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## EVALUATION OF DIRECT PAYMENT IMPORTANCE ON CROP PRODUCTION FROM EUROPEAN UNION FUNDS – AN EXAMPLE OF THE BARCIN COMMUNE

Key words: direct payments, agriculture, direct payments allocation, farmer expectations, Poland,  
Barcin commune

**ABSTRACT.** Poland became a member of the European Union upon the Accession Treaty of 1 May 2004. As a result, the objective was to include domestic agricultural producers in the direct payment scheme and other rural development and agricultural support instruments functioning in successive financial frameworks executed as part of the Common Agricultural Policy (CAP) of the European Union. The aim of the present study has been to evaluate the importance of direct payments on crop production from EU funds in the opinion of farmers of the Barcin commune (the Kujawsko-Pomorskie Province). The level of satisfaction with the crop production payments received, what the funds from the payments are used for and the expectations of the farmers in terms of the payments were investigated. The study involved the use of the survey method, a survey questionnaire carried out in 2014, which included 100 farmers. Results have shown that direct payments were appreciated by farmers who allocated the funds to meet current needs and investment purposes. The payments have enhanced the respondents' produce quality and provided additional technical equipment on the farm. An increase in agricultural income due to European Union funds has encouraged farmers to remain in the farming profession in the future.

### INTRODUCTION

Poland became a member of the European Union upon the Treaty of Accession of 1 May 2004. Membership was preceded by a process of harmonizing the country with EU requirements and standards and pre-succession programmes supporting preparations. For Poland, the sixth biggest food producer in the European Union, and with a value of food sold accounting for 6% of GDP, agribusiness is of special importance [Sikora, Bielski 2017]. With that in mind, one of the key areas of changes were rural areas, especially agriculture [M. Roman, M. Roman 2018, Bogusz, Tomaszewski 2015]. Polish farmers have been covered by the direct payment programme and agricultural development support instruments which operated in successive financial frameworks as part of the EU CAP. The first stage of financing rural areas and agriculture in Poland was the 2004-2006 National Development Plan, which included the Sectoral Operational Programme and the Rural Development Programme. Successive financial assistance for rural areas and agriculture,

programmed as part of the 2007-2013 Rural Development Programme, was addressed to farmers, entrepreneurs, local authorities and forest owners. It was related to building competitive agri-food and forestry sectors. In the 2014-2020 financial framework, Poland received about 12% more EU funds than in 2007-2013 for agriculture and rural development, thanks to which successive development-enhancing triggers in that economic sector emerged. Interestingly, CAP direct payments are allocated while considering various payment calculation models. As reported by e.g. Joanna Nowakowska-Grunt and Barbara Kielbasa [2016], in successive financial frameworks, changes in direct support systems, adjusting the form and amount of support to changing agricultural production conditions in Europe, including economic conditions found in respective EU member states, are required. In the paper, thorough analysis covered the aspects of importance of direct payments (reported by e.g. Wawrzyniec Czubak [2008] and Wawrzyniec Czubak and Paulina Jędrzejak [2011]), as a crucial form of support to farmers. Payments compensate for an increase in production costs and affect farm modernization [Śmiglak-Krajewska 2018].

## MATERIAL AND RESEARCH METHOD

The aim of the research was to evaluate the importance of direct payments on crop production from EU funds in the Barcin commune. It covers a study of opinions of farmers of the Barcin commune on the operation of direct payments. The study covered the level of satisfaction with payments on crop production, the use of payment funds and the expectations of farmers in terms of payments.

The study involved the survey method using the survey questionnaire technique. For that purpose, a survey questionnaire was developed to be completed by 100 farmers of the villages of the Barcin commune, Kujawsko-Pomorskie Province. The study was performed in March 2014, 10 years after Poland joined the EU. The study, with the survey questionnaire, was carried out among farmers of Mamlicz, Kania, Złotowa, Barcin Wieś, Młodocin and Józefinka, villages with a well developing agriculture once Poland joined the EU. The random selection of respondents was applied in the research.

The farmer group was dominated by men (98%), while women accounted for 2% of respondents. Only 2% of respondents were 29 years of age, 48% – persons 30-39, 44% were aged between 40-49, and only 6% were 50-59. The study was, thus, dominated by the opinions of persons aged 30 and 49. The farmers' educational background was as follows: 12% – primary education, 68% – vocational education, while 20% of respondents declared having a secondary education background. No higher-education-background respondents were recorded. Of all the respondents, 35% farmed land 1.99-9.99 ha in size, 45% – from 10.00 to 19.99 ha and 20% managed farms bigger than 20.00 ha.

