

Role of the State in Improving the Competitiveness of Agriculture in Azerbaijan

Zenfira Ramiz Novruzova

Azerbaijan State Economic University,
AZ1001, Azerbaijan Republic, Baku, Istiqlaliyyet Street, 6

Abstract: Increasing of efficiency of the state financial support to economy promotes to grow agricultural production and ensures food security. The financial stability of economy promotes the competitive recovery of national agricultural production and intensive integration of Azerbaijan into the world markets. At the present time, the main content of agrarian policy of Azerbaijan as well as in the most developed countries is the government support for the agricultural sector through the various grants, awards and benefits. The state support helps effective development of agrarian sector, but at the same time there are also certain problems in this process which were considered in this article. Results of research showed the necessity to strengthen support of farms of Azerbaijan to make it more competitive. Method of funding volume determination have been proposed. Objective of the research work was to assess the current state of the agricultural sector of the Azerbaijan economy and to evaluate the role of the state in the development of its competitiveness. Recommendations for improving the competitiveness were based on practical experience in the implementation of similar cases in USA in 2002. At the same time an indicators of agricultural production in Azerbaijan and their dynamic change were assessed.

Key words: Agriculture • Competitiveness • State subsidies • Efficiency • Profitability • Types of reproduction

INTRODUCTION

The concept of competitive advantage is usually connected to work of Michael Porter – a well-known expert on study of competitiveness of countries and regions. He is also head of the group of researchers of the World Economy Forum, which takes part in preparation of annual reports dedicated to problems of competitiveness. M. Porter presents a set of determinants – “the national” diamond that defines specific advantages of a country or a region in the international market [1]. “The national diamond” of advantages of competition includes these components. First of all, factorial conditions, that is to say, those definite factors, which are important for successful competition in the mentioned field. Secondly, conditions of demand for products or services in the domestic market. Thirdly, relative and supporting fields. M. Porter’s concept consists of creation of vertically integrated structures, which include different parts of technological chain beginning from raw material suppliers and ending in producers of ready

products. The fourth component includes strategy of a company, its structure and rivals, that is to say, conditions of a definite country which define the process of creation and management of companies and character of competition in the domestic market. M. Porter specially draws attention to role of the states in formation of and support to competitiveness of national economies. Using their policies, states can have influence on components of “the national diamond”. However, this influence can be neither positive, nor negative. So, it is highly important to form priorities of state economic policy precisely.

Now, when state support to domestic producers of agriculture products is actively discussed, study of experience of countries, where producers of agriculture products are supported by the state without going beyond requirements of the World Trade Organization, is highly useful. WTO, by the way, considers that regulation of prices and agricultural subsidies by the state prevent normal work of the market and market mechanisms [2]. Herewith, it is considered that it is necessary to keep supporting farms, without which agricultural sector of any

state cannot supply its population with food with affordable prices due to natural-climate conditions. It just is not able to work with profitability and stay competitive without such backing.

The annual outlays of member countries of the World Trade Organization (WTO) on agriculture reaches to tens of billions of dollars. Half of costs on agriculture of WTO members' refers to the measures of distortion trade and production ("Amber Box"), which negatively influence to the world agricultural markets, leading to overproduction agricultural products and reducing prices. According to the notification, for the year 2000, presented member countries in the Secretariat of WTO, almost all agricultural support is distributed between the producers of agricultural products in the European Union (39%), the U.S.A. (36%) and Japan (5%). On these countries it reaches over 90 % of amount subsidy of all WTO members and the share of government support in the gross output of agriculture is more than 36 % in the EU, in Japan - almost 37 % and 39% in the U.S.A [3]. These tendencies in world economy raised and in front of Azerbaijan topical questions of increase of the competitiveness in the sphere of agrarian production and its optimal forecasting.

MATERIALS AND METHODS

In article various methods of research of processes and the phenomena in the field of the economic relations of agrarian sector are used. The integrated approach of research included set of methods of the scientific knowledge used both on theoretical and on empirical levels (conceptual modeling, synthesis and the analysis, tabular interpretation of empirical data). System and logical approaches to studying of tendencies of development of agrarian sector and its competitiveness and also monographic, settlement and constructive and economical and statistical methods of research were applied.

