

FOOD PRODUCERS' COMPETITIVENESS GAP IN POLAND ON THE EUROPEAN UNION MARKET

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ABSTRACT

This article presents the gap in potential and competitive position of food producers in Poland as compared to selected the European Union countries. The timeframe of research covered the years 2005–2015. The conducted analyses indicate the positive phenomenon of a decreasing but, at the same time, a very clear distance between the competitive potential of food producers in Poland and European leaders. The productivity level of particular production factors indicates, at the same time, the fact that the least beneficial situation was recorded in the case of the productivity of human work. A definitely smaller competitive gap was present at the level of the capital's productivity. The decreasing competitive gaps were also observed with regard to particular partial measures of the competitive position. The nearly double increase in the share of Polish food producers in intra-Community export was particularly beneficial. This was not reflected in a significant change of the competitive position of domestic food producers on the EU market with the low output level of this index.

Key words: competitive potential, competitive position, competitiveness gap, food producers, productivity

INTRODUCTION

The concept of competitiveness, defined in source literature in different manners, is associated with its specific economic dimension. According to the division proposed by Flejterski [2000], distinguishes the micro – micro-, micro-, meso-, macro- and megacompetitiveness. The international competitiveness of food producers refers to the meso-economic level. From this perspective particular attention is paid to the ability of the industry to compete with foreign competitors on international markets and on the internal market. This is clearly visible in the definitions of competitiveness proposed by Kim and Marion [1997] as well as Carraresi and Banterle [2008], who define it as the ability to maintain shares in the domestic market and on foreign markets under the conditions of free trade. Research on the competitiveness of the food industry in the EU countries [Wijnands and Verhoog 2016] treats this branch's competitiveness as the ability to constantly gain profit and market share on the domestic and export markets in which the industry operates. We should emphasize the fact that special attention is paid in them to the aspect of international competitiveness, regardless of differences existing between them.

The issue of international competitiveness of the food industry in the EU and its particular countries was an issue in numerous studies [Traill 1998, Banse et al. 1999, Wijnands et al. 2008, Tacke et al. 2009, ECORYS 2010, LEI 2011, Puticová and Mezera 2011]. This results from the special significance of this branch, and the agricultural and food sector in the wider context, in the EU economy and budget. Food producers are an integral

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part of the cultural identity of the individual member states. Its meaning is even greater as the EU countries remain the largest exporters and importers of food products in the world [Hockmann et al. 2013]. The validity of the assessment of international competitiveness of food production companies in Poland results also from the particular importance of this branch in the domestic economy of Poland. Internal competitiveness of the food industry is associated with high potential resulting from the number of employed persons – 17.5% of share in the entire production sector, the highest percentage of sold production in industrial processing – 19.0% [Juchniewicz and Łukiewska 2014] as well as the significant share – 11–13% of the Polish agricultural and food export in total [Szczepaniak 2014a].

International competitiveness at the mesoeconomic level has, on the basis of definitions referred to above, a confrontation nature. For this reason, the analysis of food producers' competitiveness in Poland was conducted with regard to the most important competitors on the intra-Community market. The purpose of the study was to identify the competitiveness gap of food producers in Poland as compared to the selected EU countries. The selection of countries for the analysis was intentional – it included countries with the greatest share in employment and sold value on the intra-Community market.

MATERIAL AND METHODS

The ambiguity of the concept of competitiveness results in the fact that indexes with a different structure and a different semantic extent are proposed for its measurement. Some indexes refer to the assessment of potential, respecting the ability to compete, while others present the achieved condition, namely the assessment of the market position. Competitive potential, associated with factor competitiveness, results from the availability as well as the degree of use of resources. The basic factors in industrial production are labor and capital. For this reason, the size and productivity of these factors were used to measure the competitive potential of food producers. The productivity of labor was calculated as the relation between the value of sold production per 1 employed person (EUR thousand per employed person), and the productivity of capital was calculated as the relation between the value of production per 1 EUR of an investment in tangible fixed assets (EUR per EUR investment outlay). The assessment of labor and capital productivity was connected with the analysis of the capital – labor index that expresses the quantity of capital units per a labor unit (EUR thousand per employed person). Adamczyk [2008] pointed out its significance in the case of growth in labor productivity resulting from better equipment of labor force in machines and devices.

