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**THE FINANCIAL AND ECONOMIC EFFICIENCY OF
AGRICULTURAL PROPERTY AGENCY (APA) BREEDING
COMPANIES AS COMPARED TO AGRICULTURAL ENTERPRISES
ESTABLISHED ON THE PROPERTY OF POST-STATE
AGRICULTURAL FARMS BETWEEN 2001-2009**

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and food sectors in the European Union and EU acceding and neighbouring countries***

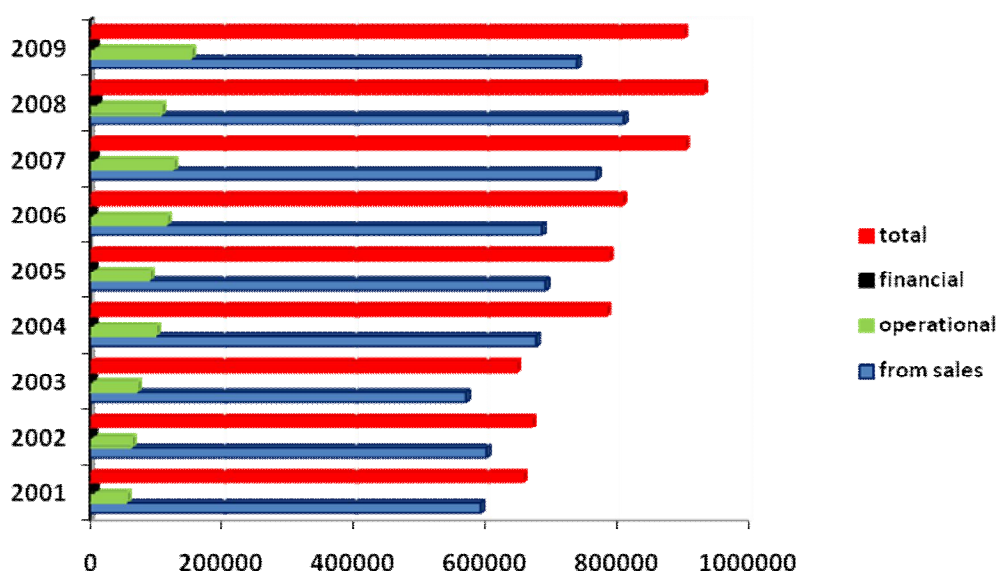
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In 2009, the Agricultural Property Agency maintained ownership supervision over 46 companies engaged in the plant and animal breeding. Among them, 8 were engaged in breeding varieties of agricultural and horticultural plants, 21 in livestock husbandry and 17 in were stud farms and stallion herds. The primary purpose of their activity is a creative and conservative breeding, the implementation of breeding programs, i.e. creating biological progress to meet to the fullest the needs of Polish agriculture and participation in the global market. Breeding both plants and animals has another important role because it makes independent of any diseases or pests in other countries. National breeding also makes it possible to implement own breeding policy and maintain independence from international breeding companies whose primary goal is profit. Breeding projects in single-person APA companies imposed by the Ministry of Agriculture and Rural Development is a kind of a guarantee of food security of the country and an important factor in stabilising the market for media of biological progress.

In the presented assessment of the economic and financial condition of the test group of companies we used horizontal and vertical analysis of profit and loss accounts and in-depth indicator analysis. We focus on the period 2001-2009, in view of the fact that it was a specific period for APA companies, mainly due to the implementation of a broad restructuring, including through substantial investments. The investments were aimed at preparing the breeding companies to carry out their tasks in conditions resulting from the Polish entry into the EU and the end in 2007 of the transitional period allowing for the co-financing of breeding programs from the state budget. The main objective of the program was to provide companies the relevant organisational and economic basis, so that they would be able to maintain a significant position in an increasingly difficult breeding market. To fulfil this task, the breeding and seed companies should be the biggest in terms of marketing of livestock [Podlaski 2008].

