

Effects of Bank Resolution on Financial Stability and Competitiveness of Banking Sector



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Abstract: *The paper provides an analysis of the effects of banking licence revocation by the regulator on the financial stability indicators of Russian lenders. The analysis has found mixed performance of resolution measures in terms of the financial stability of banks and their competitiveness in the wake of the banking sector resolution policy of the Bank of Russia. The authors propose a modification of the individual financial stability indicator equation developed by the regulator. The changes relate to calculating annual growth rate volatility not only for lending operations but overall with respect to the attraction and allocation of banking resources. The authors propose an equation for calculating the overall stability level of the banking sector and possible interpretations of the resulting findings in terms of the stability and competitiveness of the Russian banking sector.*

Keywords: *financial stability, banking competitiveness, resolution, regulator, licence revocation, individual stability indicator, banking sector.*

to be in breach of statutory standards or engaged in servicing shadow economic operations [1].

The licence revocation process was uneven. While within ten years from 2002 till 2012 the number of licences revoked equalled 390, the figure was 402 for the period from October 2013 to June 2019 [2]. The trend of licence revocation is shown in Table 1.

I. INTRODUCTION

According to Fitch estimates, more than \$70 billion has been spent over the past years under the banking sector resolution policy conducted by the Bank of Russia [1]. The figure includes the amounts spent by the Bank of Russia and the Deposit Insurance Agency as follows: approximately \$28 billion on resolution of commercial banks with funding provided by the Banking Sector Consolidation Fund; approximately \$29 billion on compensations to the depositors of the "cleaned up" banks; \$17 billion on recapitalisation loans provided by the regulator to the banks under resolution.

Such banking sector resolution policy has resulted in volatile financial stability and competitiveness levels of Russian banks. Head of the Bank of Russia E. Nabiullina said back in February 2018 that banking sector resolution efforts were, for the most part, complete, except for occasional noncompliance with regulatory decisions and fraud in lending institutions. Between 2002 and June 2019, approximately 800 licences were revoked from lenders found

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Table 1: Licence revocation from commercial banks by years

Item	2013	2014	2014/2013, %	2015	2015/2014, %	2016	2016/2015, %	2017	2017/2016, %	2018	2018/2017, %
Number of licences revoked	32	86	168.7	87	1.2	93	6.8	47	-50.5	57	21.3

Developed by the authors based on [2].

As can be seen from Table 1, the biggest change in the licence revocation numbers was in 2014 (168.7%). The process had slowed down by 2017. The decline in the licence revocation rate equalled 50.5%.

What were the outcomes of such a massive resolution process in the Russian banking sector? On the one hand, according to the regulator, the active supervisory policy has improved the financial stability and soundness of the banking system and cut the lending growth rates in the retail sector by 3.7% and in the corporate sector by 41% [3]. Such situation in the short-term period contributes to improved

competitiveness in the banking sector, as the number of market players offering banking services declines.

On the other hand, the process of bank resolution by the regulator causes depositor outflows to major state-owned lenders receiving financial support from the government. This adversely affects the operation of prudent regional banks and, most of all, competition in the long run, as state banks become monopolists and may impose their rules for the customers. Changes in the share of state-owned banks in the total number of lending organisations are shown in Table 2.

Table 2: Changes in the share of state-owned banks in the total number of banks as of 01.01.

Item	2013	2014	2014/2013 , %	2015	2015/2014 , %	2016	2016/2015 , %	2017	2017/2016 , %	2018	2018/2017 , %
Number of operational banks	956	923	-3.4	834	-9.6	733	-12.1	623	-15.0	561	-9.9
Number of state-owned banks	25	26	4.0	42	61.5	39	-7.1	47	20.5	48	2.1
Share of state-owned banks in the total number of operational banks, %	2.6	2.8	7.7	5.0	78.5	5.3	6.0	7.5	41.5	8.5	13.3

Developed by the authors based on [2].

Table 2 shows that the biggest increase in the share of state-owned banks was registered in 2015 (78.5%). The concentration of state-owned banks in the total number of operational banks continued to grow, though at a slower pace. As long as state-owned banks receive financial support from the government, such situation, on the one hand, reinforces their financial stability and eventually competitive positions, however, it simultaneously dilutes the stability and competitiveness of regional banks.

Bank stability here means a financial position providing for balanced cash flows and sufficient funds to ensure the lender's liquidity, solvency and profitability. A bank's financial stability is a major factor in its competitiveness.

II. LITERATURE REVIEW

Academic community offers numerous definitions of competitiveness. One of them refers to the "ability to comprehensively satisfy and retain corporate and private customers and win competitive advantages by developing new financial instruments and new regional market segments" [4]. Bank competitiveness is described as "a lender's potential and real power to create and promote competitive products and services and establish a positive image of a reliable and modern bank meeting all customer

requirements" [5]. Bank competitiveness is understood as "a comprehensive dynamic indicator of the comparative profile of its operational criteria, including the competitive profile of its services reflecting the efficiency of managerial decision-making" [6], or "a gauge of its advantage compared to competition within a specific time interval in a specific market" [7]. We stick with the idea of commercial bank competitiveness as "the level of stability of its positions compared to its major competitors in the existing market structure arising from the creation of the unique value of banking products and services for customers" [8]. We support the point that commercial bank competitiveness reflects economic, as well as non-economic, competitive advantages [9]-[12].