The international dimension of the competitiveness of Polish food producers requires the assessment of their capacity to compete on foreign markets. Analyses of foreign trade may employ a number of measures and indexes that make it possible to identify the character, correctness as well as changes in trade flows. The competitive position was assessed on the basis of the most frequently used indexes of competitiveness in international trade, namely Export Market Share – *EMC*, Trade Coverage – *TC*, as well as Revealed Comparative Advantage – *RCA*. The share in the sector's export is one of the most widely used measures of competitiveness. It was calculated according to the following formula Banterle [2005]:

$$EMS = \frac{E_{Fi}}{E_{FW}}$$

where: E_{Fi} – export of food products of the country i on intra-EU market;
 E_{FW} – export of food products of the EU-28 countries on intra-EU market.

Trade coverage is used to examine the relation between export and import of a given sector and it is defined as follows [Verdoorn 1960]:

$$TC = \frac{E_{Fi}}{I_{Fi}}$$

where: I_{Fi} – import of food products of the country i .

Revealed comparative advantages determines the share of the food industry in the entity's total export with regard to the share of that sector in total export. It was calculated according to the formula [Balassa 1965]:

$$RCA = \frac{E_{Fi}}{E_i} \cdot \frac{E_W}{E_{FW}}$$

where: E_i – total export of the country i on intra-EU market;
 E_W – total export of the EU-28 countries on intra-EU market.

The competitive gap, according to Gorynia's concept [2000], was calculated as the difference in the competitive potential (*ex ante* competitiveness) also the competitive position (*ex post* competitiveness) of food producers in Poland and selected countries. A dynamic assessment of the competitiveness gap was also made, meaning the process of changing the initial competitiveness gap (2005) as compared to 2015. The timeframe of research covered the years 2005–2015. Data was acquired from the websites of Eurostat, Structural Business Statistics and Eurostat-Comext. Food producers in the study were defined according to the Polish business activity classification PKD 2007 (section 10) as well as the Standard International Trade Classification SITC Rev. 3 (sections: 01-09).

COMPETITIVE POTENTIAL OF FOOD PRODUCERS

It depends on the available resources and the effectiveness of their use. We should seek theoretical relations between productivity and international exchange in the latest trends in the theory of foreign trade. The New, New Trade Theory – NNTT, the foundation of which is laid by the model by Melitz [2003] as well as the model by Melitz and Ottaviano [2008] states that only entities with the highest productivity are able to enter and compete on the export market (hypothesis of self-selection), while operating on the foreign market leads to their expansion. Labor resources are one of the most important factors whose size and effectiveness of use determines the level of generated production [Mrówczyńska-Kamińska 2012]. The largest number of employed persons in food production was recorded in Germany and France (accordingly 20.3 and 14.0% of all the employed in EU-28 in 2013). Relatively large workloads in this branch were also involved in Italy (9.7%), Poland (9.5%), UK (9.2%) and Spain (7.7%). The remaining countries had relatively smaller significance within the structure of employment in EU-28 (from 4.1% in Romania to 2.2% in Belgium). The productivity of labor of food producers did not fully correspond to the number of employed persons in particular countries. The highest level of this index was recorded in Belgium and in the Netherlands (Table 1). The productivity of labor in France and UK was approx. 2 times smaller, and in Germany – 2.5 times smaller. These are mainly well-developed countries in which the level of the food industry's development is highest in the entire Community [Poczta and Beba 2014]. A definitely lower (4–5 times lower) level of this index was recorded in Poland and in the Czech Republic. The most unfavorable situation was recorded in Romania where the productivity of labor was nearly 50% smaller than in Poland and in the Czech Republic and as much as 10 times smaller as compared to Belgium.

Improvement in labor productivity was a common phenomenon, taking place in all analyzed countries, although the scale of changes varied. The highest average annual pace of changes in the years 2005–2015 occurred

in Romania and in Poland (Table 1). This resulted from a significant increase in the value of sold production which took place under the conditions a small decrease in employment. A very beneficial change in this index took place in Belgium. The average annual pace of changes amounted to 5.2% with a high starting level of labor productivity in 2005. The stability of the number of persons employed in entities producing food in this country, with a significant increase in the value of sold production, results in the fact that Belgium is the unquestionable leader in this classification. A clear growth in labor productivity of food producers also took place in the Czech Republic. This change did not result from an increase in production value (as in countries discussed previously) but from the reduction in employment.

