

Dynamic model of banking risks projections: the role of leading indicators

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Summary

§1.Introduction §2. The Bank's of Russia method of evaluation of banks financial accountability §3.Dynamics of the main indicators of the banking sector in Russia §4.Methodology of banks ratings in Russia §5. Basis and Method of Study. System of Key Indicators §6. Analysis of Key Indicators Dynamics §7.Conclusion.

Abstract

Authorities of the state regulation, creditors and investors are interested in getting reliable information about the banking sector activities. The procedure of bank financial soundness and accountability evaluation is carried out by supervision authorities as well as by international and national rating agencies.

The analysis of the methodologies of bank accountability evaluation and forecasting in Russia shows the following results. The Bank of Russia makes decisions on banks financial soundness based on financial coefficients of different groups; the calculations are grounded on the official bank statements. Apart from financial indicators, rating agencies evaluate qualitative parameters of the bank activities.

The common problem of the bank financial accountability analysis in Russia is the lack of use of the forecasting methods predicting the financial statement of banks and the probability of default. As a result, the problem-free banks corresponding to the demands of the supervision authorities on standards were considered to be problematic during the crisis.

The aim of this research is the dynamic analysis of the main indicators of the Russian banks activities at the different stages of the economic cycle in order to identify the indicators of the early bankruptcy prediction and the opportunity to forecast the changes in the bank financial statement.

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Subject: Banking

Methodology: Dynamic analysis

§1. Introduction

Banking supervisors and users of financial information are extremely interested in using the methods and models that make it possible to predict the financial stability and soundness of banks the most accurately.

Classic analytical models of the financial condition of a bank include groups of indicators measuring the capital, the assets, the return on bank assets and the profitability, the liquidity, the quality of risk management. (Rose, 1995).

However, the global financial crisis showed that banks that perform the obligatory standards and requirements of regulatory authorities, have, nevertheless, incurred significant losses or moved to the bankruptcy category, that have called for the extra governmental efforts to improve their financial state. The systemic financial crisis was not destructive to the Russian banking system; this was rather the crisis of liquidity. Nevertheless, to overcome its effects in late 2008 - early 2009 the Russian government allocated about 300 million dollars.

Banking risks analysis and projection require new approaches in modern conditions.

The objective of this study was to identify indicators of banks' financial conditions deterioration and to use the system of indicators to predict the reliability of a bank.

§2. The Bank's of Russia method of evaluation of banks financial accountability

At present the Bank of Russia evaluates financial statement of commercial banks basing on the following enactments. To limit the operational risks of banks there is the instruction "On obligatory standards of banks"; to admit banks to the system of deposit insurance there are the directions "On bank financial soundness

evaluation for the purposes of its inclusion in the system of deposit insurance”; to evaluate financial statement of a bank there are the directions “On banks financial statement evaluation”.

As a part of the supervision process the Bank of Russia adopted the following obligatory standards for commercial banks:

- of capital adequacy;
- of instant liquidity;
- of current liquidity;
- of long-term liquidity;
- of maximum risk on one borrower (the group of related borrowers);
- of maximum major credit risks;
- of maximum credits, bank guarantees and securities given to shareowners;
- of total insiders’ risk;
- of capital use for company shares purchases.

Each standard is to be met every day. The Bank of Russia can apply enforcement powers in case of non-observance of the obligatory standard.

The methodology of financial soundness evaluation to admit a bank to the system of deposit insurance includes the following groups of indicators:

1. Capital indicators:

1.1. standard of capital adequacy;

1.2. capital share in total assets;

1.3. basic and supplementary capitals ratio.

2. Assets indicators:

2.1. bad loans share in total loans;

2.2. uncovered by reserves assets share;

- 2.3. past-due loans in total loans;
- 2.4. reserves on possible losses share in total loans.
- 3. Profitability indicators:
 - 3.1. return on assets;
 - 3.2. return on equity;
 - 3.3. income structure;
 - 3.4. structure of losses;
 - 3.4. net interest margin;
 - 3.5. net spread of active operations.
- 4. Liquidity indicators:
 - 4.1. standard of instant liquidity;
 - 4.2. standard of current liquidity;
 - 4.3. highly-liquid assets and obligations ratio;
 - 4.4. structure of obligations;
 - 4.5. dependency on interbank market;
 - 4.6. risk of own bill obligations;
 - 4.7. non-bank loans share;
 - 4.8. degree of completeness of obligatory reserves creation;
 - 4.9. risk on big creditors and investors.

