- establishment of the quality system also connected with achievement of the enterprise strategic purposes as one of requirements of quality standard ISO-9000. It is recommended to describe the company activity as a set of business processes that allows to achieve its best transparency concerning "a guaranteed quality level of product development, manufacturing and delivery";
- formal description of business processes is a necessary condition for their computerization. It is necessary to present each of processes resources, documents, executors, actions, branching conditions, etc. even more precisely.

Thus, detailed and consistent analysis of logistical business processes allows to reveal operations, where expenses can be reduced due to automation, increase of labour productivity, rating, and in some cases due to exception of the given operations or transfering them for outsourcing. However, it is necessary to note, that desire and maturity of the company management is not enough. In this case it is important to have logistical operators in the region, which are capable to suggest a similar sort of service that is the biggest restriction of logistical outsourcing.

After the detailed description of the company business processes including logistical ones, there begins modelling and creating of the integrated logistical system of the whole company where all business processes are interconnected and optimized.

The necessity of such a system is caused by the reason that in modern conditions not only optimum use of available resources and increase of labour productivity are necessary and important, but also a high degree of managing that is expressed in flexibility and speed of reaction to changes in the external business situation being oriented on constant and active interaction with service products consumers (CRM-technology, call-centers and etc.).

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A. A. Parkhomenko Krasnoyarsk State Pedagogical University named after V. P. Astafev, Russia, Krasnoyarsk

# NECESSITY AND CHELLENGES OF THE RUSSIAN FINANCIAL SECTOR MODERNIZATION

In the article the possibilities of the Russian financial sector modernization for entering the sustainable development trajectory are considered. It touches upon the issues of the division of the Bank of Russia into two functions — a monetary regulator and a body responsible for the creation of a macroprudential supervision system. The questions of the state-owned banks share growth in the Russian banking system, the establishment of the adequate minimum level of capital and the creation of a three-level banking system are examined.

Keywords: Bank of Russia, banking system, macroprudential supervision, state-owned banks, consolidation, the minimum level of capital.

The global financial crisis is coming to an end and the question of choosing directions of the Russian economy development is topical again. It is necessary to admit, as one of the major lessons from the crisis, that the growth of gross economic indicators and qualitative economic growth based on increased competitiveness do not always coincide. If the current financial policy, focused on favorable external economic activities, continues, the solution of the structural problems, accumulated in the system, will be set aside for future where this solution will cost significantly more.

Currently there are all prerequisites for the development and realization of the strategy for entering the sustainable development trajectory both of financial and real economy sectors. Thus the combination of rapid growth and the achievement and preservation of its stability and resilience seems the most rational.

The structural changes in the financial sector, especially in the banking system, where the changes should begin with the Central Bank of the Russian Federation (Bank of Russia), should become the major element of this strategy.

One of the main the Bank of Russia long-term objectives is the maintenance of low, stable and predictable inflation rates, which should be close to the rates of our closest neighbours – the European countries. Currently, however, the activities of the Bank of Russia are under constant pressure of various interested parties. So its policy significantly depends on the vision of general economic situation by the RF Government, which independently sets the targets of the monetary policy which the Bank of Russia is responsible for. Setting these targets the Government ignores the influence of regulated inflation rates. The absence of the necessary hierarchy of

the macroeconomic policy objectives, especially the absence of the rate fiscal policy subordination to the priority of the inflation aim, leads to low efficiency of monetary policy. Increasing the actual, rather than nominal, independence of the Bank of Russia can only occur as a result of successive government non-interference in the management of ruble rates and inflation.

Among the causes of excessive control of the Bank of Russia, it is necessary to mention the performance of a large number of functions that are peculiar for an executive body. It arouses the desire of state leaders to tighten control over its operations and, consequently, leads to weakening of its functional autonomy.

It is necessary to note that there is a conflict of interest within the Central Bank, for example, if for the anti-inflation actions, it is necessary to raise interest rates, that, however, could negatively affect the financial conditions of some commercial banks, that the Bank of Russia has a regulative liability to, the Central Bank must either reduce regulations or refuse to suppress the inflation rates.

Therefore, none of the financial regulation participants are interested in the independence of the Bank of Russia. The Government aims to subordinate it, as it performs the functions that are in the executive authority field of responsibility, and the Bank of Russia does not strive for its independence because it is bound by the regulation of the banking market.

This problem can be radically solved by the division of the Bank of Russia into two parts, the first will inherit the functions of monetary regulation and focus on macroeconomic problems.

The second will focus on the functions of regulation and supervision of banking sector, and subsequently on its bases, the creation of the mega-regulation and mega-supervision body of the whole financial market is possible (tab. 1).

