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MECHANISMS AND ECONOMIC CONSEQUENCES OF PUBLIC INTERVENTION IN AGRICULTURAL HOLDINGS IN POLAND DURING THE PERIOD OF EU MEMBERSHIP

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ABSTRACT

The concept of public intervention in agriculture can be understood very broadly, as any act or omission of the operation of public state institutions. The article discusses the economic reasons for the public intervention, then presents the types and effects of intervention implemented by the CAP as well as the impact of intervention policy on economic decisions of agricultural producers. In the further part of the article, based on the statistic data from 2004-2016, were presented the changes in agriculture sector. A characteristic feature of this process is the deagrarisation the national economy and the development of rural areas. Throughout this process, it is extremely important for the ongoing structural changes to result in the improvement of the competitive position of farms and long-term and sustainable rural development. Poland's accession to the EU has generated new economic and organisational conditions to support structural changes in the broadly defined food economy and rural areas. Policy instruments implemented within the CAP create chances for the stabilisation of structural policy conditions over the period of several production cycles, thus stimulating the desired changes in the area structure of farms, the improvements in the competitiveness of production, environmental protection and multi-functional development of rural areas. Thus they are a fundamental instrument supporting the process of modernisation of Polish rural areas and agriculture. The article conclusions refer to structural changes and to competitiveness of agri-food sector.

Keywords: *public support policy, competitiveness, intervention in agriculture.*

INTRODUCTION

The active role of government and justification for state intervention in economic process results from the conviction about market failure (Bator, 1958). This concept suggests that in the realities of the market economy the processes of allocation of goods and services show a number of frictions. As a result, the state of actual equilibrium achieved by the market is not compliant with Pareto optimum. In broader terms, the concept of market failure identifies the scope and

circumstances of observed defects of market mechanisms that lead to the perpetuation of market imbalances (Baumol, 1952). In this context, it emphasizes the positive aspects of market intervention by public authorities (Stiglitz, 1989). Economic theory distinguishes a number of reasons for market failure. The mechanism and the logic of intervention in modern agriculture is shown in figure 1. Arrow (1983) was one of the first to point out that, in fact, one can distinguish two different states of efficiency in the allocation of goods depending on the degree of fulfilment of the Pareto demands. The first approach suggests that each allocation of goods in equilibrium meets only the demand of the so-called “poor efficiency” in the sense of Pareto.

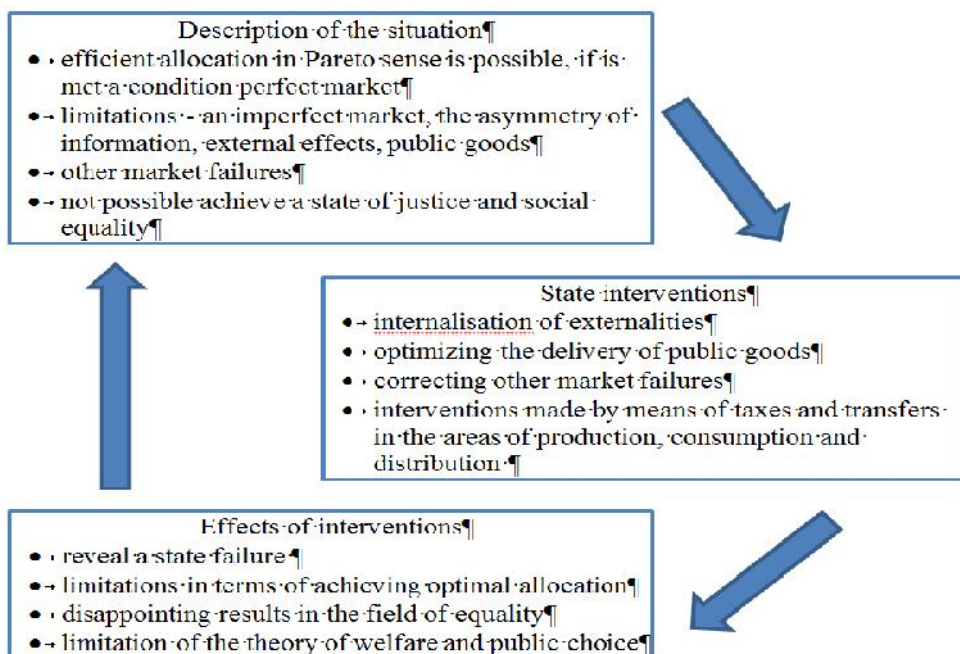


Figure 1 The mechanism of the modern intervention in agriculture

Source: Own study based on a literature review of studies of welfare economics and public choice economics