III. PROPOSED METHODOLOGY

A. General description

For a more in-depth analysis of the effects of the regulator's banking resolution policy for the stability and competitiveness of Russian banks, the concentration of assets is analysed in operational lending institutions (Table 3).



Table 3: Asset concentration in operational Russian banks, %.

Classification of lenders by assets (in the descending order)	1.01.2017, %	1.01.2018, %	1.01.2017/1.01.2018, %	1.01.2019, %	1.01.2018/1.01.2019, %
Top 5	55.3	56.8	2.7	60.4	6.3
6th to 20th	22.8	23.5	4.4	21.2	-9.7
21st to 50th	10.6	10.8	1.8	9.8	-9.2
51st to 200th	9.4	8.4	-10.6	7.6	-9.5
201st and further	2.0	1.5	-25.0	1.0	-33.3

Developed by the authors based on [2].

Table 3 shows that the highest pace of asset concentration is registered in the top 5 Russian banks. On the contrary, asset concentration in medium and smaller banks has shown a decline, which negatively affects these banks' stability and competitiveness.

The banking resolution process is still continuing. According to the Analytical Credit Rating Agency (ACRA), "5-7% of banks will be gone from the Russian banking market every year until 2024" [13].

An analysis of the regulator's banking resolution policy shows that 2018 saw more banking licence revocations among regional banks compared to those in the capital. The share of regional banks losing their licence first reached 52.6% compared to 41% in 2014, 32% in 2015, 31% in 2016 and 38% in 2017 [14].

Moreover, voluntary liquidations also became more frequent, with licences cancelled accordingly. There were seven such banks in 2018. After universal and basic licences were introduced by the regulator, more banks have opted for basic licences or proceeded as non-bank financial institutions.

Experts believe that "size is no longer proof of stability for a Russian bank" as a result of stricter policies of the Bank of Russia and due to the emergence of the resolution approach engaging the regulator and funded by the Consolidation Fund. Binbank and FC Otkritie are cases in point [15], [16] where reserve replenishment causes breaches of the adequacy standards in the capital underlying asset building and directly affects the lender's stability. The grounds for licence revocation by the regulator are laid out in Table 4.

Table 4: Regulator's grounds for licence revocations from Russian banks [17].

Statutory licence revocation grounds	Grounds for compulsory licence revocation
No operations within a year after licence was obtained	Lending limit exceeded and not remedied within 14 days
Bank information misrepresented	Capital level below requirements
Monthly report delayed for more than 15 days	Capital adequacy level below requirements
Bank reports contain misstated information	
Transactions undertaken at least once in breach of licence	

Developed by the authors based on [2].

Table 4 shows that grounds relating to financial stability appear both in the statutory and compulsory groups but primarily in the former. The regulator itself governs its own

procedure of licence revocations.

Bank performance trends are further analysed under the regulator's resolution measures (Table 5) [13].

Table 5: Lenders' financial performance trends.

Item	As of 1.01.2017	As of 1.01.2018	2018 vs. 2017, %	As of 1.01.2019	2019 vs. 2018, %
Total	623	561	-10.0	484	-14.0
Profitable	445	421	-6.0	384	-9.0
Loss-making	178	140	-22.0	100	-29.0

Developed by the authors based on [2].

Table 5 shows that the decline in the total number of banks occurs both in the profitable and loss-making segments. However, the decline is faster in loss-making banks compared to the profitable segment due to the "clean-up" policy of the Bank of Russia. Thus, there is no indication of an improvement in profitability rates as one of the measures of financial stability during the resolution.

How did the regulator's resolution measures influence the

stability and eventually competitiveness of Russian lenders? An analysis is next conducted of the lenders' financial stability indicators, such as the sufficiency of cash levels for maintaining liquidity, solvency and balanced cash flows over the period from 1.01.2017 till 1.01.2019 (Table 6).

Table 6: Financial stability indicators of Russian banks [13].

Item	As of 1.01.2017	As of 1.01.2018	2018 vs. 2017, %	As of 1.01.2019	2019 vs. 2018, %
Balance sheet total, billion roubles	80,063.3	85,191.8	6.4	94,083.7	10.4
Assets grouped by allocation destinations, %					
Cash, precious metals and stones	2.0	2.2	10.0	2.1	-0.5
Accounts with the Bank of Russia	3.8	5.6	47.3	4.6	-18.0
Correspondent accounts with lending institutions	2.2	1.5	-31.8	1.9	26.6
Loans	69.5	68.2	-2.0	69.2	1.4
Profit allocation	0.5	0.4	-20.0	0.4	-
Other assets	4.0	3.9	-2.5	4.0	2.5
Structure of liabilities, %					
Funds and profit	10.8	10.5	-2.7	9.9	-5.7
Loans from other lending institutions	10.7	10.9	1.8	9.8	-10.1
Customer funds	62.5	63.0	0.8	64.5	2.3
Other liabilities	9.1	10.0	9.8	9.7	-3.0

Developed by the authors based on [2].

