"Macroeconomic conditions of interaction between financial sector and agribusiness"

AUTHORS	Anastasia Kasatova Dmitry Zakhmatov
ARTICLE INFO	Anastasia Kasatova and Dmitry Zakhmatov (2014). Macroeconomic conditions of interaction between financial sector and agribusiness. <i>Investment Management and Financial Innovations</i> , 11(4-si)
RELEASED ON	Friday, 28 November 2014
JOURNAL	"Investment Management and Financial Innovations"
FOUNDER	LLC "Consulting Publishing Company "Business Perspectives"



© The author(s) 2024. This publication is an open access article.



Anastasia Kasatova (Russia), Dmitry Zakhmatov (Russia)

Macroeconomic conditions of interaction between financial sector and agribusiness

Abstract

The article analyzes macroeconomic conditions of interaction between financial sector and agribusiness in Russia at the current stage. It studies the level of financing of agribusiness by means of soft-term crediting and subsidization of interest rates on credits. In the article the issue of possibility of reduction or abandonment of government support in relation to accession to the WTO and application of alternative methods of agribusiness financing without losses for financial sector is raised. Mechanism of securitization of credit assets can be a new method of agribusiness financing in Russia. Application of this mechanism will make it possible not only to promote quantitative and qualitative development of the agro-industrial sector, but also contribute to development of the financial sector, improve attractiveness of agriculture, particular regions and the country as a whole, for investment.

Keywords: financial sector, agro-industrial sector, stock market, soft-term crediting, subsidization of interest rate on credit, securitization of credit assets, accession to the WTO.

JEL Classification: G21.

Introduction

Direct financing and government support of Russian agribusiness in the current economical conditions are the key issues as far as a level of development of agriculture in many cases is determined by food safety of a state. With each passing year, financial sector of Russia is increasingly crediting agricultural enterprises by means of government supportive measures. Therefore, under the conditions of accession of Russia to the WTO development of directions, forms and mechanisms of interaction of the financial and the agro-industrial sectors of economy is highly relevant. After Russia's entry into the WTO agroindustrial enterprises, in the first place, experience difficulties with amounts, and terms and conditions of attraction of financial resources. Agricultural enterprises currently depend on support of the state (in the form of interest rate subsidies and soft-term crediting) and the financial sector. However, while crediting agro-industrial enterprises, the financial sector sustains losses as they could allocate these funds subject to more favorable terms and conditions. Moreover, subsidization of interest rate on credits and soft-term crediting pertain to measures of "yellow basket" and relate to obligations assumed.

The goal of the present study is 1) researching of macroeconomic conditions of interaction between financial sector and agribusiness in Russia; and 2) searching for additional ways of financing of agribusiness of Russia in conditions of cooperation with the WTO.

In order to study macroeconomic conditions of interaction between financial sector and agribusiness it is required to analyze the level of development of agribusiness sector and the amount of its financing using the following methods: comparison method, elimination method, abstract and logical method, economic and statistic methods. Calculation of the "grant element" integral indicator was also used.

1. Literature review

Bespahotny, G.V., Baryshnikov, N.G., Klyukach, V.A., Mercy, V.V., Poshkus, B.I., Sandhu, I.S., Sukhanova, I.F., Khayrullin, A.N., Hitskov, I.F. have studied problems of improving the state support of agriculture and its efficiency enhancing [9].

The next stage of this problem discussion came in connection with the entry of Russia into the World Trade Organization, where the state is forced not only to adjust items of expenditure and an amount of budget funds, but also to develop the ways of financing of agribusiness through the financial sector [7].

The situation is exacerbated by the fact that this economy sector exerts a negative influence on a range of factors. The most important of which are as follows: raw material orientation of agriculture, high dependence of agricultural production on natural-climatic conditions, low investment attractiveness of the industry, the disparity of prices for the products of industry and agriculture, the low level of development of the agro food market infrastructure, lack of state support for agricultural commodity producers compared to the developed market economies. It should be noted that the amount of state support will be decreasing according to the WTO conditions.

