

# Agri-food manufacturing sector in Romania –internal sizes and in the European context

Mirela-Adriana Rusali

Institute of Agricultural Economics - Romanian Academy

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# AGRI-FOOD MANUFACTURING SECTOR IN ROMANIA – INTERNAL SIZES AND IN THE EUROPEAN CONTEXT

#### RUSALI MIRELA-ADRIANA<sup>1</sup>

**Abstract:** The sustainability of the food supply of the population in all Member States is a priority objective of the current CAP, with important implications both for ensuring food security and for developing the rural economy. In this context, the European sustainable development economic model promotes based on competitiveness, innovation and knowledge, where a key role lies with the small and medium-sized enterprise sector, due to its great flexibility in adapting the business to new market requirements.

The research method used the comparison of the relevant economic and financial indicators for the activity of enterprises in the agro-food industry, in order to analyze the structure and level of development of the sector and to identify possible divergences between Romania and EU-28. The statistical material was provided mainly by Eurostat and NIS - The survey on the activity of the manufacturing enterprises data - NACE Rev.2 codes.

**Keywords**: agri-food manufacturing, sustainable development; European Union.

**JEL Classification**: L6, Q1, O5.

#### INTRODUCTION

One of the permanent, basic objectives of socio-economic policies for rural areas and a key theme for the current CAP is food security, for which a necessary premise is the efficient use of agricultural products. In this context, the agro-food industry is a major factor for the sustainability of the population's food supply and a reasonable level of income from activities undertaken in rural areas.

Together with the strategic actions of sustainable development, mobilized by international and European actions related to environmental protection and natural resources and the recent Europe 2020 Strategy, CAP objectives also aim at supporting the processing sector of agri-food products, according to the NRDP [3].

Among the most important recent strategic approaches taken at national level are the researches undertaken within the Romanian Academy, e.g. *National Strategic Framework for Sustainable Development of Rural Area 2014-2020-2030* [5] and the most recent major approach, *Romania's Development Strategy over the next 20 years* [6].

Various public information (e.g.: www.romalimenta.ro) on the development of the Romanian food industry draws attention to the difficulties it has to meet the quality standards demanded by the export market and the need for investments to modernize the sector, besides the fact that the domestic producers of raw materials are currently unable to compete with international suppliers, resulting in increased imports.

EU food legislation is harmonized, and the sector is significantly benefiting from the opportunities offered by the EU single market. However, the sector is facing certain challenges in both international and European markets, for which, the European Commission is focusing its policies on improving the competitiveness of the EU food sector and the functioning of the Single Food Market. At the same time, trade policy is geared to creating new opportunities for food and drink through various negotiations and dialogues with third countries [1].

A dedicated representative of the small and medium enterprises (SMEs) has been set up within the European Commission's General Directorate for Enterprise and Industry in order to better integrate the SMEs into the European Union policies, mainly e.g. promoting entrepreneurship and skills; improving access to markets; reducing bureaucracy; improving the growth potential of SMEs; strengthening the dialogue and consultation of stakeholders in the field.

<sup>&</sup>lt;sup>1</sup> PhD, CSII, Institute of Agricultural Economics - Romanian Academy, E-mail: m.rusali@yahoo.com

#### MATERIALS AND METHODS

The research used the method of comparison of the relevant economic and financial indicators for the activity of enterprises in the agro-food industry, in order to analyze the structure and level of development of the sector and to identify possible divergences between the EU Member States and Romania.

The statistical material was provided mainly by Eurostat - *National Accounts aggregates* by industry and INS - The survey on the activity of the manufacturing enterprises data - NACE Rev.2 Codes.

Annual enterprise statistics, broken down by size classes, are the main source of data for SME analysis. The European Commission defines SMEs as enterprises with less than 250 employees and an annual turnover of up to  $\in$  50 million or a total balance sheet total of up to  $\in$  43 million (Commission Recommendation 2003/361 / EC) [1].

The Eurostat database provides a limited set of standard variables for the sub-sectors of the sector eg: number of enterprises, turnover, labour, value added, etc. mostly available up to the 3-digit level of the NACE activity group (NACE), based on criteria referring to the number of persons employed in each enterprise and depending on the economic activity of the subsector.

