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ASSESSMENTS ON DEVELOPMENT DISPARITIES IN THE FOOD INDUSTRY

ABSTRACT

The research comprise investigations upon the development potential of the food sectors in the European Union's current structure with 28 states, in the perspective of increasing the added value of products by making effective use of agricultural potential in the manufacturing sector and reducing disparities among countries. The method approached assessments, analyzes and comparisons of the 2007–2016 average values, the growth rates and the distribution of the gross operating surplus in the food industry enterprises in the Member States, the apparent labour productivity and the rate of investment. Structural gaps have been identified across countries compared to the EU-28 average, indicating drawbacks and dysfunctions, implying the need to improve sectoral performance.

Key words: food industry, development disparities, EU.

JEL Classification: L6, O1, F15.

1. INTRODUCTION

The European economic model is promoting a sustainable development based on competitiveness, innovation and knowledge, context in which food supply to population is a priority objective of the present CAP, with important implications both for the food security insurance, and for rural economy development in all EU countries.

Having in view the fact that an economic sector loses performance if it presents structural development inequalities, transmitting unbalances to the system it is part of, the goal of the present paper was the assessment of the development potential of food industry in the EU at sectoral level, with the goal to identify the present gaps among the countries, involving the necessity to recover the production potential, or structural disparities implying the necessity to improve performance.

2. MATERIAL AND METHOD

The statistical material used included sets of statistical products regarding the economic activities registered as statistical series from Eurostat database –

Aggregates of the national accounts by branches of industry and Eurostat – Detailed annual statistics regarding enterprises in the manufacturing industry, at level of division and groups in conformity to NACE¹ – Rev. 2 up to three digits aggregation.

The research method comprised the quantitative and qualitative analysis of the statistics of the Romanian agrifood products processing industry and the comparative analysis to the EU-28, at economic sectoral and sub-sectoral level regulated by CAEN C10 Rev. 2, in the limit of available historical data.

There were selected the following structural economic indicators of the food industry at level of sectors and sub-sectors in the EU Member States under present competence with 28 states (EU-28): the gross operating surplus (calculated by deducting the staff costs from the value added resulted from economic activities), the apparent labour productivity (value added/occupancy rate), investment rate (net investments / value added).

The analysis was based on assessing the average values of selected indicators, obtained in the period 2007–2016. Also, there were assessed the annual growth rates for the analysis period with the formula: Annual growth rate = $(V_t/V_{t_0})^{(1/t-t_0)} - 1$.

Assessments supplied the data necessary for the evaluation of the relative gaps among the Member States through the ratio between the variable in the country or groups of countries and the average value of the variable in the EU-28 (V_c/V_m).

3. RESULTS AND DISCUSSIONS

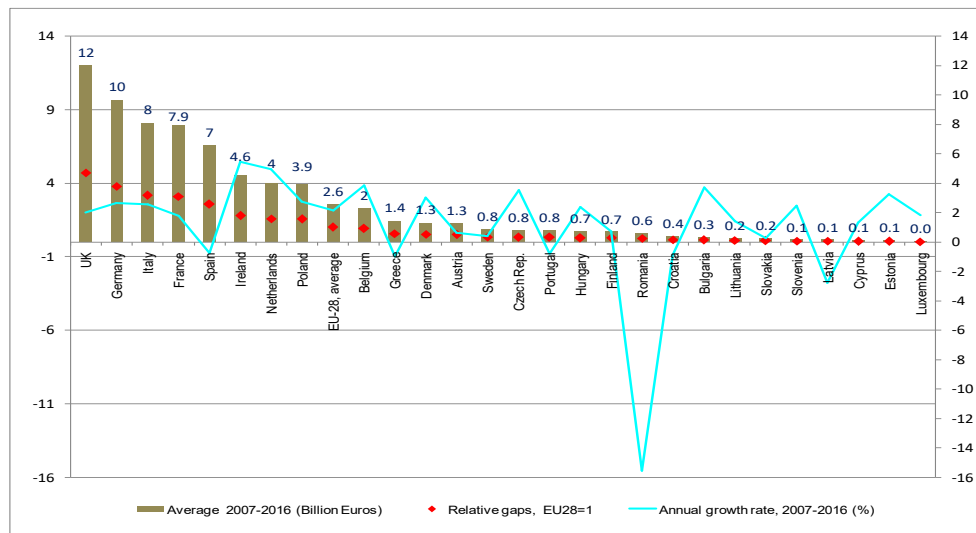
The research identified similar profiles in function of the development potential in the food industry, but also disparities among countries as it is shown in Figure 1.

