



PRICE SUSTAINABILITY OF AGRARIAN SECTOR IN BULGARIA

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ABSTRACT

Recent years were marked by several crises of different characteristics: epidemics, energy sources, and crises in raw materials. We are witnessing how these turbulences transfer to the means of production of agricultural companies and subsequent transfer to the prices of food for people and animals. The main AIM of this study is to determine the inflation force that is hitting agricultural companies and to study their capability of sustaining their production levels. The pressure on prices in the agrarian sector originated not only from the inflation in the Bulgarian economy but also due to the turbulences in international food markets and political instability in the European continent. The METHOD of the study is a systematic analysis of statistical data regarding the agrarian production and prices of agrarian products in the markets of Bulgaria. RESULTS of the study show that there are several factors that are pressing the prices of agrarian products, pushing inflation at higher levels. Agrarian producers have a low capability to sustain their production levels and are forced to reduce or change the type of their production.

Key words: Agrarian production, market strength, food prices stability

INTRODUCTION

Agriculture in economy is classified as primary sector in the Bulgarian economy because it's closely related to the land and the climatic conditions. Means of production of this sector include land use, capital in the form of mechanization and knowledge about the crops and the breeds of animals, and of course labour that could be seen in the form of human force dedicating its time full-time or part-time to cultivating the land.

Turbulences in the socio-economic and geopolitical situation globally affect the prices of means of production in Agrarian production from the sides of the inputs of materials and supplies, on the other side the distribution and goods are realized in several different markets, such as the Wholesale market of Food industry, the wholesale market of Food markets and the Markets to the final clients. Shops, commercial

chains and direct sales to the final consumers. These destination markets and their relative market strength form the possibility of the growth of the sector, its economic sustainability and the price sustainability of food that is consumed by the final clients.

The level of production systems in Bulgarian Agriculture are highly modernized. Producers have implemented the use of machines, and greenhouses, Bulgarian Agri-producers are generally good at breeding and selecting their crops, so they are able to start working with one kind of genetic material for their farm and during 10 or 20 generations they can improve the characteristics of the crop or breed they are working with.

In plant farming there are processes such as mono-cultivation of technical crops that aren't very suitable for natural selection, that's why producers rely on the companies that select and sell hybrids of wheat, corn and other plants. Companies that are dedicated to hybrid selection in Bulgaria have a huge tradition of selecting seeds that are resilient to pesticides,

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plagues, and extreme weather conditions. The problem is that farmers get dependent on the price of the seeds, the price of the pesticides and fertilizers, and their crops are each year more and more expensive. These processes transfer to a greater extent to animal production, because animal food hasn't stopped rising in price last ten years.

Bulgarian farmers aren't able to breed large herds of animals so they can earn by the economy of scale or invest enough in the buildings or in processes of automatization of the farming process. All technologies at the market are available for the health control of the animals, preparing detailed diets according to the age and the needs of the season, and collecting the products of plant or animal breeding. There are enough industries and infrastructures that provide services in these fields. We focus on the factories that prepare the food products such as creameries, slaughterhouses, and food industry companies. This is regarded as a secondary food market and the following step is the final client market.

The overall state of the Bulgarian food industry according to a study of O. Milev (1) is favourable reaching economies of scale by using the means of production food industry is able to generate an output of larger extent.

On the other hand, we see the main problem that the food industry in Bulgaria is open to international supply chains and the market for Bulgarian producers of food materials and livestock is shrinking on a national level.

This condition of open market and relatively low levels of competitiveness and rentability (2) opens the sector to external influences and international competence. Research on price sensitivity to external impulses is of great importance for inflation forecasting. Such analyses are often commissioned or supported by central banks, whose aim is to achieve and maintain price stability (3).

The Bulgarian agrarian market has available enough investments of companies and infrastructure for gathering the crops slaughtering the animals and their secondary treatment for more finished products in the product of semi-finished and finished foods. We have the fabric of companies that are working traditionally in this field have export potential and have worked long years in exporting food such as, cheese, meat raw and fabricated foods

and wines. Problems related to this food market are that Bulgarian brands have enough presence in international markets and most often we produce food or agrarian products for other brands. This is the second step of the realization of foods and agrarian products: food industry, pharmacology and cosmetics industry, and textile industry. They are able to consume huge quantities of agrarian products, but these quantities are reduced every year or are replaced with imported food products from third countries.