## RESEARCH RESULTS AND DISCUSSION

Changes in support allocation principles as part of single area payments have made the mechanism very complex. On the one hand, the so-called system for small farms which automatically covered entities with direct payments not exceeding 1250 euro were proposed. On the other hand, a further extension was noted for the mechanisms of support of direct payments for other entities (single area payment, additional payment, production-related support, payments for young farmers, green direct (greening) payments, decoupled payments, etc.) [Wojewodziec 2017]. All that frequently makes farmers use specialist consulting services [Czubak, Sadowski 2011]. Differentiation in instruments dedicated to larger agricultural farms was devised to support the income of agricultural families and, additionally, introduce payments for young farmers related to farm area to enhance the motivation of potential agricultural activity successors [Wojewodziec 2017, Śmiglak-Krajewska 2019].

Investigating the opinions of farmers on the improvement of the quality of life in rural areas in the Barcin commune, it has been found that 78% of respondents noted an improvement, 22% did not make any such comment, nobody was negative about it (Figure 1). Interestingly, studies determining the level and quality of life of residents of Polish rural

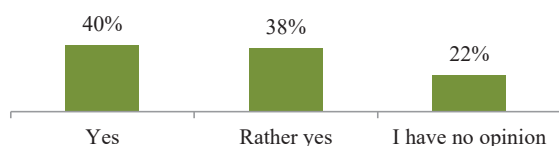


Figure 1. Opinions of farmers on the enhancement of the quality of life in rural areas in the Barcin commune

Source: own study

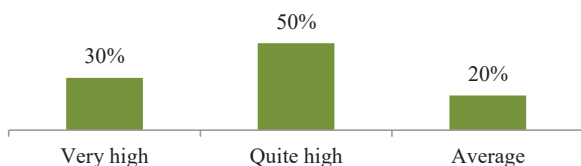


Figure 2. Level of satisfaction with payments to crop production in the opinion of farmers residing in the Barcin commune

Source: own study

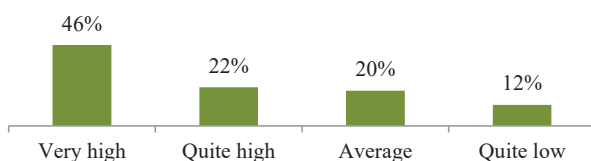


Figure 3. Effect of direct payments on the financial condition of the farm upon Poland joining the EU in the opinion of farmers residing in the Barcin commune

Source: own study

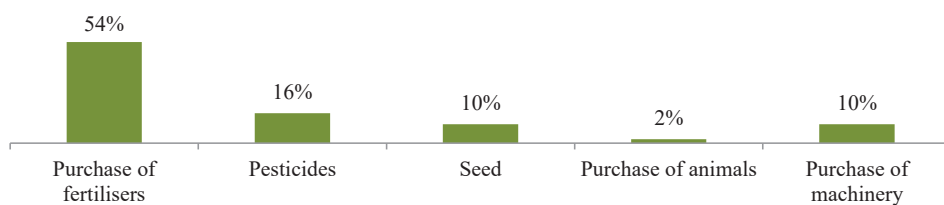
areas, performed by Sławomir Kalinowski [2015], show that neither a subjective evaluation nor objective indicators confirm such optimistic opinions. Neither do other reports by this author [Kalinowski, Kiełbasa 2017] on EU rural areas confirm such optimism.

Analysing the level of satisfaction with crop production payments received, 50% of respondents considered it quite high, 30% – very high, while 20% – considered it average. None of the respondents selected responses characteristic for a low or very low level of satisfaction again (Figure 2).

The effect of direct payments on the financial condition of agricultural farms upon Poland joining the EU in the opinion of farmers residing in the Barcin commune was as follows: 46% of respondents observed a very high effect, 22% – quite a high effect, 20% – an average effect, 12.0% – quite a low effect. Nobody selected the “very low” response (Figure 3). As reported by Paweł Dziekański [2016], the financial condition is the basic factor for evaluating the operation of economic entities. Its analysis is necessary not only for ongoing management but also for protection against the side effects of any potential economic slow-down. It is a development determinant and affects all actions taken in the economic environment.

Direct payments on crop production among farmers were mostly allocated to the purchase of fertilizers – 54% of respondents, 16% of respondents purchased pesticides, while 10% - financed seeds, 10% invested in the purchase of machinery, 2% – in the purchase of animals (Figure 4), and 8% of farmers participating in the survey did not provide any answer to the question.