There were identified 19 states with the gross operating surplus below EU average, among which, those cumulating values of over 1 billion Euros, were: Belgium (2 billion Euros), Greece (1.4 billion Euros), Denmark and Austria (1.3 billion Euros each).

On basis of average value corresponding to the period 2007–2016 of the gross operating surplus in the food sectors of the EU countries (except Malta, for which no data was available) and the relative gaps estimated opposed to EU average, of 2.6 billion Euros, the following three groups resulted:

¹ NACE – Statistical classification of economic activities in the European Community, Eurostat, 2011. Nomenclature of NACE Codes in the Manufacturing Industry: C. Manufacturing, 10 Manufacture of food products; 101 Processing and preserving of meat and production of meat products; 102 Processing and preserving of fish, crustaceans and molluscs; 103 Processing and preserving of fruit and vegetables; 104 Manufacture of vegetable and animal oils and fats; 105 Manufacture of dairy products; 106 Manufacture of grain mill products, starches and starch products; 107 Manufacture of bakery and farinaceous products; 108 Manufacture of other food products; 109 Manufacture of prepared animal feeds; 11 Manufacture of beverages; 12 Manufacture of tobacco products.

- a) Countries with a high potential, including: UK (4.7: 1), Germany (3.8: 1), Italy (3.2: 1), France (3.1: 1) Netherlands (1.6: 1) and Poland (1.5: 1);
- b) Countries with an average potential (0.9: 1 – 0.3: 1): Belgium, Greece, Denmark, Austria, Sweden, Czech Republic, Portugal, Hungary, Finland and Romania;
- c) Countries with a weak potential (gaps under 0.1: 1): Croatia, Bulgaria, Lithuania, Slovakia, Slovenia, Latvia, Cyprus, Estonia, Luxembourg.



Source: (Rusali, 2018), Calculations on data from Eurostat – Annual detailed enterprise statistics for industry, NACE Codes Rev. 2.

Figure 1. The gross operating surplus in Member States' food industry in the period 2007–2016 – Average values, growth rates and gaps over the EU average

The average growth rate of the gross operating surplus in the food industry had the highest value, of 5.5% in Ireland, followed by Netherlands, 5% and other states 10 states, over the EU average, of over 2.1% (Fig. 1). Nevertheless, in the analyzed period, we could see losses of gross operating surplus which were indicated by the negative growth rates, in the following countries: Spain and Portugal (–0.8%), Croatia (–0.9%), Greece (–1.0%), Latvia (–2.8%) and on the last place ranked Romania, with a major loss (–15.6%).

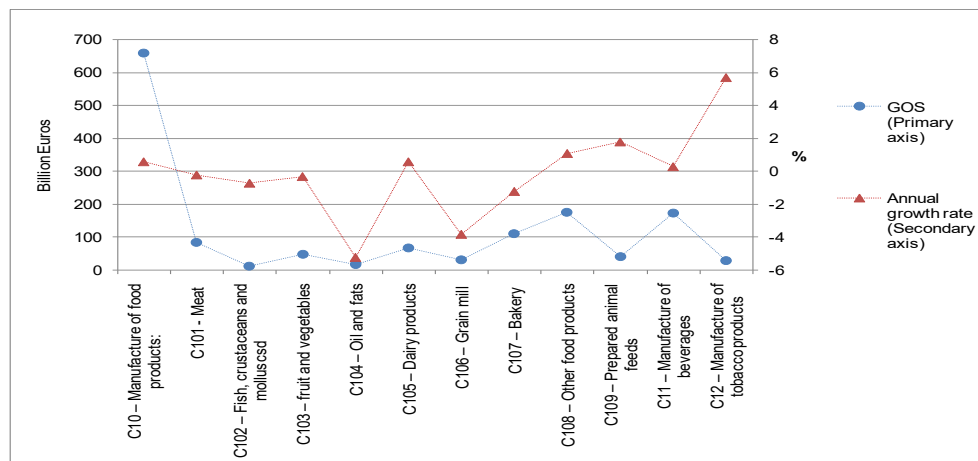
For the period 2007–2016 it was estimated a gross operating surplus of 659 billion Euros, a value equivalent to the profit made by the active enterprises in the food industries in the EU member States, of which, 8 states with the gross operating surplus value over the average of the EU states, cumulating the biggest part (82%) and which are: UK (17%), Germany (14%), Italy (12%), France (12%), Spain (11%), Ireland (7%), Netherlands and Poland (6% each).