Throughout this period, total revenues in the analysed companies showed a steady growth trend. These increases, however, were uneven in different years and in different types of income. (figure 1)

Figure 1. Revenues of the plant and animal breeding APA companies in 2001-2009 (in thousand PLN)



Source: Based on APA data

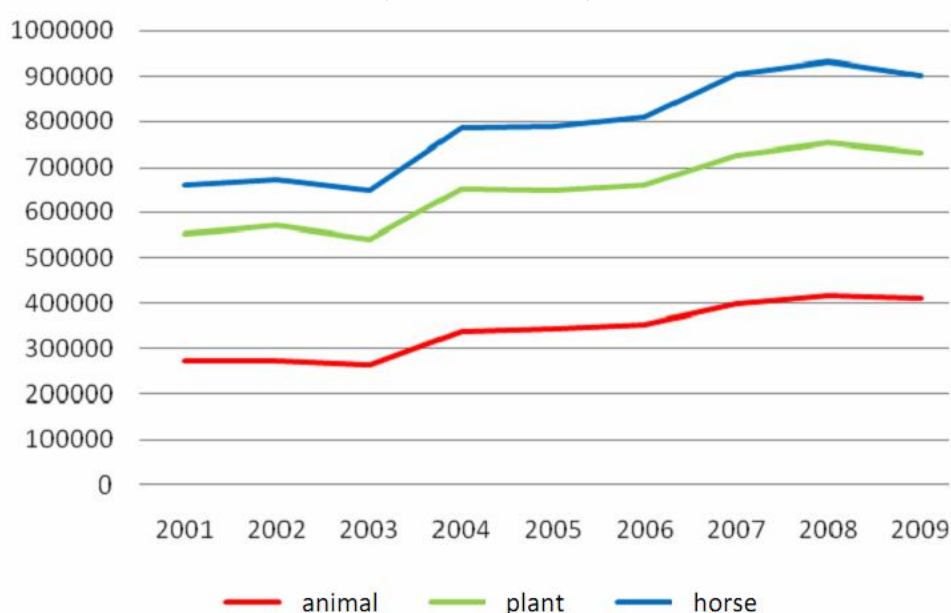
The revenues of companies analysed in 2001-2009 increased in total by over 37%. The highest growth was in 2003-2004 and in 2006-2008. In both cases, this was due to improvement in the agricultural market, in the first case, this was the result of the integration, which began the process of

convergence of Polish prices with the EU market. In the second case, the improvement of the price situation on the agricultural market was more global in nature and was *inter alia* due to a rapid decrease in global stocks, mainly of cereals. It can therefore be concluded that the observed causes affecting the revenues of companies give evidence to their significant association with the market.

The increase in revenues was very diverse depending on the specialisation of breeding enterprises. The highest total reported revenue growth was in “horse” companies, i.e. in stud farms and stallions herds, where the increase was 59%.

In these companies with a relatively low increase in sales (46%), the highest increase was in the case of other operating income (240%), mainly grants (289%) and other operating income (257) (figure 2).

Figure 2.
Revenues of the plant and animal breeding APA companies in 2001-2009 depending on specialisation.
(in thousand PLN)