Many scholars, such as L. Brink, D. Orden, G. Datz, I.S. Shatilov, A.F. Chudnovsky, point to the fact that the conditions and rules of the WTO in every participating country are applied in different ways, depending on the level of agricultural development [2, 11].

Despite more negative than positive expert forecasts about the prospects of Russian agriculture after

 $\hbox{@}$ Anastasia Kasatova, Dmitry Zakhmatov, 2014.

accession to the WTO there is a number of opportunities aimed at not only to protect the domestic market, but also to support for domestic agricultural producers [6].

In the first instance, agribusiness is in need of financing. But the financial sector is not ready to credit it at a long date. Therefore, securitization of credit assets may become an innovative form of funding.

The securitization question has been raised not once in various articles and research papers, but the problem is that the securitization of loans for agribusiness is still open and in work. The role of the mentioned financial instrument is discussed widely by many authors.

For instance, the article by V.E. Krolitzkaya talks about financial moments and is dedicated to securitization questions of bank assets in general, it reveals the meaning of given source of financing and its role in banking improvement; the article suggests that banking laws should be rationalized with the help of creating federal agro-mortgage agency. M.V. Leonov also analyzes financial side of the problem and speaks about the securitization role in agro — mortgaging development [8]. Securitization is now viewed as a new type of financing due to its novelty, and the problems of

other innovative financing are discussed in works of H.P. Barr [1].

2. Macroeconomic analysis of interaction between financial sector and agribusiness

Current share of the agro-industrial sector in the global gross domestic product (hereinafter referred to as the GDP) amounts to 20-25%; herewith, number of enterprises engaged in agriculture amounts to 31%. In 2012 7.9% was engaged in Russian agriculture, and share of rural population amounts to 26% of total population. Share of agriculture in the Russian gross value added in 2012 came up to the crisis level of 2008 and amounted to 3.7%; herewith, in 2011 this indicator almost reached the level of crisis year (4.2%). This decrease is attributed to lean period in agriculture due to abnormal drought [13]. The year of 2012 became the third year after 2009 and 2010 when adverse weather conditions had negative effect on farming. In 2009 drought covered 16 regions of the country, in 2010, 43 regions, and in 2012, 20 regions in which the area of agricultural crop failure amounted to 5.5 mln ha, and 9,437 farming units sustained losses. It had a negative effect on the level of country self-sufficiency in principal food and agricultural products [13].

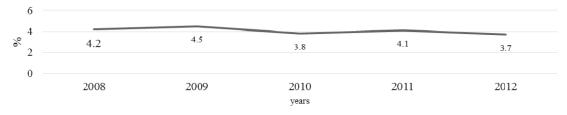


Fig. 1. Share of agriculture in the gross value added, % [13]

Herewith, output of agricultural products increases from year to year, and only in 2012 insignificant decrease in crop production by 15.5% is observed as compared to the previous year (Figure 2). Output of crop products decreased due to reduction in yield of the majority of crop plants and reduction of area under technical crops. Output of animal products increased by 9.2% as compared to the previous year due to livestock and poultry yield, and thanks to stabilization and expansion of their number. All in

all, in 2012 farming units of all categories produced agricultural products for the amount of 3,190.4 bln rubles which is by 2.2% less than the indicator of the previous year (3,261.7 bln rub.) [13].

Over 2012 production of grain (by 32.9%), sugar beet (by 5.5%), sunflower seeds (by 21.2%), and potato (by 10.8%) increased in crop production. Output of animal products decreased: meat – by 6%, milk – by 0.6%, and eggs – by 2.4% (Figure 3).

