

TYPE OF FARMING AS A FACTOR DIFFERENTIATING THE LEVEL OF FARM SUPPORT UNDER COMMON AGRICULTURAL POLICY IN POLAND

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Abstract

The article presents the differentiation range of the EU support level gained by Polish agricultural farms dealing with different types of farming. An important aspect of the analysis was also to determine the effect of the direct support to the income situation of agricultural producers. Total subsidies on current operations, particularly including direct payments and the subsidies designed for the development of rural areas, were analysed in detail. Their amount was considered in relation to the farm income.

The analysis of payment distribution enabled to show which types of farming in the European Union are being supported in the first place. On this basis an attempt was undertaken to find the answer whether the EU farms support system is effective and justified.

Poland's membership in the EU gives rural farms the opportunity to improve their economic situation. The direct support was the main factor of determining the economic status of farms. However, strong differentiation of the amount of this support, as well as farm income dependent on farm specialization in production was noticed. As a result, there is still large number of small farms in which the revenues received by farmers are not sufficient enough to assure them sufficient life standard. Therefore such farms are not able to both develop and invest. Such opportunity have only economically strong and market oriented farms with high production potential, that in the future will determine the position of Polish agriculture in international markets.

Key words: type of farming, direct support, farm income, CAP

Introduction

Farms functioning on the area of the European Union are classified on the basis of two main criteria: type of farming and economic size. The division was established by the decision of the European Commission on 7th of April 1978. The European Commission regulation act signed on 19th of April 2004 refers to the countries which joined the EU in 2004 (Marcysiak 2009).

Type of farming is one of the main determinants of the characterisation of farms in the Community Typology for Agricultural Holdings in the EU. It reflects the system of production predominant in a particular farm and it is determined on the basis of the share of production activities carried out by the farm in the generation of the total value of the standard gross margin (SGM). Due to this classification it is possible to compare the structure of the analyzed farms and their economic situation. (Skar y ska i Zi tek 2006). The type of farming makes a crucial criterion for the classifying of agricultural farms used to prepare reports describing the activities of farms functioning on the area of all EU member states. (Kondraszuk 2009). In Polish FADN data systems even general types of farming are distinguished³⁷, which are a combination of 17 basic and 50 detailed types.

³⁷ Polish FADN system distinguishes seven types of farming: field crops (AB), horticulture (C), permanent crops (E), milk production (F), grazing animals (G), grainvores (H), mixed production (I).

Upon Poland's accession to the European Union Polish agriculture and rural areas have been covered by the Common Agricultural Policy (CAP). Agricultural producers gained access to new sources of financing to enable not only the current production activity, but also to the restructuring and modernization of farms.

Some part of the funds available basically under structural funds is directed for the development of rural areas. Nevertheless, the most vital form of the support are direct payments, which major role is both the stabilization and ensuring the proper level of agricultural producers income. (Wieliczko 2007). Farms should get high income, which, together with loans and subsidies, will be able to fund the necessary projects, allowing to maintain and increase their competitive position in the future (Krzyanowski 2009).

Materials and methods

The analysis used the relevant literature and secondary data from a sample of farms³⁸ covered by the FADN (Farm Accountancy Data Network). The scope of the analysis covers the year 2010. The collected data were analysed with the use of descriptive method. The results are presented in tabular form and depicted by graphs.

The basic economic category used for the research were total subsidies on current operations linked to production (not investments) covering most categories of transfers of aid to farms under the CAP, including direct payments and subsidies for the development of rural areas. The second variable was the income from a family farm, which is the economic surplus obtained in the course of farm's operations. It is a reward for a farmer for engaging own production factors in the production process, i.e. labour, land and the capital.

Results and discussion

Characteristics of the analysed farms

A representative sample of Polish FADN amounted to approximately 11 thousand entities (farms) conducted different types of agricultural activities. The predominant type of production was mixed production (plant-animal), implemented by 35% of all farms. Next, in terms of numbers, were dairy farms and those specialised in field crops, representing around 20% of the analysed population. The percentage of farms representing other types of farming was relatively lower and amounted respectively to: grainvores (14.5%), other grazing livestock (4.5%), permanent crops (4.8%) and horticulture (4.7%).

