at a potential level, so this sample must be reduced to the TOP-25 by net assets from the same rating. Based on the calculation of each Bank specific weight in the framework of indicators for the banking sector, the generalized results of the system significance of credit institutions (Formula 1) are calculated and demonstrated in Table 2.

Table 2. Summary of potential systemic significance of the TOP-25 Russian credit institutions by assets-net, as a percentage

Bank name	Op	Bp	B _{BK}	B _{BC1}	B _{BC2}
Sberbank	29,9	14,95	11,27	2,09	1,55
VTB	13,3	7,41	3,36	1,15	1,38
NKO «National Clearing center»	7,3	2,13	0,00	2,33	2,90
Gazprombank	5,2	3,37	0,83	0,65	0,34
Alfa-bank	3,4	1,81	0,94	0,42	0,21
Rosselkhozbank	3,1	1,84	0,90	0,21	0,18
Moscow Credit bank	2,7	1,19	0,32	0,68	0,53
FC Opening Bank	1,7	0,88	0,39	0,18	0,26
Promsvyazbank	1,4	0,81	0,27	0,24	0,07
UniCredit Bank	1,3	0,75	0,21	0,21	0,08
Raiffeisenbank	1,2	0,61	0,40	0,08	0,09
Rosbank	1,2	0,58	0,24	0,24	0,13
Sovcombank	1,2	0,54	0,34	0,17	0,12
AB Russia	1,0	0,59	0,10	0,23	0,11
Bank Saint Petersburg	0,8	0,37	0,20	0,10	0,16
SMP Bank	0,7	0,26	0,13	0,17	0,13
CB Citibank	0,7	0,29	0,13	0,19	0,04
All-Russian Regional Development Bank	0,6	0,36	0,07	0,17	0,02
Uralsib	0,6	0,30	0,14	0,05	0,10
Ak Bars Bank	0,5	0,29	0,10	0,09	0,02
Tinkoff Bank	0,5	0,22	0,21	0,03	0,00
Pochta Bank	0,5	0,21	0,27	0,04	0,01
AKB Svyaz-Bank	0,4	0,20	0,10	0,05	0,05
Russian Standard	0,4	0,19	0,15	0,01	0,05
AKB Novikombank	0,3	0,23	0,02	0,05	0,01

According to the Table 2, we may see that the most impressive positions are taken by Sberbank (over 25%) - highlighted in red, followed by VTB (over 10% and less than 25%) - highlighted in blue, then strong positions are also taken by NKO «National Clearing center», AO Gazprombank, etc. We also note that the indicators of Rosbank and Sovcombank are also similar and above 1%, while the indicator of AB Russia is equal to 1%. Therefore, the category of systematic significance should not include 11 banks, as exists in modern Russian practice, but 14 credit organizations. At the same time, the yellow highlights indicate credit organizations that should potentially be included in this

category, and the gray background indicates existing systemically important banks, without taking into account the first two leading banks in the country, which are also included in this category.

In the future, PAO Bank Saint Petersburg and AO SMP Bank may also become part of systemically important banks, since they are at a level close to the minimum for existing systemically important banks in terms of three indicators. Further, to determine the scope of regulation of 14 SICIs, it is necessary to divide credit organizations into banks that lead banking groups, banks controlled by non-residents and standard banks, and in addition to allocate SICI agents of the DIA in the event of insurance events (Table 3).

Table 3. Application of a differentiated approach for 14 systemically significant credit institutions (<https://www.asv.org.ru>; www.kuap.ru)

Banks that lead banking groups	Banks controlled by non-residents	Standard credit organizations	Banks-agents of the DIA in the event of an insured event
1) Sberbank; 2) VTB; 3) Gazprombank; 4) Alfa-Bank; 5) FC Opening Bank; 6) Promsvyazbank; 7) Rosbank.	1) UniCredit Bank; 2) Raiffeisenbank; 3) Rosbank.	1. NKO National Clearing Centre; 2. Rosselkhozbank; 3. Moscow Credit bank; 4. Sovcombank; 5. AB Russia.	1) Sberbank; 2) VTB; 3) Gazprombank; 4) Alfa-Bank; 5) Rosselkhozbank; 6) FC Opening Bank; 7) Promsvyazbank; 8) Raiffeisenbank; 9) Rosbank .

Based on these distinctions on the credit organizations status and the presented generalized results from Table 2, we will sort all 14 systemically important credit organizations according to their system significance, which is: full, limited, and regional. All results are demonstrated in Table 4.

