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**ИНВЕСТИЦИОННА АКТИВНОСТ НА ЗЕМЕДЕЛИЕТО В ПОЛША
СЛЕД ИНТЕГРАЦИЯТА Й С ЕВРОСЪЮЗА
THE INVESTMENT ACTIVITY OF AGRICULTURE IN POLAND FOLLOWING
THE INTEGRATION WITH THE EU***

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Abstract

The main aim of the article is to evaluate the investment processes in agriculture in Poland after the integration with the EU. Aggregate data of the Central Statistical Office on the agriculture sector, agriculture accounting system FADN have been used in the article as also results of the study commissioned by the European Leasing Fund. The article uses the method of descriptive analysis. One can state that trends in the investment area in agriculture in Poland after 2004 should be viewed as positive. It stems from the possibility of funding investments in agriculture with the EU subsidies. Investment activity in agriculture has been identified to be increasingly assimilation with the macroeconomic trends. It has been identified that direct subsidies are having a stabilizing effect on both income and investments in agriculture.

Key words: investments, agriculture, development, subsidies, Poland

INTRODUCTION

Integration of the Polish economy with the EU states and getting the agriculture covered with the Common Agricultural Policy (CAP) instruments has been a strong stimulus for growth of farms as well as rural areas in view of the bigger financial support and better business sentiment. The main purpose of the article is to assess the investment processes in agriculture in Poland following the integration with the EU. One has formulate hypothesis that investment activity in agriculture, after integration with the EU, assimilates to general economic trends. The range of the analyses – years 2004-2011 – allows to identify the trends in the analyzed area taking into account the impact of Poland's accession to the EU. At the same time, farms are considerably diversified in their investment activity in view of their economic size, production types and location which is not covered under

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the research scope of this article.

Research on investments in agriculture have a rich tradition in the literature [Woś, 2000; Józwiak, 2008]. Because of the complex issues one should notice significant differences of context of analysis relating to investments. It goes here about the macro- and microeconomics issues, preferential credits, the importance of the CAP instruments, and the perspective of reproduction of assets [Grzelak, 2012]. In studies relating to investment [Woś, 2000], the role of the situation in agriculture, macroeconomic conditions and the necessity of introduction instruments of pro-income policy enabling a wider group of farms development is shown. An important stimulus for investment processes in agriculture was his support for the CAP instruments after integration of Poland with the EU. The study Wigier [2009] noted that the investments financed from the EU funds used mainly bigger farm. As a result, the EU funds contribute to the polarization of development of agriculture and the processes of concentration and specialization.

The study of foreign authors focused on transition economies, considerations often concentrate on issues relating to the role of credit bank in the process of agricultural development [Swinnen, Gow, 1999], and critical comments on the credit intervention [Christensen, Lacroix, 1997]. In the last case, it goes especially about the redistribution of income in favor of stronger economically producers.

Aggregate data of the Central Statistical Office on the agriculture sector have been used in the article. Although, the data are not specific in their nature, they enable preliminary assessment of the analyzed phenomena, especially identification of general trends. Moreover, data of the agriculture accounting system FADN have been used as also results of the study commissioned by the European Leasing Fund, included in the Report [Agro under the loupe, 2012] and concerning on investments in the Polish agriculture.

RESULTS AND DISCUSSION

Integration with the EU and covering the Polish agriculture with the CAP instruments have helped enhancing the sector's role in the agricultural policy and in the mechanism of input-output flows. Business cycle stimuli are having a stronger effect on the development processes in agriculture by shaping profitability of agriculture production expressed in the relation between the prices of products sold and bought by farmers (price jaws indicator), as well as on the state budget support for agriculture.

The analysis of capital expenditure dynamics in overall economy and agriculture (fig. 1) indicates that following the integration with the EU the fluctuations in both areas have become increasingly convergent. The evidence of this can be the growth in the ratio of correlation between total investments in economy and investments in agriculture. Much as in 2000-2011, it was 0.77, in the years 2004-2011 it increased to 0.89. It also means that the relations between agriculture and the rest of economy are tightening. As a consequence, business sentiment stimuli from the environment are having an increasing impact on the directions in which agriculture develops. The agriculture's response to the economic crisis with respect to the investment activity was a little delayed relative to the overall macroeconomic

trends. In 2008, the decline in investments was not as significant as the average of the economy. Only in the following year (2009), was the recession much more evident. On the other hand, in the following years (2010-2011) economic recovery followed. It can be presumed that a relatively quick shift into the upward phase of investments was possible thanks to the support in the form of the EU CAP funds (comparison in table 1) [Grzelak, 2013].