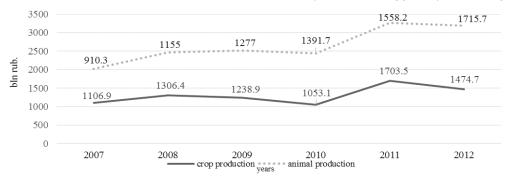


Fig. 2. Agricultural products in farming units of all categories, bln rub. [13]

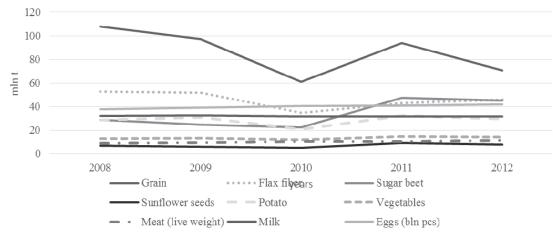


Fig. 3. Output of agricultural products in the Russian Federation, mln t [13]

On the whole, one may note that Russia is selfsufficient per all principal types of production resources. At the same time, Russia has to import significant amount of agricultural products, raw material and food, even of those types which it can produce in good supply both for domestic consumption and for sale in global food and agricultural markets (Figure 4).

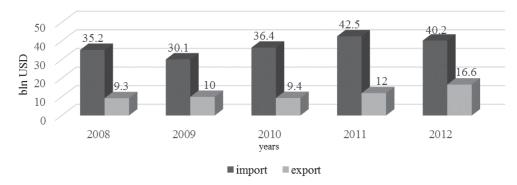


Fig. 4. Export and import of food products and agricultural raw materials for their production in the Russian Federation, bln USD [13]

Thus, in 2012 volume of import of food products and agricultural raw materials for their production amounted to USD40.2 bln, which is by USD2.3 bln less than in 2011. In import commodity pattern specific weight of food products and agricultural raw materials decreased by 1.9 percentage points as compared to the previous year and amounted to 12%. In 2012 export of agricultural products, raw materials and food amounted to USD16.6 bln [13]. It exceeds the indicator of 2008 by 78.5%. Growth in export leads to increase in aggregate demand for domestic agricultural products which, in its turn, has a positive effect on profit of agro-industrial enterprises.

Number of profit-making enterprises of the agroindustrial sector amounted to 79.7% in 2012 (Table 1). This indicator came up to the level of 2008 (78.1%). Average countrywide level of profitability exclusive of subsidies in Russia amounts to 5%, and only in 2008 and 2012 enterprises of the agro-industrial sector achieved positive dynamics [13]. In 2009-2011 the agriculture was loss-making without subsidies. Loss ratio varied from 0.4% to 5.4%.

With due account for subsidies level of profitability amounted to 8.3-11.8% against 25-35% required for expanded reproduction [13]. In 2012 aggregate level of profitability (inclusive of subsidies) amounted to 14.6% (exclusive of subsidies, 4.8%) which exceeds the indicator of 2011 by 2.8 percentage points. Production of animal products was profit-making in 61 constituent entities of the Russian Federation; in crops production this indicator equaled to 69. Herewith, level of profitability in production of animal products exceeded 15% in 50 regions of the country; in crop production this level was observed only in 11 regions.

As a result, low attractiveness of the industry for investment is preserved, and expansion of production is not ensured. Therefore, one of the problems resulting in negative trends in the agroindustrial sector relates to low earning power of agricultural enterprises. Thereby, agricultural enterprises have to borrow additional funds from lending institutions to upgrade their production facilities to improve efficiency and competitive ability of their products.

Table 1. Key economic indicators of financial and economic activity of agro-industrial enterprises [13]

