ASPECTS CONCERNING THE ECONOMIC ACTIVITY OF THE FOOD PROCESSING SECTOR

Dan DONOSĂ¹, Eugen TEODORESCU-SOARE¹

e-mail: donosad@yahoo.com

Abstract

The characterization of the economic activity of the food processing sector is rather difficult, as some foodstuffs are subject to limited processing and are not recorded as distinct economic activity, then vertical integration is common for certain types of food, and because self-consumption in rural areas is widespread. Statistical data shows that the food processing sector has grown and its productivity has increased over the period considered (by decreasing the number of employees). This tendency is more pronounced in Romania than in Europe. In 2013, the food processing sector generated a gross added value of 1.4 billion euros, which represents about 20% of the total gross value added of the productive sector and 1% of the Romanian economy. Even though food prices are relatively low in Romania (although they have risen steadily by 20% between 2010 and 2015), reforms that regulate the food processing sector could increase the efficiency of the processing activity that would benefit Romanian consumers. However, Romania has the lowest food expenditure per capita in the European Union, significantly below average. However, spending on household food consumption accounts for 28% of total spending, which is by far the largest share in the area. The constraints that may be addressed are over-training of staff that do not pose a threat to food security, the reduction of separate areas for the sale of bakery products in shops, excessive licensing requirements and control measures for food market operators, importers and unjustifiable collaboration contest (as in the dairy industry) and ambiguous and outdated legislation.

Key words: economic, food, processing

For human consumption it is necessary that raw agricultural products to be transformed chemical, mechanical or even physical. These activities represent the process of food processing. The process of preserving and packaging includes canning and freezing. The chain of adding value from food production to the final consumers comprise the following activities: producers from different sectors of agriculture, processors that process, manufacture, and sell food products, distributors (wholesalers, retailers) that sell food products on different levels of processing, and finally the consumers that purchase and consume the food. There are some limitations in order to measure the economic activity related to the food processing sector such as some agricultural products sold in bulk. Thus, some food products appear to go directly from production to distribution and are not registered as a distinct economic activity. It is difficult to measure economic activity strictly related to food processing because of the vertical integration which is very common for some food products. And self-consumption in rural household is widespread also, making difficult to measure the economic activity of the sector.

Then, measure the economic activity related to the food processing sector such as some agricultural products sold in bulk. Thus, some food products appear to go directly from production to distribution and are not registered as a distinct economic activity. It is difficult to measure economic activity strictly related to food processing because of the vertical integration which is very common for some food products. And self-consumption in rural household is widespread also, making difficult to measure the economic activity of the sector.

MATERIAL AND METHOD

The food processing sector represented about 1% from GDP in Romania in the period 2005-2013. The highest share was reached in 2009 for about 1.25% and since then has repeatedly decreased, registering 0.98% in 2013. The same trend was registered for the value added by the food processing sector in comparison with other manufacturing sectors of about 10% in 2013. The largest sub sector in the food sector is the

¹ “Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine, Iasi
processing and preserving the meat and production of meat products from the whole processing sector. The manufacturing value exceeds 400 million euros in 2013, representing more than 30% from the entire sector. The second largest sub sector is the production of bakery and farinaceous products with an added value of 357 million euros, representing 25% from the value added by the sub sector.

Dairy products are following after with a share of 144 million euros value added which represent 10% from the sector's value added. It follows the manufacture of vegetable and animal oils with a share of 4%, the manufacture of the prepared animal feeds with 3% and the processing and preserving of fish which is representing a less economic activity of the sector.

If we take into account the food prices we can say that they have generally increased. In the period 2010-2015 the prices have increased by over 20%, with an average annual increase of 4%. Moreover, the general price levels have increased with 13%. The cost of food decreased in Romania with about 7% in 2015 in comparison with the same period of the previous year, keeping the general line trends. For the food processing sector the main sources of supply are the domestic agriculture industry and imported inputs.

The distribution channels of the processed food products are food retailers, gastronomy and exports. Through food retailers is sold the great quantity of processed food products namely hypermarkets, supermarkets, grocery shops. If we take into accounts as a main indicators of the food processing sector, the number of the companies, number of employees and turnover, similar trends are shown in comparison with the European level in the last period. The number of companies in Europe has decreased but recovered faster than the decrease of companies in Romania. It means that the food processing sector has become more stable and subsequently the productivity has increased in the last period of time. Thus, this trend was more pronounced in Romania than in the rest of the EU states. In the last twenty years Romania was a net importer of food products, but in the last decade exports have increased and the trend is reversed. If we take into account the prices of the processed food products then it can be seen that in Romania the prices are lower for white bread, loaf and chicken breast, but higher for milk.

