

# Farms' access to credit: economic and institutional analysis

Yastrebova O.K. , ECORIS-NEI

## 1. Problem definition and tested hypotheses

The improvement of farm sector's economic performance observed in recent years after a long-term recession of the 90's is quite an encouraging trend. However, sustainable growth is impossible without an inflow of investments and access of agricultural producers to financial resources. Meanwhile, despite repeated attempts of the government to create a mechanism of farm credit support, so far only a smaller part of agricultural enterprises uses credits. Over ten years of reforms in the farm sector showed that providing them access to financial capital is one of the most difficult tasks.

Various schemes of state support may to a greater or smaller degree infringe competitive environment on the financial markets, provide relatively equal or discriminating access to them for financial institutions and agricultural producers. So the problem is not only to stimulate both demand and supply on farm credit market but also to diminish its distortion caused by state support and regulation, to ensure fair competition between "suppliers" as well as "consumers" of credits and investments.

In the course of the study we analyzed factors that limit the access of farms to credit resources and investments, examined the causes of poor results of state policies targeted at the creation of credit mechanisms and offered recommendations for providing better access of farms to credits and investments.

The analysis was based on consecutive examination of factors forming the developed capital market from both the demand and supply sides. Credit markets in countries with developed agribusiness were used as a model. The tested hypotheses were:

- 1) At present there is no developed capital market in the Russian farm sector; the credit market is in general thin and sluggish and the market of leasing services can be characterized as a quasi-market.
- 2) The main cause of the market's underdevelopment from the demand side is insolvency of farms.
- 3) Underdevelopment of the market from the supply side is due to poor efficiency of mechanisms and imperfect institutions of state support.

In addition to hypotheses (1) and (2), we tested statistically hypotheses (suppositions) about correlation between:

- receiving of credits and efficiency of farms;
- access of farms to credits and their involvement in leasing;
- involvement in leasing and solvency of farms;
- state subsidizing of farms and their access to credits.

## 2. Theoretical background

The analysis of factors forming the credit market was based on the supposition that there should be *a balance between pre-conditions from the demand and supply side*. The credit supply pre-conditions are the domain of banking and other credit institutions while the demand pre-conditions – that of farms. All together they determine the farms' access to credit financing. An important investment opportunity can as well be provided by *leasing*

*of machinery and equipment*. Thus in addition to access to credits, the availability of leasing schemes for farms should also be regarded as a chance for getting investments.

The *demand* for credit depends on such factors as a) the need for investments or covering of seasonal shortage of circulating capital; b) solvency of demand for credit, i.e. the ability to pay back the principal debt and interest; c) availability of credit collateral or guarantee; d) positive credit history; e) possibility of risk insurance. The *supply* of credit (i.e. credit institutions) requires the following pre-requisites: a) legal protection of creditors; b) availability of credit resources; c) efficient mechanisms of averting risks; d) availability of broad credit network in rural areas; e) knowledge of farm sector specifics.

When all the above listed factors are available, the credit market is well-developed. In case some factors are lacking, the market is a poorly developed, “thin” one or a so-called “quasi-market”. Thin market is the one where financial transactions are rare and small-volume, demand is low and supply is limited. Quasi-market is the one where administrative institutions substitute for financial ones, state regulation – for the market one. On both thin and quasi-markets transaction costs are high while allocative efficiency of resource use is low.

All the above factors serve pre-conditions for investments as well. Poor development of credit market usually signifies low level of investments. But in case a sector is included into the system on inter-sector vertical cooperation and there is a steady solvent demand for output of down-stream sectors, investments will be made by the latter. If the primary production sector is insolvent, short-term investments may take the form of commodity credits, long-term – the form of absorption and purchase of primary sector enterprises’ assets by processors.

### **3. Methodology and sources of information**

The methodological basis of the research are foreign economists’ studies of developing markets including the credit market. In the course of the study we used the benchmark method, i.e. the comparison with relatively developed model, economic and statistical modeling, method of grouping, regression analysis, expert judgement method. The analysis of institutional conditions for credit market development was based on expert judgements.

For making the analysis we used official data of the RF Statistical Committee, studies of Russian and foreign economists, questioning of Russian and foreign experts on the examined issues, questioning of officials representing various credit, financial and leasing institutions (banks, leasing companies, RF Ministry of Agriculture, heads of agricultural departments in pilot and other regions).