Research: It is purposeful to view the positive experience of state regulation of the USA, where various methods of state support to agricultural producers have been developed for many years. Results of the American agricultural economy show that principles of state support to farms defined in the Farm Security and Rural Investment Act of 2002 (Farm Bill 2002) of the USA, which was in force between 2002-2007, worked efficiently. In the USA state regulation of the agrarian sector is carried out

by means of direct and indirect methods, which allow active modernization of the sector and assurance of favorable general conditions for realization of income. The main element of the direct state regulation is state subsidy for income of American farmers. It is carried out by fund allocation from the state budget, which is strictly directed to action-oriented programs. In the federal level, one of the main elements is the Farm Income Stabilization Program, realization of which involves rather massive funds: 30-50% of all fund allocation for the American agriculture from the budget.

The Farm Security and Rural Investment Act of 2002 of the USA includes three basic programs for stabilization of farm income: direct, cyclical and credit payments, all of which are directed to cultivation of corn, soybean, wheat, rice, barley, oat, sorghum, peanut and several other crops. Besides, the program includes direct payments, which offers to increase the rate of direct payments to beginning farmers during 5 years by a factor of 1.2. This is because, beginning farmers experience serious financial difficulties, related to purchase of land and agricultural machinery [2].

Direct payments consist of fixed payments, volume of which doesn't depend on prices for definite types of agrarian production in the market. Amount of funds paid to farmers within the program as indirect payment (subsidy) is calculated as below: 85% of the base area of each corn type multiplied by base productivity (which is defined according to productivity of last 5 years) and by the rate of direct payment provided for the same crop type.

Base productivity here is defined in accordance with average productivity of last 5 years and base area means historically established sown area, regulated and controlled by the USA Department of Agriculture in accordance with contracts between farmers and the Department [4].

In Azerbaijan, the agrarian policy is based on the legal framework provided by the law "On the basis of agrarian reform", "On Land Reform", "On family farms". On January 23, 2007, the President of Azerbaijan signed a decree "About the state support of agricultural producers". On the decree indicated that the government for financial support would ensure the producers' of agricultural industry with used fuel, motor oil and fertilizers in the production of agricultural products at a price 50% below cost, which is provided from the state budget. Financial support in the form of direct subsidies to producers by the government immediately affected on the financial performance of agricultural enterprises.

State support to agriculture is realized in accordance with the agrarian policy of Azerbaijan, which considers increase in subsidies to farmers. However, the mechanism of distributed indirect subsidies to agricultural producers is not enough efficient, as it doesn't stimulate producers for improvement in quality and quantity indicators of production (first of all, increase in volume of agricultural production, decrease in prices and increase in quality of products).

Research of the effectiveness of the state support for households we would carry out on a specially devised express – methodology, which allows to evaluate the effectiveness of the total direct support of agricultural organizations from the state budget on the basis of ratios of total support and its financial results. The financial result is determined by the increase of output [5]:

$$ES = \frac{IO}{AFS} \quad (1)$$

where: ES - effective support; IO - increase in outputs; AFS - the amount of financial support. The volume of gross agricultural production in the regions are directly depended on the size of budget financing. About the effectiveness of direct government subsidies to agriculture is shown on Table 1.

The table show that gross output growth until 2007 was 795.3 million manats. However, it decreased to 319.4 million manats in 2012.

Efficiency of state subsidies has to appear, first of all, in gross output growth of products, in decrease of cost value of production, in stability of prices, in increase in profitability from product sales competitiveness of agriculture. Profitability from sales of products is a total score, which characterizes the ratio of profit to the market price. Profitability is positive, if profit gained from the difference between the market price and cost value of a product is positive. If this difference is positive and prices are stable, cost value of production decreases. Totally reverse situation occurs in case of negative difference. According to data shown in Table 1, efficiency factor of state support within the studied period decreased by 9.8%, which indicates that existing state support to agricultural production in Azerbaijan is not effective enough and hardly promotes solution of problems of food supply, growth in production of agricultural products and increase in competitiveness of the agrarian sector. It ensures necessary level for protection of interests of domestic producers and competitiveness of domestic products in comparison to products of

developed exporting countries. Prices of imported products very often are low, so domestic production cannot compete with import due to high cost value.

State subsidies within the period of 2007-2012 were 537.0 million manats. It is more purposeful to realize state subsidies using positive experience of developed countries, adapting it to conditions of national agriculture, carrying out subsidies differentiated on different types of agricultural objects on the basis of specificity of crops and profitability of farms.

Below are the data of profitability related different types of agriculture objects of individual entrepreneurs. It allows us to detect which agricultural objects are less profitable or unprofitable at all, in order to increase their profitability by specialization of their production in accordance with economical zones of the Azerbaijan Republic.

Studies show that strategically important types of agriculture products for Azerbaijan as raw cotton, fruits and berries, grapes, green tea, as well as products of cattle breeding have negative evolution of profitability from sales.