METHODS

The method of study applied to this paper is a broad overview of the sector and systematization of the elements that are influencing the price sustainability of food and agrarian products in the Bulgarian market. We have scope from above and try to understand what are the elements and interconnections between food markets on a local and international level. In this study, we will disclose the structure of agrarian markets with their chain of distribution and enumerate the factors that can influence the prices both on a local and international level.

This method of study was well developed by Leontief, building intersectoral charts of input and outputs. (4) After that it was widely applied in the planned economies of several countries to reach high levels of autarchy for strategic sectors. In planned economies, the input for production was mainly what has been produced in its own economy or the economy of the allies. Although this form of understanding and organizing the market is considered very archaic and applied in other types of economic systems, we consider it as a fundament for building up the chains of value and chains of distribution of raw materials and food.

On the other hand, the market economy relies on the markets for supply and realization of production. We study the market of the supply of means of production in Agrarian production, the Market of the wholesale food realization destined for the food industry and the Food market towards final clients in Bulgaria.

This method of study was applied in neighbouring countries In that way, the analysis of the comparative advantages, competitiveness and potential agrarian foreign trade of Serbia would include all three key segments: 1. pre-farm activities (industrial inputs for the agrarian

sector); 2. primary agriculture (agrarian raw materials for the processing and production of food) and 3. post-farm activities (the processing, trading and consumption of final food products) (5).

In order to keep our study we assume that the force of the market where the agrarian products and foods are realized is the greatest determinant of the output of the production and the structure of production. We are facing greater and greater import of foods from neighbouring countries that were traditionally grown in Bulgaria. Means of production, such as tractors and combines are also imported and the Bulgarian economy doesn't have any means to stabilize the prices of food present in the small consumer basket when there are turbulences in the international markets due to economic or political conflicts.

A) Agrarian production of food. Operates on national and international markets for the supply of seeds, fertilizers, and mechanization. The labour market is getting very tight because of the internal migration processes of depopulation of rural areas. There is an internal migration process that boosts the population to the big cities, and an emigration process of workers and families that leave the country. Raw materials that are used in bulk quantity, fertilizers and herbicides are usually imported from other countries with more robust chemical industries.

B) Food industry: Bulgarian food industry is losing rentability and sustainability and isn't able to absorb big quantities of locally produced food as a raw material. The economic actors need to have better access to exports and try to close the supply chain from below, investing in farms. This is possible if the industry has available good opportunities for realization.

C) Bulgarian food market. However, it is price-acceptant and operates with low commercial margins. The structure of the market gets more and more monopsonistic demand in different areas and several chains of distribution. Thus pushes the prices of the food upwards and blocks the possibility of assuring a lower inflation rate.

Most of the primordial agrarian products are now imported, but the difference is the power of the economy and the availability of international trade networks, that allow them to produce and realize their production in the rest of the countries of the EU. Bulgaria has one or two local chains of distribution of foods that

operate in the Bulgarian market on the level of Supermarkets and hypermarkets. Traditional markets in the cities are viewing investments in their infrastructure and facilities, but these investments are rapidly related to the prices of the food, so each year the foods that are more consumed in Bulgaria rise its price.

Farming markets are emerging and organizing themselves in the big cities. There are more and more shops that specialise in bio and eco production or distribute to the final client so they can stand they sell only farming production that has the value of health, purity and higher quality than the manufactured food that is imported from all over the world.

RESULTS

We can see how dynamic the situation of the three related segments: The agrarian market of food production, the Food industry and the distribution of the final food through the commercial network in Bulgaria. All three studied segments of the chain of value and the chain of distribution are internationally open and import materials and supplies from third countries such as the United States, Russia, North African countries or other commercial partners. On the other hand purchasing power of Bulgarian consumers has been rising until the end of the year 2018. Consumption will depend both directly and indirectly on the development of the labour market. Employment and average wage growth continue to rise, albeit at relatively slow rates. The dynamics of consumption will be formed by the consumer attitudes of the population of the Bulgarian market and the clients of foreign markets where we export (6). For the period of the last four years prices of food in the regarded segments have risen significantly maintaining most of the production structure and facing changes in the origin and quantity of the produced food distributed in the Bulgarian market.