## **4. Basic findings**

### **.4.1 Farms’ potential demand for credit**

Low level of investments, degradation of material and technical basis and technological backwardness of Russian farms is a well-known fact evidencing the investment hunger in the sector<sup>1</sup>. Still, the transformation of potential demand for investments into a real solvent demand requires certain financial conditions. Meanwhile, throughout the 90’s the financial

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<sup>1</sup> According to data of the RF Ministry of Agriculture, to do all the field works in optimal time in 2002 farms were short of 685 thousand tractors, 379 thousand ploughs, 165 thousand cultivators, 210 thousand seeders. The energy capacity of agricultural production in Russia equals 1.8 kW/ha, while in Japan it is 7.5 kW/ha, in the US – 7.1 kW/ha, in Europe – 3.5 kW/ha.

performance of farms was very poor. After 1995 the share of loss-making entities in agriculture varied from 80 to 40%. During the decade financial indicators of the farm sector were worse than those of economy at large and of industry in particular. The most urgent problem in agriculture is overdue creditor indebtedness being the key indicator of insolvency and thus the barrier to financial capital inflow.

The dynamics of macroeconomic financial indicators of large and medium farms in 1995-2002 demonstrates growth of overdue creditor indebtedness (that notably exceeds profits, investments and state product subsidies) and permanently low profit rate in the sector. Beginning from 2000 the situation improves especially as regards the ratio of receipts from marketing agricultural products to overdue creditor indebtedness: while in 1999 it was 1:1, in 2002 sales were almost twice larger than non-payments evidencing better financial capabilities to settle debts.

The government repeatedly attempts to solve the problem of overdue agricultural debts. The RF President Decree of 2003 envisages writing off of fines and penalties to the total amount of 57 billion rubles concerning 18 thousand farms. However, by the beginning of 2004 only 30% of eligible farms have filed respective applications. The most serious hindrance to the implementation of this debt restructuring program (similarly to the previous ones) is the requirement to regularly make current payments (taxes and payments to non-budget funds). Many farms cannot meet this requirement and thus get out of the scheme just as it was the case with earlier restructuring programs.

In general economic indicators of farms display the same trends as the national economy at large. However, worsening of their financial performance was much more grave than in other sectors while its improvement is not sufficient to overcome agriculture's lagging behind. The most critical among financial indicators is the level of overdue creditor indebtedness. This is an evidence that *as compared with other sectors agriculture remains the least attractive field for financial capital. So, despite the sector's need for investments solvent demand for credit resources is restricted by poor financial performance and insolvency of most farms.*

#### **.4.2 Supply of credits and other investment resources**

Due to the permanent overdue indebtedness of most farms and generally high level of risks in agriculture, most commercial banks are not interested to work in the farm sector. The government has worked out a program of agricultural credit support. The effective program enacted in 2001 envisages subsidizing of interest on short-term credits – the borrower gets compensation from the federal budget. Investment credit schemes for 3- and 5-year terms came into force in 2002 and 2003. The total amount of federal budget funds allocated to credit subsidies grew from 1.3 billion rubles in 2001 to 3.2 billion rubles in 2003 and 2004 (projections). These subsidies helped agriculture to get 38.8 billion rubles of credit resources in 2003 and the forecast for 2004 is 50 billion rubles.

The advantage of this model as compared with previous ones is the involvement of bank capital and development of competition between banks in the subsidized credits' segment. In 2003 291 banks participated in the program of credit subsidizing. However, 2 leading banks accounted for 70% of credit agreements: the Savings' Bank (Sberbank) – 56.05%, the Russian Agricultural Bank – 13.66%. The procedure of granting subsidies is rather bureaucratic with the central role played by the RF Ministry of Agriculture and respective regional and municipal bodies.

The basic financial requirement of the state when granting the investment credit subsidy is the applying farm's solvency. Commercial banks set their own requirements: in addition to

solvency they demand collateral. As a collateral they prefer livestock, liquid machinery, less frequently – output and real estate. The size of collateral is usually 1.3-2 fold above the size of demanded credit. Banks usually ask farms to submit business plans. The worse is the financial status and credit history of the borrower, the tougher are collateral terms. The available farms' collateral remains non-attractive for creditors: land being the basic collateral in many countries, in Russia cannot be mortgaged and in most regions does not have sufficient market value; agricultural machinery and fixed assets are usually quite obsolete and non-valuable thus presenting no interest for banks.

As a result the supply of medium-term investment credits (to get which a farm should have no overdue debts to the federal budget and non-budget funds) is available only to 2.6-3 thousand farms with relatively good financial performance and no overdue creditor indebtedness, or to 10-12% of their total number. In case of short-term credits (for which the solvency requirement is not so tough) the number of potential borrowers is bigger – about 6.5 thousand farms. Farms' limited access to credit resources is largely hindered by the lack of a truly functioning system of risk insurance. The government program of ensuring crop (under which 50% of the insurance fee is compensated from the state budget) embraces only about 5-6 thousand farms.