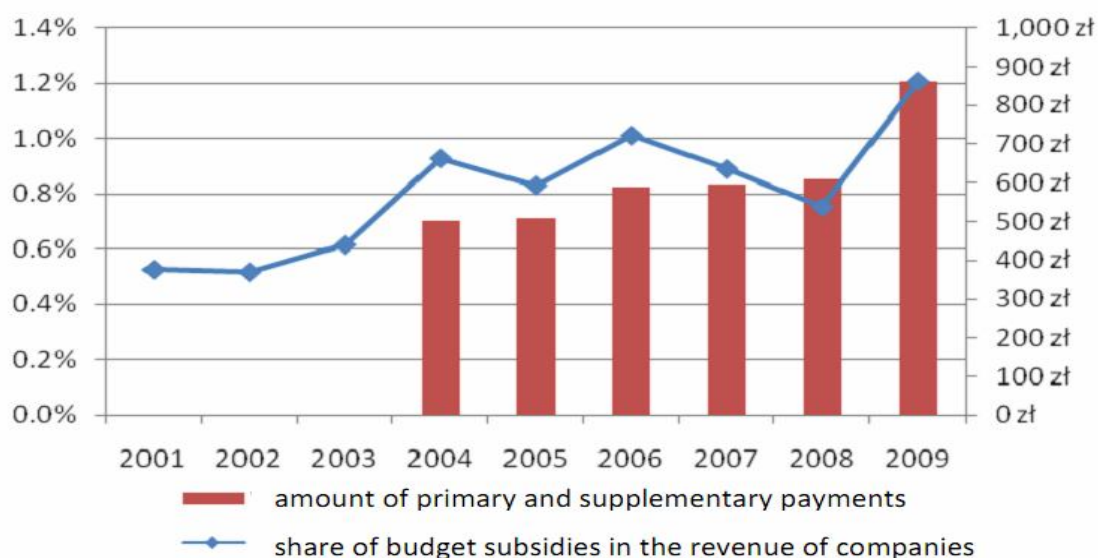


Source: Based on APA data

Animal companies showed a slightly lower growth rate of total revenues (51%), including sales (32%), but a very high growth in other operating income, particularly in the subsidies (they increased more than 19-fold). This indicates that the level of funding of these companies for breeding programs in previous years was low. Total revenue grew the slowest in plant breeding companies (14%). These units significantly increased sales (41%), but at the same time, they decreased revenues from subsidies (decreased by 3%). This was the result of the considerable state subsidies since 2007 for breeding programs. These grants are currently being replaced with the increase in income from the breeding fees. The analysis of the financial support received in the companies clearly shows that its level in 2001-2003 was significant, approximately 5% of total revenues. Revenues from the covering of Polish agriculture with CAP and the introduction of direct payments have significantly increased this percentage. However, at first the clear limits, and then deprivation of co-financing for breeding programs resulted in the collapse of income from this source in plant breeding companies, and consequently in the whole group of companies surveyed in 2007-2008. As a result, an increase in subsidies in APA companies was lower than in commercial enterprises. To a small extent the companies can mitigate the loss of these funds by participating in agri-environmental programs that support conservative breeding of certain breeds of animals and plant species (figure 3).

Figure 3.

The role of budget payments in financing activities of APA companies in 2001-2009



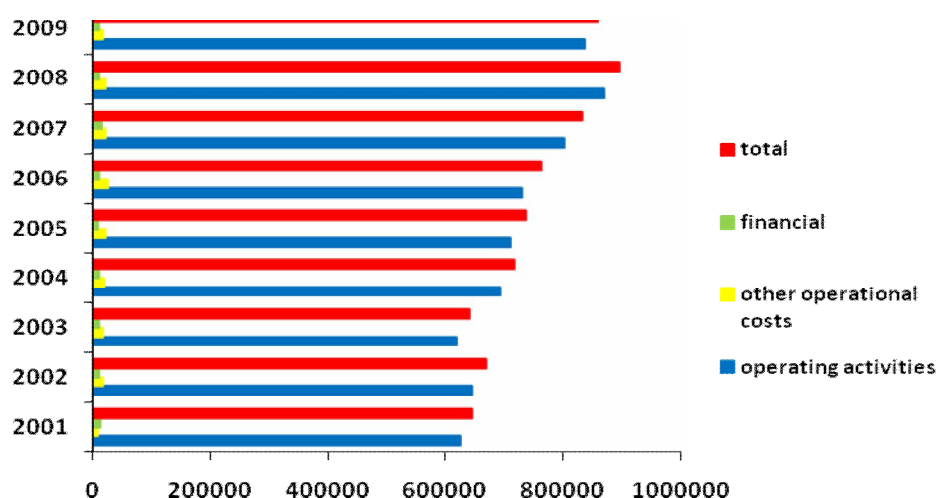
Source: Compilation based on APA and ARMA data.

Despite the increase in subsidies received their share in the profits decreased. In 2001-2003 the subsidies received by companies exceeded more than 4-fold the profits, and in the first three years of the accession to the EU (2004-2006) they exceeded them by only 26%. In the recent period (2007-2009), as a result of a significant increase in the level of subsidies, mainly due to the depreciation of the zloty and a very noticeable increase in payment rates in 2009, the subsidies exceed profits by 75%. Nevertheless, it is clear that any change in the flow of subsidies caused by the reduction in the CAP budget will be felt by the companies much more strongly than by conventional farms, where subsidies exceed the profits to a smaller extent.

In parallel with the increase in revenues of the APA companies also grew costs (figure 4). This growth in the analysed period was 33.3% and was generally steady in each year.

Figure 4.

The level of costs in the plant and animal breeding APA companies in 2001-2009 (thousand PLN)



