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# ADJUSTMENT OF POLAND'S AGRICULTURE AND FOOD SECTOR TO CHALLENGES OF AGRICULTURAL POLICY OF THE EUROPEAN UNION

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**Abstract:** Paper is aimed in assessment of first period of Poland's membership in EU and covering agriculture and rural areas with the support under the Common Agricultural Policy in the context of future challenges faced by the agricultural policy. Analysis shows that accession to EU became a strong impulse for growth of the Polish food economy, however the main challenge for the Common Agricultural Policy in future, from Poland's perspective, will be strengthening the multifunctional agriculture, i.e. territorial cohesion and positive effects of agricultural activity on natural environment.

**Key words:** multifunctional agriculture, common agricultural policy, rural development, Poland

## Introduction

During the recent decades, agriculture and food economy of the EU have revealed a high capability of adapting to the new economic, social and environmental challenges, resulting, *inter alia*, from transformations, occurring in technique and production technology, competition pressure and consumers' requirements. The mentioned adaptations had also place in the field of agricultural policy and public support, obtained via this policy. Owing to the mentioned adaptation, agri-food sector of the EU remains still the important sector of its economy although it is characterized by a very big diversity in the particular member states. At the same time, the discussed sector has a key meaning for environment and landscape of rural areas, preservation of natural habitats or counteracting the occurring climate changes.

Rural areas constitute about 91% of the EU-27 territory and are inhabited by almost 56% of the whole population. In Poland such regions represent 93.2% of Poland's total area. Those areas are inhabited by 14.7 million persons, i.e. 38.6% of the population (CSO, 2008). Structural transformations in agriculture, as being forced by the changes in social – economic environment and technological progress in the agriculture alone are also supported by the CAP instruments. At the same time, CAP due to the contradictions contained in its instruments, inhibits the rate of the discussed transformations.

The aim of the paper is assessment of first 5 year period of covering Poland's agriculture and rural areas with the support under the Common Agricultural Policy in the context of future challenges faced by the agricultural policy. Analysis

shows that accession to EU became a strong impulse for growth of the Polish food economy, however the main challenge for the Common Agricultural Policy in future, from Poland's perspective is support for the development of multifunctional agriculture.

## Changing role of agriculture in the EU economy

Agriculture and food industry are the important part of the EU economy. Their participation in GDP of the EU in 2008 was equal to ca. 4% and the value added, produced by the discussed sectors exceeded 190 billion EUR in the discussed year, with the employment amounting to ca. 18.6 mln persons, i.e. almost 8.6% of all employees. Agri-food sector has a relatively greater meaning for the economy of the new member states, however according to the regularity, observed in highly developed countries, the decrease of the role of this sector in the national economy occurs together with the economic development. In parallel, the development of other sectors of the economy (mainly of services) is observed; in food-agricultural sector, the increase of productivity of capital is recorded. In consequence, it leads to decline of prices of agri-food products as compared to the prices of the remaining goods and services. Role of food economy in the national economy is, however, very much differentiated between the particular EU member states.

Production-economic structures of the EU agriculture reveal also a high diversity between the particular countries and even between their regions. The mentioned differences are the consequence of, *inter alia*: level of economic development, historical background, natural and climatic

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conditions and various institutional frames. The mentioned diversity is reflected in physical and economic size of the farm, production intensity or productivity. The employment coefficient in the EU-27 agriculture varies from ca. 1% in Great Britain to ca. 20% in Bulgaria and Rumania. As a result of the successive enlargements of the EU, the number of agricultural farms increased from 5.8 mln in 1980 to 14.5 mln in the EU-27 (Kowalski (ed.), 2009).

The CAP reforms, conducted in the years 2000–2007 were aimed at the improvement of its efficiency and effectiveness via the improvement of market oriented production, increase of its competitiveness, assurance of the positive effect of agriculture on environment, improvement of production quality, food safety and animal welfare and sustainable development of rural areas. The shift of the main accent of support, from prices to incomes, together with the enlargement of instruments of developing the rural policy allowed market mechanisms to play a greater role in allocation of resources. Introduction of the single payment scheme (decoupled payments) was intended to serve this aim. The effectiveness of the discussed instrument was also supported by OECD studies, which showed their smaller influence on production as compared to the earlier support of prices or direct aid.

