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IMPORTANCE OF AGRICULTURE WITHIN THE STRUCTURE OF EMPLOYMENT AND PRODUCTION IN THE MEDITERRANEAN COUNTRIES[1]

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Abstract. The expansion of the European Union during the 1980s with the Mediterranean region countries was a major challenge both for the new Member States and for the Community as a whole. The new Member States, i.e. Greece, Spain and Portugal, were poorly developed in economic terms, with a high proportion of the agricultural sector in overall production and employment structure. Still, the concerns about the future turned out to be unfounded, and the impulse of the accession process and the necessity to compete on the common market brought certain advantages both to existing and to new Member States, thus enforcing certain changes in the structure of production and employment in the economies discussed in this paper. Today, the Mediterranean region states, irrespective of the success achieved in the past years, are again facing the need to resolve certain important economic problems related to the global financial crisis. This paper discusses one of the aspects that strongly contributes to the present difficult socio-economic situation of the contemplated region, i.e. evolution of the sectoral structure of employment and GDP during the European Union membership, with special consideration of the situation in agriculture.

Key words: Spain, Greece, Portugal, Mediterranean region, agriculture, European Union, crisis, employment

INTRODUCTION

During the 1980s, European Union Member States decided to accept three Mediterranean region countries, namely Greece, Spain and Portugal, as their new members. The accession of Greece in 1981, Spain and Portugal in 1986 was a major challenge, as the agricultural industry in the new Member States was truly competitive and a real threat for the economies of the remaining Community members. The concerns associated with the accession could be perceived mainly in southern Italy where the first sector continued to play an important role, like it did on the Iberian Peninsula. After the three decades that passed as of the time of accession, these concerns can be clearly seen as unreasonable. The benefits of Community expansion in 1981 and 1986 were shared by both the new and the existing Member States. Through observation of the transformation process that occurred in the economy of Greece and both the Iberian Peninsula countries, one may conclude that benefits from integration were not distributed equally. The recent 25 years failed to trigger any evident acceleration of economic growth, nor positive transformation of the job market in Greece or Portugal, while on the other hand these two economies are not capable of managing

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the consequences of the financial crisis existing for several years. Spain was highly distinctive in comparison to the above mentioned countries. Integration with the European Union has clearly accelerated positive social and economic change in that country. However, today Spain is experiencing most serious economic problems for tens of years, initiated by the global financial crisis, while the transformation of the social and economic reality is clearly represented in the current situation in the agricultural sector of these countries.

The purpose of this paper is therefore to present the evolution that is taking place in the sectoral structure of employment in agriculture and the value of the first sector production, throughout the duration of European Union membership. The process of economic growth in specific member states of European Union implies major changes both in the structure of employment in specific sectors and in their share of the country's GDP. These changes are shown in theory by the Fisher-Clark model (Schettkat and Yocarini, 2003). This model which was established in the 1930s points to the link between different phases in the economic growth of states and the changing significance of specific sectors of the economy (Dworak and Malarska, 2010). According to Fisher and Clark's theory, in the classical process of economic development, it is possible to distinguish the following stages in the evolution of production and changes in the structure of employment related to them: the first of these, which is dominated by agricultural production, concerns countries with a low level of national income; the second, in which production and employment are focused on industry and construction, concerns states with a medium level of GDP and the third, which is dominated by services, is characteristic of countries with a high level of economic development (Thakur, 2011). These transformations are measured by changes in GDP as a measure of the general size of the economy or by using the usual indicators, calculated on a per capita basis, for example. In this context, it is worth remembering that the measurement indicators used today are subject to a whole range of shortcomings, as they fail to take account of many elements which are key to individual well-being, both those which increase well-being (such as goodwill, the informal sector or "grey economy", or work done for one's own benefit at home) and those which cause the level of well-being to be restricted (e.g. pollution of the environment as a result of the production process) (Szopa and Kawa, 2006).

As a result of the criticism to which GDP as the classical measure of growth has been subjected, other alternatives have been proposed. One of the first such ideas was to take non-market commodities (e.g. work done in the home, leisure time) and negative commodities (e.g. pollution, noise) into account when measuring economic welfare. In 1972, W. Nordhaus and J. Tobin proposed the idea of a *Measure of Economic Welfare* (MEW), which was expanded upon by P. Samuelson, who proposed to rename it as an indicator of *Net Economic Welfare* (NEW). Tobin and Nordhaus' indicator was also used as a template by the creators of the *Index of Sustainable Economic Welfare* (ISEW), which is based on the scale of individual consumption (measured according to the expenditure of individual citizens on end consumer products). Average consumption, distribution of wealth and damage to the environment are taken into account in determining the value of this indicator (Kompa, 2009).