The gross operating surplus values under the EU average were registered in the other 20 states, among which, Slovenia, Latvia, Cyprus, Estonia and Luxembourg cumulated together 1% of the EU average.

The highest levels of the gross operating surplus are corresponding to the highest shares in the value added (VA) to the factor costs, the average of the period 2007–2016, in certain countries as: Ireland, 73%, UK 51% and Greece, 49%, all being over the EU average of 40%. Much over the average, with a share of the gross operating surplus in the value added of the food industry in the analyzed period, there were Bulgaria, 52%, Poland, 51% and Romania 41%.

As shown in Figure 2, the data illustrate the structure of the agri-food industry in EU, by the average value of the gross operating surplus achieved in the period 2007–2016, available in total sector and in the activities (subsectors) of the food industry.

The manufacturing of the food products had the highest contribution to the gross operating surplus in the agrifood industry of the EU countries, with a total value of 861 billion Euros cumulated in the period 2007–2016.



Source: (Rusali, 2018), Calculations on data from Eurostat – Annual detailed enterprise statistics for industry, NACE Codes Rev. 2.

Figure 2. Total gross operating surplus in EU agri-food manufacturing sectors and food industry subsectors – Structure and growth, 2007–2016

Also, the statistics of the activities in the industry enterprises corresponding to the values by countries, cumulated for the analysis period, shows a share of 76.5% of the gross operating surplus in the total available profit for the food sector, while the beverages industry represented 20.1% and the processing industry for tobacco products, 3.4%.

According to estimates, among the sub-sectors of the food industry with the highest development potential, after the gross operating surplus average available

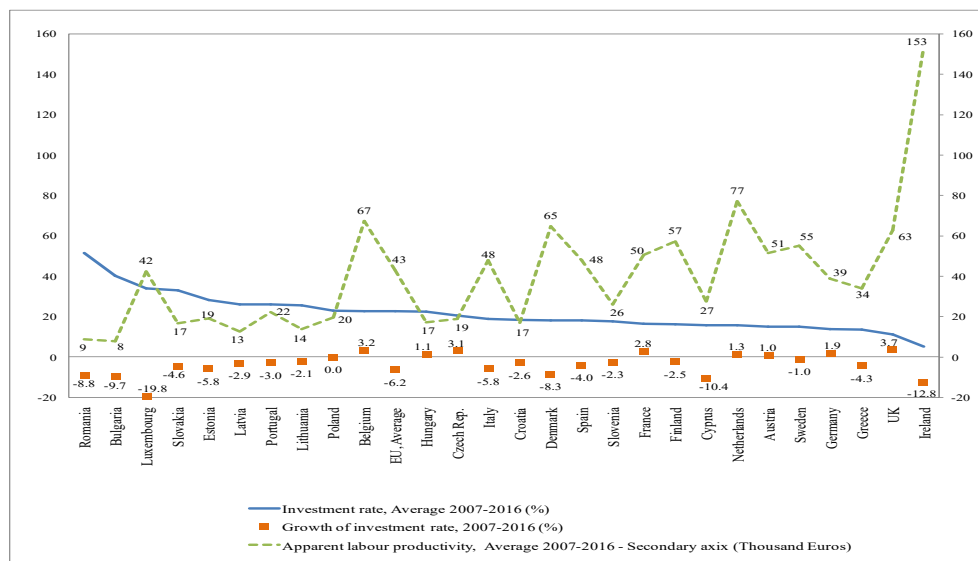
estimated, for the analysis period, there were identified: the manufacturing of other food products (20.4 million Euros), with a share of 27% in the food industry of EU; pastry products (12.7 million Euros), 17%; meat (9.7 million Euros), 13%, and manufacturing of dairy products (8 million Euros), 10%. These groups cumulated 67% (443 billion Euros) from the total gross operating surplus achieved in the food industry of the EU in the period 2007–2016.

The annual average growth rate of the gross operating surplus in the food industry in the UE-28 was of only 0.6%, because of decreases registered in countries as Romania, Poland, Hungary, Bulgaria, Czech Republic, Croatia and Sweden, although at the level of the subsectors there was a non-uniform evolution.

The subsector for the feed of animals manufacturing had the greatest annual rate of growth at the gross operating surplus, of 1.8%, followed by the manufacturing of other food products, 1.1% and the dairy products manufacturing, 0.6%.

Except these, in the rest of subsectors, the gross operating surplus diminished, among the most important decreases were found at the manufacture of vegetal and animal oils and fats, -5.2%, at the milling products, starch and starch products, -3.8%, and at the bakery products and fodder products, of -12% each.