The change of agricultural policy instruments, introduction of modulation mechanisms and financial discipline have considerably changed the level and structure of financial support of agricultural sector and rural areas. Owing to the discussed changes, most of the CAP budget was destined for payments, being not connected with production and direct payments, and only 20% of the CAP budget was destined for actions being directly connected with the market and support of export. The introduced reforms have also contributed to systematic increase of expenses on development of rural areas (at present, about 15% of the CAP budget). In consequence of the conducted reforms, and also of the earlier reform of MacSharry, the participation of expenses on agriculture in the EU budget and in GDP was systematically decreased (Fig.2). In 2007, the expenses of the CAP, although were almost five times higher

than at the beginning of the eighties and amounted to ca. 50 billion EUR, they constituted only ca. 40% of GDP of the “EU-25” whereas in the eighties, the discussed participation exceeded 60%.

From the preliminary budget plans, revealed by the European Commission, it results that the means for rural development have been increased by 0.3 billion EUR to the level of 13.9 billion EUR as compared to 2009 and for the implementation of the aims of the CAP Pillar Two – from more than 2.9 billion EUR to 43.7 billion EUR. The total budget of the EU is concentrated on the acceleration of reconstruction of the European economy, suffering from the consequences of the world crisis.

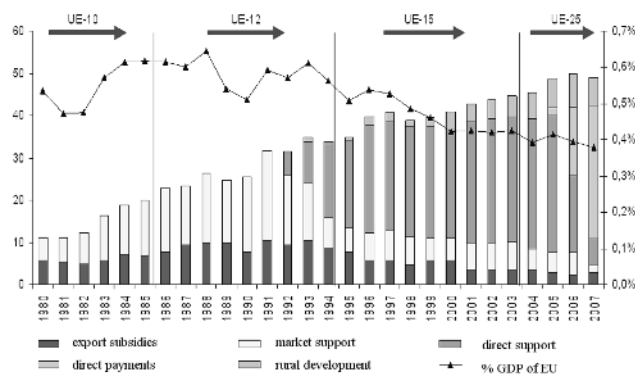
**Table 1.** Distribution of the expenses on the CAP according to the preliminary draft budget of the EU for 2010 (in mln EUR)

Specification	2009	2010	Change in per cent
Pillar One	41 127	43 745	6,4
Market actions	3 410	4 042	18,5
Direct payments	37 779	39 326	4,1
– in decoupled form	31 296	33 374	6,6
– % complete direct payments	83	85	–
Pillar Two	13 652	13 975	2,4
<b>CAP in total</b>	<b>54 779</b>	<b>57 720</b>	<b>5,4</b>

Source: (FAMU, 2009).

The participation of the funds, destined for the measures connected with agriculture (ca. 40% of the total sum of the budget expenses i.e. the amount of ca. 139.5 billion EUR) will be however, unchanged. The increase of the expenses on Pillar Two will be caused by 2% higher modulation. The obtained additional sum will be destined for payments connected with the “new challenges” and development of rural areas. The total expenses on the market and structural pillar of the CAP in 2010 will be found on the level of 57.3 billion EUR, i.e. by 2.9 billion EUR more than in 2009 (Tab.1).

Higher expenses and costs of the CAP running are also connected with the mechanism of phasing-in which generates greater expenses on direct payments in the new member states. They reflect also certain prognosis increase of the market support, mainly in the dairy sector. As a result of the mentioned changes, Pillar One of the CAP will cover more than 31% of all expenses of the European Union in 2010; further ca. 11% will be destined for rural development, environmental protection and the Common Fisheries Policy. In spite of the expected current increase of expenses on implementation of the CAP within the frames of the Pillar One and Pillar Two in 2010, general decline of the mentioned expenses down to the level of 33% of the EU budget until 2013 is anticipated. Systematic decrease of the expenses on agriculture and development of rural areas in GDP is connected with the economic development of the EU, increase of the role of other EU policies and also, with the effects of the CAP reform implementation.



