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ASSESSMENT OF THE FINANCIAL CONDITIONS OF AGRICULTURAL ORGANIZATIONS IN THE KURGAN REGION, RUSSIA

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ABSTRACT

Financial state is a phenomenon that is the result of the influence of a large number of factors determining the structure of capital, its movement, and the competitiveness of business entities. This paper describes a comprehensive study of the level of the financial condition of agricultural holdings in the Kurgan Region for 2016-2018; relative parameters of liquidity, financial stability, business activity, and return were used. Probability of bankruptcy was determined using scoring models developed by domestic (method developed by Russian scientists based on Altman method (1968, 1993), Irkutsk method (1998), method by Kolyshkin (2014) and Lys (1972), Gordon (1978)). The level of financial state of the organization by an indicator method was defined. Changes in basic directions of State support for producers of agricultural products in the Kurgan Region were examined, and the effectiveness of using budgetary funds was evaluated according to the methodology developed by the All-Russian Research Institute of Economics, Labor and Management in Agriculture.

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1. INTRODUCTION

Financial state of business entities, including Agro-Industrial Complex (AIC) organizations, is evident in their financial stability, solvency and business activity.

Financial state of agricultural enterprises is influenced by such factors as the level of depreciation of fixed assets, level of liquidity of assets, economy instability, industrial specialization of farms, level of return, share of borrowed funds, share of illiquid assets, and the system of managing production and marketing activities. These factors should be taken into account when assessing the financial condition of agricultural holdings (Neganova and Dudnik, 2019; Lerman, 2001).

In 2018, 925 agricultural enterprises (agriculture, forestry, hunting, fishing, and fish farming), 636 peasant (farms), and 178.7 thousand personal subsidiary farms of the population were functioning in the agro-industrial complex of the Kurgan Region. The Kurgan Region is the most important region of the Ural Federal District, since its share in Russia's total agricultural production is 0.8%, and the share of the Ural Federal District is 13.5%. The Kurgan Region specializes in the production of grain crops (1.9% of the Russian Federation), vegetables (1.4%), potatoes (1.0%), milk (1.1%). The share of these types of agricultural products in the corresponding volumes in the Ural Federal District is from 11 to 27% (Kayukov et al., 2019; Medvedeva et al., 2019).

Various parameters of the financial situation in economic entities are reflected in the many works e.g. Altman & Hotchkiss (1993).

2. METHOD

The methods were used in this research include statistical method was used in initial collection of quantitative data and revealing general patterns on financial condition of agricultural organizations in Kurgan oblast; comparison method was used in confronting base year economic parameters with previous year's ones; conclusions on economic trends were drawn out of it; coefficient research method allowed to identify financial proportions between various accounting articles.

3. PRACTICAL RELEVANCE, PROPOSALS AND IMPLEMENTATION RESULTS, EXPERIMENTAL RESEARCH RESULTS

Assessment of the financial state of agricultural organizations in the Kurgan Region was carried out using relative parameters, scoring models developed by domestic and foreign scientists; with indicator method, as well as the assessment of the effectiveness of agricultural enterprises taking into account using state support.

Let us evaluate the financial condition of agricultural organizations in the Kurgan Region using relative parameters of liquidity, financial stability, business activity, profitability (Table 1).

Table 1 was calculated according to the consolidated annual reports of agricultural organizations of the Kurgan Region.

Solvency of the agricultural organizations in the Kurgan Region increases, as evidenced by an increase in the current liquidity ratio by 0.05, in critical liquidity ratio by 0.1, and in the current liquidity ratio by 0.58. However, not all coefficients comply with regulatory restrictions what indicates the inability of agricultural enterprises of the Kurgan region to timely settle their obligations.

Financial stability of the agricultural farms of the Kurgan Region is declining what is confirmed by decreased financial autonomy ratio by 0.03, solvency ratio by 0.17, increased financial dependence ratio by 0.08, and financial leverage ratio by 0.08.

Business activity of the agricultural farms of the Kurgan Region is reduced, since the turnover

ratio of working capital decreased by 0.12, and the duration of one turnover increased by 39.21 days.

Efficiency of agricultural enterprises in the Kurgan Region is declining as evidenced by the reduction in all return parameters (except for the return on sales).