The productivity of capital, as yet another index of the competitive potential, makes it possible to assess the effectiveness of the use of assets in entities producing food. The highest effectiveness of the use of capital outlays was recorded in the Netherlands (Table 1). More than 34 EUR of production fell per 1 EUR of investment outlays incurred in this countries in 2015. A smaller level of this index was recorded in Germany and Italy. Another group of countries contains Spain and Belgium where the effectiveness of use of investment outlays was approx. 28 EUR. In Poland, ranked eighth, the index of labor productivity in 2015 amounted to 23.7 EUR·EUR⁻¹. The productivity of capital of food producers in the Czech Republic and in Romania was definitely lower, although at a similar level to one another. It is worth emphasizing that the diversity of this index between the analyzed countries was more than two times smaller than that of labor productivity.

The average annual pace of changes in the productivity of capital in the years 2005–2015 was not so clear as in the case of labor productivity. A decrease in the productivity of capital was observed in the Czech Republic and in Germany in the analyzed period. This resulted from the highest, among the analyzed countries, increase in the value of investments in tangible fixed assets. The highest pace of changes in the productivity of capital was recorded in Romania. However, this cannot be interpreted as beneficial because it resulted from a 30% decrease in the value of investments in tangible fixed assets. A similar situation was noticed among food producers in Spain. Slight, positive changes in the index of capital productivity were recorded in other countries.

The presented analysis indicates the fact that the growth in labor productivity may be a consequence of better equipment of labor force in machines and devices. This leads to a simultaneous decrease in the value of the capital productivity index. Therefore, the research on the productivity of labor and capital should be combined with the research on changes in the capital – labor index which makes it possible to assess the degree of outlay substitution. The highest level of this index was observed in Belgium and in the Netherlands (Table 1). Relatively large investments in fixed assets per employed person were also incurred by entities producing food in Italy, Spain and UK. A less favorable situation was observed in Germany, Poland and the Czech Republic. The capital – labor index in these countries was almost three times lower as compared with the leaders. Definitely the smallest investment outlays per employed person were recorded in Romania.

When analyzing changes in the capital – labor index in the years 2005–2015, it was stated that it decreased only in Romania and in the Netherlands. A growth in the equipment of fixed assets per employed person was recorded in other countries. The highest average annual pace of changes of the capital – labor index was observed in the Czech Republic as well as in Belgium and Poland and the UK. The conducted discussions also indicate the fact that the average annual growth rate of labor productivity in all analyzed countries is greater than that of capital productivity. At the same time, a growth in the capital – labor index was observed in the majority of countries. The described situation indicates the presence of labor substitution by capital.

The competition of Polish food producers has been focused on the European market for many years. In this context, it is important to define the gap in potential and competitive position as compared to the rivals. The largest gap of competitive potential was recorded in the case of labor productivity. As compared to the leaders, namely the Netherlands and Belgium, in 2005 it amounted to respectively 421 and 346% (Table 2).

An unfavorable situation in this issue was observed in comparison to of the so-called old EU. The competitiveness gap of labor productivity was approx. –200%. The only country over which Poland had competitive

Table 1. Indexes of competitive potential of food producers in selected EU countries in 2005, 2009 and 2015