Another comparison, between the amounts of money spent on food consumption shows that Romania has the lowest expenditures significantly below the EU average. Romania has the highest share of the household consumption expenditure in the total house expenditures of about 28% in the EU. The most part of the legislation applicable on the sector is harmonized with the EU legislation, but there are certain situations where the regulations were not been repealed and exists before the accession to EU.

National regulations regarding the food processing sector is covering: framework legislation, processing and preservations of the meat products, processing and preservation of fish, processing and preservation of fruit and vegetables, production of milk and processing of dairy products, production and processing of grain mill products and starch products, manufacture of bakery and farinaceous products, manufacture of vegetable and animal oils and fats, manufacture of other food products for human consumption and manufacture of prepared animal feed.

The Codex Alimentarius comprise a series of international food standards, codes of practice, guidelines that contribute to the safety, quality and fairness of international food trade. Codex standards serve in many cases as a basis for national legislation, also for Romania, while they contain recommendation for voluntary application by members.

The reference made to Codex food safety standards in the World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures means that the Codex has the capacity to solve trade disputes. WTO members who wish to apply strictly food safety measures than those set by the Codex may be required to justify these measures scientifically. Codex members is covering 99% of the world's population. In order to enter in the food processing sector the economic operators are necessary to obtain certain authorizations and licenses from several authorities, such as:

- Ministry of Health (that ensure compliance with sanitary legislation),
- Sanitary-Veterinary and Food Safety National Authority (authorizations for producing, processing, storing, transporting, distributing food products of animal origin),
- Ministry of Agriculture and Rural Development (as a central public authority that implements government strategy and policies in the field of agriculture, rural development, fishing and aquaculture, also has authority over food production issuing the following official documents: manufacturing licenses for economic operators producing foodstuffs, certificates for products based on a well-known Romanian recipe, ecological product certificate for foodstuffs produced and sold as ecological, deposit licenses for cereal and seeds storage facilities, authorization for quality self-control and for using the Community logo, certificate of acknowledgment by the dairy producers association ),
- National Authority for Consumer Protection (which develop and implement the national strategy for consumer protection in order to prevent and combat practices that harm the life, health, safety and economic interests of consumers),
- National Commission for Nuclear Activity Control (regulates, authorize and control nuclear activities in the country),
RESULTS AND DISCUSSIONS

Chilling and freezing, cutting, mincing, canning, smoking, etc., represents the activities of processing and preserving of meat products. Data gathered by Eurostat show a gross value of 442.2 million euros in 2013 added by the processing and preserving of meat and production of meat, higher with over 4% than 2012. The highest percentage of the sector’s revenue is generated by the processing and preserving of meat with 43% of total and over 40% of employees, and the production of meat and poultry meat products with 43% of total and 45% of employees. Since 2009 the production of sheep and goat meat increased, while the production of unprocessed pig and poultry meat remained at the same level. The explanations for the increasing of the meat production is the increase of the import of the living animals, especially pigs, while the production of meat products decreased in the period considered. Exports consisted from processed and preserved meat increased significantly. Data shows the highly fragmentation of the sub sector where the top ten producers are accounting over 31% of the sector’s turnover. Over 12% of the companies’ active in this sub sector is accounting more than 80% of its turnover. Another characteristics referring to this sub sector is the increasing on a slow pace of the number of employees. Activities conducted in the sub sector of manufacturing of bakery consists of preparation of raw materials, preparation and processing of dough, baking, chilling and storage of finite products. According to statistical data the gross value added from this sub sector accounted 357 million euros in 2013. In terms of turnover the main activity is manufacture of bread, fresh pastry goods and cakes representing over 78% of sub sector turnover and 88% of the number of employees. On the second place are the manufacture of rusks and biscuits, preserved pastry goods and cakes with 18% of the turnover and 11% of the number of employees. An important source of raw materials is represented by imports. Cane or beet sugar is the main important product, and chemically pure sucrose in solid form. This types of imports declined in the last period, but imports of chocolate and other food have increased over the last years. The sub sector’s production in the last year decreased by 5% after an increasing trend of 10% annually. The sub sector is not very concentrated; the top ten producers accounted approximately 22% of total turnover. According to statistical data 14% of the companies operating in the sub sector account for over 80% of total turnover. The number of companies operating in the manufacture of bakery and farinaceous products shows ups and downs in the last decade. But in the last years experienced an increased level after a period of decreasing. The number of employees decreased, but increased in the last period remaining stable since then. Turnover decreased in the last decade without any clear trend thereafter. The sub sector of dairy products consist of processing of milk and the production of dairy products (milk powder, cheese, cream, butter, ice cream, etc). Filtration of raw milk, separation of milk fat, pasteurization, homogenization, packing and delivery or storage are the main processes involved in milk production. There are other dairy products obtained from processing of pasteurized milk such as fresh products (fresh milk for direct consumption and fresh fermented products) and long processed products (white cheese, fermented cheese). Statistical data shows that the gross value added from the manufacture of dairy products sub sector was over 143 million euros in the last period representing a decrease of over 7% from the previous period. The most important activity of the sub sector is the cheese making representing over 90% of the sub sector turnover and over 75% of the total employees. The domestic milk production represents the source of raw materials for the sub sector, and imports are significantly lower, because of the perishable raw milk characteristic. The number of milk cows declined over the past decade, but due to the increased imports, the amount of milk produced for consumption has increased. By processing the raw milk is transformed into milk for consumption or is it used in the production of other dairy products, such as cheese products. The production from cheese products increased, while the production of butter remained stable. In the last decade exports of dairy products have been expanding. The cause was an increase in exports of cheese and curd which became the most exported dairy products in the last period. But the imports have increased also.
The top three companies are representing nearly 30% of total turnover, but the first ten companies accounted over 59% of sub sector turnover in the last period. This is meaning that the manufacture of dairy products sub sector is slightly concentrated than other food processing sub sectors. But, 6% of the companies active in this sub sector is accounting 80% of the turnover.