Indicators	2008	2009	2010	2011	2012
Specific weight:					
- of profit-making businesses, %	78.1	72.1	71.0	78.2	79.7
- of loss-making businesses, %	21.7	27.9	29.0	21.8	20.3
Profit per profit-making business, ths. rub.	7,942	7,598	8,832	10,289	11,995
Losses per loss-making business, ths. rub.	5,078	6,314	8,693	8,061	6,522
Proceeds from sale of goods, products, work and services, bln rub.	887.8	970.0	1,090.3	1,258.5	1,381.7
Production cost from sale of goods, products, work and services, bln rub.	768.0	860.4	953.6	1,094.0	1,184.2
Budgetary subsidies from budgets of all levels, bln rub.		112.0	135.3	138.0	115.7
Profit (loss) before tax with due account for subsidies, bln rub.		83.6	82.2	134.0	172.6
Profit (loss) before tax without account for subsidies, bln rub.		-28.4	-53.1	-4.0	56.9
Level of profitability per all activities, inclusive of subsidies, %	14.8	9.4	8.3	11.8	14.6
Level of profitability (loss ratio) per all activities, exclusive of subsidies, %		-3.2	-5.4	-0.4	4.8
Level of profitability from sale of agricultural products, %					
- without subsidies		11.8	13.6	14.2	17.4
- with subsidies	no data	17.1	18.7	19.6	22.3

Moreover, not all enterprises of the agro-industrial sector are capable of being liable for their obligations to lending institutions. Share of overdue debt in the total size of indebtedness of agricultural enterprises in 2011-2012 increased twice as compared to 2008-2009, and amounted to 7.1%

(Table 2). The amount of overdue accounts payable of agro-industrial enterprises equaled to 125.2 bln rubles as of January 1, 2013, against 17.1 bln rubles as of the end of 2011, and 46.7 bln rubles as of the end of 2010. In 2009 this indicator equaled to 43.4 bln rubles, and in 2008 it amounted to 38.4 bln rubles [10].

Table 2. Overdue accounts payable of agricultural businesses, as of the end of year, bln rub. [10]

Indicators	2008	2009	2010	2011	2012
Accounts payable inclusive of credits and loans	1,148.5	1,314.5	1,483.5	1,717.5	1,763.0
Overdue accounts payable		43.4	46.7	17.1	125.2
Specific weight of overdue debt, %		3.3	3.1	1.0	7.1

Credits and loans are mainly granted by lending institutions to agro-industrial enterprises subject to soft terms. At the modern stage, interaction of the financial and the agro-industrial sectors is mainly implemented within the framework of the State Program for Development of Agriculture and Regulation of the Market of Agricultural Products, Raw Materials and Food through subsidization of interest rates on credits obtained by agricultural producers in lending institutions. Reimbursement of some charges for interest on credits obtained by enterprises of the agroindustrial sector in lending institutions makes credits more affordable for agricultural producers. Amount of received reimbursement is set as a percent to the refinancing rate of the Central Bank of Russia applicable as of the date of credit agreement. Financing is effected on account of subsidies granted from the federal budget to budgets of the constituent entities of the Russian Federation subject to the terms and conditions of obligatory financing.

All in all, over 2008-2012 336.9 bln rubles of subsidies were transferred to recipients from the federal and the regional budgets, including 282.26 bln rubles from the federal budget and 54.6 bln rubles from regional budgets. Amount of subsidies for investment and short-term credits (exclusive of subsidies for small farming units in villages) paid in 2012 from the federal and regional budgets equaled to 78.4 bln rubles. Amount of total subsidized investment and short-term credits with due account for carry-over debt on them in 2012 equaled to 1,432 bln rubles of which 808 bln rubles pertain to investment credits and 622.8 bln rubles, to short-term credits [13].

According to lending institutions, 288 bln rubles of short-term credits and 135 bln rubles of new investment credits are annually attracted in the agroindustrial sector subject to the terms of subsidization of interest rate (Table 3).