Country	Labor productivity (EUR thousand per employed person) in year				Capital productivity (EUR per EUR investment outlay) in year				Capital – labor index (EUR thousand per employed person) in year			
	2005	2009	2015	average annual pace of changes (%)	2005	2009	2015	average annual pace of changes (%)	2005	2009	2015	average annual pace of changes (%)
Germany	173.7	183.3	188.8	0.8	38.4	34.2	30.3	-2.3	4.8	5.4	6.2	2.6
France	205.8	212.4	236.0	1.4	27.4	36.5	25.7	-0.6	7.5	7.4	9.2	2.1
Italy	213.8	238.4	279.8	2.7	28.6	21.4	30.9	0.8	7.5	11.1	9.0	1.8
United Kingdom	186.6	194.0	262.6	3.5	30.3	36.9	22.2	-3.1	6.2	5.2	11.8	6.6
Spain	196.0	220.2	262.7	3.0	23.1	25.1	27.8	1.9	8.5	8.8	9.5	1.1
Netherlands	337.0	377.5	477.2	3.5	30.7	37.8	34.5	1.2	11.0	10.0	13.8	2.3
Belgium	288.5	371.4	479.6	5.2	29.2	27.9	28.0	-0.4	9.9	13.3	17.1	5.6
Poland	64.7	76.8	110.8	5.5	19.1	24.1	20.3	0.6	3.4	3.2	5.5	4.9
Romania	27.6	37.8	53.2	6.8	7.0	9.7	18.6	10.3	3.9	3.9	2.9	-2.9
Czech Republic	70.2	85.2	92.8	2.8	21.4	27.2	19.9	-0.7	3.3	3.1	4.7	3.6

Source: Own study based on data Eurostat, Structural Business Statistics [accessed 05.11.2016].

Table 2. Gap in indexes of competitive potential of food producers in Poland in 2005, 2009 and 2015

Country	Gap in indexes of competitive potential (Poland = 100%)								
	labor productivity in year			capital productivity in year			capital–labor index in year		
	2005	2009	2015	2005	2009	2015	2005	2009	2015
Germany	-168.4	-138.7	-70.4	-101.3	-42.0	-49.3	-42.4	-68.1	-12.7
France	-218.0	-176.6	-113.0	-43.5	-51.2	-26.6	-121.5	-132.4	-67.3
Italy	-230.3	-210.4	-152.5	-49.8	11.2	-52.2	-120.4	-249.4	-63.6
United Kingdom	-188.3	-152.6	-137.0	-58.4	-53.2	-9.4	-82.0	-64.9	-114.5
Spain	-202.8	-186.7	-137.1	-21.1	-4.0	-36.9	-150.1	-175.8	-72.7
Netherlands	-420.6	-391.5	-330.7	-60.9	-56.7	-70.0	-223.5	-213.6	-150.9
Belgium	-345.7	-383.6	-332.9	-52.8	-15.6	-37.9	-191.7	-318.2	-210.9
Poland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Romania	57.4	50.7	52.0	63.1	59.8	8.4	-15.6	-22.7	47.3
Czech Republic	-8.5	-11.0	16.2	-12.1	-12.9	2.0	3.2	1.7	14.5

Source: Own study based on data Eurostat, Structural Business Statistics [accessed 05.11.2016].

advantage was Romania and the Czech Republic. The analysis of the competitiveness gap from a dynamic perspective indicates that its level is being decreased, which is a positive tendency. The highest decrease in the competitiveness gap in 2015 (almost 2.5 times) took place as compared to Germany. This is a very beneficial phenomenon because this country is the largest recipient of Polish products. A significant compression of the competitiveness gap of labor productivity was also observed in comparison to other countries. The competitiveness gap of labor productivity remained almost at the same level, and it even increased from the value perspective, only referring to Belgium. However, the differences in labor productivity between Poland and the leading EU countries are still high. Szczepaniak [2014b] indicates the fact that the improvement in the efficiency of this branch's operation may take place through the growth in technical-organizational progress.

A definitely lower and systematically decreasing gap of competitive potential was observed in the productivity of capital and in the capital – labor index. The highest differences in the productivity of capital were observed in 2015 as compared to Germany and Spain, but their level was only 53–56%). The productivity of capital of food producers in Poland, compared with other countries, was definitely smaller (21–37%). A higher productivity of capital was recorded only referring to Romania and the Czech Republic. Relatively productivity of capital was associated with high capital intensity of production [Łukiewska and Juchniewicz 2016]. Food industry companies took a lot of investments related to the adjustment of plants to the EU requirements and to reduce the technological gap. Such actions were appropriate since, as indicated Urban [2010] technological innovations and the increase in development investments were the key factors for the improvement of the competitiveness of Polish food producers on the European market. The level of labor productivity depends both on the investment and non-investment method of improving the effectiveness of human resources. The investment (capital-intensive) growth in labor productivity is associated with increasing the property equipment. The gap in competitive potential associated with the relation between the value of employed capital per unit of labor was the highest in comparison to Belgium and the Netherlands, namely countries with a high advantage in labor productivity. A particularly clear decrease (approx. five times) in the gap in the capital–labor index was observed as compared to Germany.