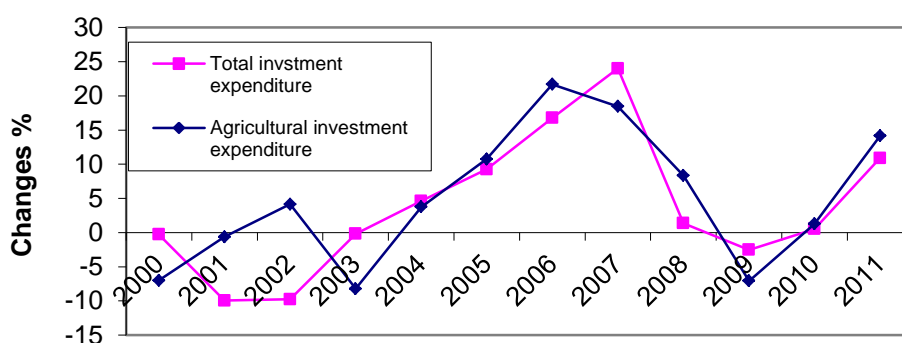


Figure 1. Dynamics of investment expenditure in all-economy and in agriculture in the years 2000-2011 (real changes relative to the previous year, in %)

Source: Central Statistical Office's Statistical Yearbooks for 2000-2011

Until the integration with the EU, the investment activity remained under the preliminary influence of the supply of subsidized credits for agriculture. Their significance and role diminished after the integration with the EU, also due to the reduction of state budget funds transferred to credit subsidies [Kata, 2011]. In the years 2004-2008 high investment activity was noted in agriculture. This was supported by good economic situation expressed as well by relatively favorable price and covering agriculture with the EU CAP instruments. These are primarily funds from the following programs: SPO 2004-2006 – action: “Investments in farms”; PROW 2007-2013 – action: “Modernization of farms”, and action: „Setting up young farmers”. The budget of actions for investment purposes in agriculture, starting with SAPARD program, through SPO 2004-2006 and PROW 2007-2013 was growing [Czubak, 2012]. It should be viewed as a positive phenomenon, however, the relevant needs were substantial. Modernization of agriculture in Poland was primarily supported by the EU subsidies. On the other hand, however, it should be borne in mind that the programs supporting modernization of farms and subsidized credits have been leveraged by a relatively small¹ group of farms. In 2009, investment activity much declined due to crisis phenomena, deteriorated relation of prices, reduction in agricultural production. After that year, the situation started to improve similarly to the macroeconomic trends. If it hadn't been for the

¹ For example, this action under programs supporting direct investments (SAPARD, SPO 2004-2006, PROW 2007-2013) was used, by the end of 2011, by ca. 82 thousands beneficiaries. On the other hand, in the case of subsidized loans, there were ca. 119 thousands beneficiaries in that period, who were offered access to bank loans with subsidies.

substantial share of support funds in financing agriculture, the downturn in the sector would have been much more acute and it might have lasted longer.

The trends presented earlier match the investment rate performance (fig. 2). Much as between 2004-2008, an upward trend was noted, in 2009, the trend discontinued as a result of economic downturn. In the following years (2010-2011), the situation improved. It means that in the analyzed period, farmers had predominantly increasingly optimistic views of the future and ongoing agriculture Investment rate = gross investments in agriculture in the private sector/nominal gross disposable income in farms business sentiment and, consequently, they allocated more funds to accumulation than consumption.

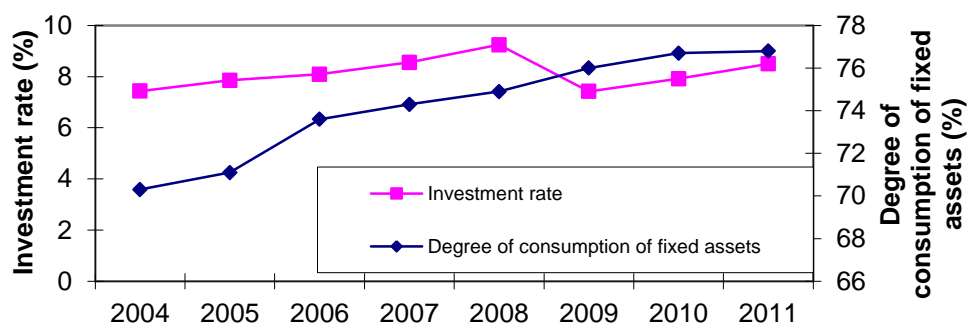


Figure 2. Investment rate and degree of consumption of fixed assets in agriculture in Poland (years 2004-2011)