The direction of production turned out to be one of the key factors differentiating both the area and economic size, as well as farms production results (tab. 1). In 2010, the analysed acreage of an average farm was 19.2 ha of agricultural land, while the average value of production reached PLN 101 thousand. The largest agricultural area characterised farms focused on field crops. Relatively large acreage belonged also to dairy farmers and farms keeping grainvores. Definitely the smallest were farms of horticultural type.

³⁸ FADN is a representative study, which means, among others. that studies are conducted on a random sample of farms. In 2010, after consultation with the European Commission Polish FADN sample size is set at 11 191 households.

Table 1. Farms characteristic according to the type of farming, average values per farm

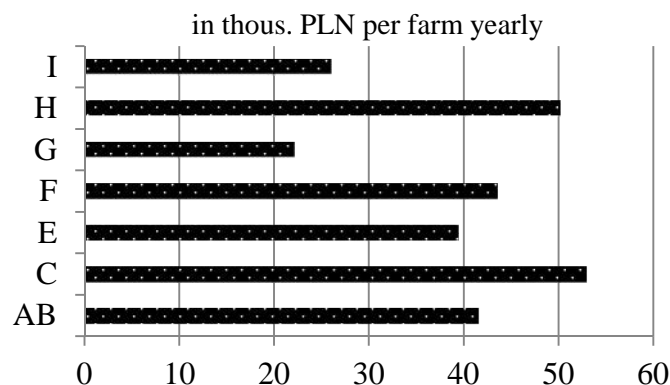
Specification	AB	C	E	F	G	H	I
Number of farms	2 043	418	427	2 319	487	1 629	3 868
Agricultural land area (ha)	49.9	5.8	9.1	21.0	17.3	19.4	16.1
Economic size (ESU)	26.6	33.2	11.9	22.8	12.9	40.2	14.7
Agricultural production (thous PLN)	166.3	175.8	105.2	116.2	48.9	190.1	72.7

AB- field crops, C- horticulture, E- permanent crops, F- dairy farm, G- rother grazing livestock, H- grainvores, I- mixed production.

One of the major parameters to evaluate the economic situation of the EU's farms is economic size. It is determined on the basis of the total standard gross margins of all activities carried out by the farm. One ESU in 2010 corresponded to EUR 1.200 (Goraj et al. 2011) Among the analysed population economically strongest were farms keeping grainvores and horticulture farms. However, low economic size characterised the entities focused on permanent crops and keeping rother grazing livestock.

The development of a farm depends largely on the ability of producers to improve the efficiency and productivity of the conducted activity and on from the possibility of systematic increase in the level of income (Ginter 2011). The main part of the income generated by farms creates the value of agricultural production. Its highest level calculated per one farm was typical to entities focused on grainvores, field crops and horticulture. The production value of these holdings amounted on average to PLN 177 thousand. and was higher than the average of the FADN field of observation (PLN 101 thous.) by more than 75%. However, the lowest value of production was recorded in farms keeping other grazing livestock and aiming at mixed production.

The level of family farm income received by farms of the agricultural type is determined, not only by the level of costs incurred and the value of production, but also by the profitability of the production, its intensification and the degree of relationship of the entity and the market.



AB- field crops, C- horticulture, E- permanent crops, F- dairy farm,
G- rother grazing livestock, H- grainvores, I- mixed production.

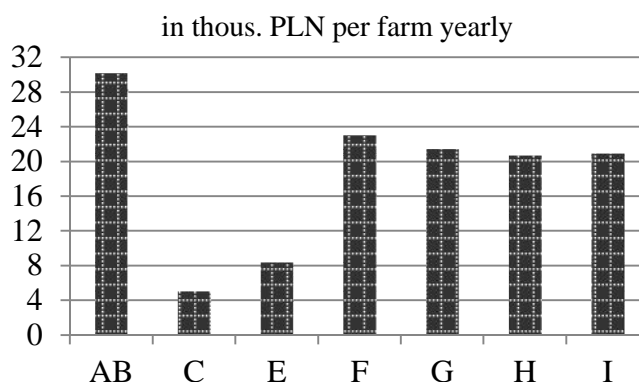
Figure 1. Average level of family farm income according the type of farming in 2010

