RISK MANAGEMENT ON GRAIN MARKET: PROBLEMS AND DECISIONS

RIZIKOVÝ MANAGEMENT TRHU S OBILOVINAMI: PROBLÉMY A ROZHODNUTÍ

Vladimir Trukhachev, Irina Lyakisheva

Abstract:
The paper addresses the issue of risk management in the case of grain market. The paper considers the risk management in Stavropol region from the point of view of several factors (e.g.. basic economic indicators in grain production, dynamics of economical effectiveness of grain sales, expense and income correlation between the grain producers and the intermediaries by the grain sale for the international market). The paper shows the importance of the risk management for the Stavropol region agriculture and its sustainable development.

Keywords:
Risk management, grain market, Stavropol region

Anotace:
Článek se zabývá otazkami rizikového managementu v případě trhu s obilovinami. AAutoři se berou v úvahu rizikový management Stavroploského regionu z hlediska různých faktorů (např. Základní ekonomické indikátory ve výrobě obilovin, dynamika ekonomické efektivnosti prodeje obilovin, korelace výdajů a přímů mezi výrobci obilovin a zprostředkovateli prodeje obilovin na mezinárodním trhu). Příspěvek ukazuje význam rizikového managementu pro zemědělství Stavropolského regionu a jeho udržitelný rozvoj.

Klíčová slova:
Rizikový management, trh s obilovinami, Stavropolský region

INTRODUCTION

Grain market functions in such conditions, when it is influenced by a complete range of factors of external and internal environment. These factors, as is well known, can negatively influence market stability, leading to definite losses.

The event or the group of events, doing a damage to any object, may be described as risks. The economical risk is specifying in agriculture. So the risk of plant growing is determined not only typical circumstances for any branch of economy, but also special branching reasons. Risks, the grain market participants can face, may be divided on two large groups: net or speculative. The criterion of such division is potential result.

OBJECTIVES AND METHODS

In our opinion, the consideration of managerial risks is one of the most interesting issues in the farm management. It is clear that management and risk are interfacing components of entrepreneurial activity. Risk can be managed – to use different measures, allowing in definite level to predict the risk event attachment and to hold the risk reduction arrangements.

The risk-managers do not manufacture production directly, but they are a composite part of production staff, because they implement a certain organizational activity connecting with good producing, maintaining its quality and providing the production infrastructure.

The analysis of all current risks is carried out in process of risk-management organization. It includes two directions of activity: identification of risk causes and their evaluation. The determinative moment of this stage is information gathering, showing up and systematization of causes by the nature of danger. The amount of information must be enough in order to take adequate decisions on following stages. We should noticed, in Russia we do not pay enough attention to up-to-date ways of gathering, processing, transfer and maintenance of information, which is necessary to take an effective managerial decision, directed to eliminate any potential risk. Thus, the content of this part of risk-management organization is analysis of indexes, introduced in database tables 1-4.

RESULTS AND DISCUSION

Stavropol region is especially interesting in such case: it is a region-exporter, one of the largest grain production suppliers. If we consider the production level, we can say that the grain-producing rate of using in our region is about 73-75%.

TABLE 1.

The dynamics of basic economic indicators of grain production in Stavropol region.

Year	Sown areas, thousands ha	Gross yield, thousands t	Sales, thousands t	Cost, rub/center	Profitability,%
1996	1674.3	3389.9	1888.9	32	62.8
2002	1997.4	6294.3	3873.9	99.8	54.7
2002 to 1996, %	119.3	185.7	2.05	In 3.1 times	87.1

From the table 1, the sown areas index, gross yield index, volume of sales increased in current period. However, on analysis we can see the production cost growth, moreover its dynamics outruns growth rate of volume of production and sales. It influenced on grain production profitability. In current period this index was steadily reducing.

Table's data show that the main attention in Stavropol region was paid to grain crops producing. The explanation of such situation is the importance of grain sub-branch in regional plant growing. Evaluating risk problems, permanent growth of sown areas is a negative tendency, which leads to the increasing producers' dependence of from market conditions and from grain production conditions.

It is necessary to learn sales process of produced grain to evaluate its effectiveness and current risk factors.

For any producer the main condition for successful activity is stable outlet. The grain producing peculiarity is government purchases. Thereby, authorities supported agricultural producers, financing them. On the other hand, since then grain market was collapsed. The grain producers were out off grain market; they didn't take part in processing and export of production.

The main feature of export-import transactions in Stavropol region is geographical distance from river- and seaports. It leads to large transportation expenses. Stavropol grain exporters oblige to deal with countries of Near East and North Africa (Iran, Morocco).

On objective analysis of sales process it is necessary to learn three market levels: local, interregional and international. The analysis of cost-effective indexes of grain export is introduced in the Table 2.

Table 2. The dynamics of economical effectiveness of grain sales on different market levels.