In order to improve the mechanism of subsidies directed to increasing of competitiveness of agricultural production we suggest the method of calculation of subsidies distributed to producers per unit of sold production, taking into account profitability from realization of production. For assessment of efficiency of support to plant-growing and cattle breeding, we suggest the method which is carried out in accordance with a specially designed express method that allows us to assess efficiency of total direct support to agriculture from state and local budgets on the basis of ratio between total support volume and its financial result. This method of determination of the volume of funding from budget is realized at several stages.

At the first stage, the list of main types of agricultural production with potential competitive advantage is defined, taking into consideration their importance for supplying the domestic market.

In the second stage, it is suggested to substantiate an indicative index – profitability of main types of production. Index is a parameter that allows measuring the amount of deflection of actual index from the oriented value. Indicative profitability is a parameter, achievement of which ensures the preset profitability of extended reproduction. Studies show that average level of profitability equal to 30% promotes prevention of decrease in reproduction rate of agricultural production,

Table 1: Efficiency of state support to agriculture in Azerbaijan [6]

| Indicators | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2012 against to 2007 |
|---|--------|--------|--------|--------|--------|--------|----------------------|
| Gross output in actual prices, million manats | 2765.0 | 3308.4 | 3805.1 | 3877.7 | 4525.2 | 4844.6 | 175.2% |
| Output growth, million manats | 795.3 | 543.4 | 496.7 | 72.6 | 647.5 | 319.4 | -475.9 |
| Gross output in plant-growing, million manats | 1726.4 | 2085.0 | 2106.0 | 1999.2 | 2339.8 | 2458.2 | 142.4% |
| Output growth in plant-growing, million manats | 602.1 | 358.6 | 21.0 | -106.8 | 340.6 | 118.4 | -483.7 |
| Gross output in cattle breeding, million manats | 1038.6 | 1223.4 | 1699.1 | 1878.5 | 2185.4 | 2386.4 | 2,3 times |
| Output growth in cattle breeding, million manats | 193.2 | 184.8 | 475.7 | 179.4 | 306.9 | 201.0 | +7.8 |
| State subsidies, thousand manats | 62400 | 83400 | 71000 | 110280 | 100000 | 109930 | 176.2% |
| Quota of state subsidies in gross output of products, % | 2.2 | 2.5 | 1.86 | 2.6 | 2.2 | 2.3 | +0.1% |
| Efficiency factor of state support, % | 12.7 | 6.5 | 6.9 | 0.66 | 6.5 | 2.9 | -9.8% |
| Profitability from realization of gross production, % | 14.0 | 15.0 | 18.1 | 13.4 | 19.7 | 17.7 | +3.7% |
| Profitability from realization of plant-growing production, % | 28.7 | 31.0 | 17.8 | 30.0 | 24.1 | 35.5 | +6.8 |
| Profitability from realization of cattle breeding production, % | 12.9 | 13.4 | 19.7 | 10.5 | 20.5 | 15.1 | +3.1 |

Table 2: Evolution of profitability of individual farming in Azerbaijan from sales of agricultural products, %. [6]

| Product types | 2005 | 2011 | Changes (+,-) |
|--------------------|------|-------|---------------|
| Cereals | 35.5 | 42.9 | 7.4 |
| Sugar beet | 6.3 | 139.6 | 133.3 |
| Raw cotton | 26.3 | -12.0 | -38.3 |
| Tobacco | 37.3 | 41.6 | 4.3 |
| Vegetables | 20.3 | 6.8 | -13.5 |
| Potato | 25.4 | 15.6 | -9.8 |
| Melons and gourds | 19.6 | 48.3 | 28.7 |
| Fruits and berries | 20.0 | 14.3 | -5.7 |
| Grapes | 1.8 | -3.8 | -5.6 |
| Green tea | 5.5 | 9.5 | 4.0 |
| Cattle | 1.5 | 10.0 | 8.5 |
| Sheep and goats | 33.5 | 37.4 | 3.9 |
| Pigs | -4.9 | -43.5 | -48.4 |
| Poultry meat | 1.9 | 26.9 | 25.0 |
| Milk | 17.6 | 14.2 | -3.4 |
| Eggs | 15.6 | 1.4 | -14.2 |
| Wool | 26.4 | 24.0 | -2.4 |

Table 3. Determination of differentiated subsidies for production with dependence on coefficient of change in profitability level.

| Coefficient of change in profitability level | Subsidies in accordance with the strategy of production |
|--|--|
| $K < -5$ and lower | No subsidies paid |
| $-5 < K < 10$ | Subsidies paid for prevention of decrease in production rate |
| $10 < K < 20$ | Subsidies for simple reproduction |
| $K > 20.1$ and higher | Subsidies for extended reproduction |

Source: suggestion of the author

but doesn't ensure stable development of the sector, as productivity of the production is significantly affected by both external market factors and natural-climate conditions. Profitability norm of realization of agricultural products, which ensures conditions of simple reproduction of the production-resource potential of the sector, ranges from 31% to 50% and transition to extended reproduction is possible after profitability ranging from 51%-75% is achieved.