The global experiences prove that the market and the state have to co-exist and the state intervention should be always limited to support market mechanism and not replacement thereof. The state should interfere only when it has a clear advantage over the market mechanism; hence only when the market fails to protect the general interests of the society (Wo , 2004). The contemporary global economy often rejects the thesis on the perfect market (Czy ewski, 2007) thereby justifying the role of state intervention. When explaining the main reasons for intervention in the modern global agriculture point to the high level of risk linked to agricultural activity and lack of effectiveness in prevention of this risk. The risk results from e.g. changing climate conditions, lack of sufficient information and

underdevelopment of agribusiness structures, including also consultancy. The need for interventions in the agribusiness sector is justified also by: the phenomena of external costs and effects, low price elasticity of supply, lower level of labour productivity than in other sectors of the national economy, low mobility of the workforce employed in agriculture, the need to provide public goods, implementation of the sustainable development concept.

Implementing the objectives of CAP support has important impacts on food economy. The current objective set of the CAP, according to the “EU 2020” strategy, is that agriculture should contribute to smart, sustainable and inclusive growth. Government policy measures have static effects, risk-related effects and dynamic effects on production, and different transfer efficiency on farm income depending on policy tools applied. The impact of agricultural subsidies on income distributional effects depends on their type, the structure of the markets and the existence of market imperfections. Most of the studies investigate the direct impacts of subsidies on prices, output, income, the environment, etc. by assuming that subsidies do not alter the structure of agricultural markets and do not interact with market institutions. In reality, government policies may have various unintended effects (they can change the structure of market organization or crowd out some market institutions) (Forgasi et al., 2014). The objective of this study is presentation of the mechanisms and economic consequences of public intervention in agriculture in Poland during the period of EU membership which seems to be very important for rural economy as well as whole economy of Poland.

MATERIAL AND METHODS

The basis for the research was studied literature, especially in the field of main stream economics, welfare economy and public choice theory, referring to the question and to the consequence of public support in agriculture. Documentation studies were carried out also in the field of literature consolidating issues related to public support and process of structural changes, innovation transfer, the development strategy of determining the directions of the policy and the main acts forming the regulatory environment. Assessment of the importance of structural changes in agriculture was carried out using methods of descriptive and comparative analysis. The empirical material was the statistical data of the Central Statistical Office (CSO) for the years 2004-2016 and Agency for Restructuring and Modernisation of Agriculture (ARMA).

RESULTS AND DISCUSSION

The specific nature of the agricultural sector and its entities boils down primarily to the limited mobility of production factors involved in this sector. This particularly regards land, family labour resources, and, to a significant extent, the capital adjusted to agricultural activity. Agriculture and its entities are deprived of the benefits from transferring resources to more effective sectors, which determines the nature of competitiveness. Following the accession to the EU, there have been major changes in the agrarian structure, which continued long-term trends. In the

period preceding accession to the EU (1996-2002), large agricultural holdings (20-50 ha of utilised agricultural area - UAA), which took over arable land from small and medium agricultural holdings, but also from holdings of over 50 ha, developed dynamically. The growth in numbers was accompanied with the decrease of surface. The arable land of holdings below 1 ha grew, but their number dwindled. Following the accession to the EU, the number of holdings decreased by 28%, and their surface – by 3%. The development of large holdings lost dynamics, but still arable land was taken over by holdings of the surface of 20 to 50 ha, for both smaller holdings, of which the number and area decreased, and bigger, the number of which, despite the decrease of the area, grew. The number of holdings taking over land slightly increased. The number of holdings smaller than 1 ha decreased by 27%. To a slightly lesser extent the number of small and medium holdings decreased (from 25% to 16%). Their area also shrunk, including, to a largest extent, in the group of 10 to 20 ha (by 8%). These changes indicate that the Polish agriculture, despite major changes, is still to a large extent dispersed. Figure 2 shows the use of land in different groups of farms in 2016. The basic source of reduction in production cost is the change to the relation between production factors – particularly the relation between capital on one hand, and land and labour on the other. In Poland, the equipment of labour with land and capital is much lower than in most EU countries, which determines relatively low labour and land productivity (Figure 3). Low cost of labour in Poland is the primary factor that contributes to the advantage of Polish agriculture over agricultural products of the majority of EU countries with regard to cost and prices. Low remuneration for labour, however, cannot be the basis for maintaining competitiveness of agri-food sector product on the European and global market. Improvement in efficiency of use of land and labour means also the improvement in the quality of production conditioned by technical and technological progress, and the level of producers' knowledge. At the same time, the land cultivation system, which is less intensive in Poland than in most EU countries, is a kind of competitive advantage because Polish agriculture can become “sustainable” agriculture faster than agriculture of other EU countries, which is the EU objective in the 2050 perspective.