Work is also currently being done on improving the ways in which we measure the economic growth of particular states. The most recent important attempt to do this was made in France. At the initiative of the French President Nicolas Sarkozy, a team of economists led by J. Stiglitz drafted a document entitled a *Report by the Commission on the Measurement of Economic Performance and Social Progress*. The Stiglitz Commission came to the conclusion that GDP was a far from adequate way of measuring individual well-being and that it should therefore be expanded to include those elements which are focussed on individual income and consumption rather than production. The authors of the report propose that the metric of well-being should be calculated from the perspective of the household economy and that it should take into account not only current income and consumption, but also the existing level of wealth (Stiglitz et al., 2009).

These debates which have been going on in university circles and in international institutions for years have not remained restricted merely to the theoretical domain. They have also allowed results to be achieved in practice. Currently, the most well-known metric for the comparison of socio–economic development is the Human Development Index (HDI) used by the United Nations Development Programme (UNDP) (UNDP 2011). The HDI is a summary measure based on indicators which assess progress in three basic spheres of life – health, education and standard of living. The HDI is completed by three summary indicators, based on similar principles. They take account of the participation of

both sexes in the benefits of development (GDI – Gender-related Development Index), the participation of women in economic and political spheres of life (GEM – Gender Empowerment Measure) and the level of poverty (HPI – Human Poverty Index) (Golinowska, 2004).

The article draws on publications by public institutions of the countries under consideration, as well as the European Commission publications. Statistical databases used for calculation include those by Instituto National de Estadistica, EUROSTAT, the International Labour Organization, OECD, and the macro-economic database by Directorate General for Economic and Financial Affairs.

SOCIO-ECONOMIC SITUATION OF THE COUNTRIES OF THE MEDITERRANEAN BASIN

Despite that nearly a decade has passed since the onset of the global financial crisis in the United States, the spectre of economic problems is still haunting Europe, while more and more information is arriving each month regarding slowing GDP rates, problems with balancing the budget deficit, or still high public debt in many EU Member States, particularly in the Eurozone. However, economic problems apply not only to the Member States. In its World Economic Outlook (IMF, 2014), the International Monetary Fund is regularly lowering the economic growth perspectives for the world and the world's largest economies, i.e. the USA and China (IMF, 2014).

Of the 28 European Community members, Greece, Portugal and Spain are specifically distinguished (Table 1). The two former states of these, despite the three decades of functioning on the common market and aid received under EU cohesion policy are today not only the least developed of the "old" Member States but were even outstripped by some new Member States in terms of their development level. As a consequence of lack of structural reform and inefficient usage of own resources or EU aid, both countries are entirely crisis-ridden, and quick improvement of their situation can only be

Table 1. Current economic and social situation in Greece, Portugal and Spain during 2012–2015
Tabela 1. Sytuacja społeczno-ekonomiczna w Grecji, Hiszpanii i Portugalii w latach 2012–2015

Specification Wyszczególnienie	Portugal – Portugalia				Greece – Grecja				Spain – Hiszpania			
	2012	2013	2014*	2015*	2012	2013	2014*	2015*	2012	2013	2014*	2015*
GDP growth (%) Wzrost PKB (%)	–3.2	–1.4	1.2	1.5	–7.0	–3.9	0.6	2.9	–1.6	–1.2	1.1	2.1
Inflation (%) Inflacja (%)	2.8	0.4	0.4	1.1	1.0	–0.9	–0.8	0.3	2.4	1.5	0.1	0.8
Unemployment (%) Stopa bezrobocia (%)	15.9	16.5	15.4	14.8	24.3	27.3	26.0	24.0	25.0	26.4	25.5	24.0
Public budget balance (% of GDP) Deficyt budżetowy (% PKB)	–6.4	–4.9	–4.0	–2.5	–8.9	–12.7	–1.6	–1.0	–10.6	–7.1	–5.6	–6.1
Gross public debt (% of GDP) Dług publiczny (% PKB)	124.1	129.0	126.7	124.8	157.2	175.1	177.2	172.4	86.0	93.9	100.2	103.8
Current account balance (% of GDP) Bilans obrotów bieżących (% PKB)	–2.2	0.4	1.0	1.4	–4.6	–2.4	–2.3	–2.2	–1.2	0.8	1.4	1.5

* Forecasts for 2014 and 2015.
Source: European Commission, 2014.
* Prognozy na rok 2014 i 2015.
Źródło: European Commission, 2014.

expected by utmost optimists. The economic crisis has also become the impulse that generated negative change on the job market in both these countries, with Greece being the one country with the highest rate of unemployment in the EU, exceeding almost 27% of all available workforce (Piecuch, 2013).