Table 1: Relative parameters characterizing the financial condition of agricultural organizations in the Kurgan Region

Parameter	Standard limitation	2016	2017	2018	Deviation 2018 from 2016, (+;-)
Liquidity parameters					
Total liquidity ratio	> 1	0.95	0.97	0.98	0.03
Current liquidity ratio	≥ 2	2.24	2.47	2.82	0.58
Critical liquidity ratio	> 0.8	0.63	0.61	0.73	0.1
Absolute liquidity ratio	> 0.2	0.16	0.12	0.21	0.05
Financial stability parameters					
Coefficient of financial autonomy	0.6-0.7	0.61	0.64	0.58	-0.03
Coefficient of financial dependence	0.5	1.64	1.56	1.72	0.08
Current debt ratio	0.1-0.2	0.25	0.22	0.19	-0.05
Long-term financial independence ratio	0.5	0.75	0.78	0.81	0.05
Solvency ratio	1	1.56	1.79	1.39	-0.17
Financial leverage ratio	1	0.64	0.56	0.72	0.08
Business activity parameters					
Working capital turnover ratio – total, times		1.12	1.05	1.00	-0.12
including stocks		1.58	1.41	1.36	-0.21
accounts receivable		5.30	5.25	5.47	0.17
financial investments and cash		16.19	21.12	13.42	-2.77
Working capital turnover period – total, days		324.46	348.91	363.67	39.21
including stocks		231.48	259.34	267.53	36.05
accounts receivable		68.87	69.53	66.74	-2.13
financial investments and cash		22.54	17.29	27.20	4.66
Profitability parameters, %					
Return on assets		10.73	8.87	8.76	-1.97
Return on equity		17.35	13.61	14.91	-2.43
Return on borrowed capital		25.94	24.32	21.86	-4.08
Production profitability		20.28	17.82	16.64	-3.64
Return on sales		16.40	15.14	16.64	0.25

To assess the risk of insolvency of the agricultural enterprises in the Kurgan Region, foreign and domestic bankruptcy probability models were used (Table 2).

Table 2 was calculated according to the consolidated annual reports of agricultural organizations of the Kurgan Region

Results of all models revealed that the risk of bankruptcy in the agricultural farms of the Kurgan Region is increasing every year. Altman's model (1993) indicates that in 2016-2017 households had possible risk of bankruptcy, and in 2018 the risk of bankruptcy was high. Lys and Gordon models (1972, 1978) showed that the risk of bankruptcy in the agricultural enterprises of the Kurgan Region is minimal.

Having estimated the probability of bankruptcy of the agricultural farms of the Kurgan Region, a high level of bankruptcy was defined by the model of domestic experts based on the Altman's model, and the probability of bankruptcy is low according to the Irkutskaya and Kolyshkin models (1998, 2014). High probability of bankruptcy was noted in the models where pre-tax profit was used for calculation due to its low value (Greene, 2003).

Table 2: Models for quantitative assessing the probability of bankruptcy developed by foreign and domestic experts.

Model		2016	2017	2018	
Models by foreign specialists					
E. Altman (1993)	parameter value	2.80	2.93	2.48	
	probability of bankruptcy	possible	possible	high	
R. Lys(1972)	parameter value	0.074	0.075	0.071	
	probability of bankruptcy	low	low	low	
L. Gordon (1978)	parameter value	1.436	1.338	1.356	
	probability of bankruptcy	low	low	low	
Models by domestic specialists					
Bankruptcy assessment methodology by Russian scientists based on the Altman model	parameter value	2.452	2.408	2.283	
	probability of bankruptcy	high	high	high	
Irkutskaya(1998)	parameter value	0.549	0.489	0.486	
	probability of bankruptcy	minimal	minimal	minimal	
A.V. Kolyshkin (2014)	Model No.1	parameter value	0.620	0.745	0.783
		probability of bankruptcy	low	low	low
	Model No.2	parameter value	1.405	1.541	1.753
		probability of bankruptcy	low	low	low
	Model No.3	parameter value	1.369	1.534	1.719
		probability of bankruptcy	low	low	low

Let us evaluate the financial condition of agricultural organizations in the Kurgan Region using an indicator method which is optimal, as it is based on a comprehensive assessment of the organization's financial activity, eliminates conditions and subjectivity by establishing clear assessment criteria (Roznina and Karpova, 2019). Integrated method includes seven groups that comprehensively characterize the activities of agricultural farms in the Kurgan Region (Tables 3-9). For each parameter, a standard value was set which was used for bringing parameters into a comparable form by calculating the degree of relative deviation of the actual parameter from the standard

If the optimization of parameter tends to increase,

$$x = \frac{a_i}{a_i^n}, \quad (1).$$

If the optimization of parameter tends to decrease,

$$x = \frac{a_i^n}{a_i} \quad (2).$$

where a_i is actual value of parameter;

a_i^n is standard value of parameter.