## **RESULTS AND DISCUSSIONS**

The food and beverage industry is the largest manufacturing sector in the EU-28, in terms of labour (15%), turnover (15.6%) and value added (13%) (Eurostat, 2011-2014). The European Union is a net exporter in external food trade. Over the past 10 years, EU food and drink exports have doubled, reaching over  $\in$  90 billion and contributing to a positive balance of nearly  $\in$  30 billion.

In contrast, the external performance of Romanian agro-food products was deficient, the foreign trade balance being systematically negative, both for agro-food products with primary and secondary processing. The trade deficit in primary products was  $\ell$  -1.01 billion in 2015 and in secondary processed products, of  $\ell$  -0.4 billion in 2015.

Exports of processed products increased between 2007 and 2015, from  $\in$  512 million, to  $\in$  2.5 billion, but they had a smaller share (42%) in Romania's total exports compared to basic products.

Tobacco products were the single products of secondary processed group that achieved a positive trade balance, in 2015 (since 2008). As well, products from the vegetable & animal oils and fats chapter reached a recovery of the trade balance, from  $\in$  -76 million in 2007 to  $\in$  42 million in 2015, being the only products of the primary processed with net exports [4].

Alike the EU countries, agro-food manufacturing industry (food industry & beverage and tobacco products) is the economic sector of Romania with major contributions to employment and value added in manufacturing, respectively 13.2% at employment and 26.2% in value added (average, 2004-2014) (Fig. 1).

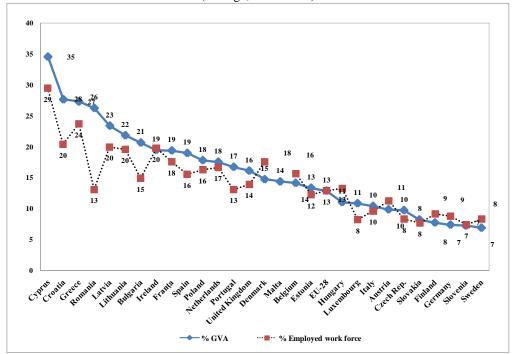
Romania ranks fourth, after Cyprus, Croatia and Greece, on the gross value added (GVA) contribution from the agro-food industry to the national manufacturing industry, according to the average of the period 2004-2014.

From Fig. 2 it can be noticed the downward trend of Romania's food industry over the last 10 years (2004-2014), during which time the GVA's contribution from agro-food industry to GDP was below the level of agriculture (except years 2007 and 2012).

Romania's agro-food industry contributed with 5.8% to the total GVA achieved in total national economic activity (GDP), on average in the period 2004-2014, ranking the first in the EU-28 states, of which average was 2.1%.

At the same time, Romania ranks below the European average, of 15% on the labour force, but above the European average of 12.9% on value added (7th after Greece, Cyprus, Croatia, Ireland, Lithuania and Bulgaria).

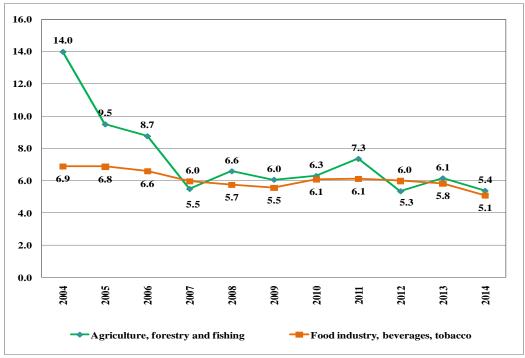
Figure 1. The contribution of agri-food industry from the EU-28 Member States in the national manufacturing industry (average, 2004-2014)



Source: processing of data from Eurostat - National Accounts aggregates by industry.

Romania achieved in the agro-food industry in 2014 a gross added value of  $\in$  6.7 billion in current prices, ranking 10th in comparison with the EU-28 member states, of which France, which made  $\in$  44,  $\in$  5 billion and Poland  $\in$  4.2 billion.

Figura 2. Share of GVA from agri-food industry and from agriculture in Romania's GDP - Evolution 2004-2014 -



Source: processing of data from Eurostat - National Accounts aggregates by industry.