Years	The cost of 1 grain center, rub/center	Operation income for 1 grain center, rub	Profit for 1 grain center, rub	Profitability,%
Local market				
1997	43	60	17	39.5
1998	45	48	3	6.7
1999	66	118	52	78.8
2000	95	165	70	73.7
2001	107	167	60	56.1
Interregional market				
1997	41	67	26	63.4
1998	42	55	13	30.9
1999	60	149	89	148.3
2000	88	208	120	136.4
2001	96	219	123	128.1
International market				
1997	47	96	49	104.2
1998	51	43	-8	-15.7
1999	76	231	155	203.9
2000	108	325	21.7	200.9
2001	114	329	215	188.6

These data show that grain enterprises should be oriented on international market for successful achievements. However, on international market producers face with the following problems, increasing exporting risk level: low quality of grain (low level of gluten), unfavorable location of Stavropol region in comparison with competitors – Krasnodarsky region (Novorossiisky port) and Rostov region (Rostov-on-Don port and Eisk port).

The absence of the sale organization experience at the producer also exerts the negative influence on the export relations. This can be explained by the state regulation in agriculture, when the state was the sole customer of the agrarian production and the producers was broken of the habit to be full of initiative in their sale policy. The basic kinds of risks which attend the export activity are transport and non-feasance risks. Apply to transport risks, the main method of their minimization is insurance. The exporter should take into account the Incoterms, which are not only regulate the international transportations, but also exert the great influence on the process of price establishing in the business undertaking.

The risks which attended to the export should be controlled by the improvement of the contract relations.

The stock transactions is one of the most progressive and widely-distributed methods of supply risk reduction in the inflation conditions and in the absence of the reliable purchase channels. Besides the enumerated risks the stock trade helps to manage the financial risks, which are always attended to the owner's activity in agriculture. The foreign trade practice in the agricultural products displays that the stock functioning ensure the vagueness decline on such directions as the planning of the production and trading value, the price management, the organization of the contract relations, the financial risks.

Nowadays the important problem is the expense and income structure imbalance between the grain producers and the intermediaries. The correlation of these indices is displayed in the Table 3.

Table 3.

The expense and income correlation between the grain producers and the intermediaries by the grain sale for the international market, %

	Grain		Flour	
	interregional market	world market	interregional market	world market
The grain producers				
The production expenses	98	96	90	85
The transaction expenses	40	5	35	4
The income	30	5	40	3
The intermediaries				
The production expenses	7	4	10	15
The transaction expenses	60	95	65	96
The income	70	95	60	97

Such a situation can be explained by the absence of any demand conditions information in the possession of the producer. On the contrary, the intermediaries which have a better market information provide the better level of the economic efficiency as compared with the grain producers.

Consequently, the main task for the producer is the possession of information sources, which include the connection sources, Internet, the private contacts, the contract relations.

Also one of the most important owner's activity problems in agriculture is the organization of the production sale. Any producer should know the demand conditions to plan the total production volume.

In connection with this one of the main tasks of internal and external analysis of the grain producers' midst is the determination of the grain market capacity and the total production volume. The determination of this index will let the producer be guided by the grain market demand situation. Besides, this index can be use in the analytical method of analysis of the level and the risk degree in a calculation of the standard deviation indices and the variation factor on the certain kind of production.

So, the stage 1 results on the risk identification and evaluating can help to choose the method of influence on these risks, what is the basis of the stage 2 (the risk management). The aim of stage 2 is to minimize the possible damage in future. The stage 3 (the decision making) determines the necessary financial and labor resources. On the stage 4 (the decision realization) the organizing and technical measures on risk neutralization are held. The stage 5 (the risk management) includes the control and the correction of the selected strategy results in accordance with the new information.

Probably, another one principal problem is the expansion of natural disasters' amount and power in Russia. Thus, the death of grain-crops is annually about 6.6 – 45.4% in Stavropol region, the industrial crops – 4.5 – 34.8%, the potatoes and vegetables – 0.8 – 3.6%, the fodder crops – 1.3 – 16.8%, the fruits and berries – from 0 to 37% of the areas under crops.

The researches have shown that annually Stavropol region receives 0.5 mln tons of grain-crops less because of the crops' death from the unfavourable weather conditions and natural disasters.

The annual natural disasters damage, confirmed by the examination of the Ministry of Agriculture of Stavropol region, is from 330 to 3160 mln roubles.

The average damage to the plant-growing in the period under review is equal to 14.2% of the total volume of plant-growing gross output. The fluctuations of this index are from 7.7 to 40.5%.