Aggregate index for each group was defined by the summation of specified parameters and comparison with the standard which is equal to the number of parameters used for assessing the financial activities of organizations in each group (Roznina and Karpova, 2019b). Parameters of the property status of agricultural enterprises of the Kurgan Region are shown in Table 3.

Table 3: Calculation of the aggregate index of property status

Parameter	Actual value of parameter			Standard	Given value of parameter		
	2016	2017	2018		2016	2017	2018
The share of current assets in the property of organization	0.55	0.55	0.55	0.4-0.5	1.37	1.38	1,37
The share of accounts receivable in the property of organization	0.12	0.11	0.10	0.20	0.58	0.55	0,50
Mobile assets ratio	1.22	1.23	1.21	0.67-1	1.82	1.83	0,55
Organization property growth rate	1.06	1.09	1.25	1.10	0.97	0.99	1,13
Aggregate index of property status	Standard			-	4	4	4
	actual			-	4.75	4.75	3.56

In 2016-2017, there was an excess of the actual value of aggregate index of the property status of agricultural organizations in the Kurgan Region, and in 2018 the value of this parameter is lower than the standard one (due to a decrease in asset mobility).

Calculation of total solvency and liquidity of agricultural farms in the Kurgan Region is shown in Table 4.

Table 4: Calculation of total solvency and liquidity

Parameter	Actual value of parameter			Standard	Given value of parameter		
	2016	2017	2018		2016	2017	2018
Absolute liquidity ratio	0.16	0.12	0.21	0.2-0.3	0.78	1,63	1,05
Adjusted liquidity ratio	1.83	2.01	2.32	0.7-0.8	2.61	2,87	3,32
Total liquidity ratio	0.95	0.97	0.98	1.5-2.5	0.63	0,65	0,65
Own solvency ratio	0.55	0.60	0.65	0.5	0.93	1,19	1,29
Aggregate liquidity and solvency ratio	standard			-	4	4	4
	actual			-	4.95	6.35	6.32

In 2016-2018, an excess of the aggregate liquidity and solvency ratio over the standard value in agricultural farms of the Kurgan Region was noted.

Calculation of the aggregate index of financial stability of agricultural enterprises of the Kurgan Region is shown in Table 5.

Table 5: Calculation of the aggregate index of financial stability.

Parameter	Actual value of parameter			Standard	Given value of parameter		
	2016	2017	2018		2016	2017	2018
Maneuverability of working capital	0.26	0.30	0.22	0.3	0.87	1.00	1,35
Growth rate of own working capital	1.12	1.18	1.34	1.1	1.02	1.07	1,22
Ratio of the provision of current assets with own working capital	0.29	0.35	0.24	0.2	1.44	1.74	0,85
Maneuverability of equity	0.71	0.74	0.74	0.2	3.57	3.72	0,27
Aggregate index	standard			-	4	4	4
	actual			-	6.90	7.53	3.69

Financial stability of the agricultural farms of the Kurgan Region during analyzed period was reduced, since the aggregate index of financial stability decreased by 3.21, and in 2018 was below standard value. Table 6 shows the calculation of the aggregate index of equity to total assets.

Table 6: Calculation of the aggregate index of equity to total assets

Parameter	Actual value of parameter			Standard	Given value of parameter		
	2016	2017	2018		2016	2017	2018
Equity to total assets ratio	0.61	0.64	0.58	0.5	1.22	1.28	0,86
Financing ratio	1.56	1.79	1.39	1	1.56	1.79	0,72
Ration of concentration of stable financing sources	0.75	0.78	0.81	0.85	0.89	0.91	0,95
Aggregate index of equity to total assets	standard			-	3	3	3
	actual				3.66	3.98	2.53

The aggregate index of equity to total assets of agricultural farms in the Kurgan Region during analyzed period decreased by 1.13 and amounted to 2.53 in 2018, what is below the regulatory limit. Calculation of the aggregate index of business activity of agricultural organizations of the Kurgan Region is shown in Table 7.