However, the importance of Romania in the GVA achieved in the EU agro-food industry was 2.6% in 2014, below the level of most Member States, of which France, which held 17.2% and Poland, 4.2% (Fig. 3).

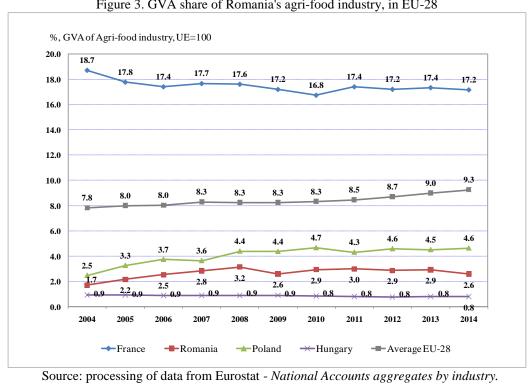


Figure 3. GVA share of Romania's agri-food industry, in EU-28

As a result, the apparent labour productivity in the food industry in Romania is at the lowest level compared to the EU-28 average and over 5 times lower than France. As can be seen in Fig. 4, in 2014, the productivity was € 9.8 thousand / person employed, at the same level in 2008, after a continuous decrease during that period.

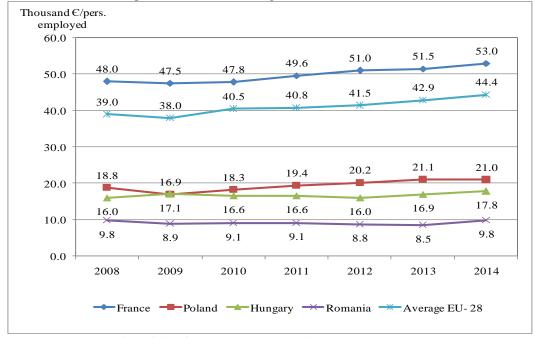


Figure 4. The apparent labour productivity in the food industry in Romania, compared to the EU-28 average and certain Member States

Source: processing of data from Eurostat - Annual enterprise statistics (NACE Rev. 2)

In Romania, is active 3% of the enterprises from the food industry of EU-28, while 22% in France, 20% in Italy, and 11% in Germany, ranking on the first places in the EU-28, followed by Spain, 9%, Greece and Poland by 5% and Portugal, 4%.

Of the total number of 10.5 thousand enterprises in the agro-food industry of Romania registered in 2006, in 2014 the number was reduced to 8.8 thousand enterprises, of which, 89% activated in the food industry and 10% in the beverage industry.

Within the structure of the agri-food industry sector in Romania, the production value of almost 10.2 billion Euros (2014) was mostly made in the food industry, sharing 78%, while the beverage production, 20% and manufacture of tobacco products, 2%.

There were 163 thousand employees in this sector (compared to 175 thousand in 2006), the majority (92%) working in the food industry, while 8% in the beverages manufacturing.

Analysis by enterprise size class, by number of persons employed, according to NIS data for the year 2014, indicates that 3780 of 36% of the food industry enterprises were small enterprises (up to 50 employees) while 32% were medium-sized economic units (50-249 employees) and one third (31%) of enterprises had more than 250 employees.

Table 1. Average number of enterprises in the food industry (NACE C10), by size class (% in subsector, in 2014)

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_	Total	0 - 9	10 - 19	20 - 49	50 - 249	≥250
		pers.	pers.	pers.	pers.	pers.
Production, processing and preserving of meat and products	817	452	95	96	129	45
Processed and conserv. of fish, crustaceans and molluscs	27	14	3	3	7	0
Processing and preserving of fruits and vegetables	319	258	25	19	13	4
Manufacture of vegetable and animal fats	141	112	10	8	7	4
Manufacture of dairy products	538	356	65	69	35	13
Manufacture of milling products	757	616	65	43	26	7
Manufacture of bakery and patry products	4734	3175	734	581	227	17
Manufacture of other food products	647	457	84	53	41	12
Manufacture of animal feed preparation	140	90	17	20	12	1
Manufacture of other food products	647	457	84	53	41	

Source: Data processing from NIS, TEMPO-online - Main economic and financial indicators of enterprises with main activity in industry, construction, trade and market services CANE Rev.2 and size classes.