Financial soundness of a bank is admitted to be sufficient for its correspondence to the requirements of the deposit insurance system if the result in all indicators groups is satisfactory. The result is considered to be

satisfactory if the total indicator of each group and of all groups less than some critical mark. Unsatisfactory result of financial soundness evaluation is the grounds for the rejection of the access to the system of deposit insurance and the withdrawal of bank license for private operations.

The indicators system of bank financial statement evaluation includes almost the same indicators as the indicators system of financial soundness evaluation. The final result is the classification of a bank to the corresponding category of accountability depending on the level of the total result in each group of indicators.

There are five categories of bank accountability:

The first category includes the banks in whose activity there were not marked any current difficulties, namely the banks whose indicators in all groups are evaluated as “good”.

The second category includes the banks which don't have current difficulties but there are certain drawbacks in their activities which in case of their non-elimination can lead to the difficulties in the coming year.

The third category includes the banks which have current difficulties non-elimination of which in the coming year can lead to the situation threatening to the legitimate interests of depositors and creditors.

The fourth category includes the banks the activity violation of which causes the real threat to depositors and creditors interests and the elimination of which implies the steps of management board and bank shareholders.

The fifth category includes the banks whose state can lead to the bank activity cessation in case of non-taking measures by the management board and (or) shareholders.

The results of economic statement evaluation of a bank are sent to the leading body of a bank and the board of directors by the Bank of Russia in order to take measures to eliminate negative tendencies in the bank activity. The information on the category the bank is included in is of limited access and is not disclosed to the third party.

It is necessary to mention that the Bank of Russia evaluates financial soundness and accountability of banks only basing on the official financial statements through the calculation of analytical coefficients. The qualitative

characteristics of bank activity are based only on the analysis of the group of indicators of the bank management quality, the quality of operation and risk management. This group of indicators includes:

- the transparency of ownership structure;
- the organization of management system;
- the system of risk management including the strategic risk;
- the system of internal control.

The indicators of the transparency of ownership structure are: the amount adequacy of the disclosed information about owners; the access to information about people influencing the decisions of bank management; the significance of influence on bank management of off-shore residents. The quality of management and risk management in a bank is assessed on the base of questionnaire method; the results are included in the total evaluation of bank activity.

§3. Dynamics of the main indicators of the banking sector in Russia

The global financial crisis partially influenced the state of banking system of Russia. The amount of loss-making banks increased in 2009 to 120 compared to 11 in 2007. The number of banks toward which the steps of bankruptcy prevention were made amounted to 18 in 2009 or 1.7% of total number of banks.

The main indicators of Russian banks activities in pre-crisis, crisis and after-crisis periods are shown in the table 1.

Table 1 *Dynamics of the main indicators of Russian banks activities from 2005 to 2010*

Indicators	2005	2006	2007	2008	2009	2010
Capital adequacy, %	16.0	14.9	15.5	16.8	20.9	18.1
Bad loans share in total loans, %	2.6	2.4	2.5	3.8	9.5	8.2
Reserves on possible losses share in total	4.6	4.1	3.6	4.5	9.1	8.5

loans, %						
ROA ²	3.2	3.3	3.0	1.8	0.7	0.9
ROE ³	24.2	26.3	22.7	13.3	4.9	12.5

The data show that the consequences of the financial crisis are mainly evident in 2009: there was the sharp increase of bad loans share in total loans and reserves on possible losses share in total loans. Besides, ROA and ROE fell abruptly in this period. At the same time, the data show that the indicators characterizing the quality of bank credit portfolio are not the signals of early warning of banking system state deterioration whereas the indicators of bank effectiveness started falling long before the crisis, in the year of 2007 which was the most successful for the banking system of the country. Moreover, the standard of capital adequacy grows during the crisis. On the whole, the positive tendency of the main indicators is seen in 2010 that mean the stabilization of the financial market of the country.