Of all the states under consideration, Spain was a clearly positive example, where European integration fostered positive social and economic change. The initial years of membership brought accelerated economic growth, and real GDP was increasing at more than 5% per year. Yet, the prosperity ended in early 1990s when the European economy entered the recession phase, and despite that the situation improved again during the following years, economic growth was no longer as rapid then as in the first years of membership. During the period preceding accession, persistently high unemployment tended to be the most serious problem in Spain, both in social and economic terms; yet, it decreased by a third even in the first five years of membership. However, together with the recession of the early 1990s, the number of unemployed people again increased significantly and the rate of unemployment exceeded 24% of labour resources. During the following years, due to increasing economic growth rate, unemployment decreased strongly again, to reach its minimum in 2007 at 8.3% (European Communities, 2010).

Even during the last months before the outbreak of the financial crisis and the burst of the speculation bubble on the real estate market would Spain be quoted as an example of a country which, through its accession to the European Union, efficient use of EU funding and increasing competitiveness on the common market, was able to benefit perfectly from the social and economic growth opportunities. Still, this country – even today, irrespective of the economic success achieved during the past period – faced the necessity of resolving major economic problems related to the global financial crisis (European Communities, 2009).

EVOLUTION OF EMPLOYMENT STRUCTURE AND GROSS ADDED VALUE IN THE MEDITERRANEAN REGION COUNTRIES

Socio-economic changes in Greece, Spain and Portugal that occurred after the accession to the European Union are currently having serious consequences and significantly change the structure of production and employment in the specific sectors of their economies. These consequences are particularly distinct in case of countries where the socio-economic situation was poor at the time of integration, while the changes in the structure of income generated by the particular sector illustrate the growth rate and directions followed by the above mentioned countries. The information presenting the situation in the first sector of the economy is particularly important as it indicates that the role of agriculture is regularly decreasing along with rapid economic growth, despite that during recession years, it is one of the available alternative economic activities for the shrinking job market in the industry and services.

GREECE

Greece, like the two other countries, accessed the European Union with a major baggage of unsolved socio-economic problems. Greece's situation during its EU membership and the barriers for efficient functioning of the economy and the job market at the time of recession can be illustrated by two mutually related indicators, namely sectoral structure of production and employment (Table 2). The structure of gross added value produced in Greece indicates that this economy is extremely archaic. The percentage of workers employed in the agricultural sector is the highest of all Eurozone countries at the moment. In 2013, nearly 13% of all employees were working in agriculture, forestry and fishery (the value is three times higher than the average value of this measure in the Eurozone as a whole). At the same time, the rate of changes occurring recently in that sector was insufficient, and today we are even facing a reversal of the decreasing tendency (Eurostat Newsreleases, 2010). Despite the current changes, it has to be borne in mind that since Greece's accession to the European Union, rate of employment in the first sector has decreased strongly, from 31% to 13% of all workforce (OECD, 2014).

The increasing rate of change within employment in agriculture was the result of attempts at adapting the Greek economy to the operating conditions within the common market of the EU. Today, however, with shrinking production and reduction of employment in services, agriculture is again becoming that sector of economic activity that largely absorbs the existing surplus of

Table 2. Gross value added* and employment in Greece in 1980–2013 (%)
Tabela 2. Wartość dodana brutto* i zatrudnienie w Grecji w latach 1980–2013 (%)