COMPETITIVE POSITION OF FOOD PRODUCERS

Discussion related to international competitiveness are undoubtedly associated with progressing integration and globalization processes. Competitiveness may then be identified with the ability to maintain or increase shares on global markets. Indexes based on international trade are most often used to measure it. The basic index of the competitive position as resulting competitiveness is the share in export to the EU market. The Netherlands and Germany are indisputable leaders on the EU market (Table 3). These countries executed 1/3 of internal export throughout the entire analyzed period. The most important items in the export structure in the Netherlands included vegetables and fruit, meat and meat products as well as dairy products and eggs. Food producers from Germany mainly exported meat and meat products, dairy products and eggs, cereals and cereal products as well as products from the section coffee, tea, cocoa and spices. The next place among food exporters is occupied by France whose share in export amounted to 13–10%. France's export structure was dominated by cereals and cereal products, dairy products and eggs as well as vegetables and fruit. A relatively large share in the intra-Community export market was also observed in: Spain, Belgium and Italy. The total share of the countries referred to above in the value of export of food producers on the EU market was more than 60%. Poland was definitely the largest food exporter among the countries of the new EU. It traded mainly in meat and meat products as well as vegetables and fruit.

When examining changes in the share of the analyzed countries in export in the years 2002–2015, very slight average annual fluctuations were observed in the countries of the old EU. This index decreased in the majority of them (from 1.1–1.8% in France, the UK and Belgium to 0.5% in Spain). A growth in the share of export to

Table 3. Indexes of competitive position of food producers in selected EU countries

Country	Export market share (%) in year				Trade coverage in year				Revealed comparative advantage in year			
	2005	2009	2015	average annual pace of changes (%)	2005	2009	2015	average annual pace of changes (%)	2005	2009	2015	average annual pace of changes (%)
Germany	15.5	16.6	16.0	0.4	0.85	0.93	0.89	0.6	0.69	0.73	0.71	0.4
France	12.9	11.7	9.8	-3.4	1.07	0.95	0.84	-3.0	1.21	1.19	1.12	-1.0
Italy	7.0	7.0	6.7	-0.5	0.73	0.79	0.85	1.9	0.83	0.91	0.92	1.3
United Kingdom	4.5	4.0	4.2	-0.9	0.37	0.38	0.35	-0.7	0.56	0.64	0.69	2.6
Spain	9.5	9.2	9.9	0.5	1.53	1.50	1.89	2.7	1.88	1.78	1.83	-0.3
Netherlands	18.1	17.7	17.3	-0.6	2.19	2.13	1.98	-1.3	1.55	1.42	1.36	-1.6
Belgium	10.7	10.2	9.4	-1.6	1.50	1.53	1.46	-0.3	1.16	1.13	1.12	-0.4
Poland	3.0	3.9	5.8	8.6	1.45	1.25	1.57	1.0	1.18	1.09	1.25	0.7
Romania	0.2	0.4	0.7	17.0	0.34	0.35	0.48	4.4	0.24	0.44	0.53	10.4
Czech Republic	1.1	1.3	1.7	5.6	0.69	0.65	0.76	1.2	0.44	0.41	0.43	-0.3

Source: Own study based on data Eurostat-Comext [accessed 05.11.2016].

the EU market among the largest EU food exporters was observed only in Germany. The average annual pace of changes was definitely higher among new member states. An improvement in this index was particularly visible in the case of Romania (average annual growth by 17%), Poland (average annual growth by 8.6%) and in the Czech Republic (average annual growth by 5.6%). The low initial level of share in trade exchange and the liberalization of the EU market affected positive changes in this respect. However, their significance on the EU market of food products still remained incidental. Poland was definitely the largest food exporter among the countries of the new EU in all analyzed years. A beneficial tendency of a systematic growth in this index (average annual pace of changes – 8.6%) allowed Poland to get ahead of UK in 2015.