Investment rate = gross investments in agriculture in the private sector/nominal gross disposable income in farms

Source: Central Statistical Office's Statistical Yearbooks for 2004-2011

This was also triggered by more stable development conditions after the sector was covered with the CAP instruments. It should be noted here, that in view of the farms' obligation to meet the requirements of the ecological welfare of the environment and animals, investments were partially obligatory and did not translate into income. They have, however, a positive impact on the environment which cannot be neglected as agriculture creates public goods. On the other hand, however, the modernization needs of agriculture, especially its high capital intensiveness, require that the analyzed indicator be higher in the long run [Grzelak, 2013].

As a consequence of the identified phenomena, the degree of consumption of fixed assets of agriculture increased (fig. 2) which means that fixed assets in agriculture were aging and becoming increasing worn due to the low scale of replacements. Extended consumption of fixed assets, including machines and construction equipment limits the efficiency of production processes in the sector, despite an increase in investment activity, especially following the integration with the EU. It limited the increase of efficiency and higher income growth. It should be remembered, however, that the situation in agriculture in this respect is highly diverse, especially in terms of the production scale [Grzelak, 2012]. Hence, in the

whole lot this “mass” of smaller farms where assets become depreciated has a negative impact on the increase in the consumption of the assets across the whole agriculture sector. An especially critical boost for investments in agriculture, as appears in research, is access to the capital market, including loans [Weiss, 1999].

In Poland, only as part of the Development of Rural Areas Program (PROW) 2007-2013 which sets out the framework for executing CAP instruments in agriculture and rural areas, about 21 thousands tractors, 176 thousands agri machines² were bought as part of the action: modernization of farms until 2011. The directions of investments are highly diverse, however, depending on production profile. Farms specializing in plant production focused primarily on purchasing land and machines, while animal breeding ones invested in buildings and the related fittings [Saass, 2013]. Especially active in terms of investments were dairy farms.

Table 1

Investments situation of farms covered under FADN system in Poland in the years 2004-2011 (thousands PLN/farm)

Specification	2004	2005	2006	2007	2008	2009	2010	2011
Total agriculture production	86.1	83.1	87.9	93.6	91.1	87.2	101.0	115.7
Farm income	20.0	22.3	29.0	30.4	24.6	23.6	38.3	42.1
Income excluding subsidies	17.0	12.9	14.5	18.7	6.9	3.8	13.8	16.0
Gross investments	11.6	12.0	14.3	12.7	11.2	12.0	14.0	14.1
Total debt	27.7	27.4	29.1	28.5	30.5	31.0	32.0	34.2

Source: Own material based on the data extracted from FADN agricultural accounting system for years 2004-2011

The investment trends discussed earlier are confirmed as well by data of farms covered under the FADN system. The data indicate that investments and debt of farms have stayed relatively stable relative to the other categories, i.e. value of agricultural production, farming income (tab. 1). We can also note that if it hadn't been for direct payments and their support for farming income in the years 2008-2009 its level would have been at a very low level, i.e. poverty threshold (for farming families' households). Recovery in agriculture in the years 2010-2011 triggered investments, however, the dynamics of this category was lower than that

² Effects of support provided by ARiMR from EU aid programs, ARiMR's materials, <http://www.arimr.gov.pl/pomoc-unijna/efekty-unijnej-pomocy-udzielanej-przez-arimr.html>, access January 2013

of income or debt. This may be indicative of the prudential strategy of households' market accommodation in Poland and the domination of own income in financing investments. It also confirms a relatively low level of debt relative both to total production and income. Moreover, the data indicate the stabilizing role of subsidies both in shaping investments and farming income. It can be assumed with a high probability that if it was not for direct support, in the slow-down cycle in agriculture (2008-2009) investments would have been residual [Grzelak, 2013].