The level of income generated by the entities of the various types of farming was strongly diversified. In 2010, the highest income was typical to farmers specialising in horticulture and it amounted on average to PLN 53 thousand per farm. Farms keeping grainvores and dairy farms also achieved a high level of income. All these types of entities are characterised by a relatively high intensity of production and high market competitiveness of manufactured products. On farms with a predominance of field crops and permanent crops

the value of income was slightly lower. The lowest income from current operations characterised farmers specialising in mixed production and other grazing livestock. In this group of entities, usually characterised by low profitability of production (including a low ratio of price to the unit costs, e.g. of cereals) and low levels of the processing, the average income per farm does not exceed PLN 30 thousand (fig. 1).

The scope of farms support with EU funds and their impact on income

The Common Agricultural Policy of the European Union is governed by the two pillars. The first one is aimed at supporting the agricultural sector through direct payments and market support. The second comprises the mechanisms influencing the development of rural areas through the structural funds.



AB- field crops, C- horticulture, E- permanent crops, F- dairy farm,
G- rother grazing livestock, H- grainvovres, I- mixed production.

Figure 2. Average value of total subsidies according to the type of farming in 2010

In the analysed period, the average value of total subsidies on current operations on one farm in the FADN field of observation amounted to PLN 21 thousand. Of all the groups of farms, the highest payments were obtained by beneficiaries specialising in field crops (PLN 28 thous.), as well as milk production and herbivores (average PLN 22 thous.). The lowest payments (less than PLN 8,5 thous.) per farm were received by farmers specialising in horticulture and permanent crop. Payments on farms with a predominance of mixed production and keeping grainvovres remained at a level similar to the average for the whole community (fig. 2).

Direct payments have a very important position in the structure of the EU support. It represents nearly half of the whole amount of total subsidies on current operations. Poland at the time of accession to the EU decided to implement the Single Area Payment Scheme (SAPS). It consists of two categories of payments. The first is the single area payment due to the land maintained in good agricultural condition. It is awarded to all agricultural producers having agricultural land with an area of not less than one hectare. The second category is made up of complementary payments in the form of subsidies to the area of specific crops (including: cereals, oilseeds, protein, industrial and tobacco plants). Since 2010 farmers can also apply for the so-called special support in the form of payments for legumes and payments for cattle and sheep.

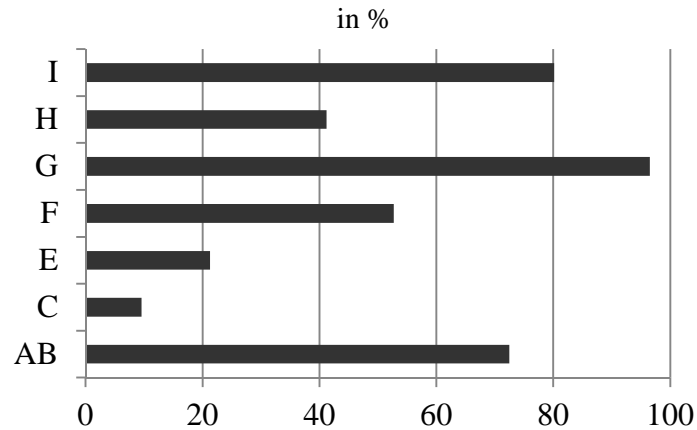
The level of direct payments to agricultural land in the analysed farms in 2010 on average amounted to PLN 10 thousand. Per 1 ha of agricultural land it was PLN 521. Type of farming was a factor differentiating the level of direct payments to agricultural land in the analysed farms. This was mainly due to the significant differences in terms of area of farms and the scale of access to the complementary payments applied to the surface of certain crops and livestock. Farmers specialising in field crops received the highest support on account of

direct payments. Per one farm it was more than 2.5 times higher than the average for the whole group. The amount of subsidies similar to the average level was awarded to beneficiaries producing milk and keeping other grazing livestock. In these three groups of entities agricultural production is mainly based on the acreage of arable land and grassland. In addition, those farms are entitled to separate payments for cows and sheep. The lowest benefits were granted to beneficiaries specialising in permanent crops and horticulture. They were only a third of the average value of subsidies for farms from the FADN field of observation. Such a low level of support was associated with the inability to receive the supplementary subsidies to both the soft fruit plantations and fruit crops.