Table 3. Volume of contracted credits and loans subject to the terms of interest rate reimbursement [10]

Indicators	2008	2009	2010	2011	2012
Volume of contracted credits and loans – in total, bln rub.	372.7	411.9	480.0	483.3	366.2
including:					
short-term credits	224.2	299.2	334.5	328.8	252.2
investment credits	148.5	112.7	145.5	154.5	114

Table 3 (cont.). Volume of contracted credits and loans subject to the terms of interest rate reimbursement [10]

Indicators	2008	2009	2010	2011	2012
among them:					
credits for a period up to 8 years	86.2	80.1	108.5	108.4	76.4
credits for equipment and technological modernization for a period up to 10 years	62.6	32.6	37	46.1	37.6

Short-term credits are in the greatest demand due to inability of agro-industrial enterprises to fund seasonal work on account of own funds. Herewith, no pledge and depositing of a share of own funds is required as in case of investment credits, and interest rate with due account for subsidies from 2012 budget amounted to 4.6%. However, in 2012 decrease in amount of contracted short-term credits was observed. This decrease was, most likely, associated with reduction of the security base of enterprises of the agro-industrial sector having extended credits and with increase in subsidization pursuant to economically meaningful regional programs [13]. Furthermore, in 2012 significant decrease in investment credits occurred (by 26.2% as compared to the level of 2011). This decrease relates to the fact that not all enterprises of the agroindustrial sector could take an investment credit as it was necessary to prove paying capacity and to have the security base satisfactory to lending institutions [13]. In 2008-2012 level of profitability of agro-

industrial enterprises with due account for subsidies did not exceed 14.8%, while, according to calculations of Russian Agricultural Academy, level of profitability no less than 20% in case of zero inflation rate is a baseline for the expanded reproduction [13].

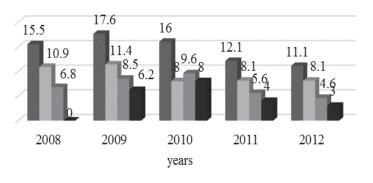
In 2012 the Central (355 bln rubles; 209 bln rubles) and the Volga (178.2 bln rubles; 185.8 bln rubles) Federal Districts account for the principal volume of investment and short-term credits. These districts are also primary producers of gross agricultural output (Table 4).

Enterprises of the agro-industrial sector generally cooperate with major lending institutions supported by the state, such as Rosselkhozbank, Sberbank of Russia, Vnesheconombank, Gazprombank, VTB. Therefore, principal volume of credit resources was represented by Sberbank of Russia and Rosselkhozbank. In 2012 share of credits granted by them in total volume of raised credit funds in the agribusiness amounted to 78.2%.

Table 4. Volume of subsidized credits per federal districts of the Russian Federation, 2012, bln rub. [13]

_	Volume of subsidized short-term credits, bln rub.	Volume of subsidized investment credits, bln rub.
Central	209	355
North-Western	44.1	76.7
Southern	74.9	54.5
North-Caucasian	20.6	29.3
Volga	185.8	178.2
Ural	31.2	39.7
Siberian	51.4	63.4
Far Eastern	5.8	11.2

Over 2011-2012 average weighted refinancing rate of the Central Bank of Russia remained at the level of 8.1%. It made it possible to create in 2012 favorable conditions in which with due account for subsidies from the federal budget in the amount of 80% of the refinancing rate of the Central Bank of Russia agricultural producers paid 4.6% per annum on newly drawn credits, and 3% per annum on credits providing for 100% reimbursement of refinancing rate that is less than the inflation rate (Figure 5) [10].



■ Average weighted interest rate on bank credits

- Average weighted refinancing rate of the Central Bank of the Russian Federation
- Average weighted interest rate with due account for minimum amount of subsidies from the federal budget
- Average weighted interest rate on credits with due account for minimum amount of subsidies from the federal budget (100%)

Fig. 5. Behavior of average weighted interest rates on bank credits, % [13]

3. Application of "grant-element" indicator

Low interest rates as compared to rates in the credit market provide the agro-industrial sector with material benefits in the form of subsidies. Herewith, in such conditions lending institutions suffer losses as they could allocate these funds subject to more favorable terms and conditions. Therefore, we consider it necessary to assess losses that lending institutions suffer due to subsidization of interest rates on credits. Contingent loss of lending institutions associated with a lower interest rate as compared to rates prevailing in the credit market is referred to as a "grant-element" [14].