The government of Russia and the Bank of Russia supported significantly the commercial banks during the crisis (2008-2009). The resource base of banks was supported mainly from the federal budget, the funds of the Bank of Russia and the deposits of governmental corporations invested in commercial banks. Subordinated credits were the key source of banking sector capitalization in 2008 (the rise by 21.4 billion euro). In 2007 the subordinated credits ensured the growth of the total Russian banks capital by 11.6%, in 2008 – by 30.6%. The main part of subordinate credits was supplied by the Ministry of Finance to the banks controlled by the government on term of up to 15 year. In 2009 the government supported this group of banks through the increase of authorized capital and the emission profit. The loans of the Bank of Russian to the banking system grew from 0.85 billion euro on 01.01.08 to 84.3 billion euro on 01.01.09 that is 0.2% and 12% of the total liabilities respectively. The loans of the Bank of Russia were given on the short term in order to compensate the outflow of clients' funds and provide the stability of the country payment system functioning. On 01.01.11 the

² According to the methodology of the Bank of Russia, the calculation of indicator ROA includes pre-tax profit.

³ According to the methodology of the Bank of Russia, the calculation of indicator ROE includes pre-tax profit.

Bank of Russia loans decreased to 8.2 billion euro, almost 10 times, that indicated the normalization of banking system liquidity.

Funds obtained from non-residents amounted to 110.9 billion euro on 01.01.09 (15.8% of total liabilities), and 87.6 billion euro on 01.01.10 (11.9%). More than half of these funds were received from the foreign banks. At the same time the amount of funds invested in non-residential institutions by Russian banks was 97.3 billion euro and 104.2 billion euro on the same dates respectively (13.9% and 14.2% of total assets). Despite the deterioration of the situation in 2008-2009 the investment attractiveness of the Russian banking system for the foreigners hasn't declined. The number of Russian commercial banks with the foreign capital increased from 153 in 2006 to 226 in 2009. The amount of foreign investment in Russian banks authorized capital rose from 2.3 to 7.6 billion euro, i.e. more than 3 times, over the period.

The source of the statistics data cited in this paragraph is the official site of the Bank of Russia.

§4. Methodology of banks ratings in Russia

Ratings have not only methodological but also moral component as they influence the reputation capital of a company. Governmental regulators show interest in ratings as well as creditors and investors since company's ranking contributes to access to certain operations, resources, consulting etc. Ratings influence pricing on financial markets and investors' decision-making. Rating agencies base their valuations on the principles of independency, publicity, simplicity, information confidentiality, and interactivity. The interest in ratings has grown due to the implementations of Basel II conditions and the current global financial crisis. Basel II increased the role of ratings as the instrument of risk measurement.

There are the following stages of rating space development in Russia (Karminsky, 2010):

1st stage – the market relations establishment in Russian Federation (the beginning of 90s). Ratings were mainly the attempt to follow the world fashion. Because of governmental regulations the subjects were banks.

2nd stage – the emergency of international rating agencies in Russia (the mid 90s – the beginning of 2000s).

3^d stage – the rise of interest in ratings caused by the opportunity to get foreign borrowings (2003-2008 – the economic upswing). In 2005-2006 Russia was given the rating of the three main rating agencies.

4th stage – the financial crisis. Some ratings of Russian companies were called back. The sovereign rating of Russia was decreased by one class (from BBB to BBB-).

The main international rating agencies in Russia are Standard & Poor's, Moody's Investors Service, and Fitch Rating. Generally, Russian banks ratings formation is the privilege of Moody's Investors Service (as of 01.01.2009, 110 Russian banks received Moody's ratings). Ratings of the leading international rating agencies were received not only by the largest and the large banks but also by some average banks which are out of the first hundred (Peresetsky, 2010), (Sosurco, Karminsky, 2010).

Last years the role of home rating agencies increased. Such agencies as AK&M, National rating agency, Rus-Rating, Expert RA were accredited by the Bank of Russia. It enabled them to set credit ratings to banks of Russia.

Table 2 *Distribution and dynamics of banks ratings in Russia*

Rating agency	Percentage of the total , %	
	2008	2009
Moody's	31	22
Fitch	18	12
Expert RA	15	27
Rus-Rating	14	11
S&P	9	7
NRA	7	13
AK & M	6	8
Total rating amount	304	473

In the middle of 2010 near 300 Russian banks had ratings, almost half of them had the ratings of international rating agencies. Some banks had ratings of several rating agencies.