Table 4. Differentiation of systemically important credit institutions based on system significance

Absolute (full)	Limited	Regional
Sberbank; VTB; Gazprombank; Alfa-Bank; Rosselkhozbank; FC Opening Bank; Promsvyazbank; Raiffeisenbank; Rosbank .	NKO National Clearing Centre; Moscow Credit bank; UniCredit Bank; Sovcombank; AB Russia.	n/a

Table 5. Differentiated approach to regulating systemically important banks in Russia

Allowance for systemic importance	Allowance for maintenance of capital adequacy		
	1%	0,75%	0,5%
2,5%	Sberbank; VTB; Gazprombank; Alfa-Bank FC Opening Bank; Promsvyazbank; Rosbank; UniCredit Bank; Raiffeisenban.	n/a	n/a
2%	n/a		n/a
1,5%	n/a	Rosselkhozbank	NKO National Clearing Centre; Moscow Credit bank; Sovcombank; AB Russia.
1%	n/a		n/a

The analysis allows drawing the following conclusions:

1. Calculations based on the existing formula for classifying credit institutions as "systemically important" have demonstrated that the systemically important banks in Russia can include not 11 banks, as there are now, but 14 credit organizations. However, the only non-Bank credit institution, as previously expected, does not have the deposits indicator. Even without this indicator, the overall result of this credit institution lies in the third position, ahead of AO Gazprombank and other systemically important banks. In this case, an additional indicator is already considered - the activity of a credit institution in the framework of clearing services, while NKO National Clearing Center is the largest and so far the only clearing credit organization in Russia, we consider it necessary to recognize it as systemically significant, where the system significance will not be absolute, but limited.

2. Maximum regulatory requirements should be imposed on 9 banks by the Bank of Russia, since 8 banks lead banking groups, and 3 banks are controlled by non-residents, while Rosbank falls into both segments.

3. In respect of AO Rosselkhozbank, it is possible to introduce mitigating requirements in terms of regulation, since the generalized result of system significance at the beginning of 2019 was less than 10% (3.1%), and even though the Bank is an agent of the DIA for insurance cases and is recognized as a Bank with full system significance, it does not lead the banking group.

4. For credit organizations with limited systemic significance (there are 4 units), the regulatory requirements can be relaxed even more, but only in terms of capital adequacy allowances, since these credit organizations are not DIA agent banks for insurance cases, do not lead banking groups, and are not controlled by non-residents and their generalized result of systemic significance is less than 10%.

CONCLUSION

Modern Russian practice in determining systemically important banks focuses mainly on four indicators: the size of the Bank, population deposits, and the relationship of banks and other financial organizations in attracting and placing funds. The review of foreign experience has shown that in some countries the list of parameters and indicators has been expanded. In this regard, we have proposed a new mechanism for determining systemically important banks in Russian system, by including additional indicators and introducing a differentiated approach to determining and regulating systemically important banks.

Based on a set of indicators, we suggest calculating a generalized result of system significance and determining the type of significance, which can be of three types: full – if all indicators have strong positions, limited – if most indicators have strong positions, regional – if the Bank's significance is limited in a certain region.

A differentiated approach and banks split into three categories of significance is important from the activity's regulation standpoint. If a Bank is considered to be a systematically significant and at the same time leads a banking group and/or is controlled by non-residents, then its regulation should be done at the maximum allowances, regardless of the system significance based on the results generalized result calculations. If the Bank does not lead the banking group and does not have foreign participation, then there is a differentiation based on the value of the generalized result. The distinctions between system significance allowances and capital adequacy allowances are differentiated by three zones. It is also important to keep in mind that only a Bank that is an agent of the DIA for insurance cases can be of absolute systemic significance. However, this factor is not important for banks of limited and regional significance. The difference in the regulation of these banks is that they have a different level of capital adequacy allowance, for banks with incomplete systemic significance it is 1.5%, and for regional significance it is 1%, while the allowance for systemic significance is 0.5%.

The advantages of the proposed system of differentiated approach in determining and regulating systemically important banks are the following: banks the regulation of which can be changed to a softer mode get more variability for performing active operations; differentiated approach involves three-tiered regulation, which is fair and logical based on the capacity and scale of banks' activities; separation of Russian banks from banks controlled by foreign residents protects the domestic banking system from external shocks, especially at the current stage, in the context of sanctions; special treatment of banks that lead banking groups reflects their level of responsibility for the viability of banks that depend on the parent banks.

ACKNOWLEDGEMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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