The "grant-element" is an integral indicator in statistics used to compare terms and conditions under which various credits and loans are granted. Therein terms and conditions of a specific credit are compared per three parameters: period of credit, grace period and interest rate. As the grantelement compares deviation of cost of specific credit attraction from the average market cost, its values may be characterized both by positive and negative figures. Ranging values of the "grantelement" one can determine level of efficiency of terms and conditions of financial credit attraction in accordance with offers of certain commercial banks [14]. The "grant-element" is determined in two forms: as an absolute value and as a relative value [14].

The absolute "grant-element" is a difference of the nominal amount of loan and the current amount of payments for loan redemption calculated at the market rate. The rate prevailing in the market of long-term credits is generally used [14]. The absolute grant-element may be calculated as follows [14]:

$$W = D - G, (1)$$

where W stands for the absolute "grant-element"; D stands for the amount of loan; G stands for the current amount of payments for loan redemption calculated at the actual rate of the credit market.

The relative "grant-element" is a ratio of the absolute grant-element to the amount of loan [14]:

$$w = \frac{W}{D} = 1 - \frac{G}{D},\tag{2}$$

where w stands for the relative grant-element.

All variables specified in the given formulas are determined by the terms of lending and loan redemption.

Let us consider formulas for calculation of W and w given the principal amount and interest are paid as constant due payments. It is sufficient for analysis of consequences of soft-term lending.

Let us assume that the loan is granted for n years and provides for payment of interest at the preferential rate g. In the monetary market loans similar in terms of the period and the amount are granted at the rate i. In this case, in the absence of the grace period, due payment shall amount to [14]:

$$Y = \frac{D}{a_{n:g}},\tag{3}$$

Current amount of all payments of the debtor calculated at the market interest rate equals to $Ya_{n;g}$. As a result we get [14]:

$$W = D - Ya_{n;i} = D \left(1 - \frac{a_{n;i}}{a_{n;g}} \right), \tag{4}$$

$$W = D \left(1 - \frac{a_{n;i}}{a_{n;g}} \right), \tag{5}$$

where $a_{n;i}$ and $a_{n;g}$ stand for reduction factors for constant annular rents in arrears determined for interest rates i and g, i > g.

Let us evaluate amount of losses of lending institutions under conditions of interest rate subsidization for the agro-industrial sector in the period since 2008 till 2012. Relying on such data as average weighted interest rate on bank credits, average weighted interest rate with due account for minimum amount of subsidies from the federal budget, and volume of attracted credits and loans for a period up to 8 years, we calculated the relative and the absolute "grant-elements" (Table 5).

Table 5. Indicators for the indicator "grant element"

Period	Average weighted interest rate on bank credits	Average weighted interest rate with due account for minimum amount of subsidies from the federal budget	Volume of attracted credits and loans – total, bln rub.
2008	15.50%	6.80%	86.2
2009	17.60%	8.50%	80.1
2010	16%	8%	108.5
2011	12.10%	5.60%	108.4
2012	11.10%	4.60%	76.4

Calculations showed that for a period since 2008 till 2012 average losses from interest rate subsidization amount to 22.2 bln rubles (Table 6). Decrease

observed in 2012 is associated with reduction in volume of investment credits granted by lending institutions for a period up to 8 years.

Period	Reduction factor for constant annular rents in arrears determined for the market interest rate $a_{n,i}$	Reduction factor for constant annular rents in arrears determined for the preferential interest rate ang	Relative grant-element (w)	Absolute grant-element (W)
2008	4.41451253	6.01785728	0.26643117	22.9663667
2009	4.12861326	5.63918297	0.26787031	21.4564121
2010	4.3435909	5.74663894	0.24415107	26.4903911
2011	4.95033137	6.30930633	0.21539213	23.3485074
2012	5 12782217	6 56902176	0.21939333	16 7616507

Table 6. The figures obtained "grant-element"

In practice, losses of lending institutions from interest rate subsidization are compensated on account of funds of the federal or local budgets. Therefore, the financial sector does not sustain losses. However, granting credits at low interest rates for the agro-industrial sector, lending institutions increase credit risks which may result from unfavorable natural conditions, lean period, changes in level of support of the agro-industrial sector, etc.