**Figure 1.** Expenses on CAP during the years 1980–2007, in billion EUR and as percent of GDP

Source: Own elaboration on the basis of Eurostat data

## Changes in Poland's food sector 5 years after the accession to EU

The attempt to make an in-depth analysis of macroeconomic social and economic effects of Poland's membership in the EU after nearly 5 years is a risky task. Due to the relatively short time, it is difficult to assure methodologically correct separation of permanent effects and the phenomena resulting from the economic cycles or random events. The macroeconomic and microeconomic results of Poland's adjustments to the legal and institutional solutions of the "old" EU were not fully materialised yet.

The course of economic processes in Poland was influenced by geopolitical threats, significant changes in raw material prices, especially crude oil price, as well as instability of financial markets. These phenomena would have affected Polish economy irrespective of our membership in the EU.

Mutual full opening of markets was not a hindrance to the development of the Polish food economy; instead it became a strong impulse for its growth. The following phenomena serve as evidence for such an assumption (Kowalski (ed.), 2009):

- Within the 5 years of our membership in the EU the export of agri-food products increased from EUR 4.0 billion to EUR 11.3 billion (2.8 times), whereas the import increased from EUR 3.6 billion to EUR 9.8 billion (also 2.8 times), and the surplus increased 3.3 times from EUR 0.4 billion to EUR 1.5 billion.
- The trade with other EU states grew even faster. Food deliveries from Poland to the EU-25 States in 2003–2005 increased by 248%, whereas imports to Poland increased by 212%.
- The EU membership gave a new, very strong impulse to the export of Polish agri-food products to EU-10/12 countries. The increase in trade dynamics with these countries and the improvement of results were especially visible in recent years, whereas the trade with EU-15 noted a decrease in dynamics and the deterioration of results.
- The positive balance of foreign trade in agri-food products has improved: in total from EUR 0.4 billion in 2003 to EUR 1.5 billion in 2008, with EU-25 States from EUR 0.4 billion to EUR 2.3 billion in 2008, with EU-15 States from EUR 0.2 billion to EUR 0.8 billion in 2008 (but in 2006–2007 it was EUR 1.5 billion); with EU-12 States from EUR 0.2 billion to EUR 1.5 billion in 2008.

Foreign trade in this period became an important factor of the development of the situation in the food industry and in agriculture, because with a relatively stable domestic demand it absorbed vital part of the increase in domestic

production. The share of the export in the production sold in 2008 reached 22%, as compared to 16.5% in 2004 and 10.5% in 2000 (Kowalski, Wigier (eds.) 2008).

After Poland's accession to the EU, the global agricultural production in fixed prices amounted to about PLN 58.5 billion and was on average 2.5% higher than in 2001–2003. In that period animal production increased by 6.9% and plant production decreased by 1.1%. The feature of plant production development is the faster growth rate of final production and commodity production than global production, which means that internal absorption decreases, both in respect to production and consumption, and the level of commodity production increases.

In 2003–2008 there have been important changes in the income situation of agricultural holdings in Poland. The income of Polish farmers grew significantly after Poland became an EU Member State in 2004. The income received from agricultural holdings in the pre-accession period increased over 2 times per 1 full-time employee (working at least 2,200 hours in an agricultural holding annually). The subsidies received by farmers from non-market sources had a fundamental impact on this favourable change of income situation. Although in 2003 the subsidies amounted to 9.4% share of income, the following year their share increased to 39%. The greatest share of subsidies in income in the discussed period was noted in 2006 when subsidies had greater importance than production activity in the creation of income. After the accession the relative profitability of farmers in relation to other occupational groups has also improved. The average agricultural income converted to 1 full-time employee amounted to 24.2% of the average net salary in the national economy in the pre-accession period, but in the first year of the accession this rate more than doubled and reached 56.2%. In the following years these relationships ranged from 43.3% in 2005 to 57.5% in 2007, a very good year for agriculture.

