Banking competition as the basis of investment demand

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Abstract. The article is devoted to the analysis of the situation when one bank in the market has excess market power. This concentration of assets negatively affects the state of competition in the Russian banking sector. This is evidenced by the downward inflexibility of interest rates, which is observed in all segments of household lending. High interest rates, in turn, hinder an increase in investment and consumer demand from Russian firms and households. This trend towards inflexibility of nominal and real interest rates in the Russian economy is confirmed by empirical data in recent years. In addition, the article compares the dynamics of interest rates in Russia and the United States in comparable periods of time. Based on these data, the authors come to the conclusion about a high degree of monopolization of the Russian banking market.

Before describing the specific characteristics of Russia's modern banking sector, the authors want to introduce readers to the general concept of overcoming the crisis in the Russian economy. The statistics show that the economic crisis has been going on for the full 7 years and is one of the longest periods of economic stagnation in the modern world. In the past, only Japan's economy experienced longer stagnation at the turn of the 20th and 21st centuries [4]. Despite such a long period of time that Russia has been outside the zone of economic growth, the political authorities have not yet proposed a way out of the crisis.

The standard economic model (1) assumes that economic growth is the answer to increasing aggregate demand. Cumulative demand has four components, which is reflected in the macroeconomic equation

\[ Y = C + I + G + \text{ExpN} \]  

(1)

The four components of aggregate demand are consumer spending (C), investment demand (I), government spending (G) and net exports (ExpN). In different periods in Russia, growth was driven by each of these components, with the exception of government spending.

Russia's economic growth from 1999 to 2003 was driven by the "devaluation effect". The serious fall of the rouble against the dollar in the second half of 1998 led to an increase in the price competitiveness of Russian goods on the global and domestic markets. Rapid economic growth was driven by consumer spending and net exports. From 2003 to 2014, Russia's economic growth was...
driven by net exports, with the average price per barrel of oil on the world market rising 9-fold over this period ($110 per barrel in 2011-2013 compared to $12.7 in 1998). The fall in oil prices in autumn 2014 marked the end of the golden age of the Russian economy.

A realistic scenario for the Russian economy to emerge from the crisis cannot be based on expectations of rising commodity prices. It is therefore necessary to increase public expenditure (G) or to increase total demand from the private sector (C + I). The first option, known as "fiscal expansion", has a number of drawbacks. These are related to the fact that the deliberate distribution of budget money among many applicants is associated with low efficiency in its use. It is impossible to eliminate the possibility of political motives dominating in purely economic matters.

A much more effective means is "monetary expansion". It can lead to greater aggregate demand from the private sector of the economy. However, there is an interest rate i between monetary expansion and an increase in private demand components (C and I). We cannot expect a noticeable effect from the increase in the money supply unless it leads to a tangible reduction in the interest rate on the credit market. Meanwhile, throughout 2020 we can observe how the Bank of Russia is following the classic monetary methods of saving the economy. The Bank of Russia is steadily reducing its key rate, which has already reached 4.25%. At the same time, the level of nominal interest rates in the credit sector has stagnated. It is clear that we also do not see statistically significant growth in lending to the private sector of the economy. The reason is that in the banking sector, the Russian economy is not able to revive a truly tough competition that would find a way out of a competitive price hiatus. The reason for this is the structural problems that have long been inherent in the Russian banking system.

One of the most outstanding features of the Russian banking system is the extreme concentration of market resources in one commercial bank. This concerns Sberbank PJSC. This bank occupies a leading position by all indicators characterizing the activities of a commercial bank. For the research purposes, we have analyzed only two indicators: the number of offices and other structures through which a commercial bank interacts with clients and the number of clients who purchase services from this commercial bank. The second indicator was chosen as the criterion by which the ranking of ten largest Russian banks was compiled - the number of bank’s clients. The resulting ranking is presented in Table 1.