Years Lata	Agriculture Rolnictwo		Services Usługi		Industry Przemysł	Construction Budownictwo	Industry and construction Przemysł i budownictwo
	GVA WDB	Employment Zatrudnienie	GVA WDB	Employment Zatrudnienie	GVA WDB	GVA WDB	Employment Zatrudnienie
1981	13.7	30.7	56.5	40.3	20.9	8.8	29.0
1985	10.7	28.9	60.7	43.7	21.6	6.9	27.4
1990	9.6	23.9	63.7	48.3	19.2	7.5	27.7
1995	8.9	20.4	69.0	56.3	16.0	6.1	23.2
2000	6.6	17.4	72.5	60.0	13.9	7.0	22.6
2005	4.8	12.4	76.0	65.1	12.9	6.3	22.4
2010	3.3	12.5	78.8	67.7	13.8	4.1	19.7
2011	3.4	11.6	80.8	71.7	13.3	2.5	16.6
2012	3.4	12.2	80.3	72.2	14.2	2.1	15.6
2013	3.7	12.9	79.8	72.4	14.6	1.8	14.7

* % of gross value added (GVA) manufactured in economy.
Source: OECD, 2010; 2012; ILO, 2013; Eurostat (n.d.).
* % wartości dodanej brutto (WDB) wytworzonej w gospodarce.
Źródło: OECD, 2010; 2012; ILO, 2013; Eurostat (b.d.).

workforce. People who cannot gain employment in the industry or services are more and more frequently getting back to the first sector that experienced growth of employment at several per cent during the last 3 years, thus again becoming the only source of jobs. Compared to other European states, Greece is characterized by extremely low employment in the industry an construction sector, at 15%, which can be expected of an economy that operates mainly within tourism-related services, comprising almost 72% of all jobs. The transformation process within the structure of employment by sector in Greece should also be compared to the changes within the structure of national income. At the time of integration with the European Union structures in 1981, the proportion of the first sector in national income production was particularly high, at nearly 14%, which is multiple times higher than the equivalent values among the EU Member States as at that time. However, the share of this sector decreased almost 4 times by 2013, to reach 3.7% of gross national product. Another sector that underwent restructuring and decrease of GDP share was the industry. The share of the second sector decreased by a third during the last thirty years, down to 14.6% in 2013.

It should be emphasized that the role of the industry is relatively insignificant in Greece when compared to the other countries under review. Like in the remaining EU Member States, particularly in those earning a major part of national income from tourism-related services, the proportion of the third sector in gross national product increased significantly, from 56.5% in 1980 to 79.8% in 2013. Contrary tendencies to those occurring e.g. in Spain, which are discussed in detail below, can be perceived in the case of construction – the importance of this branch during the period from 1980 to 2013 not only increased as it did in most EU Member States, but even decreased more than 4 times. This reverse tendency, compared to developed EU economies, clearly indicates economic stagnation of Greece during the past few decades. Also, attention should be paid to the relationships between the generated income and employment in the first sector. Employment at 13% and production at 4% indicates that the productivity of agriculture-related activities is not positive in that country.

SPAIN

During the years preceding Spain's integration with the EU structures, there has been a distinguished tendency to change both employment in the specific sectors and their importance across the entire economy. This process accelerated strongly as a result of Spain's adaptation to the conditions of the highly competitive internal market of the EU. Even in 1986, the share of the first sector in GDP was twice as high as in the remaining Community States, exceeding 6%, yet lowering to 2.6% by 2013 (Table 3). Another sector that had to face the necessity of restructuring during the 1980s and the 1990s was the industry. As a result of structural changes, its proportion in GDP produced became significantly lower (the share of the industry in GDP production lowered by more than a fourth during the last three decades, down to 25.3% in 2013). It should be pointed out that the changes were outstandingly fast in the construction sector (OECD, 2008).

The beginning of the 21st century brought a rapid increase of real estate prices, which resulted in development of the entire sector. With the growth of the speculative bubble on the real estate market, its share in GDP increased twice, while its bursting became one of the key factors contributing to the rapid character of the financial crisis in Spain and its current economic problems. The changes occurring during the last 30 years in services were equally important, while the systematically increasing share of this sector in GDP verified the positive change in the economy of Spain since the time of European integration (Piecuch, 2013).