As result, as we show in Figure 3, the estimations regarding the investments rate in the manufacturing industry of food products indicate decreases in the majority of the EU countries that ranked on the first place by the average rates of the investments reached in the period 2007–2016.



Source: Eurostat data processing – Annual detailed enterprise statistics for industry, NACE Codes Rev. 2.

Figure 3. Investment rate and apparent labour productivity in the food manufacturing industry, by EU state

The average rate of investments in the food industry of the EU was of 23%, while, the highest values they had were in Romania, 51% and Bulgaria, 40%, followed by other 8 states among which Slovakia (33%), Estonia (28%), Latvia and Portugal (26% each) and Lithuania (25%), all above the EU average.

Nevertheless, 18 countries in the EU registered decreases of the average rates of investments in the food industry, in the analyzed period, the decrease estimated at the EU average level was of -6.2%.

Among the most significant decreases were registered in the following states: Luxembourg (-19.8%), Ireland (-12.8%), Cyprus (-10.4%), Bulgaria (-9.7%) and Romania (-8.5%).

We can see that the highest rates of investments are corresponding to the lowest levels of the apparent labour productivity, identified in Romania and Bulgaria, which reached average productivities estimated at 8 thousand Euros/pers., each.

There are similar situations in other countries as Latvia, Lithuania, Slovakia, Croatia or Hungary (with averages between 13 and 17 thousand Euros/pers.).

An opposed trend was observed in the countries at which were estimated the highest values of the apparent labour productivity, of which, on the first places were the followings: Ireland (151 thousand Euros/pers.), Netherlands (75 thousand Euros/pers.), Belgium (68 thousand Euros/pers.), Denmark (67 thousand Euros/pers.), United Kingdom (64 thousand Euros/pers.).

Although there were estimated positive growth rates of the apparent labour productivity in the food industry in the majority of EU countries, by the average value in the period 2007–2016, there are countries at which there were estimated productivity decreases: Greece (-2%), Romania (-1.6%) and Spain (-0.2%).

4. CONCLUSIONS

The study evidenced a heterogeneous profile of the development potential of the food processing industry in the EU, described by the large gaps of the indicators at states' level, opposed to the EU average. Based on the estimates, it resulted a typology of countries corresponding to the following three groups:

a) High potential, including: United Kingdom, Germany, Italy, France, Netherlands and Poland;

b) Average potential: Belgium, Greece, Denmark, Austria, Sweden, Czech Republic, Portugal, Hungary, Finland and Romania;

c) Weak potential: Croatia, Bulgaria, Lithuania, Slovakia, Slovenia, Latvia, Cyprus, Estonia, Luxembourg.

The gross operating surplus in the food industry in the EU was estimated at 69 billion Euros, averagely in the period 2007–2016, of which 82% cumulated in 8 countries with values were over the EU average.

Estimates indicated the lowering of the investments rates in the activities of food products manufacturing in the majority of the countries in EU, which in the

analyzed period reached the highest levels of labour productivity. At the same time the highest investment rates were identified in Romania and Bulgaria other states as Latvia, Lithuania, Slovakia, Croatia or Hungary.

There were estimated positive growth rates of the apparent labour productivity in the food industry in the majority of the EU countries, except Greece, Romania and Spain, at which there were estimated decreases showing efficiency drawbacks and significant un-balances in the development potential.

The sub-sectors of the food industry with the highest development potential, by the available gross operating surplus estimated for the analysis period, were: manufacture of other food products, bakery products, meat canning and the manufacture of dairy products. These groups contributed with 75% (1.9 billion Euros) to the average gross operating surplus achieved in the EU food industry in the period 2007–2016. The present research results have shown that investments in the EU food industry represented 57% of the average gross operating surplus achieved last decade.

REFERENCES

1. European Commission (2017), *Future of Food and Farming*, COM (2017)713 – final, Communication from the Commission to the European Parliament, 29.11.2017.
2. MADR (2016), *Programului Național de Dezvoltare Rurală 2014–2020 (PNDR)*.
3. MADR (2015), *Strategia pentru dezvoltarea sectorului agroalimentar pe termen mediu și lung orizont 2020–2030*, Proiect. Bucuresti, 2015.
4. Rusali, Mirela. (2018), *Analysis upon the development potential of the food industry in EU-28*, Paper presented in the *164th EAAE Seminar*, 05–07.09.2018, MAICH Crete.