The current global financial crisis revealed some problems of the rating process, namely the inability of rating agencies to evaluate global perspectives of the financial market and the threat of the growing bubbles of company assets prices. This means that the rating models are to be improved and the methods of forecasting are to be applied. Many rating agencies, S&P in particular, re-evaluated companies during the crisis. Higher risks were given to the securitization operations, the demands to risk management were toughened, the evaluation of

mortgage risks and the degree of risk concentration were changed. There is the global tendency of the companies' ratings cuttings because of the more accurate risk evaluation and the introduction of the parameters in models.

Meanwhile, there is no sharp change of rating agencies methodology that could lead to the damage of rating agencies reputation and the growth of re-evaluation costs. However, the development and updating of rating agencies methodologies are vital for competitiveness and globalization strengthening. The effective use of ratings demands new approaches aimed at deepening and widening of rating evaluations.

When comparing the methodologies of national and foreign rating agencies, it is evident that they have lots in common.

The methodology of Moody's rating agency:

1) Fundamental business characteristics: sovereign risks, industry structure, development perspectives, competitive advantages, system of regulation, management, strategy, and governmental support of a company.

2) Financial indicators: company financial policy, profitability, cash flows, capital structure, and liquidity.

3) For developing countries: cost of borrowings, interest margin, assets growth, including credit portfolio, interbank loans growth, including operations with non-residents.

4) Business particularities: by country, region and industry.

The methodology of Expert RA:

1. Internal credibility

1.1. Market position: history and reputation, specialization, competitive position, geography, strategy.

1.2. Financial analysis: capital adequacy and quality, assets quality, profitability, resource base, currency risks, liquidity, off-balance sheet risks.

1.3. Management and risk-management: corporate governance, business processes, information transparency, risk management.

2. Support factors: from the owners and the government.

3. Stress factors: negative influence of owners, risks of regulation and supervision.

In general, rating methods and models are closed and have expert component that limits their widespread use, on the governmental level also. It is especially difficult to compare the evaluations of the national rating agencies.

At present, it is acute to build the common rating space that needs new approaches to the financial institutions evaluation, the application of econometrics methods and high-tech program complexes.

The coordination of the rating space in Russia is expressed by the creation of the Rating Committee which includes the representatives of the main rating agencies and the governmental regulators (Ministry of Finance, Bank of Russia, Agency of deposit insurance, MICEX, Association of Russian regional banks, National Fund Agency).

Rating valuations of rating agencies have the common direction and at the same time their own peculiarities. The creation of the common rating space means the choice of the common basic rating scale and the formation of the system of reflection of all agencies rating scales to the common one. The result could be the degree of rating scale closeness to the basic scale (integral criterion of closeness) (Solodkov, Karminsky 2010).

The conducted research in and around formation and application of bank ratings showed that in the near future it is necessary to resolve the following issues:

- 1) the expansion of rating practical use, for the purposes of governmental regulation and supervision as well;
- 2) the formation of forecasting models of ratings and the common rating space in Russia.

§5. Basis and Method of Study. System of Key Indicators

The basis of the study is the official financial statement of different in terms of assets Russian banks, including distressed ones, for the period from 2004 till 2009. On the basis of the database the dynamic analysis of some analytical indicators as well as key financial indicators used by the Bank of Russia to oversee commercial banks was carried out.

The division of the banks under study on the groups in terms of assets is conditional on the fact that most foreign and domestic credit rating agencies and finance and analysis agencies use namely the value of bank assets when rating banks or preparing analytical reviews.

For research purposes 25 Russian banks divided into 5 groups were selected:

- 1) Large banks of federal importance included in the Top-20 (assets from 400 to 2500 million rubles, or from 10 to 62,5 million euro).
- 2) Medium-sized banks (assets from 100 to 400 million rubles, or from 2,5 to 10 million euro).
- 3) Small banks, including regional ones (assets to 100 million rubles, or to 2,5 million euro).

4) Distressed banks (regardless of the value of assets).

Distressed banks are those in the process of financial rehabilitation led by the Federal Agency for Deposit Insurance.