4. Securitization of agricultural credits

The agro-industrial sector is a strategic industry of the Russian Federation that, in the first place, is responsible for provision of the country with food. Therefore, it is necessary to improve interaction between the financial and the agro-industrial sectors would measures that contribute development of these economic sectors without significant losses. The more so as due to accession to the WTO direct financing by the state of the agroindustrial sector will gradually decrease from USD 9 bln rubles in 2013 to USD 4.4 bln in 2018. Securitization of credit assets may become an innovative form of funding.

Securitization (from the English word "securities") is a form of fund raising through issue of securities backed by assets generating stable cash flows [5]. performing primary activity, lending institutions form credit portfolios that can be divided into consumer credit portfolios, mortgage portfolios, portfolios of leasing commercial property. From this point of view, it is disadvantageous for lending institutions to have high accounts receivables. Therefore, to improve liquidity, lending institutions withdraw the said assets from the balance and transfer them to a specially established company (special purpose vehicle, hereinafter referred to as the SPV) in the form of a range or pool of credits [5]. The special purpose vehicle issues securities backed by debts of clients under credits. The lending institutions sell these securities to various investment companies raising additional funds for development.

It is evident that the securitization scheme is aimed at gaining pecuniary benefits by lending institutions involved in this process. It is currently necessary to modify the securitization mechanism in such a way that its application would contribute to development and strengthening of competitive ability of the agroindustrial sector, and would not result in heavy losses of the financial sector.

Relying on the above analysis, it may be concluded that lending institutions engaged in crediting of the agro-industrial sector (Rosselkhozbank, Sberbank of Russia, Vnesheconombank, Gazprombank, VTB) have an unstinting support of the state. Therefore, their continuously growing assets and vast networks of representative offices make it possible for them to develop new affordable and efficiently operating financial instruments which can bring additional financial resources both to the lending institutions and to their clients and launch the same to the financial market [3]. It is possible to create such a financial product on the basis of securitization of credit assets.

Let us consider the suggested mechanism for securitization of credit assets with due account for involvement of the financial and the agro-industrial sectors (Figure 6). The lending institution withdraws the accumulated pool of agricultural credits from the balance and transfers it to the SPV. Then the SPV issues securities backed by credits and sells them in the stock market. The SPV transfers the proceeds to the disposal of the originating bank. Primary changes will concern investors and their relations with other parties involved in the process. Taking into account the transition period, as the state shall reduce actual support of the agro-industrial sector in the next several years, it is necessary to establish a special purpose investment company primary activity of which will be investment of funds into transactions relating to securitization of agricultural credits. Such a company may be established by distribution of shares between major Russian industrial companies or business representatives and government institutions (federal or regional) in such a proportion that would provide the state with an opportunity to have a blocking stake at its disposal [4]. The state may reduce taxes paid on proceeds from primary activity for the shareholders-business representatives, hence, additionally motivating potential participants. Thus, establishing such a company together with the state, investors obtain required guarantees and in a way insure risks of capital loss. The agro-industrial sector receives additional long-term funds for business development due to cheapening of financial resources. Herewith,

it will be possible to ensure securitization of both credits granted against pledge of agricultural lots and those granted without any security.

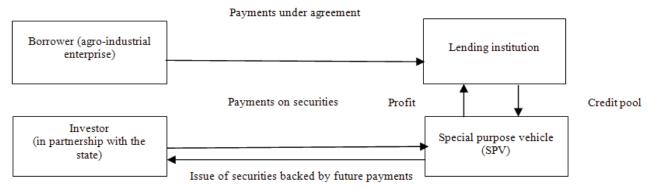


Fig. 6. Scheme of agricultural credit securitization [5]

The described process may become a promising form for building relations between the financial and the agro-industrial sectors as related to generation and distribution of financial resources without losses for the financial sector.