An alternative way of ensuring farms' access to investment resources is *financial leasing* that is also based on state support. The state leasing program is implemented through the open joint-stock company “Rosagroleasing” whose authorized capital is used for financing purchase of farm machinery and equipment and for leasing them out to farms through regional leasing companies. In 2001-2003 over 10 billion rubles were allocated to “Rosagroleasing” authorized capital from the federal budget. According to estimates of the RF Ministry of Agriculture, in 2002-first half of 2003 farms acquired about *one third* of machinery and equipment through the “Rosagroleasing” system. The company's major suppliers are Russian producers of farm machinery.

The advantage of leasing is its basing on income forecast, i.e. on business plan, instead of credit history. It provides access to investments for lessees that do not meet the requirements of commercial banks to potential borrowers. However, leasing is in all cases more costly than a bank loan. Leasing agreements are carried out through intermediaries each of whom gets its margin. Besides, for many farms the need to make an advance payment is a serious barrier for leasing expensive equipment. Moreover, as different from classical leasing schemes used in other countries where leased machinery serves a collateral, in Russia lessors require guarantees. This is due to both poor payment discipline and the lack of used machinery market greatly reducing the price of leased equipment in case of its taking out by the lesser. The basic drawbacks of the Russian mechanism of leasing support are the monopoly of one company (“Rosagroleasing”) that has actually monopolized agricultural leasing market subsidized by the government, and offering of only domestic machinery.

Both having the ultimate goal to ensure farms' access to investments, subsidized credit and subsidized leasing differ by the way of acquiring machinery into ownership. The free choice of machinery and crediting banks is an essential advantage of the effective credit scheme as compared with the one offered by “Rosagroleasing”.

At the end of 90's many regions–constituent members of the Russian Federation adopted their own programs of supporting investments in agriculture. In most cases they are similar to the federal programs of subsidized credits and leasing. Only few regions have worked out non-standard support programs that favour competition on the agricultural leasing

market and offer to lessees a wider range of equipment (both domestic and imported) and terms of leasing payments.

So, state programs of supporting farms' access to investment capital on the federal and regional levels help to enlarge supply of credit and leasing services to the farm sector making them available to solvent farms. Still, this system is fully based on state subsidies and thus inescapably distorts market mechanisms and discourages development of alternative forms of commercial financial institutions' involvement in the farm sector. Farms burdened with overdue creditor indebtedness (and these are most Russian farms) can get access to investments primarily only through incorporation into vertically integrated businesses.

#### **.4.3 Assessment of farms' access to credit in three pilot regions**

The examination of farms' finance sources in three pilot regions in 2001 showed that 82% of surveyed farms got state subsidies, 27% - commodity credits, 27% - bank credits, 19% - other loans, and only 17% used leasing. 104 farms received state subsidies from respective regional budgets, 103 – from the federal budget. Of the 33 farms that got bank loans, 21 benefited from subsidized credits.

Most loans were short-term. Commodity credit was primarily used for getting fuel. The total amount of bank and other loans averaged about 685 thousand rubles per farm. At the same time only 39 farms received 1.9 million credit rubles. 28 of the surveyed farms got other loans, most probably from input suppliers or processors, to the total amount of 1.5 million rubles.

In general, overdue creditor indebtedness to the state budget and non-budget funds accounts for actually one half of the farms' financial sources, and together with overdue debts to suppliers – for as much as 70%. Meanwhile, the share of real money received by the surveyed farms from banks (credit) and other companies (other loans) is only about 20%.

Information about farms' *debts* demonstrates that their principal creditors are budgets of different levels, non-budget funds and suppliers. Debts for electricity are large as well. Debts of farms to the federal budget are in general three fold larger than their debts to regional and local budgets. Penalties constitute a noticeable share (1/5) of the total debts. Only 37% of farms reported wage arrears (that exceeded debts to the budget and banks).

The examination of funds' use shows that they rather went to current assets than to paying of debts (2.05 million rubles per farm); when settling debts other creditors were paid first, the state – only after them. And only in the last turn funds were used for investments. Funds for paying debts (3.4 million rubles) almost equaled expenditures on fuel and fertilizers (3.9 million rubles). The share of investments in the surveyed farms is very small. They are primarily made in machinery and equipment (the average for 3 regions is 292 thousand rubles per farm; in Rostov oblast it's 390 thousand rubles per farm, in Nijegorodskaya oblast – 255 thousand rubles, in Ivanovo oblast - 151 thousand rubles per farm). Actually no buildings and facilities are built.