### Table 1. Ranking of Russian commercial banks in accordance with the number of individual clients served as of 01.01.2020.

| Name of the bank     | Number of offices | Total number of offices | Number of clients, mln people | Share in the total number of clients (%) |
|----------------------|-------------------|-------------------------|-------------------------------|------------------------------------------|
|                      | Additional offices| Operating offices        | Operating cash desks          | Credit and cash offices                  |                                         |
| Sberbank             | 13204             | 571                     | 90                            | 283                                      | 14148                                   | 96,192                                 | 60,5                                    |
| Alpha Bank           | 325               | 176                     | 4                             | 312                                      | 817                                     | 15,768                                 | 9,9                                     |
| VTB                  | 590               | 900                     | 4                             | 435                                      | 1494                                    | 13,891                                 | 8,7                                     |
| Pochra bank          | 1                 | 117                     | 33                            | 33                                       | 436                                     | 9,987                                  | 6,3                                     |
| Sovkombank           | 80                | 117                     | 33                            | 190                                      | 420                                     | 6,496                                  | 4,1                                     |
| Gazprombank          | 251               | 129                     | 3                             | 44                                       | 383                                     | 4,965                                  | 3,1                                     |
| Rosbank              | 101               | 176                     | 1                             |                                           | 130                                     | 3,987                                  | 2,5                                     |
| Rosselkhozbank       | 985               | 297                     | 5                             |                                           | 1282                                    | 3,469                                  | 2,2                                     |
| Otkrytie             | 217               | 383                     | 5                             |                                           | 605                                     | 2,689                                  | 1,7                                     |
| Moskovskiy           | 133               | 29                      |                               |                                           | 162                                     | 1,497                                  | 1,0                                     |
| Credit bank          | Total:            | 19877                   | 158,941                       |                                           |                                         | 100                                    |                                         |
Table 1 shows a unique (for developed economic countries) situation when the largest bank services more than 60% of households. In terms of the number of offices, the main production facilities in the retail banking sector, the concentration turned out to be even higher – 71.2%.

However, we can use the degree of development of competition in a particular market. This is the Herfindahl-Hirschmann coefficient (HHI). It is calculated as the sum of squares of the market shares of the largest firms. In our case, \( HHI_3 = 3833.95 \) \((3660.25 + 98.01 + 75.69)\). Accordingly, \( HHI_6 \) is 3900.06. Both indicators are very high. This result is determined by the dominance of Sberbank over other banks. It is necessary to assess this situation, its causes and efficiency of the use of limited public resources.

Sberbank has inherited tangible and, more importantly, intangible assets from Sberbank, a state-owned bank that was the only Soviet bank that provided deposit and credit services to economic agents [8].

Sberbank PJSC is a commercial bank. However, in fact, it is a non-commercial structure, since for a long time more than half of Sberbank's shares belonged to the Bank of Russia. It is difficult to understand for what purpose the Bank of Russia kept the leadership of last resort in its hands. It is most logical to assume that the successive leaders of the Bank of Russia did not feel confident that they would be able to manage the national banking sector in the same way as the central banks of all civilized countries do - using competition between commercial banks as a lever for pursuing their own conscious policies. For this reason, they preferred to exercise direct “manual control” over the banking sector.

However, this solution has a significant disadvantage, which is not immediately evident. The fact is that Sberbank has become a de facto monopoly in the field of retail lending. In any case, it has become a company that is able to pursue a policy of "price leadership". As practice shows, this situation leads to market monopolization, accompanied by inevitable negative consequences. In the banking sector, such consequences include an increase in loan interest rates. This means that the volume of investment demand from companies and individuals (mortgage loans) will be less than that which could arise under the full-fledged competition between commercial banks.

At the same time, Sberbank has become a trendsetter in the deposit market. Having the opportunity to lend at low interest rates, the bank lowered household deposit interest rates. At the same time, the Bank of Russia included Sberbank's deposit rates in a package of weighted average rates for ten largest Russian banks and tied the deposit policy of smaller banks to this "anchor". As a result, smaller commercial banks, which could potentially make better use of household deposits, have lost this opportunity. Indeed, according to the rules, they could not increase deposit rates to the level exceeding the "anchor" value by more than 2%. This spread was not enough to induce customers to withdraw their deposits from Sberbank, despite the fact that their reliability is considered to be high. This example shows that the Bank of Russia exerted administrative pressure on some commercial banks. Ultimately, the national limited financial resources are inefficiently used.

To verify the accuracy of the hypothesis about the monopolistic nature of loan interest rates in the Russian financial market (the retail sector), we summarized data on interest rates for major banking products for the period from 2015 to 2019. These data are presented in Table 2.