The integration process, actively taking place in the financial sector, the consolidation of financial institutions with the formation of financial conglomerates and holding companies on the basis of major commercial banks requires the concentration of supervision functions over financial institutions of various types and in various sectors of the financial market under a single supervisory body. The Bank of Russia supervision system has developed infrastructure and highly qualified staff, so the

creation of mega-regulator based on it seems most appropriate. In future other bodies involved in the regulation of financial markets can be joined to it.

The area of financial regulation and supervision also requires changes. The operating system of macroprudential supervision focuses on the solvency and stability of individual banks. However, the global crisis has revealed its weaknesses, having shown the need for systematic work with the financial sector as a whole, including the regulation of markets and operations, which reflect the relationships between banks and between banks and other participants of the financial system.

Macroprudential supervision should concentrate on the system stability of the financial sector, rather than on preventing the insolvency of individual banks (tab. 2) [1]. This approach pays special attention to backbone institutions and relationships in the financial sector, because the risk of system disbalance depends on the collective behavior of financial markets participants, as a result of this, risks in the financial system gain endogenous nature for the regulator.

Nowadays macroprudential supervision denotes the risk assessment for the entire system, which is not reduced to the summation of individual risks. The main tool of macroprudential supervision is the system of assessment of the indicators of bank soundness (sensitivity to risks, financial leverage, liquidity and various characteristics of savings market etc.). Potentially, it should become an effective mechanism for assessing the probability of failures in the financial market and probability of crises.

For the present no operating system of a global systemic risk assessment of has been developed. The assessments for individual countries based macroeconomic stress tests under the Financial Sector Assessment Program (FSAP2), carried out by the IMF and the World Bank together with the national monetary controllers can be considered the closest analogues. The other directions of work in this field are the creation of advanced systems of crisis indicators (mainly macroeconomic) and the creation of the valuations on the VAR model (value-at-risk) for the financial sector as a whole [2]. Thus, within the European Union, a new oversight body is being created, whose goal will be to monitor systemic risk - European Systemic Risk Council (ESRC).

Table 1

## Distribution of the functions of the Bank of Russia

Bank of Russia, as the monetary regulator	Bank of Russia, as the supervisory authority	
	in the banking sector	
Development and implementation of unique state monetary	Laying down the rules of making payments and conducting	
policy (in collaboration with the RF Government).	banking transactions in the Russian Federation.	
Currency issuing and organization of cash circulation.	Decision-making on state registration of lending institutions,	
Organization of the system of refinancing of credit institutions	and licensing banking operations of lending institutions.	
as a lender of an ultimate authority.	Supervision of lending institutions and banking groups.	
Management of gold and foreign currency reserves.	Registration of securities issuance by lending institutions.	
Drawing up of the RF balance of payments.	Currency regulation and currency control.	
Analyzing and forecasting the state of the Russian economy as a	Laying down the rules of accounting and reporting for the	
whole and by regions, primarily monetary, currency and	banking system of the Russian Federation	
financial, and price relationships		

Comparative analysis of micro-and macroprudential approaches to supervision in a financial sector

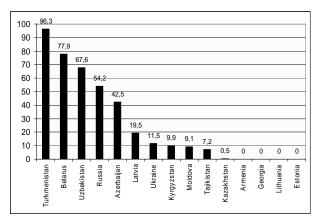
Criteria	Macroapproach	Microapproach
Short-term objective	Limitation of negative processes involving the	Limitation of negative processes at the level of
	whole financial system	individual institutions
Long-term objective	Prevention of a GDP slowdown	Consumer protection (investors (depositors))
Model describing a risk	Endogenous (partly)	Exogenous
Interdependence between	High	No evidence
institutions		
Choice of prudential control	On the basis of negative processes assessment in a	On the basis of risks assessment faced by
measures	financial system (top-down)	individual institutions (bottom-up)

Thus, we can conclude that the international community focuses on the monitoring systemic risks and the prevention of their transfer between different financial market segments as well as in the real economy. Unfortunately, in Russia the situation is fundamentally different: there are no studies on systemic risks, no monitoring systems, no special bodies dealing with similar problems. This situation calls for urgent changes.

Another significant feature of the Russian banking sector is the dominating state ownership in it. This happens due to several factors: the state-owned banks have an advantage in servicing the financial needs of the state and state-owned corporations, significant amounts of budgetary resources are placed in them, direct public investments are placed in these banks, they are provided with administrative support from the authorities and have already formed an image of stability and reliability.

As a result, over the past decade, the size of state ownership of the banking sector assets has been growing steadily. Thus in 2001 the state and quasi-state (private but state-supervised) banks accounted for about 36.3 % of total bank assets and in 2009 their share increased to 54.2 [3].

Today Russia is included into the small group of countries with defined state ownership in the banking sector. Among the post-Soviet countries state-owned banks dominate only in those countries, where market reforms are not developed properly – Uzbekistan, Belarus and Turkmenistan (see figure) [4].