When assessing the results of foreign trade, it is important to analyze the trade coverage index. The largest surplus in trade exchange with EU countries was recorded in the Netherlands. Revenues from the export of food products exceeded the exceed on account of import two times. A high level of this index was also recorded in Spain, Poland and Belgium. A negative balance of foreign trade in food was observed in other countries. The pace of changes of this index in the discussed period was slight. Staszczak [2013] lists several premises for the affiliation of countries to net food exporters or importers. He claims that this may result from climatic conditions or a focus on agricultural production or other. For instance, Poland is characterized by high importance of agriculture and food economy in the domestic economy and still has price advantages associated with lower labor costs. The Netherlands and Denmark maintain their position of net food exporters due to intensive cultivations, while France and Spain – due to favorable climatic conditions. The advantage of food import over export may, on the other hand, result, among others, from high labor costs in UK. This index should thus be interpreted in a wider context.

The next element in the assessment of the competitive position of food producers was to identify the revealed comparative advantages. The RCA index above unity was observed in five countries: Spain, the Netherlands, Poland, France and Belgium. The highest comparative advantages characterized food producers in Spain. In other countries, this index is smaller than unity which means the lack of comparative advantages. The correlation between the high index of revealed comparative advantages and high significance of food producers in the domestic economy was observed only in Spain and France. Definitely different tendencies were recorded in Germany. The highest share in intra-Community export was not convergent with the significant importance of food producers on the internal market. Changes in the discussed index were small in the analyzed period. This suggests a relatively stable competitive advantage and economic structure of particular countries. The revealed comparative advantage index in Poland increased from 1.18 to 1.25 (the average annual pace of changes amounted to 0.9 percentage points). The following groups of products are recognized as the most competitive ones in the Polish agricultural and food trade, which is indicated by Szczepaniak's results [2014b]: meat and giblets, dairy products, vegetables, meat and fish products, cereal products and pastry as well as fruit and vegetable products. The comparative advantages of the food products referred to above have a relatively permanent character on the global market and on the European market.

The distance separating Polish food producers from entities conducting activities in compared countries depended on the assumed measure of the assessment of competitive position. The largest competitiveness gap was observed in the share of export on the EU market. As compared to Spain and Germany it amounted, accordingly, to –504 and –418% in 2005 (Table 4).

Table 4. Gap of indexes of the competitive position of food producers in Poland in 2005, 2009 and 2015

Country	Gap of indexes of the competitive position (Poland = 100%)								
	export market share in year			trade coverage in year			revealed comparative advantage in year		
	2005	2009	2015	2005	2009	2015	2005	2009	2015
Germany	–418.0	–329.5	–175.9	41.3	25.3	43.3	41.7	33.2	43.2
France	–329.9	–203.5	–69.0	26.4	24.1	24.0	–3.0	–9.0	10.4
Italy	–132.2	–80.6	–15.5	50.0	36.5	36.8	29.1	17.1	26.4
United Kingdom	–48.7	–4.7	27.6	74.5	69.7	69.6	52.6	41.7	44.8
Spain	–215.9	–137.7	–70.7	–5.2	–20.0	–20.0	–59.7	–63.1	–46.4
Netherlands	–504.0	–359.1	–198.3	–50.9	–70.7	–70.4	–31.3	–29.7	–8.8
Belgium	–258.5	–165.4	–62.1	–3.1	–22.7	–22.4	1.5	–3.1	10.4
Poland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Romania	94.2	88.7	87.9	76.9	72.1	72.0	79.3	59.3	57.6
Czech Republic	64.3	67.2	70.7	52.5	47.9	48.0	62.5	62.8	65.6

Source: Own study based on data Eurostat-Comext [accessed 05.11.2016].

The previously presented positive changes in this index in Poland led to its decrease more than two times in 2015. As compared to France, the third country in terms of share in export on the EU market, the distance of Poland in the starting period amounted to –330%. It was almost three times smaller in 2015. The greatest

improvement in the gap in the share of Polish food producers in EU export was observed as compared to Italy. In 2013 it amounted to less than 27%. An even more beneficial situation occurred as compared to the UK. In 2005 this country had competitive advantage at the level of almost -50%, while in the last year of the analysis it was not only leveled by Polish food producers but they obtained a competitive advantage. The share of Poland in EU export of food products throughout the entire analyzed period was higher than in Romania and the Czech Republic. Competitive advantage, despite insignificant differences in particular years, was of a permanent nature.