Large banks of federal importance, members of the Top-20 (assets from 400 to 2500 million rubles, or from 10 to 62,5 million euro):

Alfa Bank

Gazprombank

Bank of Moscow

Vneshtorgbank

Bank Uralsib

Medium-sized banks (assets from 100 to 400 million rubles, or from 2,5 to 10 million euro):

Absolut Bank

AK BARS Bank

Bank Zenit

Bank Renaissance

Nomos Bank

Bank Petrocommerce

Small banks, including regional ones (assets to 100 million rubles, or to 2,5 million euro):

Bank Avangard

Amy Bank

Bunkhouse Erbe

Barclays Bank

Rus Bank

Volga-Oka Bank (N. Novgorod)

Nizhny Novgorod banking-house

Sarobiznesbankk (Sarov)

Ellipse Bank (N. Novgorod)

Distresses banks (regardless of the value of assets):

Nizhegorodpromstroybank

Bank 24. En

Gazenergobank

Bank Potential

Bank Severnaya Kazna

The study has analyzed the dynamics of the following indicators:

1. Quality of capital

1.1. Capital adequacy ratio

$H1 = K / Ar$, where

K – bank capital

Ar - risky assets of a bank.

1.2. Return on equity

$ROE = PE / K$, where

PE - net profit

K – bank capital

2. Indicators of asset quality and risk management

2.1. Earning assets - risky assets ratio

Ae / Ar , where Ae and Ar - earning and risky bank assets, respectively

3. Return on bank assets and profitability

3.1. Profitability of a bank:

P / D , where

P - bank's profit in the reporting period (before-tax)

D – bank income

3.2. Net spread of active operations

$Qs / A - Pn / A$, where

Ii and Ci - interest income and interest costs, respectively

A and L - assets and liabilities, respectively

3.3. Income structure

Iop / Ig , where Iog and Ig - Operating and general income of a bank, respectively

The significance of factors was determined by the methods of variance and delta. Variance is the range (%) from min and max value of factor in the analyzing period of economic growth and crisis. The more the range is, the more significant the reaction of factor to the external conditions is. Delta is the deviation of a certain bank value from the group average. The more delta is, the more sensitive to the external conditions the factor is. (Sinkey, Terry, 2006).

§6. Analysis of Key Indicators Dynamics

The average capital adequacy ratio is different for banks belonging to different groups in terms of assets. The lowest capital adequacy ratio (but within the standard) showed the large banks. The highest rate is registered for small (regional) banks. The interim result goes for medium-sized banks. The findings imply the very important and interesting conclusion: the large banks are able to assess the level of risk more accurately and, therefore, can retain the value of capital at a minimum sufficient level. It means the effective management of funds, since the capital increase above the required quantities in order to cover the risk leads to the lower profitability of banking operations. Thus, the conclusion proves that the financing of active transactions from the equity is more costly than from the liabilities. The fact is confirmed by foreign studies, too.

Small banks, by contrast, have overstated capital adequacy, that is explained by the weaker structural and geographical diversification of assets as well as the inaccessibility of the modern expensive risk assessment systems.

The average capital adequacy ratio of distressed banks is at the level of "medium-sized banks" rate, that is higher than of the "small banks" group. Thus, the level of capital adequacy is not an indicator of the early warning of the bank's financial conditions deterioration. At the same time the retaining of the capital value at the minimum level may lead to the fall of the capital adequacy ratio below the required standard in case of the economic downturn that threatens the use of supervisory measures up to license revocation. That's why the capital adequacy ratio is significant for the purposes of regulation and supervision under banking systems.

The analysis of capital adequacy for the period 2004 - 2009 years showed the following results. All groups demonstrate the decrease of the index. The reason is the growth of bank's credit activity during the economic boom and, consequently, the risk increase. 2007 showed the highest growth rate of basic indicators of the Russian banking system (assets, loans, deposits, profits); this year was the most favorable for the banks during the economic boom. At the same time the capital increase could not happen at such a rapid pace. The

growth rate of risky assets outpaced the capital growth by 10-15%. What's interesting is the reaction of banks to the crisis. When the crisis started (at the end of 2008 – at the beginning 2009), the large banks lowered the capital adequacy once again, while other banks increased it. This suggests that non-large banks manage credits easier, because they possess not such a large clientele and have direct contact with borrowers.