Nearly three decades of functioning of the common market of the competitive economy of the European Union occasioned certain major changes in the structure of employment (Eurostat Newsreleases, 2014). In mid 1980s, Spain's economy was typical of developing countries. At the moment, sizes of employment in the particular sectors of the economy are similar to those observed in highly developed countries (Piecuch, 2010). The proportion of first sector employees decreased most significantly (from 18.2% in 1986 to 4.3% of all workforce in 2013). There was also a major reduction in the number of employees in the industry and construction (from 31.5% to 19.8% of all workers). Still, the unique

Table 3. Gross value added* and employment in Spain in 1981–2013 (%)
Tabela 3. Wartość dodana brutto* i zatrudnienie w Hiszpanii w latach 1981–2013 (%)

Years Lata	Agriculture Rolnictwo		Services Usługi		Industry Przemysł	Construction Budownictwo	Industry and construction Przemysł i budownictwo
	GVA WDB	Employment Zatrudnienie	GVA WDB	Employment Zatrudnienie	GVA WDB	GVA WDB	Employment Zatrudnienie
1981	6.3	18.8	57.9	46.0	28.5	7.3	35.2
1986	5.9	18.2	59.8	50.3	27.8	6.4	31.5
1990	5.5	11.7	61.4	55.1	24.4	8.6	33.1
1995	4.5	9.2	66.1	60.7	21.9	7.5	30.0
2000	4.4	6.6	66.4	62.4	20.9	8.3	31.0
2005	3.2	5.3	67.1	62.3	18.2	11.5	28.5
2010	2.7	4.3	71.6	72.6	16.6	10.1	23.1
2011	2.5	4.1	70.9	75.5	17.1	9.5	20.4
2012	2.5	4.2	71.6	76.6	17.4	8.6	19.2
2013	2.6	4.3	72.1	75.9	17.5	7.8	19.8

* % of gross value added (GVA) manufactured in economy.
Source: OECD, 2010; 2012; ILO, 2013.
* % wartości dodanej brutto (WDB) wytworzonej w gospodarce.
Źródło: OECD, 2010; 2012; ILO, 2013.

characteristics of the Spanish construction sector should be emphasized, as even during the period preceding the outbreak of the financial crisis, employment in construction was twice as high as in the remaining EU Member States (13% of employees in 2007) (INE, 2009). At the moment, the Spanish construction sector is undergoing serious difficulties that lead to reduction of employment, while according to the tendencies observed in the most developed countries, employment in the services sector increased significantly (from 50.3% in 1986 to 75.9% in 2013) (ILO, 2012).

PORTUGAL

The rate of transformation of the Portuguese economy is well represented by the evolution of the structure of production by sector. Agriculture was definitely the sector that experienced the most significant changes. Even in mid-1980s, the share of the first sector in GDP represented over 14%, which was followed by an almost five-fold reduction by 2013, down to 2.4% of the value of the whole economy. Certain important changes occurred in the services sector as well. Its proportion in Portugal's GAV (gross added value) increased by 15.3 percentage points during the last twenty years, to reach 74.4% in 2013 (table 4). The transformation that occurred in the two other sectors, namely industry and construction, was proceeding much more mildly, like in the other developing Member States. With the changes in sector structure, there were meaningful shifts in the employment structure in the Portuguese economy, which is evolving in the same direction as that observed in Spain and Greece.

The direction of these changes is characterized by decreasing employment in agriculture and industry, with simultaneous rapid growth of employment in services. Nevertheless, it should be added that despite the nearly 30 years of functioning on the EU market, the employment structure by branch in Portugal continues to strongly diverge from the values that can be observed in Western European countries. Employment in the agricultural sector underwent a strong reduction (from 21.9% in 1986 to 10.2% of all employees in 2013) yet it still exceeds the equivalent values observed in the best developed European Union Member States (INE, 1982).

Table 4. Gross value added* and employment in Portugal in 1981–2013 (%)
Tabela 4. Wartość dodana brutto* i zatrudnienie w Portugalii w latach 1981–2013 (%)

Year Lata	Agriculture Rolnictwo		Services Usługi		Industry Przemysł	Construction Budownictwo	Industry and construction Przemysł i budownictwo
	GVA WDB	Employment Zatrudnienie	GVA WDB	Employment Zatrudnienie	GVA WDB	GVA WDB	Employment Zatrudnienie
1981	16.0	26.1	59.1	37.4	21.3	6.4	36.5
1986	14.1	21.9	59.6	44.0	22.6	5.0	34.1
1991	8.3	17.8	65.4	47.2	21.4	5.5	34.9
1996	5.5	12.2	65.7	56.5	22.4	6.5	31.3
2001	3.6	12.9	69.2	53.0	19.5	7.8	34.1
2007	2.5	11.6	73.1	57.8	18.0	6.5	30.5
2010	2.4	10.9	74.6	61.4	17.0	6.0	27.7
2011	2.2	10.6	73.8	63.9	18.2	5.8	25.6
2012	2.3	11.0	73.9	64.8	18.7	5.1	24.2
2013	2.4	10.2	74.4	63.1	18.9	4.3	23.7