Table 7: Calculation of the aggregate index of business activity

Parameter	Actual value of parameter			Standard	Given value of parameter		
	2016	2017	2018		2016	2017	2018
Asset turnover ratio	0.62	0.58	0.55	1	0.62	0.58	0.55
Current assets turnover ratio	1.12	1.05	1.00	2	0.56	0.52	0.50
Inventory turnover ratio	1.58	1.41	1.36	4	0.39	0.35	0.34
Accounts receivable turnover ratio	5.30	5.25	5.47	12	0.44	0.44	0.46
Equity turnover ratio	1.02	0.90	0.95	2	0.51	0.45	0.47
Accounts payable turnover ratio	5.09	4.79	5.16	12	0.42	0.40	0.43
Production cycle duration	303.24	335.54	338.29	60	0.20	0.18	0.18
Financial cycle duration	300.35	328.87	334.27	45	0.15	0.14	0.13
Total business activity	standard			-	8	8	8
	actual				3.30	3.05	3.06

The aggregate index of business activity during analyzed period decreased by 0.23 and amounted to 3.06 in 2018 what is lower than the normative value and indicates a decrease in the level of business activity of agricultural organizations in the Kurgan Region.

Calculation of the aggregate index of return of agricultural organizations of the Kurgan Region is shown in Table 8.

Table 8: Calculation of the aggregate index of return (Sokolova et al., 2019)

Parameter	Actual value of parameter			Standard	Given value of parameter		
	2016	2017	2018		2016	2017	2018
Return on equity							
Return on total capital	0.11	0.09	0.09	0.07	1.53	1.27	1.25
Return on equity	0.17	0.14	0.15	0.1	1.73	1.36	1.49
Return on current assets	0.19	0.16	0.16	0.1	1.92	1.58	1.58
Return on sales							
Gross margin of sales	0.19	0.18	0.19	0.2	0.96	0.90	0.97
Operating return on sales	0.16	0.15	0.17	0.1	1.64	1.51	1.66
Net return on sales	0.17	0.15	0.16	0.05	3.41	3.02	3.15
Total return on investment	standard			-	6	6	6
	actual				11.20	9.65	10.11

The activity of agricultural organizations in the Kurgan Region is effective, since the aggregate index of return in 2016-2018 exceeds the standard value but has a trend to decline.

Calculation of the aggregate index of cash flow of agricultural organizations of the Kurgan Region is shown in Table 9.

Table 9: Calculation of total cash flow

Parameter	Actual value of parameter			Standard	Given value of parameter		
	2016	2017	2018		2016	2017	2018
Cash flow growth rate	1.02	1.03	1.36	1.1	0.93	0.94	1.24
Cash payments growth rate	1.11	1.02	0.59	1.05	1.06	0.97	0.57
Ratio of incoming receivables and payments	0.99	1.00	2.30	1.05	0.94	0.96	2.19
Net cash flow from operating activities	0.15	0.14	0.14	0.075	2.04	1.88	1.90
Operating profitability of cash flows from operating activities	0.15	0.14	0.15	0.1	1.47	1.41	1.51
Net return on total cash flows	0.12	0.11	0.10	0.05	2.46	2.14	1.95
Total cash flow	standard			-	6	6	6
	actual				8.90	8.31	9.36