Table 6 shows that the biggest part of assets grouped by allocation destinations is loans, while liabilities are primarily formed by customer funds. Balance sheet totals had risen by 10.4% by 2019, while correspondent account balances with banks had increased by 26.6%. There had been a considerable decline by 2019 in assets in accounts held with the Bank of Russia; meanwhile, the biggest contraction in liabilities had been registered in loans attracted from other lending institutions.

Banking resource base actually contracted during the regulator's resolution measures and banks increased their allocations in other lending institutions to avoid risks. This outlook provided no support for the improvement of financial stability and eventually competitiveness of banks during the "clean-up" of Russian lenders by the Bank of Russia.

B. Algorithm

In assessing the effects of the banking resolution policy for the stability and competitiveness of Russian banks, the regulator determines individual indicators of lending growth rate stability using the equation below [17]:

$$ISI_{it} = \frac{AV_{it}}{AVAP_{it}} \quad (1)$$

where AV_{it} indicates annual volatility of lending growth rates; $AVAP_{it}$ indicates the annual growth rate volatility for the aggregate loan portfolio of the banking sector;

i indicates a bank;

t indicates a month.

The stability indicator is individual, i.e., it is calculated for each individual bank. The regulator's analytical note offers no explanation of why only lending is taken into account in individual stability calculations. We believe that the growth rates of resource accumulation by banks should be also taken into account, as well as other factors influencing the financial stability of a bank, such as the growth rates of allocations and attraction in securities, foreign currencies and other financial assets. We propose a modification of equation (1) to reflect not only lending parameters, but, more generally, the items concerning the attraction and allocation of funds. Equation (1) of a bank's individual stability indicator is thus transformed as follows:

$$BISI_{it} = \frac{AV(Attr-Alloc)_{it}}{AVAP(Attr-Alloc)_{it}} \quad (2)$$

where $AV(Attr - Alloc)_{it}$ indicates the annual volatility of the difference between the resource attraction and allocation rates;

$AVAP(Attr - Alloc)_{it}$ indicates the annual volatility of the difference between the rates of aggregate attraction and allocation portfolios.

Equation (2) implies that the rates of resource attraction in a bank would be always higher than the rates of allocation; otherwise, there is no point in calculating the bank's individual stability indicator, as it may be negative, which means there is no stability in such case.

The proposed indicator $BISI_{it}$ is meant to be calculated over a specific time period, e.g., a quarter or a year, individually for each bank. Meanwhile, the regulator's bank resolution policy currently underway is accompanied by a considerable contraction in the number of operational banks. That means the number of items in the calculation will be constantly decreasing. The overall stability level for the banking sector can be determined using the following equation:

$$OSL_{BC} = \frac{\sum_1^n BISI_{itK}}{\sum_1^n BISI_{itK+1}} \quad (3)$$

where $BISI_{itK}$ indicates the individual stability indicator of systemic banks for the previous period;

$BISI_{itK+1}$ indicates the individual stability indicator of systemic banks for the next period.

IV. RESULT ANALYSIS

The potential results for the overall stability level of the Russian banking sector are as follows: if $OSL_{BC} < 1$, then the total of individual stability indicators for systemic banks in the previous period is below the respective figure for the following period, i.e., the overall stability level of the banking sector has declined, which has negatively affected its competitiveness and vice versa.



If $OSL_{BC} > 1$, then the total of individual stability indicators for systemic banks in the previous period is above the respective figure for the following period, i.e., the overall stability level of the banking sector has risen, which, consequently, has increased its competitiveness. If $OSL_{BC} = 1$, then the total of individual stability indicators for systemic banks in the previous period is equal to the respective figure for the following period, i.e., the overall stability level of the banking sector is unchanged, which means there is no impact for the banking sector competitiveness.

Our findings are consistent with the fundamentals of the banking stability and competitiveness theory referred to by national and international researchers and practitioners. However, there is a point to keep in mind. All commercial banks are different, primarily by the license types providing for specific ranges of operations, the level of authorised capital, geography, etc. Therefore, the overall stability level should be practicably calculated on a regional basis separately for lenders operating under universal and basic licences. Then, such interim indicators should be compared and the aggregate indicator should be further determined for the banking sector as a whole based on the calculated parameters for regional banks. As to competitiveness, it is more complicated, as the calculations should also take into account the demand for banking services, banking product markets, market participants and other influences. However, the overall trend is clear, as the declining number of banks as a result of the regulator's banking sector resolution measures does not reinforce its stability and even less so its competitiveness.

V. CONCLUSION

Thus, the above calculations suggest the following conclusions:

- not only lending operations should be included in individual stability calculations; resource attraction and allocation operations should be also reflected with regard to securities, the interbank market, i.e., across the range of funding and allocation destinations;
- the calculations should take into account the parameters of banking operations, the size of authorised capital, licence types, geography, etc.;
- individual stability level calculations should be conducted for each bank regularly, which will improve the efficiency of managerial decision-making supported by the respective stability and competitiveness data.

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