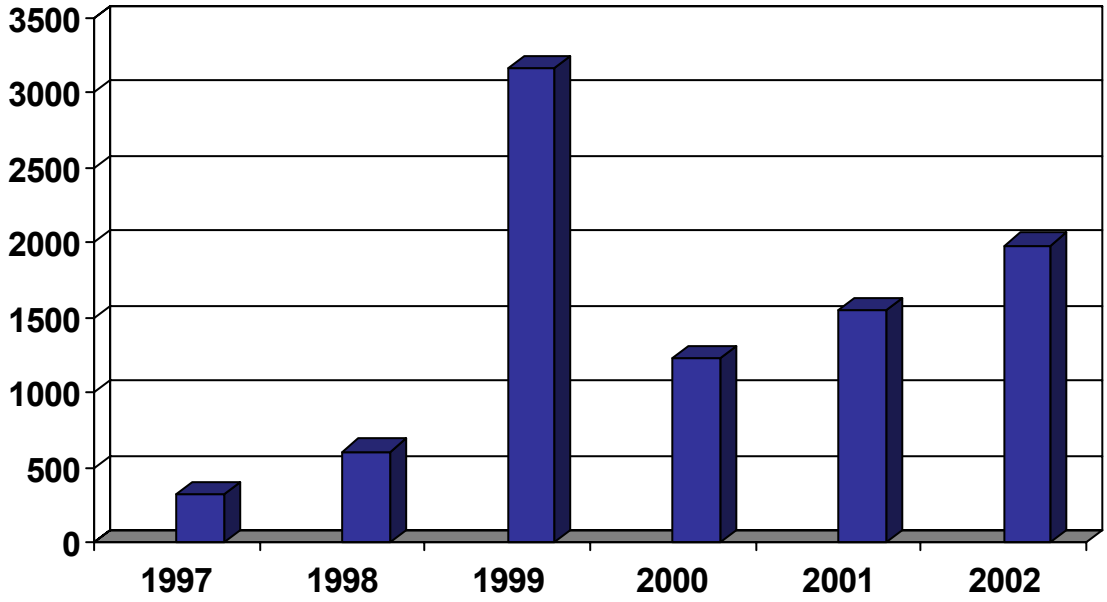

Figure 1. The dynamics of agricultural damage in Stavropol region in 1997-2002 years, mln roubles.

The performed factor analysis has displayed that the decline in grain gross output in the previous five-year period (about 1313.6 thousand tons in comparison with the plan) has happened because of the crops death. The departure on this index was (-) 2251.8 thousand tons.

The researches have displayed that in 2002 year as compared with 1997 year the amount of farms, which insure the grain-crops, reduced in 5.7 times. In that way, less then 5% of the Stavropol producers insure the agricultural crops.

The proportion of the insured agricultural crops was not high than 15% in the period of 1997-2002 years. This index is equal to 13% for grain-crops.

The defrayment of yield damage expenses because of the unfavourable weather conditions becomes customary in our country and in our region. The government complying the regions' requests is forced to take the decisions to indemnify the yield damage expenses with the considerable financial resorts of the federal budget. These resorts are not stipulated by the federal budget plan, therefore, they are paid as the state insurance support.

Table 4.

The compensation payments data on the farms damaged by the unfavourable weather conditions, and insure subsidy fees in Stavropol region.

Title	1997	1998	1999	2000	2001	2002
The compensation payments on the farms damaged by the unfavourable weather conditions, mln roubles	123.9	125.4	207.7	147.6	199.1	257.1
The insure subsidy fees, mln roubles	0.8	0.5	2.0	3.8	4.9	4.5
The correlation of the insure subsidy fees and the damage compensation payments, %	0.6	0.4	1.0	2.6	2.4	1.8

It is well known that the state insurance support is incomparably more effective than the financial aid in the form of the extra credits, delays and the direct payments in the unfavourable years. In our country such a practice is not only preserves but also opposes to the insurance. Nowadays the farms which have insured their crops and deposited their not great insure payments are practically excluded from the government program of financial help.

CONCLUSIONS

The analysis displays that among the basic methods of risk management the overwhelming majority of agricultural producers use the method of the unplanned assuming risks. Such a practice could not be admitted as the optimum.

The similar situation demands the state intervention. The whole experience of the developed countries points out the inevitability of the active state regulation in the agricultural sphere including the risk management sphere.

It is necessary to take the most efficient share of the risk decisions responsibility between the managing subjects to overcome the economic risk asymmetry. The systemic approach to the forming of the organizing and economic mechanism of risk management assumes the distribution of the functions and the responsibility on several hierarchical levels: federal, regional, local, objective (the unit level). The multilevel system of state risk management in agriculture which is creating at present should to our mind develop the consolidation of regional and local state formations.

Address of authors:
Trukhachev V.I., Doctor of Agricultural Science, professor, Rector of Stavropol State Agrarian University
Lyakisheva I.N., Doctor of Economic Science, professor, the Dean of the Economy faculty of Stavropol State Agrarian University, the Head of the World Economy department
355017 Stavropol, ul. Mira 347, Russia

Tel: +7 8652 35-64-40