Another important element of the impact of the CAP on Polish farms is support directed towards the development of rural areas. It includes: agri-environment payments and payments to less-favoured areas (LFA)³⁹. Their share in the whole amount of total subsidies in 2010 amounted to 23%. Also with regard to this category of subsidies, there was a visible difference in the amount of support received in particular groups of farms. Average amount of subsidies for rural areas development in the analysed year amounted to PLN 4.7 thousand per farm. As in the case of direct support the highest payments to the development of rural areas was granted to farmers specialising in field crops (PLN 8.1 thous.), while a relatively high to beneficiaries specialising in other grazing livestock (PLN 7.3 thousand.). However, the lowest level of support (less than PLN 3 thous.) was reported in case of horticulture farms, as well as farms focused on permanent crops. In other groups of entities the amount of payments for rural development was similar to the average of the FADN field of observation.

The payments received under the CAP is not without significance for the income situation of Polish farms. In the years 2004-2010 the average income of the average farm increased almost two-fold (from 21 to 36 thousand PLN). With Poland's accession to the EU the factors affecting the level of income of agricultural producers changed significantly. In addition to usual factors such as the volume and value of products, the level of expenditure incurred in the production, as well as the ratio of agricultural prices (the so called "price scissors") there appeared non-market financial support in the form of direct payments and funds from structural programmes. In the long run the income situation of farmers is determined by the production potential of a farm and effective management of available resources (Józwiak 2011). Dynamic growth in the level of total subsidies to farmers under the CAP, resulted in a gradual increase of their income-producing role in the sector. In the years 2004-2010, the average amount of these transfers per one household increased 8-fold (from 2.6 to 21 thousand PLN), and the average share of income from agriculture increased from 13% to 60%.

³⁹ In the EU, less-favoured area (LFA) is a term used to describe an area with natural handicaps (lack of water, climate, short crop season and tendencies of depopulation), or that is mountainous or hilly, as defined by its altitude and slope.



AB- field crops, C- horticulture, E- permanent crops, F- dairy farm,
G- rother grazing livestock, H- grainvores, I- mixed production.

Figure 3. Share of total subsidies in the family farm income in 2010

In the case of holdings grouped by type of farming, the role of subsidies in income generation depended mainly on the possibility of gaining complementary payments by the given group of farms, which are awarded to specific production activities. For this reason, the highest (80-96%) ratio between subsidies and the income belonged to farms keeping rother grazing livestock and with a predominance of mixed production. These farms, despite the large surface of agricultural land, were characterised by relatively low value of income and profitability of production, as well as weak links with the market.

A different situation concerned farms strongly related to the market, characterised by higher efficiency and productivity and relatively low use of land as a factor of production. These companies are mainly horticulture farms and dairy farms and those keeping grainvores. It should be noted that, despite the possibility of obtaining single area payments and supplementary payments, the economic situation of producers keeping grainvores is primarily determined by their market activity, and to a much lesser extent, external support (fig. 3).

Conclusions

To sum up the discussion the following conclusions can be drawn:

- The type of farming in the European Union forms the basis for the classification of farms next to the economic size. It is also an important factor differentiating between the amount of support received by farms and funds under the CAP.
- Among the various external support mechanisms direct payments are the most important one. With regard to farms covered by the FADN they account for almost half of the total subsidies on current operations.
- Most of the funds coming from direct payments went to farms specialising in field crops, and the smallest amount to entities focused on horticulture and fruit production. Differences in access to the EU support derived primarily from highly differentiated size of the analysed farms. The amount of direct payments in individual types of farms was also differentiated by the possibility of receiving supplementary payments.
- The analysis showed a beneficial effect of the CAP mechanisms on the formation of financial situation of individual farms. Among all the appropriate instruments to support agriculture in the European Union a key role in creating the income of farmers, their stability and mitigating the diversification of profitability of agricultural production is played by direct payments.