Those studied segments operate in the Bulgarian food market which is also open. Thus we receive food products and elaborated products from countries such as Greece, Romania, Poland, Germany and Turkey. While it seems that the market structure of the food realization in Bulgaria is close to the Perfect competence, because of the great number of economic operators and the price acceptancy of the sellers Food market in Bulgaria is getting steadily more and more oligopoly and monopsony structure. In order to get a glimpse

of the situation of the food market we focus on a study of milk production and the dairy processing food industry for the period of 2015 and 2020. The total amount of milk produced in Bulgaria for the study period decreases with each year, reaching 900350 litres in 2020, which compared to 2015 is a decrease of about

19.5%. This can be explained by the fact that a large number of farmers are switching their activities from dairy to beef cattle breeding, as they find it difficult to bring their farms in line with European requirements for the production of quality dairy raw materials (7).

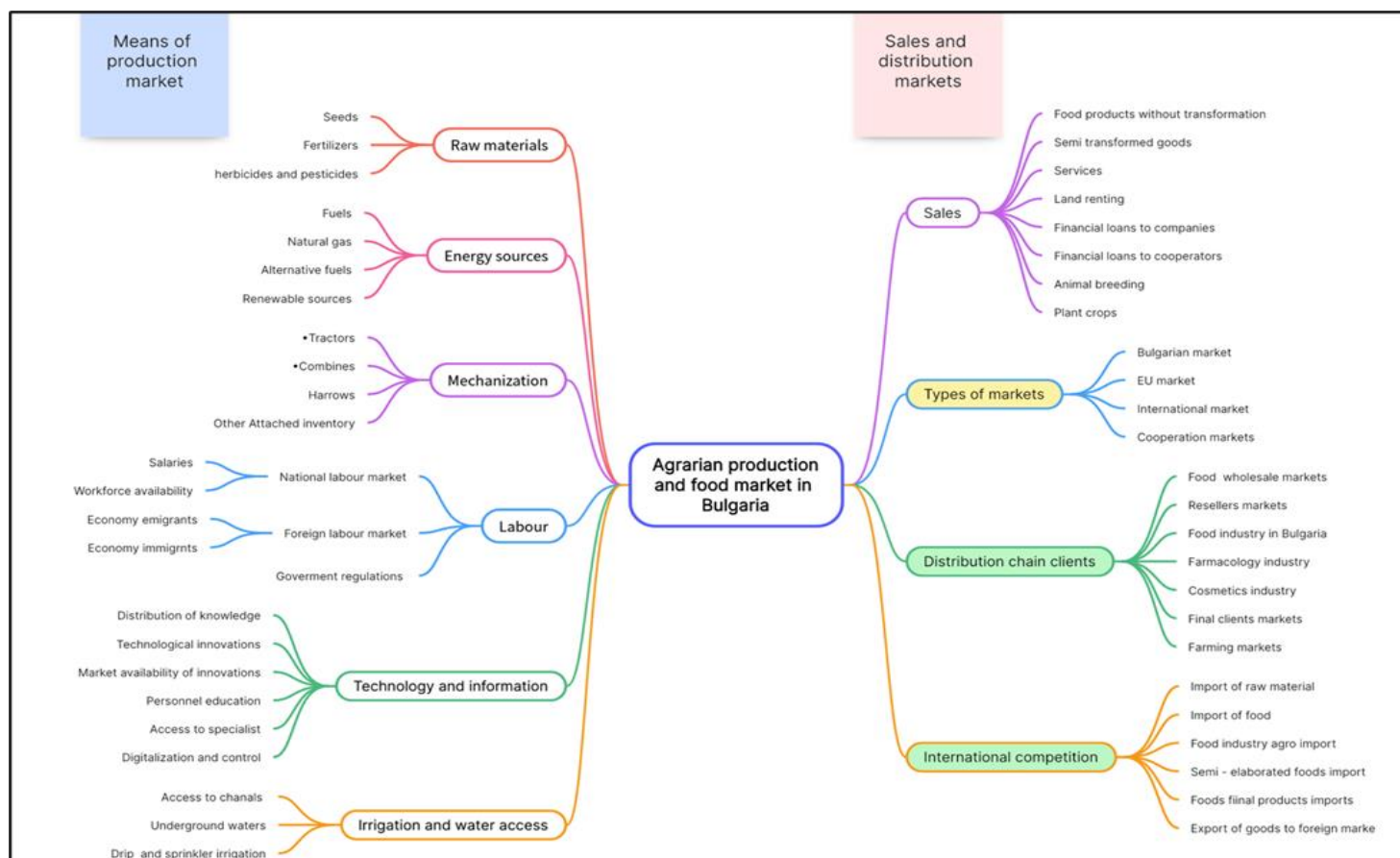


Figure 1. Agrarian production and Food market in Bulgaria. Inputs and Outputs.

This weakens the whole market and lowers the barriers of entry to foreign operators, because of the downsliding sustainability and rentability of local food production. If we had strong food production, the food realization from other countries would be placed on a specific niche and wouldn't have so big presence in all price segments of the food of the small consumer basket. For the final consumer is better to obtain cheaper products than locally produced as milk, meat, and dairy products, but the structure of the market says we will be more and more dependent on the decisions of foreign economic actors and the turbulences of the prices of raw materials and energy sources.

CONCLUSION

In the pace of this process, there is continuously decreasing profitability and rentability trends in fabrication companies both in Agrarian

production and in the Food industry related to the constant rise of the means of production: salaries, and tax burden which is bond to fiscal system, social security system and the health system. There has been a long-term policy of raising the minimal wage in Bulgaria that is translated of higher prices of labour both in the agrarian sector and in the production sector in food industry.