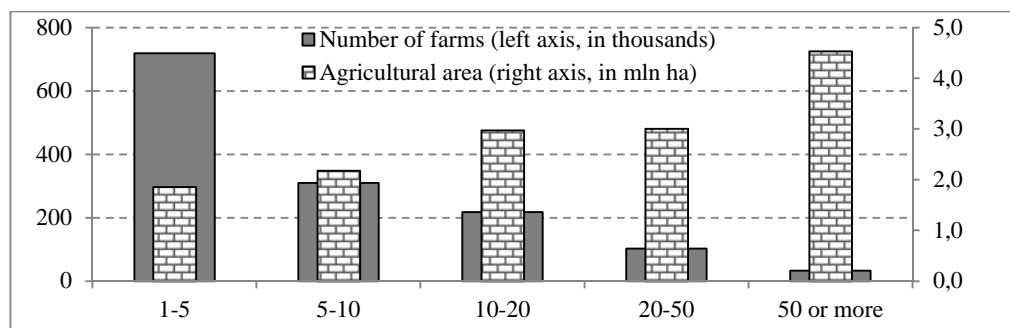


Figure 2. Land use by groups of farms in 2016.

Source: Agriculture in 2016. CSO data, Warsaw 2017.

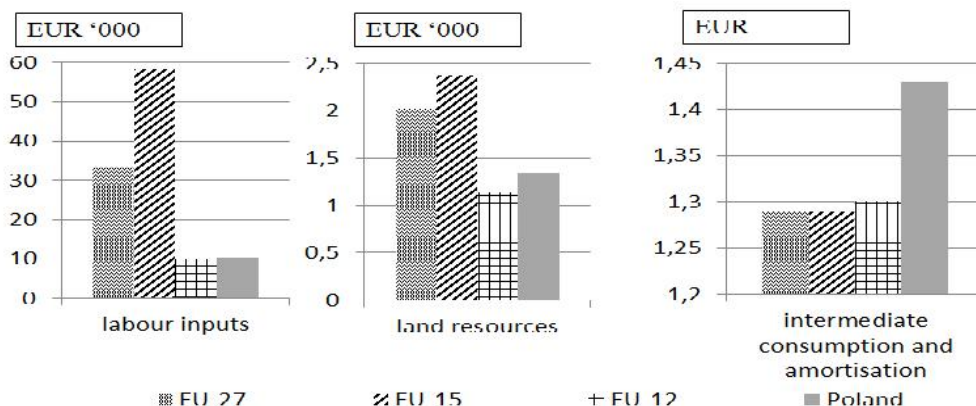


Figure 3. Productivity in Poland against average values for groups of EU Member States in 2016.

Source: Eurostat 2017.

The EU funds had a significant share in the financing of transformations in agriculture until Poland's accession to the EU. The direct payments are the most common type of support, each year about 1.4 million of farmers use this form of support. The value of payments in the 2004-2016 period increased and fluctuated between ca. Euro 1.5 billion to Euro 3.5 billion per year. When calculated per one farm it reaches an average of ca. Euro 2.3 thousand, and this form of support is used by 87% of farms having an area of more than 1 ha. An equally important source of income (regardless of production, and only based on the farm's location) are payments for less-favoured areas (LFA). Each year these payments are granted to ca. 700 thousand farmers, i.e. half of those receiving direct payments. The land surface covered with LFA payments amounts to ca. 6.9 million ha. The manner of spending of the resources is not subject to settlement. Smaller farms usually allocate the granted payments to current needs and means of production (fuel, fertilisers), while the bigger ones also make investments.