In the light of these considerations, a question arises what are the factors which support and limit the development of farms in Poland. It has been established in the research [Agro under the loupe, 2012] (tab. 2) that investments

Table 2

Stimulants and destimulants enabling development of farms in Poland in the opinion of the respondents (farmers) (at 2012)

Stimulants	% of indications in the first place	Destimulants	% of indications in the first place
Purchase of modern equipment enhancing capacity and productivity	37	High costs of purchasing agri production means	50
Increase of arable land	23	Unfavorable weather/soil conditions	19
Focus on most profitable cultivation	19	Non-profitability of production	17
Increase of livestock	7	Inability to increase the area of arable land	6
Better use of the current farming resources	5	Complex administrative procedures	2

Source: Material based on research prepared by European Leasing Fund, included in the Report: „Agro under the loupe”, Wrocław 2012 (n= 604, nationwide sample).

consisting in purchasing modern equipment improving productivity and increase of the area of arable land were the factors indicated by respondents (farmers) most often (60%) as factors which facilitate development of farms. This was driven by the belief in further increase in the use of technical devices in farming work and, thus, its productivity, as well as in increase of production scale and specialization. On the other hand, in the case of destimulants, respondents indicated high costs of purchase of means of production and unfavorable weather/soil conditions (in total

69% of indications). It indicates the need for organizational actions to limit the volatility of farming conditions.

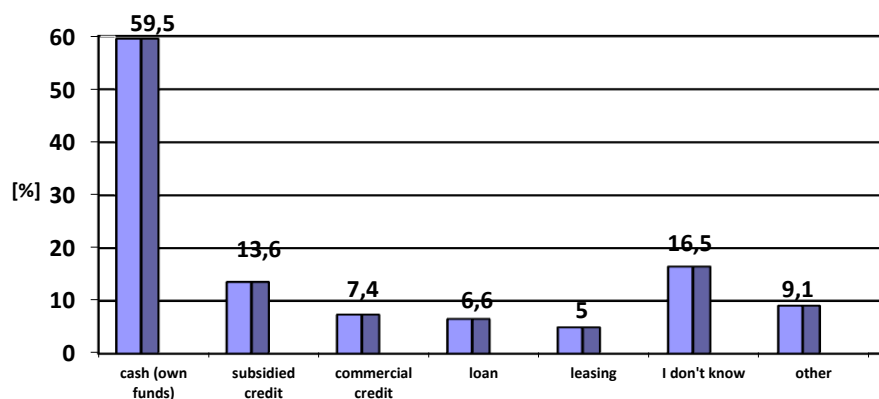


Figure 3. Respondents' (farmers) plans with regard to the key source of financing investments (at 2012)

Source: Material based on research prepared by European Leasing Fund, included in the Report: „Agro under the loupe”, Wrocław 2012 (n= 604, nationwide sample).

Farm managers are going to finance investments primarily with own funds (59.5% answers). It confirms previous presumptions. Only ca. 21% are planning to use bank loans, while only 5% want to avail of leasing. Such a distribution of indications result from the possibility to avail of support funds as part of the CAP instruments (direct payments, funds from the *Modernization of farms* program) and delivery of a careful strategy of action.

CONCLUSIONS

These considerations lead to the following conclusion:

1. Investment activity in agriculture in Poland has been identified to be increasingly assimilation with the macroeconomic trends.
2. After Poland's accession with the EU, investment activity of farms increased given the possibility to finance investments with EU funds. It has accelerated accommodation processes and allowed to partially “make up for the backlog” recorded in this area. The dynamics of investments in agriculture has been identified to be following the macroeconomic trends.
3. Despite the upward trend in the investment capacity its level is insufficient to decelerate depreciation of assets across the agricultural sector. The situation would be positive if the assets' consumption trend changed.
4. Since 2004, the EU funds supporting investments in agriculture have played the key role in sustaining investment activity. They act as a stabilizer for income and investments in agriculture [Grzelak, 2013].

5. The biggest barriers impeding the operation of the Polish farms are, according to examined farmers: high purchase costs of means of agricultural production, while the most favorable factor is purchase of modern equipment. Farms' own funds (equity) continue to be the most common source of financing investments. It means that the development of this sector in Poland is primarily based on careful strategies. Moreover, there is a demand for higher stability in the operation of farms. It can be achieved by the development of horizontal and vertical integration processes or the insurance system in agriculture.
6. It can be estimated that the launched investment processes will produce in the future multiplication effects in parts of farms which actively avail of the EU CAP investment support instruments and subsidized loans, which will stimulate further polarization processes in agriculture. The future of other farms remains an open question.

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