According to estimates conducted in line with the method of Economic Calculations for Agriculture, the production value of the Polish agricultural sector measured with the market prices in 2004–2008 increased by over 18.7% and for subsidies by 38.5%. At the same time the worth of indirect absorption increased by 28.1%. As a result the income per full-time employee in agriculture decreased in that period by 2.2%, whereas the average net salary in national economy

**Table 2.** Selected data on income and subsidies in the sector of agricultural holdings in Poland in 2003–2008

Specification	Unit	Year					
		2003	2004	2005	2006	2007	2008
Average net salary in national economy	PLN	17,622	18,325	19,060	19,840	21,570	23,330
Income per one full-time employee	PLN	4,259	10,290	8,252	9,984	12,411	10,062
Index of income for average salary	%	24.2	56.2	43.3	50.3	57.5	43.1
Subsidies per one full-time employee	PLN	402	4,009	3,882	5,198	5,352	5,019
Share of subsidies in income	%	9.4	39.0	47.0	52.1	43.1	49.9

Source: Calculations of Z. Floriańczyk and L. Goraj (IAFE-NRI) on the basis of macroeconomic calculations for agriculture – EAA and the CSO data.

increased by 27.3%. Now we must recall the assumptions and results of the forecast of farmers' income drawn up by the European Commission for 2005–2014. They indicate that the real income calculated per full-time employee will increase by 32.2% in 10 countries which entered the European Union in 2004 on condition that the employment (measured with the number of full-time employees) in agriculture is at the same time lowered by 21.8%. In order for this increase in income to take place, the employment in agriculture must decrease in the same period by 2.4% on average per year.

After the accession to the EU, the financial indicators of the entire food industry improved drastically. Between 2004 and 2007, as compared to 2003 (Kowalski (ed.), 2009):

- net profitability doubled to about 4% of the value, and ROE increased 2.5 times to about 12–13%, i.e. to the level over double as high as the basic percentage rate of the National Bank of Poland,
- profitability rates increased to a smaller degree: gross profit (from 2.5%–3.0% to 4.5–5%), cash revenues (from about 5% to 7%) and operational surplus (from 8.5% to 9.5%),
- cost-burdens of financial revenue decreased (from 2.3% to 1.2–1.3%) along with profit income tax-burdens (from 40% to about 20%); these are main sources of the improvement of net profitability rates,

As a result of a great profitability improvement, growth was observed in the previous years:

- the net profit amount increased from PLN 1.6 billion in 2003 to PLN 6.5 billion in 2007, i.e. 4-times,
- equity, increased respectively from PLN 30.1 billion to PLN 44.8 billion (by 49%), including own means in circulation from PLN 5.1 billion to PLN 10.8 billion.

It allowed for financing the increased (by 41%) investment costs when stabilising relative level of long-term debt, whose amount has increased just as the equity did.

After Poland's accession to the EU and in the subsequent years there were significant changes of enterprise structure in the food industry. There was also no mass bankruptcy of national companies. The processes of merger, takeovers or consolidations of whole sectors did not intensify either. In that period the number of industrial companies decreased slightly, mostly small and micro enterprises.

### **New challenges faced by the CAP and the development of agriculture and rural areas in Poland**

Rural development represents an important priority of the common CAP which should be implemented through the second pillar of this policy. In actual fact, instruments and programmes of the second pillar of the CAP are aimed to support farmers rather than the rural population. Efforts to create a common rural development policy have been made for years. The failure to achieve this goal should be attributed

to procedural complexity, high transaction costs of the instruments offered under the second pillar of the CAP, difficulties with the identification of institutions and persons responsible for rural development, the great diversity of rural areas in Europe, thus different priorities, which in turn complicates the definition of "common" elements in the rural development policy (Woś, 2004).