Source: Based on APA data

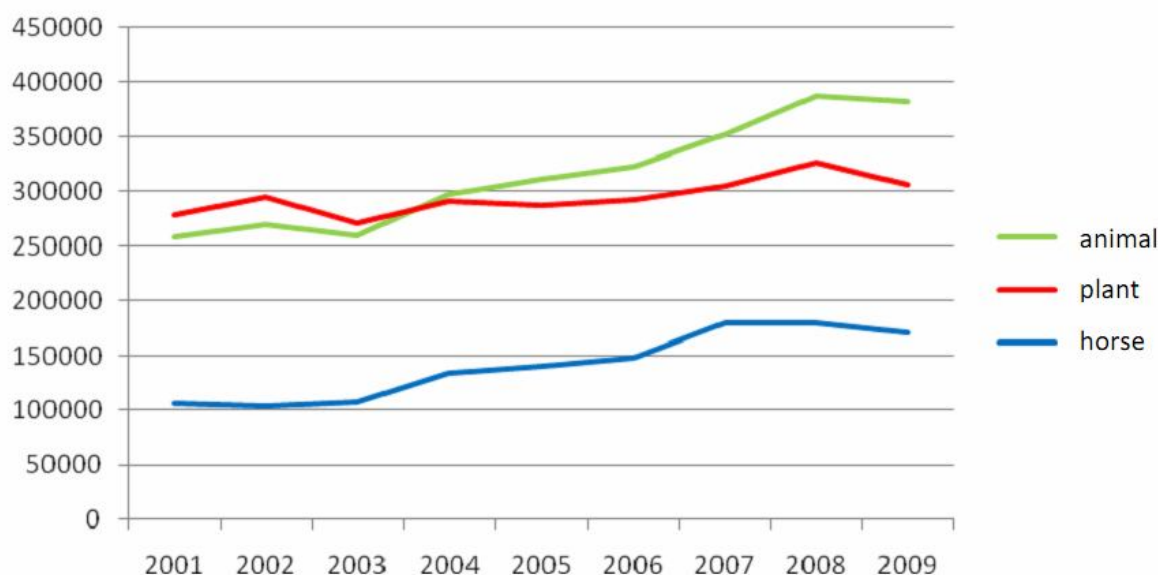
The cost analysis shows that the cost of operating expenses had the biggest impact on costs. One may even be tempted to say that other types of costs played a marginal role. However, pointing to

the relatively steady increase in operating expenses in each year, one should note that this trend was different in each group of costs. Against the background of the generic costs the high growth trend was exhibited by depreciation costs (an increase of 106%). The systematic expansion of this component of costs during the analysed period seems to reflect the scale of modernisation and investments conducted by APA companies. Second comes the high growth dynamics of the costs of external services (increase by 62.9%) and the costs of materials and means of production (increase by 46.8%). It is in a sense a natural reflection of the changes in the market. Indeed, with the Polish accession to the EU and the increase in prices of agricultural products the prices of production resources and the prices of services which are largely associated with this, also grew. One should also consider the aspect of reducing the costs of purchase of goods and materials sold (decrease by 29.5%) in the cost structure of APA companies. This reflects the decreasing competitiveness of companies in the field of sales agency or a change in strategy of these units in the field of obtaining additional sources of income.

The level and increase in costs in the period was pretty much diversified depending on the breeding profile of the company, from 56% in the horse companies, through 48% in animal companies, to 10% in plant companies (figure 5).

Figure 5.

Total costs in plant and animal breeding APA companies according to their specialisations in 2001-2009 (thousand PLN)