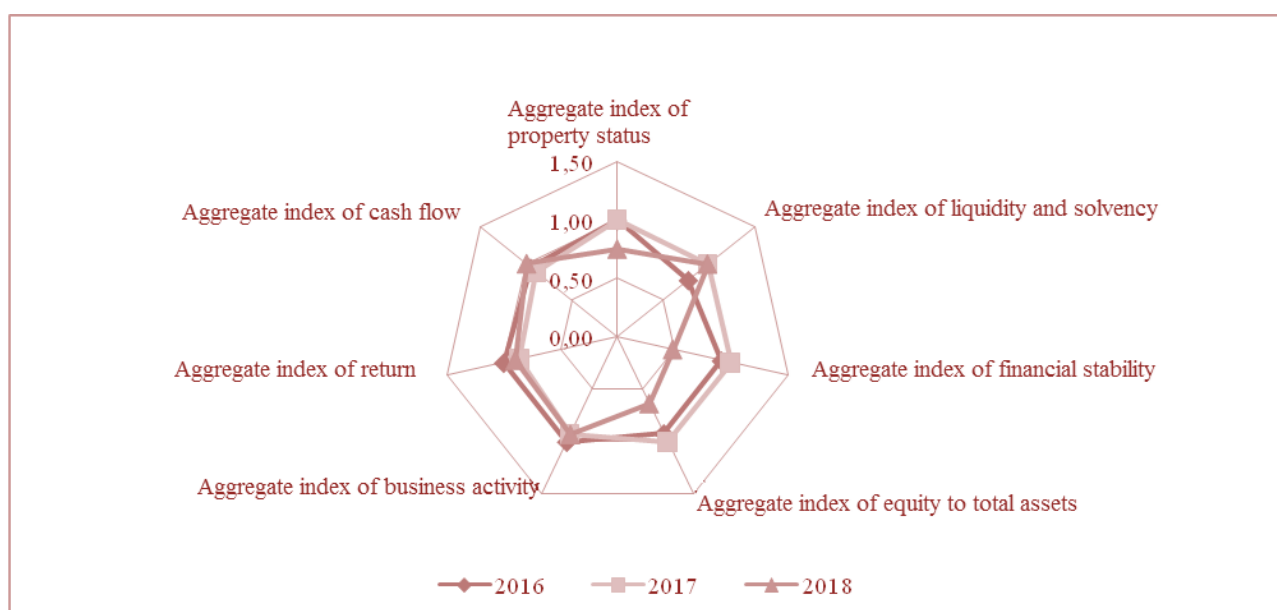
Total cash flow index of agricultural organizations in the Kurgan Region exceeds the normative value during analyzed period. Its value for the analyzed period increased by 0.46 and reached the level of 9.36 in 2018.

To calculate the aggregate index of the financial state of the organization by the indicator method, it is necessary to summarize the aggregate indices of seven groups calculated in Tables 3-9.

Let us calculate the parameters for constructing the polygon of financial state of agricultural organizations in Table 10. For creating a multidimensional polygon, we will transfer all the parameters specified to values from 0 to 1. For this, let us select the maximum value in each row and divide each position in the row by the maximum value in this row.

Table 10: Calculation of parameters for the creation of polygon of financial condition

Aggregate index	Parameter value			Maximal value	Given value of parameter		
	2016	2017	2018		2016	2017	2018
Property condition	4.75	4.75	3.56	4.75	1.00	1.00	0.75
Liquidity and solvency	4.95	6.35	6.32	6.35	0.78	1.00	1.00
Business solvency	6.90	7.53	3.69	7.53	0.92	1.00	0.49
Equity to total assets	3.66	3.98	2.53	3.98	0.92	1.00	0.64
Business activity	3.30	3.05	3.06	3.30	1.00	0.93	0.93
Return	11.20	9.65	10.11	11.20	1.00	0.86	0.90
Cash flow	8.90	8.31	9.36	9.36	0.95	0.89	1.00
Integral index of financial state	43.66	43.62	38.62	-	6.57	6.68	5.70

**Figure 1:** Polygon of financial condition.

Integrated index of the financial state of agricultural organizations in the Kurgan Region for 2016-2018 decreased by 5.04 and amounted to 38.62 in 2018 what is higher than the standard value of 35.

To clearly reflect the financial state of agricultural organizations in the Kurgan Region for 2016-2018, we will use graphical assessment method which includes constructing a polygon of financial security (Figure 1).

To determine the accuracy of result, we calculated the area of the financial security polygon for each year (formula 4).

$$S = 1/2 * \sin * 360 / n * (k_1 * k_2 + k_2 * k_3 + k_3 * k_4 + \dots + k_{n-1} * k_n + k_n * k_1), \quad (3)$$

where S - is the polygon area for a particular enterprise;

n is the number of aggregate indices;

k is aggregate indices of groups.

$$S_{2016} = 1/2 * \sin (360 / 7) * (1 * 0.78 + 0.78 * 0.92 + 0.92 * 0.92 + 0.92 * 1 + 1 * 1 + 1 * 0.95) = 5.21.$$

$$S_{2017} = 1/2 * \sin (360 / 7) * (1 * 1 + 1 * 1 + 1 * 1 + 1 * 0.93 + 0.93 * 0.86 + 0.86 * 0.89) = 5.49.$$

$$S_{2018} = 1/2 * \sin (360 / 7) * (0.75 * 1 + 1 * 0.49 + 0.4 * 0.64 + 0.64 * 0.93 + 0.93 * 0.90 + 0.90 * 1) = 3.88.$$

Calculated areas confirmed the result of indicator method, i.e. the level of financial state during analyzed period was decreasing, and the highest one was observed in 2017 (Petrov and Frolova, 2013; Mukhina, 2007).