Of all the farmers residing in the Barcin commune, 10% declared the allocation of direct payment funds to seeds. They justified their decision with the guarantee to increase yield and quality. The possibility of applying for the compensation of some costs of certified seed purchases was also essential. As many as 90% of farmers taking part in the study, on the other hand, did not invest in highly qualified seed and claimed that it was due to an excessively low level of payments (Figure 5).



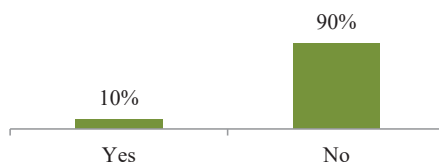
\* total higher than 100% as respondents could select more than one response option

Figure 4. Allocation of direct payments on crop production

Source: own study

Figure 5. Investments in highly qualified seed

Source: own study



The study indicated that 16% of farmers of the Barcin commune allocated direct payments to the purchase of plant protection chemicals. As many as 84% of respondents did not make any such investments of EU funds (Figure 6). The study also demonstrates that farmers were trying to prevent the occurrence of pests, accomplished by applying adequate agrotechnical practices, crop rotation, the application of tolerant or resistant cultivars, introducing balanced fertilization, irrigation, land development, liming and, especially, the regular cleaning of plant cultivation machinery and equipment to limit the spread of harmful organisms.

The amount of agricultural income resulted in 54% of respondents taking the decision to continue their farming career (Figure 7). However, one must also note the costs of abandoning agriculture. For many farms, the potential decision to abandon agricultural activity would not only result in leaving the farm but also in the necessity of bearing specific transaction costs. They are considered key factors inhibiting abandoning agricultural activity, and costs are especially high on small agricultural farms. The operation of EU agricultural support schemes, especially direct payments to land, limits the dynamics of the process of ‘abandoning’ agricultural activity [Satola et al. 2018]. Since Poland joined the EU, farmer income has been growing regularly. Payments have enhanced the financial condition of farms, the stability of agricultural products and foodstuff, which is also of high importance for consumers. One of the important factors affecting the purchase of

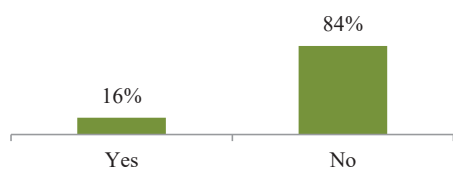


Figure 6. Allocation of direct payments to the purchase of plant protection chemicals  
Source: own study

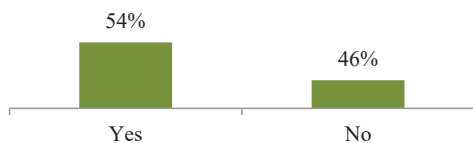


Figure 7. Effect of the amount of agricultural income on the decision of respondents to remain in the farming profession  
Source: own study

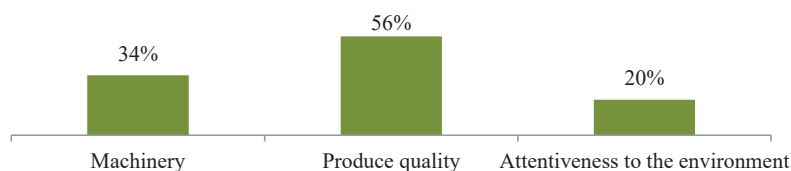


Figure 8. Changes on the farm due to direct payments  
Source: own study

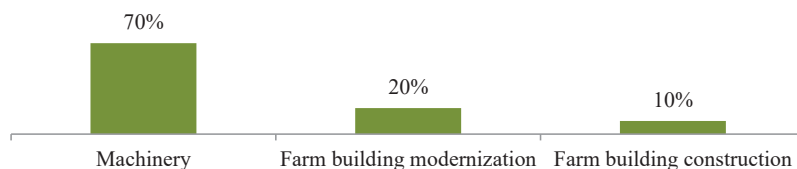


Figure 9. Benefits from the EU Rural Development Programme

Source: own study

foodstuff is, indeed, the level of prices and their unchangeability [Koreleska 2009, Koreleska, Ziaja 2016]. As stressed by Anna Murawska [2017], over recent years, farmer income has been growing, which must have resulted from e.g. EU payments. However, the rate of increase of their income was relatively lower, as compared with the other types of households. The level of income of the of rural population, mostly of farmers, has still been the lowest in Poland despite may benefits resulting from payments for agriculture, and income dispersion confirmed with the Gini coefficient in farmer households is the country's highest.