This situation and the cumulative result of having higher and higher production costs, related to prime materials, mechanization, energy sources and labour force, has stimulated the food industry companies to import agrarian products in a greater extent than to rely on domestic production. There are several crops, as beans, maize, and even peppers that a preferably imported from Egypt, and countries with lower economic stages of development in order to

keep the levels of profitability of these companies. This process is common for the rest of the countries in the EU.

On the last step of the realization of food in Bulgarian markets, we can see, that the food market in Bulgaria towards final clients is losing strength. There are many farmers that withdraw from the sector. Local producers are getting less in number and the land congregates in fewer farmers that preferably produce technical farmed cultures: wheat, maize, sunflower. These cultures are greatly exported and for the bread production imported wheat is used to a great extent.

Consumption of food last year didn't decrease in quantity but many Bulgarian goods now compete with goods from neighbouring countries and the gaps in production are quickly replenished by imported food. On a physical level, there is no scarcity of food on the market shelves but the cumulative price push of means of production and the lack of internal and external realization pushes the prices of the food to the present levels.

REFERENCES

1. Milev, O., Georgiev, I., Ivanova, D., Stoyancheva, D., Doncheva, D., Profitability in Bulgarian food industry: influencing factors and their effects, *Quality – Access to*

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- Success Journal*, vol. 20 №169, 2019, pp. 145-150, SJR 2018 – 0.233
2. Milev, O, Ravnishte i dinamika na rentabilnostta po proizvodstva v khranitelnata promishlenost na oblast Stara Zagora, pp.258-262, 2011
3. Przybyliński, M., Gorzałczyński, A., Applying the input–output price model to identify inflation processes, *Journal of Economic Structures*, 5:11-1 2022/04/25 <https://doi.org/10.1186/s40008-022-00264-w>
4. Phillips, Almarin, The Tableau Économique as a Simple Leontief Model, *The Quarterly Journal of Economics*, JO Q J Econ, YR 1955, DOI 10.2307/1884854
5. Milanović, M., Long-term structural changes in the Agrarian Market in Serbia (1990-2010): Cyclicity of production, Oligopolistic of demand, Extensive growth of export. No. 1337-2016-103972. 2013.
6. Petrova, N., Consumption and purchasing power of the population of basic food products, *Trakia Journal of Sciences*, 17(1), p. 562-564, 2019
7. Milev, O., Factor influences in the food industry of the example of dairy processing enterprises in Bulgaria SHS Web Conf., 120 (2021) 03007 DOI: <https://doi.org/10.1051/shsconf/202112003007>