For subsidized agricultural regions, such as the Kurgan Region, state support of agricultural producers plays an important role. An important task of “Development of the agro-industrial complex in the Kurgan region” state program is to increase the level of financial stability of agro-industrial complex (Table 11) (Medvedeva et al., 2018; Davydova, & Franks, 2006).

Table 11: State support for agricultural producers of the Kurgan Region (specified), thousand RUR

Parameter	2016	2017	2018	Deviation 2018 from 2016, (+;-)
Total amount to support agricultural producers	607,504	382,116	444,684	-162,820
including subsidies to support targets for the implementation of regional development programs in AIC	445,707	66,249	95,709	-349,998
- to support program activities in the field of crop production	287,114	21,691	27,225	-259,889
- to support program activities for livestock breeding	158,593	18,062	59,281	-99,312
- to support short-term loans in AIC	-	26,496	9,203	9,203
subsidies for the provision of unrelated support in the field of crop production and production of seed potatoes, seeds of vegetables in open ground	-	179,833	249,961	249,961
subsidies for increasing productivity of dairy farming	-	73,909	64,354	64,354
subsidies for partial reimbursement of the interest rate on investment loans in the agricultural sector	161,797	29,210	10,019	-151,778
subsidies for partial reimbursement of direct costs accrued for the creation and modernization of agricultural facilities	-	-	4,019	4,019
subsidies under the directions approved by the Ministry of Agriculture of Russia	-	8,688	13,448	13,448
other subsidies	-	24,227	7,174	7,174

Table 11 was calculated according to the consolidated annual reports of agricultural organizations of the Kurgan Region. Support of agricultural enterprises of the Kurgan Region decreased during the analyzed period by 162,820 thousand RUR; this was due to a reduction in

subsidies for supporting program activities in the field of crop production and animal husbandry by 259,889 thousand RUR and 99,312 thousand RUR, respectively, and of subsidies for partial reimbursement of the interest rate on investment loans in the agricultural sector – for 151,778 thousand RUR (Podgorbunskykh et al., 2008).

Let us define the effectiveness of using budgetary funds with the method developed by scientists of the All-Russian Research Institute of Economics, Labor and Management in Agriculture based on the ratio of the total support to its financial result (Table 12).

Table 12: Efficiency of using budget funds by agricultural enterprises of the Kurgan Region

Parameter	2016	2017	2018	Deviation 2018 from 2016, (+;-)
Volume of state support, thousand RUR (VSS)	607,504	382,116	444,684	-162,820
Commodity production - total, thousand RUR (CP)	10,146,983	3,672,729	4,282,649	-5,864,334
including plant growing	6,838,936	1,874,522	2,542,113	-4,296,823
animal husbandry	3,308,047	1,798,207	1,740,536	-1,567,511
Costs for the production of marketable product – total, thousand RUR (CPMP)	8,249,749	3,277,119	3,884,931	-4,364,818
including plant growing	5,080,080	1,593,213	2,202,328	-2,877,752
animal husbandry	3,169,669	1,683,906	1,682,603	-1,487,066
Financial result of support (FRS = (CP*VSS)/CPMP)	747,214.58	428,244.60	490,208.32	-257,006.27
Effect of state support (ESS = FRP/OP)	1.23	1.12	1.10	-0.13

Table 12 was calculated according to the consolidated annual reports of agricultural organizations of the Kurgan Region

The coefficient of state support for agricultural enterprises in the Kurgan Region during analyzed period decreased by 0.13 what was caused by faster reduction of commodity production (by 57.79%) in comparison to a decrease in the volume of state support (26.80%).

Next, let us evaluate the economic efficiency of the agricultural organizations of the Kurgan Region taking into account using state support according to the method developed by S.Yu. Petrova and O.A. Frolova (Table 13).