The resources earmarked for investments are also an important source of aid for farms. So far, the financial resources for investments in farms, available under SAPARD, SOP "Agriculture", RDP 2004-2006, RDP 2007-2013 and RDP 2014-2020 were used in their entirety. The SAPARD programme was aimed at preparing the Polish agri-food sector to the accession, in particular in the adjustments to the sanitary, hygienic and environmental protection requirements of the EU. After 2004, the strategic objectives of agricultural policy implemented via SOP Programme "Agriculture" and RDP 2004-2006 covered: improving the competitiveness of the agri-food sector, sustainable development of rural areas, improvement of the condition of the natural environment, improvement of the quality of life and diversification of economy in rural areas. In the next programming period, the RDP 2007-2013 has become the programme to support the implementation of the concept of multifunctionality of agriculture and rural

development. It assumed economic strengthening of farms and an increase in the competitiveness of the agri-food sector, while assuring instruments for diversification of economic activities towards the acquisition and the creation of alternative sources of income for the rural population. RDP 2014-2020 for Poland focuses on three main objectives, i.e. supporting competitiveness and productivity in the agri-food sector, ensuring sustainable management of natural resources and climate action, as well as achieving sustainable territorial development of rural economies through the development of local infrastructure, investments in the field of education, culture and public services, creation of new and maintenance of existing jobs.

In the 2004-2016 period, the cumulative value of support for the agri-food sectors from three main sources of support: the payments from the EU budget, a grant from the national budget to KRUS and grant from the national budget, exceeded in total PLN 581 billion (EUR 145 billion) (Figure 4).

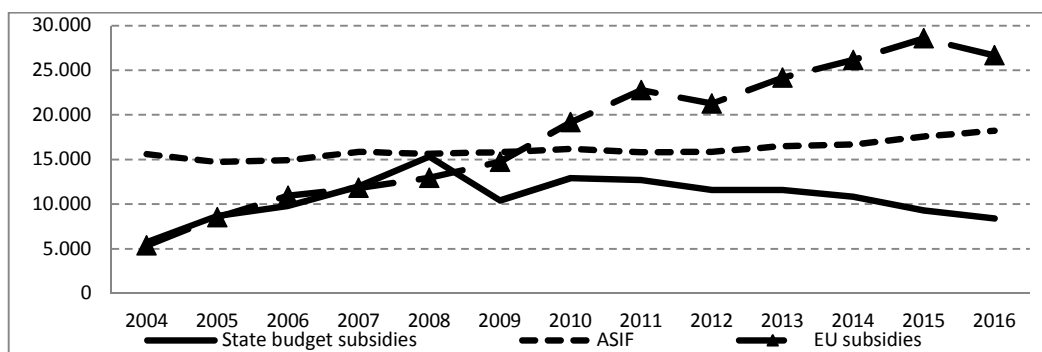


Figure 4 Budget spending on the agricultural sector in 2004-2016 (PLN '000 000). Source: Authors' own calculation according to Budget Act (different years).

Rural development programmes, and indirectly also direct payments, are the primary source of support for investments in the Polish agriculture². The role of the latter is particularly significant in farms with a large area. The area-related nature of direct and supplementary payments and LFAs³ means that each year, farms receive cash they can spend on any purpose they want. The importance of these payments in the support for income, indirectly also for investment, is evidenced by the fact that they are received commonly. In order to obtain the payments, a farmer

² Direct payments in agriculture fulfil a number of functions, i.e. the income function (they compensate the farmers' increased production costs), the stimulating function (they can define the direction of agricultural production), the modernisation function (they can be used for co-financing of investment), the information function (they indicate the areas of production).

³ About half of the land used for agricultural purposes in Poland is located within LFAs. These include e.g. the areas where there are difficult climatic conditions, rainfall is too big or too small, there is a disadvantageous topography (e.g. mountains), or the quality of soil is low.

is only required to properly fill in an application and keep land in a good agricultural condition.

CONCLUSIONS

In the last decade the structural changes taking place in the Polish agriculture became more dynamic. The most important among them cover: a drop in the number of farms with simultaneous growth in the share of the largest farms, which directly influences the increase in the average area of farms, drop in employment in agriculture and progressing production concentration and specialisation. The structural changes are, however, slow and cannot be efficiently accelerated due to non-agricultural circumstances. The Polish agriculture is still characterised by a strong polarization of the agrarian structure.

Policy instruments implemented within the CAP created chances for the stabilisation of structural policy conditions over the period of several production cycles, thus stimulating the desired changes in the area structure of farms, the improvements in the competitiveness of production and multi-functional development of rural areas. Thus they are a fundamental instrument supporting the process of modernisation of Polish rural areas and agriculture (Wigier, 2014a). Today, we already know that CAP has actually caused an increase in support for agriculture, while structural funds have triggered considerable cash flows intended for modernisation of food economy and rural areas development. However, not all investments proved to be effective, which undoubtedly prompts us to reflect on the scale and the value of investments in agriculture.

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