State ownership of banking assets in the Former Soviet Union countries, %

In the situation when the share of state sector exceeds 50 %, quantitative changes have turned into qualitative

and elements of distributive economy have appeared in the banking market. For example, each of the state-owned banks has a task to increase its lending portfolio for the 2nd quarter of 2009, attempts to control prices are taking place (the upper limit on loans and private deposits) saying nothing of public personal control of the state leaders. At the same time the private sector's share shrinks steadily from year to year, banking market is concentrated on one pole: four banks controlled directly by the state (Sberbank, VTB, Russian Agricultural Bank and the Bank of Moscow) hold 81.7 % of assets among banks of this category and 42.9 % of total bank assets of the country [3].

It should be noted that the nationalization of the banking sector has its advantages. The executive authority can count on banking sector highly resistant to financial shocks; banks with state interest can be forced to fulfill national tasks; expansion of foreign banks is complicated because of multiple preferences for state-owned banks; the Bank of Russia is exposed to minimal credit risks as state have made the third extralegal intermediate level of the banking system, through them primary resources come into the economy and to other market participants.

However, the use of the authorities of the state-owned banks as financial agents raises a number of negative effects. If private banks are concerned about profit maximization or capitalization, the state-owned banks do not have a clearly defined objective function. They carry full activities of commercial organizations that have received preferences from the state and using non-market competitive advantage because they have the opportunity to use both financial and administrative resources of the state. Targets of state-owned banks lead to reduction or even disappearance of competition in some areas and slow the development of financial innovations. In some cases, banks with state interest set prices for financial services that significantly deviate from market prices. This may result in unreasonable prices for their services for customers "linked" to state banks, and in the underpricing to displace competitors from the market.

Alongside the growth of state-owned banks monetary policy becomes less able to affect the real economy and the Bank of Russia loses the ability to affect market conditions by market operations. As a result, the elements of command economy appear in the market.

Despite the obvious negative aspects of state banks activities in the Russian banking sector, a radical change of ownership structure is unlikely.

The main reason is the lack of potential alternative owners. The crises that the banking system has experienced in the recent decade led to private banks market exit because their owners could not restore the negative equity capital of their banks or believed that the banking business has no prospects. Only those stateowned banks remained in the market whose capital is replenished by the State in the required volume. In addition, the long-term banking activities in the Russian market are not sufficiently attractive for investments because the high inflation and regular banking crises lead to the fact that the real profitability of the business is close to zero. Thus, during the years 1998-2009 profits of banks in real terms were less than 3 % of the capital [5]. And one more important factor - there is a shortage of savings on the domestic market so the bulk of investments may be attracted only from abroad. But in this case the most likely scenario is the loss of national control over a significant part of the banking sector.

Thus, in the near future the change of ownership in the largest Russian banks doesn't seem possible, although we can identify a number of measures aiming to its achievement in the long term.

Firstly, it is necessary to consider options for partial privatization of the major state banks to diversify the structure of their property.

Secondly, it is necessary to limit unwarranted expansion of the state-owned banks due to budgetary and administrative resources leading to distortion of competition principles.

Thirdly, it is necessary to optimize the state ownership in the banking sector completely eliminating the state's shares in small banks focusing on the interests in banks that are institutions for development.

The next element that should be reflected in the development strategy of the banking sector is its consolidation. At present Russia takes the third place in the world by the quantity of banks (1 056 as of 02.01.1910 based on data of cbr.ru). The largest quantity of banks is in the U. S. – more than 6 thousand, Germany takes the second position, where there are more than 2 thousand banks, more than a half of them are cooperative. There is no doubt that with the growth of the territory the country needs more banks, while the first two hundred Russian banks account for about 94 % of the total assets of the sector, the share of other players is small and constantly declining.

It should also be noted that the degree of concentration in the Russian banking sector is below average. The market share of five leading banks in Russia reaches 46 %, whereas in Europe it swings around 60 % (from 22 % in Germany to 96 % in Estonia) [6]. Trends in world markets show that the increase in concentration reflects the natural development of the market and the largest Russian banks will become more powerful and bigger. The main element of the stimulation of this process is the toughening of the requirements to banks capital.

It should be noted that the toughening of the licensing terms has both positive and negative effects. The positive effects are:

- Reduction of lending rates the bigger is the bank,
  the lower the average interest expense on its liabilities and
  the lower the interest rates for borrowers from the real sector are;
- Increase of money supply by the growth of credit multiplier small banks have to maintain high liquidity because of a non-diversified customer base so bank resources are used not very effectively; consolidation of the sector will ensure an increase in money supply as a result of the expansion of lending;
- Consolidation of banks today the average Russian bank is a modest-sized organization, unable to meet the needs of large enterprises, therefore consolidation stimulation will allow to create banks required by the economy;
- Increasing of the efficiency of financial resources allocation – the informational advantage of the major players, capable to monitor a large part of the market, is reflected in lower information asymmetry and more efficient allocation of resources.