In the structure of the food industry sector, in 2014, most enterprises were in the subsector of manufacturing bakery and pastry products (58%), which absorbed more than 41% of all employees in the sector. On the other hand, activities in the fish processing and preserving industry (0.3%), oil and fat production and the manufacture of animal feed (by 1.7% each) had the highest concentration of economic units.

As can be seen from Table 1 dispersion by classes of activities, the major share (68%) was held by micro-enterprises (0-9 employees), being majority in all subsectors.

The activity with the largest share of microenterprises (over 81%) was the production of milling products, accounting for 9% of the food industry enterprises. Medium-sized enterprises dominated the baker's sub-sector (46%), while large enterprises dominated the meat processing subsector (44%), which also held an important share in the middle class (26%).

The distribution of value added (at factors cost) according to the share of the size class in the subsector, indicates that the largest share of the value added in the food industry of Romania (of 46%, in 2014), was produced in large enterprises, amounting to  $\in$  735 million, while 33 % in medium and 21% in small businesses with up to 50 employees. The major contributors were the enterprises from the production, processing and preserving of meat subsector, which made an added value of  $\in$  477 million (29.8%) and the production of bakery and pastry products with the added value amounting  $\in$  431 million (27%).

As Fig. 5 shows, the evolution of the added value share in the food industry of Romania, by enterprise size classes, between 2008-2014, had a tendency to maintain the proportions for the whole period.

(%; Food industry = 100) 100.0 90.0 80.0 46.0 70.0 ■ 10 Industria alimentara ≥250 salariati 60.0 10 Industria alimentara 50 - 249 salariati 50.0 ■ 10 Industria alimentara 20 - 49 40.0 32. ■ 10 Industria alimentara 10 - 19 30.0 ■ 10 Industria alimentara 0 - 9 salariati 20.0 11. 10.5 0.6 10.0 0.0 Anul Anul Anul Anul Anul Anul Anul 2009 2010 2014 2008 2011 2012 2013

Figure 5. Value added in the food industry, by size class of the enterprise (2008-2014)

Source: Data processing from NIS, TEMPO-online - Main economic and financial indicators of enterprises with main activity in industry, construction, trade and market services CANE Rev.2 and size classes.

However, in large enterprises ( $\geq$  250 employees), there was a decrease of 2.6 percent in 2014, compared to 2004. During the same period, the small enterprises (0-49 employees) were slightly increasing, while added value made by medium-sized businesses had a higher growth trend of 1.5 percent.

### **CONCLUSIONS**

The potential for capitalizing on Romanian agro-food products is important given the major share of the agro-food processing industry in the gross value added (GVA) and the labour force in the manufacturing industry. However, the contribution of the agri-food industry in GDP (GVA share) has been below that of the agricultural sector for most of the last 10 years.

Compared to EU-28, Romania's agro-food industry accounts for a major share of the GVA achieved in the manufacturing sector, ranking among the top five. Nevertheless, the gaps with the Member States concerning the employment in the sector and the apparent labour productivity, place it below the European average.

The external market performance of Romanian agro-food products is deficient, the balance of foreign trade being systematically negative both for agro-food products with primary and secondary processing.

In the structure of the food industry by activity, the largest number of enterprises is in the subsector of bakery and pastry products. At the same time, two-thirds were small and medium-sized enterprises. Large businesses dominate in the meat processing subsector, accounting toghether with the middle sizes class for 70% of the food industry. The milling industry had the highest degree of fragmentation, being the sector that dominates with the largest number of microenterprises.

The major contribution to the added value in the food industry of Romania was cumulatively achieved by the small and medium-sized enterprises (54% in 2014). The subsectors of meat industry and manufacturing of bakery products have made a major contribution to the added value of the sector (57%, cumulated).

Small and medium-sized enterprises (SMEs) characterized by a high degree of fragmentation (comprising more than 270 thousand companies), the majority of which are small and medium sized (99.1%), represent the backbone of the European economy, a potential source of jobs and growth.

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