Table 2. The dynamics of changes in the key rate and rates for major banking products in 2015-2019. (%).

| Year | Average key rate | Average mortgage rate | Average consumer loan rate | Average car loan rate | Average deposit rate |
|------|------------------|-----------------------|---------------------------|----------------------|---------------------|
| 2015 | 11,0             | 14,33                 | 25,45                     | 22,0                 | 11,17               |
| 2016 | 10,0             | 13,96                 | 24,34                     | 15,0                 | 8,74                |
| 2017 | 8,5              | 11,32                 | 20,63                     | 14,56                | 7,23                |
| 2018 | 7,25             | 10,56                 | 19,36                     | 17,29                | 7,25                |
As can be seen from Table 2, none of the loan rates has shown the same dynamics as the key rate established by the Bank of Russia. It has dropped twice. Meanwhile, loan rates turned out to be much more resilient downward. For example, the growth index (Ii) of the mortgage rate was 0.727. This means that the mortgage rate decreased by 27.3% in comparison with that in 2015. Consumer and car loan rates fell by about 1/3. As for the deposit rate, it followed the trajectory of the key rate [9]. At the same time, we neglect the fact that in recent years the Bank of Russia has been experiencing obvious difficulties in monitoring the credit policy of commercial banks. In particular, there are no banks that would not burden borrowers with additional paid services. The most popular of these services is so-called "credit insurance", which increases the real interest rate by 4-5%.

The data will become even more convex if we adjust the data in Table 2 for the rate of inflation in the national economy for the specified period. Data on real interest rates in 2015-2019 are shown in Table 3. Let us pay attention to the incredibly high interest rates for all types of banking products [5]. For mortgages, this rate is 6%. As for consumer and car loans, they have reached double-digit levels. Only deposit interest rates correspond to the world ones.

**Table 3.** The dynamics of changes in real interest rates for major banking products in the Russian Federation in 2015-2019 (%).

| Year | Индекс инфляции | Average mortgage rate | Average consumer loan rate | Average car loan rate | Average deposit rate |
|------|-----------------|-----------------------|---------------------------|----------------------|---------------------|
| 2015 | 1,129           | 1.27                  | 11.11                     | 8.06                 | – 1.01              |
| 2016 | 1,054           | 10.81                 | 17.97                     | 9.10                 | 3.17                |
| 2017 | 1,023           | 8.82                  | 17.92                     | 11.98                | 4.82                |
| 2018 | 1,045           | 5.80                  | 14.22                     | 12.24                | 2.63                |
| 2019 | 1,030           | 7.20                  | 13.30                     | 11.95                | 2.52                |

It seems useful to compare the data in Tables 2 and 3 with similar data for the highly competitive US banking sector. The FRS, unlike the Bank of Russia, does not interfere with current activities of commercial banks [10]. The data on loan rates in the American economy are summarized in Table 4.

In the USA, real consumer loan interest rate is very high. It reflects higher risks associated with this transaction. However, this rate is stable (about 8%) and almost two times lower than the similar rate in the Russian market. But this difference in profitability fades away if we compare real car loan interest rates. In the USA, the interest rate is around 3%, which indicates the strongest competition in this sector of household lending. It is impossible to imagine that any modern Russian bank was engaged in a credit transaction with such profitability.

**Table 4.** The dynamics of changes in nominal and real interest rates on some banking products in the US economy in 2015–2019 (%).

| Year | Inflation index | Average consumer loan rate (nominal) | Average car loan rate (nominal) | Average consumer loan rate (real) | Average car loan rate (real) |
|------|-----------------|-------------------------------------|---------------------------------|----------------------------------|-----------------------------|
| 2015 | 1,007           | 9.81                                | 4.24                            | 9.05                             | 3.52                        |
| 2016 | 1,021           | 9.69                                | 4.30                            | 7.43                             | 2.15                        |
| 2017 | 1,021           | 10.13                               | 4.60                            | 7.86                             | 2.45                        |
| 2018 | 1,019           | 10.46                               | 5.04                            | 8.40                             | 3.08                        |
| 2019 | 1,023           | 10.32                               | 5.39                            | 7.84                             | 3.02                        |
The deposit rates in the US economy range from 0.15 to 0.3% on an annualized basis. If an American investor hopes to get income, he should use more risky instruments.