It should be noted, however, that the share of the rural population has been slightly increasing. Particularly strong population growth has been in rural areas in the proximity of major cities or in those characterised by attractive rural and natural landscape. At the same time, fluctuations in the number of rural residents is increasingly accompanied by a marked downward trend of the farming population, following the fall in the number of family farms. As their number decreases, the role of agricultural holdings in providing the source of income is gradually diminishing (Woś, 2001). Therefore, economic activity and sources of income of the farming population have been increasingly diversified. In 2005, farming provided the main activity and income source only for 36% of households with a farm of more than 1 ha of agricultural land, whereas the corresponding figure for 2000 was 42%. Such rural households accounted for 36% and 43% respectively of the farming population (Karwat-Woźniak et al., 2006). The analysis of the non-farming population has primarily demonstrated that this group represents a growing and ever more significant share of the rural population. Therefore, the rural community can no longer be identified exclusively with agricultural activities. As many as 57% of rural families own no agricultural land and 46% of private farms does not exceed 5 ha of cultivated land and for most of them main source of income is other than agricultural production (Sikorska, 2006). In some regions of Poland, particularly in the north and southwest, the group in question accounts for three-fourths of the total number of families. Even in the eastern Poland, where agricultural holdings have been characterised by very traditional family ties, non-farming families represent nearly half of the rural community, irrespective of the economic status of individuals.

The analysis of the socio-economic structure of rural population suggests that the upward trend of the number of non-farming population will continue and that this socio-occupational group will increasingly determine the socio-economic development of rural areas (Sikorska et al., 2007). One should bear in mind that in the present picture of the Polish countryside agriculture plays a diminishing role, whereas non-agricultural elements have been gaining in importance, in terms of both employment and income of the rural population. The countryside has been losing its rural character and evolving towards multifunctional agriculture and rural areas development, which appears to be a universal development path (Woś, 2001). Also dynamic changes in the European and global agricultural and food market confirm the great meaning of traditional functions, played by the agriculture and rural areas. It refers, *inter alia*, to such aims as: securing food supplies at moderate prices for the

consumers, ensuring high competitiveness of production, maintaining stability of agricultural markets, or support of agricultural incomes. Increase of the prices of agricultural products and food in many regions of the world should be treated as a signal indicating the possibility of further perturbations on the international agricultural markets. At the same time, other risks of global character are recorded which force the change in attitude to agriculture and agricultural policy. The new threats and challenges indicate the need of considering the new areas connected with the agricultural activity in the aims and instruments of the CAP.

One of the most important challenges which the CAP will encounter in the future includes strengthening of positive effect of agricultural activity on natural environment. Depending on the type of production, its intensity, the employed technology and production concentration, agriculture may exert a positive or negative influence on natural environment. The EU and national legislation regulates the problems of limitation of the consequences of agricultural activity for natural environment in a greater and greater scale. It may be exemplified, *inter alia*, by high requirements in respect of environmental protection, animal welfare and food safety, being imposed on the farmers within the frames of the principle of mutual conformity (cross-compliance). Further intensification of environmental requirements will be connected with the expensive adaptative investments. It will be necessary, in the future, to find out a compromise between the production aims and the environmental goals. The increase of manufacturing costs, resulting from limitations and adaptations makes the European farmers to be in worse competitive position in relation to the producers from the countries which do not employ such requirements.

Other challenge for future CAP is support of the incomes of the farms which implement the new aims and tasks of the policy. The characteristic feature of the European agriculture includes a dominating participation of agricultural family farms. The mentioned situation has not been principally changed in spite of the ongoing restructuring. In case of further world trade liberalization and increase of external competition, the participation of non-commercial farms in the total number of the farms may even be somewhat increased. In the future, a big part of agricultural family farms will also have difficulties in reaching the economic scale which ensures the extended reproduction. At the same time, the discussed farms will still play a significant role in the implementation of new public functions (such as e.g. preservation of traditional rural landscape, care of biodiversity etc.). It should be, therefore, assumed that support of agricultural incomes via the CAP will determine the economic vitality of a great part of the European agriculture; the future system of direct support of incomes should not, however, disturb functioning of Single European Market and inhibit natural restructuring and concentration processes.

Strengthening of rural development and ensuring territorial cohesion in the EU. In many EU regions,

agriculture remains still the main host of rural areas. Owing to the instruments connected with the production and agricultural resources (Pillar One) and the instruments of Pillar Two, The Common Agricultural Policy strengthens social functions of rural areas. The mentioned areas constitute the important element of geographical and social-economic biodiversity but paradoxically, the differences in the level of economic development are just the greatest ones in the discussed areas. Differentiation of economic activity, ensuring an access to social services, and transport and telecommunication network has a significant meaning for striving at assurance of territorial cohesion and preservation of rural vitality.