Such findings conform to the opinion of scholars in the agrarian field which says that the level of indicative profitability in the sector ranges from 51% to 75%, which ensures the rate of output growth by 6% and enables

accumulation of main and turnover means [7, 8, 9]. This indicator includes recovery of losses of enterprises (because of unreasonable increase in prices of products and services) at the cost of profit. World experience shows that the agrarian sector successfully develops when overwhelming majority of agricultural producers realize extended reproduction of products, because of which remuneration of labour is ensured and social problems in rural areas are solved. The system of state regulation in Azerbaijan doesn't allow today to ensure extended reproduction of agricultural product. For majority of farms state support is only a small portion of supporting factor. Obviously, in such circumstances

indicative profitability of different sub-sectors of agriculture differs, as they have different level of capital-output ratio, technological complexity, qualification of workers and etc.

At the third stage, base level of profitability from realization of agricultural products of the Republic is defined in the context of agricultural producers. Since the level of profitability from realization of products is affected by many factors (market opportunities, ration of price and production means, actual level of costs and etc.) and fluctuation in years, we assume that it is necessary to assess basic profitability according average of last three years.

Suggested system of backing in the agrarian sector is based on differentiated state support depending on efficiency of farm management. The main indicator of efficiency here is profitability, which substantiates differentiation of farms by three types of reproduction: subsidies for prevention of decrease in reproduction, subsidies for simple reproduction and subsidies for extended reproduction.

At the fourth stage, it is necessary to substantiate the mechanism of influence on profitability growth rate and reduction of cost value of production.

The fifth stage includes realization of calculation of necessary amount of financial investment per unit of subsidized agricultural products in a definite region for definite farms. Amount of financing here is defined for each product type in accordance with production strategy.

Analysis of evolution of profitability from sales of plant-growing and cattle breeding products in the context of regions of the Republic for 3 years, associated with the targets of production development in the areas and the country in general and the rationale for inclusion in a group with a specific strategy in the sector allowed to work out options of payment of subsidies. Subsidies are not paid, if the coefficient of variation of profitability level is 5 and below it. If it ranges from 5 to 10, subsidies are paid according the first option, that is to say, for prevention of reduction in reproduction rate. Subsidies according to the second option are paid for producers, when their coefficient of variation of profitability level of agricultural products ranges from 10,1 to 20. If it's higher than 20, the third option of calculation of subsidies is applied (for transition to extended reproduction).

CONCLUSION

Studies show that distributed subsidies are insufficient and do not allow growth in reproduction

volume. Besides, this situation doesn't enable farms to increase their profitability from sales of products and to improve their financial situation. State support has to be realized at all stages beginning from production and ending with industrial processing. It will enable concentrate main tools of state support to growth in production volume. Selective state support, selection of most efficient tools, optimal size and distribution focused on improvement of efficiency of the sector are necessary. Efficiency assessment of usage of budget subsidies enables to conduct monitoring of rational distribution of budgetary funds, to define priorities of support and to coordinate government support measures with fulfilment of certain conditions and obligations by producers.

RESULTS

By results of research it became clear that it is necessary to strengthen support of farms of Azerbaijan without which the agrarian sector of any state owing to its large dependence on climatic conditions can't provide the population with food for reasonable prices, work it is profitable and to remain competitive. Efficiency of the state subsidies has to be shown, first of all, in increase in gross output of products, decrease in cost of production, stability of the prices, profitability increase from sale of production and finally in increase of competitiveness of agriculture. In the course of research it was revealed that by strategically important types of production of agriculture for Azerbaijan, such as cotton raw, to fruit and fruit and berry cultures, grapes, green tea and also on production of animal husbandry is available negative dynamics of profitability from sales. For a grade of efficiency of support in plant growing and animal husbandry, the methodology which is carried out by specially developed express-method, allowing to estimate efficiency of cumulative direct support of the agricultural organizations from state and local budgets on the basis of ratios of volume of cumulative support and its financial result was offered.

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