

DIRECTIONS AND CHALLENGES IN GLOBAL AGRICULTURE

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Abstract

The development of global agricultural market has been at the forefront of professional studies. Expert opinions have quite differing views as to whether the world's food production will be able to supply the huge demand of growing population. This scientific paper provides a general overview of global agricultural directions, including views on whether agricultural productivity increases will be able to keep with food demand increases and price trends. The scientific paper has focused on the present state of the agricultural market and on the analysis of the key factors defining the tasks of the agricultural sector in the near future, with a special attention to the case of Republic of Moldova.

Key words: globalization, market, technology

INTRODUCTION

At the end of the 20th century, extremely significant changes occurred in the global agriculture; the accelerating technical development modified the economic processes. At the moment, the world's population is more than seven billion people and their daily food supply must be provided. Moreover, it is a widely accepted view that according to the UN estimates this figure will reach nine billion by the year 2050. Consequently compared with the present figure, by 2050 there will be three billion more of human beings and this number equals the total number of population of the globe in 1950s. In the forthcoming decades the boost of population growth will be triggered by the underdeveloped regions. However, the center of this situation will be shifted from China and India to Africa. The African continent in itself will contribute to half of the total population growth according to the calculations (Sippel et al. 2011).

Another reason for the problem is that not only the population will grow in the following forty years but the standards of living and the people's income. On the basis of the above mentioned facts, it is clear that the global demand for food products will double in the following decades and it is also means

challenges for the agriculture (along with mechanization).

MATERIALS AND METHODS

At the basis of this scientific paper served the information from the Statistics National Bureau of Republic of Moldova, Ministry of Economy of Moldavian Republic, different groups of national and international experts and also our own researches in this domain, were applied the following methods: selective, comparison and tabular methods.

RESULTS AND DISCUSSIONS

On the directions and challenges in global agriculture influence a group of factors that defines the future.

For many decades, the main agricultural products have had decreasing relative price levels, but in the recent period (since 2002) the global agricultural price levels have been increasing (Table 1).

After a relatively steady trend, there were drastic price increases in 2008 and 2010, something that was not typical of agricultural markets earlier. The decade's long trend reversed what had been previously suggested that the relative food prices showed a decreasing tendency and that consequently the global prices followed the global changes in

trends with regional specialties. According to experts the food prices started to go up because there was a boost in demand for food products that contained a higher level of

added value and for more processed food products as well of a significant increase in the population of the Earth.

Table 1. Annual real food price indices (2002 – 2004= 100)

Year	Food price index	Meat price index	Dairy price index	Cereals price index	Oils price index	Sugar price index
2000	93,1	98,7	98,3	87,7	69,9	119,5
2001	99,1	102,4	113,6	91,8	71,7	130,1
2002	96,6	96,2	88,4	101,5	93,5	105,1
2003	97,7	96,7	95,1	98,1	100,8	100,5
2004	105,1	106,3	114,7	100,5	104,9	95,1
2005	109,7	112,4	126,6	96,8	96,9	131,2
2006	116,6	109,1	117,8	112,0	103,5	192,9
2007	139,6	110,0	186,7	146,7	149,5	125,7
2008	164,6	126,3	180,9	195,9	187,2	149,6
2009	135,0	114,3	121,7	149,4	129,8	221,3
2010	158,3	130,0	171,2	156,0	165,9	258,0
2011	200,2	155,3	194,0	217,1	221,9	324,5
2012	194,8	162,1	179,4	204,2	219,5	304,4

Source: [FAO, 2012]

According to the latest published figures by the United Nation's Food and Agriculture Organization (Agricultural Outlook, 2011), the global food prices showed a slight decrease in April 2011. The reason for the previous price increase was higher prices of vegetable oils and cereals and the global price drop was due to the decline in cereal and sugar prices.

In numerous supply fields, the available land for agricultural activities is more and more limited and the production must be expanded on less and less developed areas which can be describes as having productivity and a higher risk or unfavorable weather conditions. This means that significant investments are needed in order to boost productivity, so that the agriculture will be able to meet the growing demand in the future.

In the future, the environmental problems are more likely to happen more and more often and in a more and more severe way. A decrease of environmentally damaging effects of intensive production methods must be achieved with increasing efforts. Providing a sustainable agricultural production is a major challenge. Consequently, there is a higher demand for the development of environmentally friendly agricultural

technologies all over the world as well as for the more emphasized vindication of the requirements of sustainable agriculture.

Beside the human consumption, the competition for fodder livestock and for raw materials for the bioenergy production is getting to be more and more significant. The incentive to grow non – food crops has become in the forefront in agriculture (Agricultural Commodity, 2011). The raw materials for energy production are not only biomass but also oilseeds and cereals. The fast growing prices and decreasing reserves of fossil fuels are making the opportunities of energy production in agriculture more precious.

In relation to the agricultural production in the future and the possible tendencies in the agricultural markets, important factors are the biotechnological opportunities, the development of bioenergetics, the increase in arable and cultivated lands, the growth of irrigated areas and the level of environmental damages caused by agricultural production capacities.

Republic of Moldova

The accelerated development of the world economy and globalization has had a significant influence on the agriculture. The global trends have reached Moldova,

irrespective of whether these influences are positive or negative. The Moldavian agricultural development cannot be separated from these tendencies. The most important factors are the enhancement of the competitiveness of the agricultural and food industry and the application of supportive measures. All these must be evaluated in environmental, production quality and sociological dimensions. One of the most crucial problems of Moldavian agriculture is the adaptation to the modified circumstances.

The implementation of market economy has not been finished, this process is still happening. Another important task is the creation of an efficiently operating institutional system, the foundation of legal frames, setting up the protection of quality. The future of the Moldavian agriculture calls for a significant enhancement of efficiency, productivity and competitiveness.

In order to better understand the investment conditions of the Republic of Moldova and to make evident some possibilities for investments, let us emphasize the reasons why Moldova needs investments:

1. its own investment potential is very low, insufficiency of internal resources in the private sector;

2. the need to integrate the Republic of Moldova into global economy on favorable terms;

3. create a competitive environment with the participation of foreign investors, raising the competitiveness of the national products;

4. having a big number of businesses which register loss, respectively having debts to the state budget. Their privatization and further sale to foreign investors will create a new business culture and the principle that a business must be profitable. Otherwise the society does not benefit from having such a company;

5. the need to implement in the Moldovan economy advanced technologies and economic know-how which becomes possible given the interest of foreign investors.

The search for business opportunities based on improvements in the production and sales' efficiency requires adjustments and necessary

investments. There are two crucial issues that determine the level of actual investments. Closely related is the issue of financing. For a small open economy like Moldova, foreign direct investments are crucial for the development, as they bring not only capital but also modern technologies, managerial and marketing oriented know-how.

CONCLUSIONS

The main findings from the study are summarized as follows. In order to enhance competitiveness of Moldavia's products the following actions are needed:

-improving the competence of farmers and people who will ensure a more efficient farm management (need for improved training, consulting and information services)

-improving competitiveness of farms in terms of achieving the promotion of investment as well as the technological and scientific progress, reducing production costs, achieving a compliance with the EU standards

-modernization and changes in the processing and sales of agricultural products.

As a recommendation, in order to enhance perspectives of Moldavia's agricultural sector, it would be good to improve the living standards of rural population and to develop competition in agricultural production. In the EU market regulations of production are based on following principles: abolishment of any restrictions on trade between the EU countries, mechanisms that contribute to stabilization of producer unit prices of agricultural products, domestic market defense from competition of third countries products, financing of agricultural holdings from a unique fund consisting of contributions from participants.

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