- The close relationship between agricultural producers income and the dominating type of farming has been noticed. The type of farming also has an important impact on the share of total subsidies in creating family farm income.

Looking at the distribution of support in the agriculture in 2010, one should note that it reflects very well the conditions characteristic of Polish agriculture, as well as the specificity of the EU support system. On the one hand, the majority (more than 75%) of support went to a large number of small farms mainly related to the plant production i.e. the units that in the long-run are not able to develop, regardless of whether they use support or not. They were mostly economically weak farms, characterized by a low association with the market and competitiveness. For this reason, the economic situation was largely dependent on the support of the EU. Moreover, even the increased access to subsidies didn't change their weak position in the food chain. This implies that the EU support will never be able to fully offset the effects of small-scale production, or insufficient efficiency and productivity of production factors (Czubak et al. 2008). This situation may raise, at least, some questions about effectiveness of support system.

At the other extreme, there was a relatively small number of farms (primarily related to livestock production and horticulture) receiving very high benefits, but their share in the total sum of support to the sector was relatively small. This group of economically strong and market oriented holdings was characterized by high production potential and a relatively small share of total EU support in farm income. Furthermore, these farms will determine the market supply of agricultural products in a much larger extent and food in the country and in the future will determine the competitiveness of Polish agriculture in international markets.

It can therefore be argued that the CAP as such, due to high agrarian fragmentation of majority of Polish farms, only applies to a small part of our agriculture, at least in terms of improving the income condition of farms, efficiency of agricultural activity and competitiveness of agricultural sector. In relation to the remaining part farms it plays a rather social role (Judzińska and Łopaciuk 2012).

Literature

- Czubak, W., Poczta, W., Pawlak, K. (2008). *Changes in the volume of production and agricultural incomes under the Polish accession to the EU*. Problems of Agricultural Economics. IAFE-NRI, Warsaw. No 4, Pp. 118-127.
- Ginter, A. (2011), *Defferantiation of income situation in selected farms*. Annals of the Polish Association of Agricultural and Agribusiness Economists SERIA, volume XIII, issue 3., Pp. 84.
- Goraj, L., Małko, S. (2011). *Standard results obtained by farms participating in the Polish FADN in 2010*. IAFE-NRI, Warsaw. Part 1.
- Józwiak, W. (2011). *Efficiency and innovation in relation to the competitiveness of Polish farms*. Village and Agriculture Quarterly. Publisher IRWiR PAN, Warsaw. No 1, Pp. 75-86.
- Judzińska, A., Łopaciuk, W. (2012). *The influence of CAP on the Polish agriculture*. Multi-Annual Program 2011-2014. IAFE-NRI, Warsaw. Report No 38.
- Kondraszuk, T. (2008). *Management accounting in agriculture in the context of globalization* [in:] Accounting and Controlling. Scientific Papers of Wrocław University of Economics, Publisher WUE, Wrocław. No 14, Pp. 174-182.
- Krzyżanowski, J.T. (2009). *Common Agricultural Policy of the European Union. Selected issues*. Publisher SGGW, Warszawa.

- Marcysiak, A., Marcysiak, A. (2009). *The variation range of production and economic results of farms with different types of production*. Annals of Agricultural Sciences, Publisher SGGW. Warsaw. Series G, volume 96, issue 3, Pp. 202-208.
- Skar y ska A., Zi tek I. (2006). *The standard gross margin in 2002 and the principles of the classification of farms according to the EU*. Problems of Agricultural Economics. IAFE-NRI, Warsaw. No 1, Pp. 34-59.
- Wieliczko, B. (2007). *Use of European Union and national financial support for Polish agriculture and rural areas in 2006*. Statements, Reports, Studies, IAFE-NRI, Warsaw. No 527.