Dynamics of the change in the return on capital suggested the following conclusions. This figure responds to the deteriorating economic situation rapidly and significantly. Return on capital increased for all groups of studied banks in 2007 and dropped dramatically in 2008 (in 2,5 times for the group of distressed banks and by 14-23% for other groups of banks). Thus, this rate is an indicator of early warning of the financial condition deterioration. The fall is explained by decrease of profits due to the growth in reserves for possible loan losses.

An analysis of the dynamics of bank profitability showed the following result. The rate of all groups of banks, with the exception of the distressed banks, reached a peak in 01.07.08 and then began declining steadily until 01.04.09; particularly it's noticeable for the large banks. The second quarter of 2009 showed the growth of this indicator for the group of large banks, caused by the provision of loans by the Bank of Russia and the subordinated loans by the Ministry of Finance that contributed to the growth of capital and profits. The group of distressed banks has different dynamics. For the half group the downtrend is evident from 2005 till 2008. Then the sharp plunge happened in 2008. It means that the financial problems of this group banks started long time ago, and the crisis only deepened them. The stabilization of the indicator in 2009 was due to financial aid of the Federal Agency of Deposit Insurance. Overall, the study confirms that the rate of return on equity is the indicator of financial sustainability of a bank.

The dynamics of the ratio of earning and risky assets revealed the following tendencies. In ideal situation all risky assets of a bank have to return interest, that is their ratio has to equal 1,0. This ratio is observed for the small banks that do not act in the speculative market and serve basically the real sector companies and have trustful relations with them. However, if we consider this figure by groups of banks, it is less than 1 in all cases. The highest index relates to the large banks (0,91), then the small (0,89) and the medium-sizes banks come (0,85). The "peak" is reached in 2006 in all groups. Since 2007 the rate begins to decline steadily, due to a substantial increase in bank loan portfolios and restructuring of debt toward the increase of problem loans. The peculiarity of this indicator for the distressed banks is that the decline began

much earlier and was much more substantial. Hence, we can conclude that the rate of asset quality and risk management is the indicator of financial condition.

Net spread of active operations for this period showed the same dynamics for all groups of banks - it grew since 2007 till the crisis. This is due to the rise of interest income as a result of growth of credit activity and the simultaneous decrease of earning assets due to the increasing risk. The interesting fact is that the greatest growth of this index was observed for the distressed banks, and the slowest growth was seen for the large banks. Therefore, during the credit activity the risk inside the distressed banks accumulated rapidly. On this basis, the index of net spread of active operations can be considered the indicator of early warning of the bank's financial condition deterioration.

§7. Conclusion

The results of this study showed the following.

1) The study identified leading indicators of the financial condition deterioration that responded to the economic crisis most rapidly and significantly:

- Earning and risky assets ratio
- Bank profitability
- Return on capital
- Net spread of active operations

2) There were identified the indicators that are widely used in banking practice, but are not essential to diagnose the financial condition of the bank: the capital adequacy ratio, the structure of income and costs, the share of overdue loans and the amount of reserves for possible loan losses.

3) Dynamic analysis of key performance indicators of banks for several years showed that the negative trends in the distressed Russian banks began long before the onset of the crisis. The proposed by the author system of early warning indicators of bank failure can be used to predict the financial condition and to rank the reliability of banks.

Reference

FREDERIC S MISHKIN, (2005) *The Economics of money banking and financial markets*, Boston, San Francisco, New York, London, Tokyo.

JOSEPH F. SINKEY, JR. TERRY, (2006) *College of Business, The University of Georgia. Commercial bank financial management*, New Jersey, p. 241-318.

PETER S. RASE, (1995) *Texas University. Commercial bank management*, IRWIN Homewood IL 60430 Boston MA 02116, p. 126-168.

GRUNING H., (2007) *The analysis of banking risks. System of corporate management evaluation and financial risk management*, Moscow.

KARMINSKY A. (2010) *Models of corporate credit ratings. Preprint NES WR/2010/086.*

PERESETSKY A. (2010) *Models of reasons of Russian banks licenses withdrawal. Preprint NES WR/2010/085.*

SOSURCO V., KARMINSKY A. (2010) *Modeling particularities of international bank ratings. Financial risk management, № 4, p.15.*

SOLODKOV V., KARMINSKY A. (2010) *Common rating space: myth or reality? Journal of Banking, № 9, p.5.*

The official website of Bank of Russia. <http://www.cbr.ru>.