In the opinion of farmers, direct payments affected the development of the farm mostly by financing current agricultural activity, day-to-day family needs and farm investment plans. With the use of EU payments, farmers noted an improvement in the economic standing of their farms, as 34% of respondents supplemented farm machinery, which has significantly facilitated work on the farm. A noticeable change (56%) was to production quality enhancement. To receive direct payments, it was necessary to satisfy a number of requirements to cover good agricultural practices, the good healthiness of crops and animals, food safety, environmental protection (20%) and animal welfare. As a result, the competitiveness of the agricultural sector has increased both in the European Union and outside it (Figure 8).

Direct payments from EU funds have essentially affected the operation of agricultural farms in the Barcin commune. According to farmers, the key objective of applying for EU funds is machinery (70%), farm building modernization (20%) and new farm building construction (10%) (Figure 9).

Last but not least one must also mention the negative consequences of support for agricultural land owners [Satola et al. 2018]. Area payments delay economically-poor entities' decision on abandoning agriculture completely. A possibility of benefiting from land ownership (area payments, ground rent, access to cheaper social insurance and fiscal preferences) make some landowners uninterested in selling it and ground transactions are often informal, triggering changes in land structure. Discounted land ownership benefits are higher than the amounts acquired from selling a farm. In countries dominating in minor agricultural farms, area payments, assuming the form of some kind of economic rent, delay the transfer of production factors to developing farms. Rent seeking, next to transaction costs (including real and estimated costs of preparing the land for sale) must be considered key factors delaying structural changes, especially of smaller farm owners abandoning agriculture.

## CONCLUSIONS

As seen from the study results presented, direct payments have been appreciated by farmers of the Barcin commune. Payments were an important assistance instrument, supporting agriculture as part of the first pillar of the CAP. Farmers have been satisfied with the direct payments received. They noted a considerable effect of the payments on the financial condition of the agricultural farm upon Poland joining the EU.

On the farms studied, payments were allocated to current needs and investments. The financial assistance allocated to crop production in the farmer group was mostly used for the purchase of fertilizers and pesticides. In most cases, farmers did not allocate funds acquired from payments to highly qualified seed. The payments made it possible for respondents to enhance produce quality and provide additional technical equipment for the farm. An increase in agricultural income due to EU funds made farmers remain in the farming profession in the future.

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## OCENA ZNACZENIA DOPLAT BEZPOŚREDNICH DO PRODUKCJI ROŚLINNEJ ZE ŚRODKÓW FINANSOWYCH UNII EUROPEJSKIEJ NA PRZYKŁADZIE GMINY BARCIN

Słowa kluczowe: dopłaty bezpośrednie, rolnictwo, wykorzystanie dopłat, oczekiwania rolników,  
Polska, gmina Barcin

### ABSTRAKT

Polska 1 maja 2004 roku stała się członkiem Unii Europejskiej na mocy Traktatu Akcesyjnego. Konsekwencją tego było objęcie krajowych producentów rolnych programem dopłat bezpośrednich oraz innymi instrumentami wsparcia rozwoju wsi i rolnictwa, które funkcjonowały w kolejnych perspektywach finansowych realizowanych w ramach WPR UE. Celem badań była ocena znaczenia dopłat bezpośrednich do produkcji roślinnej ze środków finansowych Unii Europejskiej w opinii rolników zamieszkujących gminę Barcin (woj. kujawsko-pomorskie). Badano poziom zadowolenia z otrzymywanych dopłat do produkcji roślinnej, sposób wykorzystania środków finansowych pozyskiwanych z dopłat oraz oczekiwań rolników dotyczących dopłat. W badaniach zastosowano metodę sondażową z wykorzystaniem techniki ankiety, którą przeprowadzono w 2014 roku wśród 100 rolników. Wyniki badań wykazały, że dopłaty bezpośrednie były pozytywnie odbierane przez badanych rolników, którzy pozyskane w ten sposób środki finansowe przeznaczali na potrzeby bieżące oraz na cele inwestycyjne. Dopłaty umożliwiły respondentom poprawę jakości produkcji i uzupełnianie wyposażenia gospodarstwa w sprzęt techniczny. Wzrost dochodów uzyskanych z rolnictwa, dzięki środkom z Unii Europejskiej, skłaniał rolników do pozostania w przyszłości w tym zawodzie.

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