In the light of the submitted arguments and Polish experiences resulting from the five-year membership in the EU and its effects on Polish agriculture and rural areas, it seems to be purposeful and justified to preserve, also in the future, its three elements, i.e. Common Market Organization, scheme of direct payments and policy of rural development. It does not mean that the CAP after 2013 should not meet the new European and global challenges.

The reached agreement "Health Check" contains significant, from Polish viewpoint, solutions concerning the future shape of the CAP after 2013. The priorities concerning further CAP reforms have been defined in document: "Polish vision of the Common Agricultural Policy after 2013 – assumptions and preliminary suggestions" (Polska..., 2009). When respecting the Community goals of the CAP and the principle of subsidiarity, we think that the future CAP should consider conditions and problems which seem to be specific from Polish viewpoint, i.e.:

- Positive effect of the present CAP on development of agri-food sector and of rural areas and on leveling of the developmental distance between the agriculture of Poland and the EU-15 states and between the rural and urban areas;
- Striving at ensuring the equal conditions of competition for agricultural sector in Poland in relation to other member states;
- Evolutionary character of the path of the CAP changes, with the aim to adapt it to the new tasks and conditions in a global, not only in the European scale.

Preservation of the possibilities of the market support is significant not only from Polish viewpoint, especially in the sectors, affecting strongly the environment and having a great economic meaning for the economy of the regions. Instruments of market intervention are important for most of the middle-size farms, having smaller possibilities of managing with crisis situations. On the other hand, commercial farms require support in the field of utilization of modern instruments of risk management. Direct payments should become one of the main CAP instruments, being responsible for support and stabilization of agricultural incomes, compensating the costs connected with meeting the high standards of quality and methods of production and environmental requirements and also, maintaining agricultural production in less favored areas. Policy of rural

development should play a leading role in process of stimulating the structural transformations, in counteracting the climate changes, rationalization of water resources management, and protection of biodiversity and utilization of renewable energy sources. Apart from it, cohesion policy should receive greater meaning in stimulation of changes in rural areas. The priority of Poland should include the elimination of differences in the level of economic development of rural areas between the particular regions and also, reduction of such distance between rural and urban areas. Only comprehensive support of rural areas will enable their lasting and sustainable development, contributing simultaneously to the increase of the competitiveness of agricultural sector.

## Literature

- Analiza produkcyjno-ekonomicznej sytuacji rolnictwa i gospodarki żywnościowej w 2008 roku, edycja 46, A. Kowalski (ed.), IERIGZ-PIB, Warszawa 2009.
- CSO, Statistical Yearbook of Poland, Central Statistical Office, Warsaw 2008.
- FAMU, Policy of Development of Rural Areas, Current information and analyses, August 2009.
- Polska wizja Wspólnej Polityki Rolnej po 2013 roku – założenia i wstępne propozycje, Ministry of Agriculture and Rural Development, Warsaw, 2009, <http://www.bip.minrol.gov.pl/strona/DesktopDefault.aspx?TabOrgId=1747&LangId=0>, of 10.10.2009r.
- Karwat-Woźniak B., Chmieliński P. Population and labor in family farming in Poland, IERiGŻ-PIB, Warszawa 2006.
- Sikorska A., Chmieliński P., The socio-economic structure of the non-farming rural population in Poland, Raport 82.1, IAFE-NRI, Warsaw 2007
- Sikorska A., Źródła utrzymania rodzin użytkujących gospodarstwa rolne, „Komunikaty, Raporty, Ekspertyzy”, z. 523, IERiGŻ-PIB, Warszawa 2006.
- Rozwój sektora rolno-spożywczego w Polsce na tle tendencji światowych, A. Kowalski, M. Wigier (eds.), IERIGZ-PIB, Warszawa 2008.
- Woś A., Rolnictwo polskie wobec procesów globalnych w gospodarce, „Studia i Monografie”, v. 105, IERiGŻ, Warszawa 2001
- Woś A., W poszukiwaniu modelu rozwoju polskiego rolnictwa, IERiGŻ, Warszawa, 2004.