* % of gross value added (GVA) manufactured in economy.
Source: OECD, 2010; OECD, 2012; INE, 1982, 1988, 1992, 1997, 2003, 2008; ILO, 2011.
* % wartości dodanej brutto (WDB) wytworzonej w gospodarce.
Źródło: OECD, 2010; OECD, 2012; INE, 1982, 1988, 1992, 1997, 2003, 2008; ILO, 2011.

In Portugal, like in the remaining countries covered by this study, there is also a clear link between the increasing economic problems resulting in high unemployment and the importance of agriculture in GDP and employment. During 1986–2013, the number of employees in the industry and construction decreased significantly as well (from 36.5% to 23.7% of all workers). According to the tendencies observed in countries bridging the development gap between them and the Western European countries, employment in the services sector increased most significantly, and the growth in this area that ranges around almost 19 percentage points (from 44.4% in 1986 to 63.1% in 2013) is relatively prominent. The level of employment in services that was achieved in 2013 at around 63.1% is significantly different from the levels observed in most European Union Member States (OECD, 2010). Therefore, further growth of employment in services should be expected in the upcoming years, particularly considering the fact that the traditional sectors of the economy that used to be the foundation of Portugal's economy for years are facing enormous competition from products from Asian countries and pressure related to the global financial crisis. The increasing competition will lead to reduction of employment in the industry while the persons losing their employment will probably find it again in the growing services related mainly with tourist activities (Centen et al., 2007).

The results of the analysis conducted show that in the states analysed, during the period of 1995 to 2013, growth in the value of GDP in the economy was accompanied by a decrease in GVA generated in the first sector (Table 5). In the services sector, the reverse was the case, with the value of GVA growing together with growth in GDP. These changes fit with the theoretical Fisher-Clark model, which is also confirmed by the calculated values for the Pearson linear correlation coefficients (r_{xy}), which were as follows: for agriculture –0.971 (Greece), –0.978 (Spain) and –0.983 (Portugal), and for services 0.715 (Greece), 0.793 (Spain) and 0,958 (Portugal), with a level of statistical significance of $\alpha = 0.05$. The correlation coefficients indicated are within the intervals 0.700 to 0.900, or 0.900 and above, confirming a significant or very strong statistical relationship (Ostasiewicz et al., 2001; Peternek and Kośny, 2011). In order to verify the results obtained, an additional significance test was also carried out, which showed that an empirical statistics value for small sample sizes ($n \leq 30$), which was in excess of the critical value from the Student t test tables ($|t_e| > t_\alpha$), with n–2 degrees of freedom, providing a basis for rejection of the null hypothesis $H_0 : r_{xy} = 0$ (expressing the lack of any relationship between the characteristics X and Y), as opposed to the alternative hypothesis $H_1 : r_{xy} \neq 0$ and shows that the results obtained are statistically significant for a level of statistical significance of $\alpha = 0.05$.

Table 5. Pearson's linear correlation coefficient (r_{xy}) for variables GDP and GVA in 1995–2013
Tabela 5. Wartości współczynników korelacji liniowej Pearsona (r_{xy}) dla zmiennych PKB i WDB w latach 1995–2013

Country Kraj	Agriculture – Rolnictwo					Services – Usługi				
	r_{xy}	t_e	t_α	α	n	r_{xy}	t_e	t_α	α	n
Grecja Greece	–0.971	–16.693				0.715	4.217			
Hiszpania Spain	–0.978	–19.330	2.1098	0.05	19	0.793	5.367	2.1098	0.05	19
Portugalia Portugal	–0.983	–22.075				0.958	13.774			

Explanations of the table: r_{xy} – correlation coefficient, t_e – value of empirical statistics (tested), t_α – critical value from Student-T test tables, α – statistical significance, n – sample size.
Source: own elaboration based on: OECD, 2008; 2014.
Objaśnienia do tabeli: r_{xy} – współczynnik korelacji, t_e – wartość statystyki empirycznej (testowej), t_α – wartość krytyczna statystyki, odczytana z tablic rozkładu t-Studenta, α – poziom istotności, n – liczebność próby.
Źródło: opracowanie własne na podstawie: OECD, 2008; 2014.