The data indicate that our hypothesis of monopolization of the Russian lending market is correct. Loan rates are higher than the competitive interest rates. This prevents the revival of aggregate demand and the exit of the Russian economy from the protracted crisis.

However, until recently, the Bank of Russia had an instrument that retained hope for a successful transition to a competitive model of development of the banking sector of the economy. This move is similar to that carried out by A.B. Chubais when reforming the electric power industry at the beginning of the XXI century. He divided the single company into 16 independent TGKs (territorial generating companies). Each company included assets geographically remote from each other, but close to the electric power assets of competing companies. The reform proved to be very successful, as all generating companies became profitable, while the parent company (RAO UES of Russia) was chronically unprofitable [3].

The Bank of Russia could have followed the same way and divide Sberbank into four or five independent commercial banks and sell them to independent groups of private owners. Given this transformation, the data on the concentration of market power in the Russian banking sector would be completely different.

Table 5. Ranking of Russian commercial banks in accordance with the number of retail customers served in the event of reforms aimed at improving the competitiveness of the banking sector.

| Name of the bank | Number of offices | Total number of offices | Number of clients, million people | Share in the total number of clients (%) |
|------------------|-------------------|------------------------|-----------------------------------|----------------------------------------|
|                  | Additio  | Operat      | Operat    | Mobil e cash | Credit and cash |
|                  | nal offices | ing offices | ing cash  | desks | desks | offices |
| Sberbank–1       | 13204    | 571        | 90       | 283     | 3537   | 24,048 | 15,1 |
| Sberbank–2       | 13204    | 571        | 90       | 283     | 3537   | 24,048 | 15,1 |
| Sberbank–3       | 13204    | 571        | 90       | 283     | 3537   | 24,048 | 15,1 |
| Sberbank–4       | 13204    | 571        | 90       | 283     | 3537   | 24,048 | 15,1 |
| Alpha Bank       | 325      | 176        | 4        | 312     | 817    | 15,768 | 9,9  |
| VTB              | 590      | 900        | 4        |         | 1494   | 13,891 | 8,7  |
| Pochta bank      | 1        |            |          |         | 435    | 9,987  | 6,4  |
| Sovkombank       | 80       | 117        | 33       |         | 420    | 6,496  | 4,1  |
| Gazprombank      | 251      | 129        | 3        |         | 383    | 4,965  | 3,1  |
| Rosbank          | 101      | 176        | 1        |         | 130    | 3,987  | 2,5  |
| Rosselkhozbank   | 985      | 297        |          |         | 1282   | 3,469  | 2,2  |
| FC Otkrytie      | 217      | 383        | 5        |         | 605    | 2,689  | 1,7  |
| Moskovskiy       | 133      | 29         |          |         | 162    | 1,497  | 1,0  |
| Credit Bank      |          |            |          |         |        |        |      |

For example, with this distribution of customers HHI1 would be only 684.03, and HHI6 - 1.085.74. These are very good numbers, which indicate that a competitive environment has been established in this industry.

We should answer to the question why it is necessary to divide Sberbank into four banks rather than 10 or twenty ones. The splitting of Sberbank into several independent companies aims to increase competition in the banking sector [6]. Therefore, it is desirable that branches of new commercial banks are located close to each other. The second condition, which would contribute to the competition in the
banking sector, is as follows: each of the new commercial banks should implement its policy on the territory of the whole city rather than on its part [1]. If the number of banks increases, each of them will lose the opportunity to develop a single policy in the urban space.

As can be seen, the Bank of Russia had a powerful tool that could revive competition in the Russian banking market [2]. This would lead to a mandatory decrease in the loan interest rate, an increase in the aggregate demand (mainly due to investment and consumer demand), a subsequent increase in the aggregate supply and an increase in the effective employment rate. There would be a chance to give impetus to the depressive Russian economy [7]. Instead, for political reasons, the Bank of Russia has made an absurd decision. It sold Sberbank to the Russian government. Now two largest state-owned banks service 69.2% of clients in the banking market and have 78.7% of production capacity. It is difficult to talk about competition or reduction of loan interest rates in this situation. Consequently, the revival of the Russian economy has been postponed for some time.

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