Meanwhile the following negative effects of banking capital consolidation should be noted:

- Reduction of market competition reduction of the number of players in the market can lead to influence growth of large banks that will allow them to set low interest rates for deposits and overstated rates for loans;
- Reduction in lending supply due to rationing of credit growth – the desire to minimize risks at large banks could lead to cutting off more risky borrowers from lending, that in the long run will lead to a decrease in innovative activities and in economic growth rates;
- Destabilization of the regional economic systems in times of crisis – in periods of crises local branches of Moscow based banks transfer assets in their head offices for accumulation of liquidity, repayment of foreign debts, and other purposes and the regional economic systems are vulnerable to potential shocks because of absence of local banks.

Another argument against excessive consolidation of the banking market is the risk of systemic instability. Large banks are more profitable, their assets are well diversified, and it is easier to supervise them. In theory this should improve the resistance of major banks to shocks and make a financial system more stable. However practice shows that the state considers major banks as "too big to fail" and supports them in times of instability. In turn, the large banks, relying on state aid, become more risky so more unstable. The experience of the recent banking crisis has shown that the threats of systemic instability originate mainly from large banks and the higher the number of players in the sector is, the lower the costs of its reorganization and restructuring are.

The problem of an adequate amount of minimum capital of banks in Russia is actively discussed in the banking community. For example, in November 2009 the Vice-president of the government – Finance Minister Alexei Kudrin said he was ready to initiate a bill to increase minimum capital of Russian banks for five years to 1 billion rubles. Indeed, one of the major contradictions between the financial and real sectors in Russia is a small

size of Russian banks. Their weak financial capacity explains why the real sector turned to foreign funding and the level of debts to non-residents is currently comparable to domestic corporate lending.

However, a large group of local banks numbering several hundreds of organizations will not be able to augment equity capital neither to a level corresponding to the financial needs of the leading Russian companies nor to the level designated by the Government of the RF. At the same time this group of banks could help to reduce the impact of the above-mentioned negative effects of consolidation. The best way to save these banks is their isolation in a separate class that will be under special prudential supervision depending on the risk profile.

In most countries where the banking sector has hundreds of players, there are several categories of banks to which different requirements, depending on specificity of activities, are applied. Taking into consideration the available international experience, it is necessary not to force small banks to close or consolidate and let them choose their niche and continue to work in it.

As a result of this offer, multilevel banking system will be created in Russia. The Bank of Russia will be the first level of the national banking system, the second level will be federal banks with general license and a large capital of their own (e. g. from 100 million Euros). They will carry out the whole range of banking operations, operate throughout the country, and have access to foreign financial markets. The third level of the system will be represented by separate groups of banks working at the level of federal districts, federal subjects and cities. Their licenses will include restrictions on the minimum equity capital, the territory of operation (on which the

bank may open branches) and the list of banking operations.

In conclusion, it should be noted that, without structural reforms, it is difficult or almost impossible for the Russian financial sector to assist sustained development of the real economy and to resist external shocks. Only the appropriate modernization of the banking system of Russia is able to assist a more sustainable economic growth and strengthening of the competitive position of Russia in the global economy.

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D. V. Parshukov, G. V. Mironov Krasnoyarsk State Agrarian University, Russia, Krasnoyarsk

# A MODEL TO ASSESS THE RISK OF BANKRUPTCY FOR AGRICULTURAL FIRMS IN KRASNOYARSK REGION

In this paper we report on the algorithm of development of a bankruptcy risk assessment model to be applied to agricultural firms of Krasnoyarsk region, which involves factorial and discriminant analysis of relevant data.

Keywords: factors, discriminant functions, tree-like hierarchy, aggregation, membership functions.

The global financial crisis and as a consequence the instability in financial markets have caused a drastic increase in the number of firms going out of business on the background of the overall economic downturn. In this context, an early recognition of pending problems is important for ensuring continuity of one's business. In connection to this there is a necessity to work out an effective model to assess the risk of bankruptcy, which would allow to predict potential distress situations in Russian companies. The purpose of the present work is to construct such a model of bankruptcy risk assessment for agricultural firms of Krasnoyarsk region.

The structure of the model consists of a number of consecutive steps:

Step 1. To select a set of significant financial ratios for further analysis, to define classes of financial condition, put together linguistic characteristics.

Step 2. To reduce the dimensionality of the selected set of factors by applying the method of principal component analysis and to construct factors hierarchy.

Step 3. To derive discriminant functions for the principal components having been identified in the second step mentioned above.