SUMMARY

Integration of the three Mediterranean region countries, namely Spain, Greece and Portugal, with the EU structures during the 1980s was the first process of this kind that stirred a major controversy. All the three countries posed a major challenge in terms of competition with the first sector in EU Member States, due to their poorly developed economies, high proportions of agriculture in production and employment. Still, these concerns turned out to be unfounded, and the impulse of the accession process and the necessity to compete on the common market brought certain advantages both to existing and to new Member States. Integration with the European Community also brought major changes in the structure of production and employment in the concerned Mediterranean region economies, however with different rates and ranges. The changes which came about were in line with the theory presented by the Fisher-Clark model and economic growth was followed by a decrease in the first sector's share of production and employment in favour of an increase in the share of industry, and above all of the services sector in the Gross Value Added generated in the states analysed. It should be added however that these changes did not occur at the same rate or have similar ranges of scope.

The first of these countries used to serve as an example of success in the economic and social perspective, achieved through European integration. Accession to the European Union opened new growth opportunities that were fully exploited by Spain, and a manifest sign of this process was the evolution of Spain's production and employment structure, particularly in the agricultural sector. Specifically, employment in the first sector decreased almost fivefold during the last 30 years, while its agricultural production decreased almost by half. Like in the case of rapidly growing economies, the construction sector gained more importance in Spain as well. It turned out, however, that the growth of production and employment in construction in that Iberian state was mainly fuelled by the growing speculative bubble on the real estate market, leading to inevitable economic crisis, with its dramatic consequences being observed today. Greece and Portugal, on the other hand, followed a different growth directions, their transformation tendencies proceeded at different rates and were significantly less intensive as compared to Spain.

Also, it should be noted that the phenomenon of weakening role of the first sector in production of employment can be observed in this country; nevertheless, both the proportion of employees in agriculture and the production still tend to significantly outgrow the values characterizing highly developed economies. In terms of production process efficiency and workforce yield, the countries under review are still far behind the well-developed Eurozone economies. If employment in agriculture exceeds 4 times the gross added value, production cannot be considered highly efficient. The above circumstances may therefore largely explain today's extremely difficult situation of the studied countries. Therefore, during the time of the most serious economic crisis for decades, the governments are again facing the necessity of undertaking radical structural reforms which, disregarded in the much more advantageous environment and period for socio-economic transformation, are strongly and commonly opposed by the citizens of the Mediterranean region countries.

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EWOLUCJA ZNACZENIA ROLNICTWA W SEKTOROWEJ STRUKTURZE ZATRUDNIENIA I PRODUKCJI W KRAJACH REGIONU MORZA ŚRÓDZIEMNEGO

Streszczenie. Rozszerzenie w latach osiemdziesiątych Unii Europejskiej o państwa regionu Morza Śródziemnego stanowiło duże wyzwanie zarówno dla nowych członków, jak i całej wspólnoty. Nowe państwa członkowskie – tj. Grecja, Hiszpania i Portugalia – były bowiem słabo rozwinięte pod względem gospodarczym, o dużym udziale sektora rolnego w produkcji i zatrudnieniu. Obawy o przyszłość okazały się jednak nieuzasadnione, a impuls, jaki stanowił proces akcesji i konieczność konkurowania na wspólnym rynku, przyniósł korzyści zarówno dotychczasowym, jak i nowym państwom członkowskim, wymuszając przy tym zmiany w strukturze produkcji i zatrudnienia w omawianych w pracy gospodarkach. Dziś państwa regionu Morza Śródziemnego, niezależnie od sukcesów osiągniętych w minionych latach, ponownie stanęły jednak przed koniecznością rozwiązania ważnych problemów gospodarczych, związanych z globalnym kryzysem finansowym. W pracy omówiono jeden z aspektów, który jest dość istotny w obecnie trudnej sytuacji społeczno-gospodarczej analizowanego regionu, tj. ewolucję sektorowej struktury zatrudnienia i PKB w okresie członkostwa w Unii Europejskiej, ze szczególnym uwzględnieniem sytuacji w rolnictwie.

Słowa kluczowe: Hiszpania, Grecja Portugalia, region Morza Śródziemnego, rolnictwo, Unia Europejska, kryzys, zatrudnienie

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