In the last decade, the turnover of the sub sector slowly recovered without reaching the 2008 level. The number of employees and the number of companies in the sub sector declined sharply in the last decade, but the trend is on a slightly increase.

The manufacture of grain mill products, starches and starch products sub sector includes the transformation of cereals into flour or pearl cereals or in starches and glucose syrup in the second. These products will be used in the manufacture of bakery and farinaceous products sub sector. According the statistical data the gross value added from the manufacture of grain mill products, starches and starch products sub sector was 103 million euros in the last period increasing by 12% from the previous period. The main activity is the manufacture of grain mill products, accounting 94% of the sub sector turnover and 96% of the number of employees. The supply of the sub sector is assured from domestic production, but also from imports. The first ten producers of the sub sector are accounting 56% from the total turnover. But the number of companies active in the sub sector have decreased in the last period. And the turnover of the sub sector tended to increase in the last decade, both in Romania and Europe. The sub sector of processing and preserving of fruit and vegetables includes activities of sorting, washing, cleaning and dividing, etc. The gross value added from this sub sector was about 83 million euros in the last period, increasing with a pace of 4%. The main activity in the sub sector (processing and preserving of fruit and vegetables) represents 56% of the total turnover and 66% in the number of employees. The first five companies active in the sector are accounted with more than 59% turnover. The number of companies in the sub sector has decreased but recovered in the last period, but the turnover has increased lately.

The sub sector of the manufacture of vegetable and animal oils and fats accounted a gross value added 54.1 million euro in 2013 decreasing with 30% from previous year. The main activity of the sub sector is the manufacture of oil and fats and then the manufacture of margarine. This sub sector is more concentrated than other sub sectors, but the first three producers are accounting more than 70% of total output. The same trend of decreasing is present both for the number of companies manufacturing oils and animal fats and for the number of employees. But turnover has increased in Romania by approximately 45% in 2012 in comparison with 2008 and similar trend can be observed in Europe.

**CONCLUSIONS**

It is difficult to characterize the economic activity of the processing sector. as some foodstuffs are subject to limited processing and are not recorded as distinct economic activity, then vertical integration is common for certain types of food, and because self-consumption in rural areas is widespread. Overall, the food processing sector generated approximately 1.4 billion euros of the gross value added in 2013 which represents 10% of the total gross added value accounted by the manufacturing sector and 1% of total economy of the country. Although food prices are relatively low in Romania, application of the regulatory reforms could produce benefits in terms of efficiency for the Romanian household. However, spending on household food consumption accounts for 28% of total spending, which is by far the largest share in the area. The constraints that may be addressed are over-training of staff that do not pose a threat to food security, the reduction of separate areas for the sale of bakery products in shops, excessive licensing requirements and control measures for food market operators, importers and unjustifiable collaboration contest (as in the dairy industry) and ambiguous and outdated legislation.

**REFERENCES**

https://www.anaf.ro/indicatori/indfinanciari.html
http://statistici.insse.ro
OECD Competition Assessment Reviews: Romania, OECD2016