The *opinion* pole showed that only 18% of farms find the use of subsidized credit possible while 72% consider it absolutely unavailable. According to respondents' answers both in general and in each region, the key obstacle for getting credit is the *high rate of overdue indebtedness*. Then go high non-payment risk, a too short term of credit and the lack of collateral. The last named were such factors as the lack of nearby banks and non-sufficient information about credit (the sample's general with some small variations by regions).

The statistical analysis revealed that overdue creditor indebtedness is a hindrance to farms' access to credit. The efficiency factor as well as leasing of equipment raises their chances for getting it. The statistical assessment of correlation between credit and leasing proves that these financial instruments are mutually complementary. The method of grouping as well as regression analysis show that participation in leasing schemes statistically favours receiving of credit. This correlation is quite explicable given that both leasing and credit require collateral that can be provided by the same farms. More leased machinery and equipment is observed in farms with less overdue debts. So, *insolvency is also a hindrance to farms' participation in leasing programs*. At the same time regression analysis does not prove an impact of subsidies' factor. In other words, farms that get credits not always get subsidies.

The analysis proves that on the whole the situation in pilot regions (according to both objective data and personal opinion of poled farm administrators) fully conforms to statements made in the previous sections of the study and allows for the following *general conclusions*:

- Farms' overdue creditor indebtedness is a key factor limiting solvent demand for credit.
- The effective scheme of credit subsidizing largely extends supply of credit making farm sector more attractive for banks; for the first time since the start of reforms there is a competition between banks working on agricultural credit market.
- The supply of credit is limited by the size of funds allocated in federal and regional budgets to programs of subsidizing credit and insurance. It is also limited by the amount of bank credit resources, first of all the ones for investment credits.
- Underdevelopment of the insurance market constrains expansion of farms' demand for credit.
- The procedure of applying for subsidies is rather complicated and involves many administrative bodies, which makes it too long and, respectively, less accessible.
- Banks' competitors in the field of farm investments are up- and down-stream companies, first of all processors and agriholdings working under contracts. The impact of vertical coordination on farm credit supply and demand requires additional studying.
- Transaction costs can be rather high and non-transparent, especially in cases when several state agencies are involved.

## **5. Recommendations for economic policies**

- Development of fair competition on credit and leasing markets through involvement of more professional financial institutions may result in smaller cost and larger supply of capital.
- State subsidies play an essential role in supporting farm sector and ensuring a certain level of agricultural production. On the other hand, the gap between demand and supply should be increasingly reduced by commercial credits and leasing that can develop only in case of market environment and gradual shrinkage of government programs. The problem is that commercial financing requires farm sector to be financially healthy since commercial credits can be issued only to farms with solid financial "basement". No perceptible development of credit infrastructure in the farm sector in general and of leasing in particular is possible without constant and consistent

use of other economic policy tools (restructuring of farm debts, development of infrastructure and institutional basis).

- At present commercial banks in Russia “stick” to subsidies attempting to avert risks. The situation can improve if more banks participate in subsidized credit schemes thus raising competition and involving more primary producers. Bank credits to farms can be encouraged by mechanism of guarantees through guarantee funds. The concept of these funds is to give banks guarantees on credits issued to farms and to gradually lower their level so that the state will eventually withdraw from the credit market.
- One more option may be encouraging of credit cooperation, supporting of credit associations, etc.
- Alteration of commercial banks’ policies towards farm sector should be fostered. At present banks operating in agriculture avert risks by requiring large collaterals and working only with farms that get credit subsidies. Banks should be encouraged to take commercial risks and to develop skills of working with farms including assessment of management quality and business planning that could serve credit guarantees.
- There is actually no market of used (after capital repairs) farm machinery in the country. Its development will help to simplify re-sale of machinery returned from leasing, to lower lessers’ risks and respectively the cost of leasing.
- Improving of leasing scheme’s efficiency first of all requires liquidation of the market monopoly structure through working out of farms’ direct subsidizing mechanism.
- Agricultural leasing and subsidized credits involve administrative institutions on all the three levels: federal, regional and municipal. It makes both schemes not only expensive from the point of view of transaction costs but also very inconvenient for applying farms since the time for applications’ examination gets longer. The procedure should be noticeably simplified without losing control over the use of subsidies

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