Conclusion

The performed macroeconomic analysis of conditions of interaction between the financial and the agroindustrial sectors showed that development of the agro-industrial sector depends not only on weather conditions, but also on financing and support of this industry by the state and the financial sector under conditions of accession to the WTO. This support is represented by subsidization of interest rates on credits. In future, this support will be reduced due to reduction in volumes of direct financing of the agroindustrial sector. It is currently disadvantageous for the financial sector to grant credits to the agroindustrial sector due to increased risks and losses that it sustains because of soft-term crediting. Herewith, the agro-industrial sector is a strategic industry that

cannot be left without financial support. Therefore, we suggest that the lending institutions should develop such a form of interaction as securitization of agricultural credits through special purpose investment companies controlled by the state. Application of this mechanism will make it possible not only to promote quantitative and qualitative development of the agroindustrial sector, but also contribute to development of the financial sector, improve attractiveness of agriculture, particular regions and the country as a whole, for investment. Furthermore, the suggested scheme will contribute to strengthening of the state influence on activity of enterprises of strategic importance. Scheme of interaction between the state, lending institutions and enterprises of the agroindustrial sector will significantly change with regard to efficient acquisition, distribution and use of both resources and the end product. It is important that it would be possible not to reduce but to increase volume of actual state support for the agro-industrial sector implicitly not violating obligations assumed within the framework of the WTO.

References

- 1. Bar, H.P. (2007). Securitization of Assets Moscow: Wolters Kluwer, 415 p.
- 2. Brink, L., Orden, D. & Datz, G. (2013). BRIC Agricultural Policies Through a WTO Lens, *Journal of Agricultural Economics*, 64 (1), pp. 197-216.
- 3. Vagizova, V.I., Lurie, K.M., Ivasiv, I.B. (2014). Clustering of Russian banks: business models of interaction of the banking sector and the real economy, *Problems and Perspectives in Management*, 1, pp. 72-82.
- 4. Vagizova, V.I., Klaas, J.A., Batorshina, A.F. (2013). Financial Stability Assessment of Regional Banking Sector under Modern Conditions by means of Operating Procedures of Its Determination, *Investment Management and Financial Innovations*, 3, pp. 112-120.
- 5. Egorov, A.A. (2013). Improvement of Financial and Economic, and Management Relations in the Agribusiness Using Securitization Mechanism, *Agrarny Vestnik Urala*, 3, pp. 65-67.
- 6. Erokhin, V.L., & Ivolga, A.G. (2012). Support for agriculture in the WTO system: upcoming trend for Russia, *The Bulletin of Novgorod State University named after Yaroslav the Wise*, 69, pp. 66-69.
- 7. Ktsoev, A.B. (2011). Alternative assessment of the effectiveness of state subsidies for agriculture in the Ural Federal District, *Agrarian Bulletin of the Urals*, 3 (82), pp. 103-105.
- 8. Leonov, M.V. (2009). Modeling of Effective Economical Mechanism of Pledge of Land of Agricultural Designation, Bulletin of Izhevsk State Technical University, 3, pp.96-98.

- 9. Nayanov, A.V. (2013). Differentiated assessment of efficiency of agricultural production as an element improving public support for agro-industrial complex (on the example of the Saratov region). PhD thesis in Economics. Saratov, Russia.
- 10. Official website of the Central Bank of Russia [Electronic resource] / Access mode: http://www.cbr.ru.
- 11. Poshkus, B.I. (2010). Negotiation of unfavorable conditions of production in the countries of the European Union, Agrarian Bulletin of the Urals, 1 (67), p. 11.
- 12. Rose, P.S. (1997). Banking Management: translation from English. M.: Delo, 429 p.
- 13. Federal State Statistics Service [Electronic resource] / Access mode: http://www.gks.ru.
- 14. Chetyrkin, E.M. (2000). Financial Mathematics. M.: Delo, pp. 196-200.