A definitely better situation of food producers in Poland was recorded when comparing the next two measures of the competitive position, namely trade coverage as well as revealed comparative advantage. The surplus of export over import was smaller than in Poland only in two countries, namely the Netherlands and Spain. The competitiveness gap was, however, small and amounted, accordingly, to -20 and -70% (Table 4). In other cases, this dependence indicates the advantage of Polish food producers. The highest difference was observed as compared to the UK (70%) and Romania (72%). As compared to the largest EU food exporters on the EU market, namely Germany and France, it was at a slightly lower level (24–43%). A similar situation applied to the competitiveness gap at the level of revealed comparative advantages. Food producers in Spain were characterized by the highest level of this index, while the competitive gap of Poland amounted to -20%. It was definitely smaller as compared to the Netherlands (-9%). Food producers in Poland obtained comparative advantage as compared to other countries. The greatest advantage, among countries of the old EU, was observed as compared to the UK and Germany. The competitive advantage of Polish food producers was clear as compared to Romania and the Czech Republic – accordingly 57 and 65%, similar to all analyzed indexes of the competitive position. However, when examining these beneficial levels of the revealed comparative advantages index, we should note that the specific cost – price system of comparative advantages of a given country over foreign countries, determining the development of foreign trade to a large extent, is relative. It indicates the specialization of a given country in trading in food products and, in the case of Poland (at a relatively low level of labor productivity), it is not a factor enabling a significant increase in the share of export on the EU market.

CONCLUSION

The greatest improvement of competitiveness was recorded in the analyzed new EU countries. The expansion of the Community led to the effect of creating trade and the development of intra-Community trade, including food producers. The conducted analyses indicate the positive phenomenon of a decreasing but, at the same time, a very clear distance between the competitive potential of food producers in Poland and European leaders. The productivity level of particular production factors indicates the fact that the least beneficial situation was recorded in the case of the productivity of human labor. In order to increase the share of export to the EU market, it is necessary for this sector to further increase its labor efficiency. A definitely smaller competitive gap was present at the level of the capital's productivity. The decreasing competitive gaps were also observed with regard to particular partial measures of the competitive position. The nearly double increase in the share of Polish food producers in intra-Community export was particularly beneficial. Such a significant improvement in this index confirms the systematic development of this sector but, with its low starting level, it is not reflected in a significant change of the competitive position of domestic food producers on the EU market. Reducing the competitiveness gap of the producers' share on the EU market is possible through the growth in productivity associated with non-measurable factors. Because the total productivity of production factors is associated with organizational changes, improved management practices, improved methods of producing goods and services, it should be stated that there is an unused source of growth in the competitive potential of food producers in Poland in this case.

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LUKA KONKURENCYJNOŚCI PRODUCENTÓW ŻYWNOSCI W POLSCE NA RYNKU UNII EUROPEJSKIEJ

STRESZCZENIE

W artykule zaprezentowano lukę potencjału i pozycji konkurencyjnej producentów żywności w Polsce w porównaniu do wybranych krajów Unii Europejskiej. Zakres czasowy badań obejmował lata 2005–2015. Przeprowadzone analizy wskazują na pozytywne zjawisko zmniejszającego się, ale jednocześnie bardzo wyraźnego dystansu między potencjałem konkurencyjnym producentów żywności w Polsce a europejskimi liderami. Poziom produktywności poszczególnych czynników produkcji wskazuje jednocześnie, że najbardziej niekorzystną sytuację odnotowano w przypadku produktywności pracy ludzkiej. Zdecydowanie mniejsza luka konkurencyjna występowała w poziomie produktywności kapitału. Zmniejszające się luki konkurencyjne stwierdzono także w odniesieniu do poszczególnych miar cząstkowych pozycji konkurencyjnej. Szczególnie korzystny był prawie dwukrotny wzrost udziału polskich producentów żywności w wewnątrzunijnym eksporcie. Przy niskim poziomie wyjściowym tego wskaźnika nie przełożyło się to na istotną zmianę pozycji konkurencyjnej krajowych producentów żywności na rynku UE.

Słowa kluczowe: potencjał konkurencyjny, pozycja konkurencyjna, luka konkurencyjna, producenci żywności, produktywność