Table 13: Assessment of the economic efficiency of agricultural organizations in the Kurgan Region taking into account using state support

Parameter	2016	2017	2018	Deviation 2018 from 2016, (+;-)
Profit from agricultural products for the current year (P_{cy}), thousand RUR	1,756,377	1,584,744	1,961,495	205,118
Profit from agricultural products for the past year (P_{py}), thousand RUR	1,992,112	1,756,377	1,584,744	-407,368
Financing from budgets in the current year (F_{cy}), thousand RUR	607,504	382,116	444,684	-162,820
Aggregated index of state support (AISS = $P_{py} + P_{cy}$), thousand RUR	2,599,616	2,138,493	2,029,428	-570,188
Ration of efficiency of agricultural organizations taking into account state support, ($REA = P_{cy}/(P_{py} + F_{cy})$ or $C_{eff} = P_{cy}/AISS$)	0.68	0.74	0.97	0.29

Petrova and Frolova (2013) proposed the following effectiveness evaluation system depending on the purpose of the efficiency coefficient of agricultural organizations:

- $EC \leq 0.3$ – inefficient work of agricultural organizations;
- $0.3 < EC \leq 0.6$ – inefficient work of agricultural organizations;

- $0.6 < EC \leq 0.9$ – medium efficiency of the work of agricultural organizations;
- $EC > 0.9$ – high efficiency of work of agricultural organizations.

Using this assessment system, we can conclude that in 2016-2017, the work of agricultural farms in the Kurgan Region, taking into account using state support, was of medium efficiency, and in 2018 – of high efficiency (Shulgina, 2010; Shestakov and Lovchikova 2019; Prokhorova et al., 2019).

In order to increase the level of financial state and the efficiency of the agricultural enterprises of the Kurgan Region, it is necessary to increase their state support from the state budget, to create required infrastructure in villages, to provide income insurance in villages, to create subsidiary industries for processing of manufactured products on the basis of agricultural organizations, etc (Roznina and Poverinova, 2014; Khoruzhiy et al., 2008; Semin, 2006).

4. CONCLUSION

Performed studies allow concluding that the financial state of agricultural organizations in the Kurgan Region is declined what is confirmed by the following revealed threats:

- there is a threat of liquidity loss, since the balance sheet of organization in 2016-2018 was illiquid. The most liquid assets (A1) do not cover the most urgent liabilities (P1), i.e. agricultural organizations of the Kurgan Region are not able to repay the current debt of creditors. Relative parameters characterizing liquidity and balance sheet structure during analyzed period do not comply with regulatory restrictions (except for the current liquidity ratio and the current assets provision ratio with own funds), but they have a trend to growth;

- there is no threat of loss of financial autonomy of agricultural organizations of the Kurgan Region, as evidenced by the coefficient of autonomy. Agrarian farms of the Kurgan Region are not dependent on borrowed sources. The required value of autonomy coefficient is 50%, and its value in 2016 was 61%, 2017 64% and 2018 58%. This means that in the long term prospects, all obligations can be covered by own funds;

- there is a threat of increasing debt. Accounts receivable for the analyzed period increased by 335,865 thousand RUR and amounted to 2,276,629 thousand RUR in 2018;

- there is no threat of using an ineffective credit policy regarding receivables and payables. A positive factor is when the payables turnover is slightly lower than the receivables turnover, that is, the value is slightly more than 1. In the agricultural organizations of Kurgan Region, the ratio of the receivables turnover to the payables turnover amounted to 1.04 in 2016, 1.10 in 2017, 1.06 in 2018.

- there is a threat of insolvency. Cash sufficiency ratio of business entities shows the ratio of cash to current liabilities. This ratio characterizes the amount of cash for paying for current liabilities. The value of this parameter was: in 2016 – 0.05, in 2017 – 0.07, in 2018 – 0.10.

- increased risk of bankruptcy.

The effectiveness of state support in agricultural organizations of the Kurgan Region is reduced, since in 2018, organizations received and sold products less by 0.13 RUR for 1 RUR of government support (Khoruzhiy, 2008; Neganova, 2019). However, the efficiency of agricultural organizations taking into account using state support is increasing, and in 2018 they were highly effective.

5. AVAILABILITY OF DATA AND MATERIAL

Information can be made available by contacting the corresponding author.

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