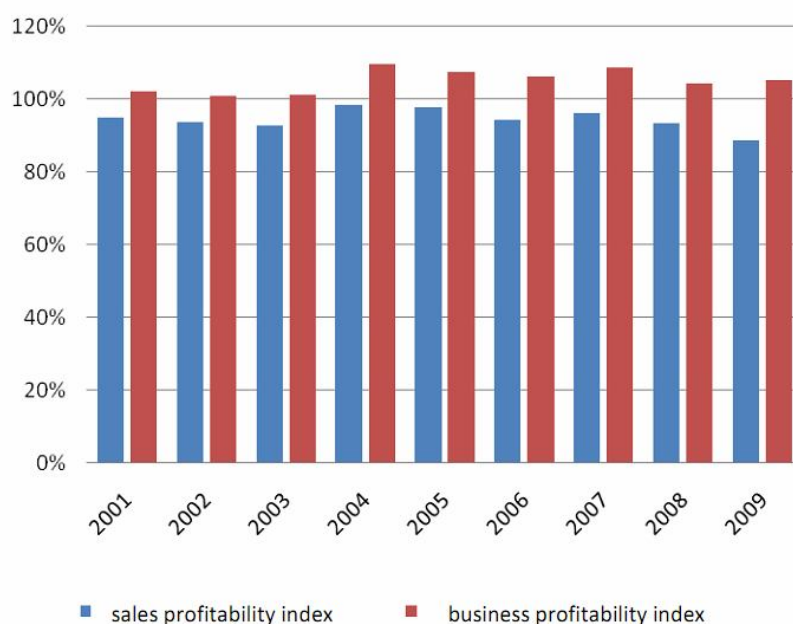
Source: Based on APA data

As in the case of revenues, the costs as well were the highest growing in stud farms and stallion herds (56%). “Horse” companies were characterised by a very high increase in amortisation costs (an increase of 147%) in connection with a number of investments. Significantly more funds in recent years were allocated in these units to services (increase of 59.5%). Animal companies were at the second place in terms of the dynamics of costs (48%). Also in these companies the generic cost analysis shows the strongest growth of depreciation cost share (151%). In the companies involved in animal husbandry the costs of services also grew significantly (75.3%) as well as other generic costs (59.5%). The slowest growth in costs was in plant companies (10%). A several times lower growth in depreciation cost (increase by 44%) had a significant effect on this low growth. It is also worth noting that in this group the decline in costs was most affected by the reduction in expenditure on sold goods and materials (reduction of 32.8%).

In the analysed period of 8 years including the period before and after Polish accession to the EU, the plant and animal breeding APA companies were characterised by a positive indicator of profitability and economic activity (figure 6).

Figure 6.

Indicator of profitability of sales and economic activity of plant and animal breeding APA companies



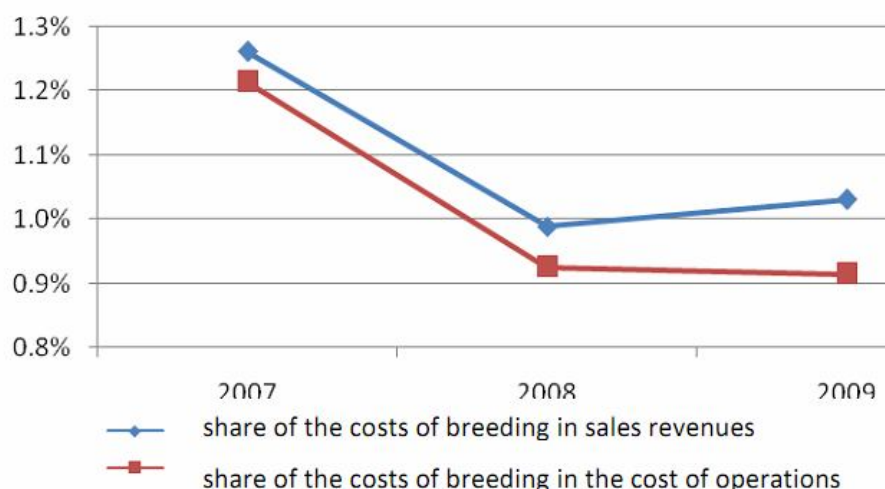
Source: Based on APA data

As with all groups of farms, also in the APA companies one can see some improvement in this area caused by covering Polish agriculture with the CAP mechanisms. Cost-effectiveness of economic activity in 2001-2003 fluctuated around 1.5%, in the next three years (2004-2006) it was on average 7.9%, while in the last period (2007-2009) it fell to 6.1%. It should be also noted that APA companies, depending on the profile of the farming activities, showed some differences in the profitability of the business. Top results were obtained by the animal companies with the average profitability of the operations of 7.8%, followed by plant companies with 4.1%. Stud farms and stallion herds fared the worst with 1.4%. Despite the positive results of business profitability in APA companies, it should be noted that they were inferior to the entire sector. It can be assumed that in the past three years the rate for the sample of previously collectivised IAFE-NRI farms stood at 9.6% [Kulawik 2010].

In the above indicators of economic viability of companies the profitability of sales is essential. When analysing the results of the profitability of sales for the past 8 years, one should note that the companies in any year were not able to achieve positive financial results only from the basic operations. Also in many groups of commercial agricultural enterprises (farms) in the periods of less favourable economic conditions after the accession to the EU, the achievement of positive financial result was not possible without subsidies. This therefore confirms the thesis that without the financial support the companies would be forced to significantly reduce the scale of breeding and related investments. Activities of APA companies in the field of achieving progress in breeding operations and transferring these achievements into agricultural practice cost them in the last three years a total of more than PLN 253 million (figure 7).

Figure 7.

Expenditures of APA companies on breeding operations in relation to selected groups of income and expenses for the period 2007-2009



Source: Based on APA data

These costs absorbed in the period 2007-2009 an average of 11% of income from sales and accounted for approximately 10% of operating expenses. Although the real financial burden of companies resulting from breeding operations cannot be accurately determined without a thorough analysis of the structure of these expenditure, it is highly likely that those companies would gain a much better return than the average for the sector had they been limited solely to operations in goods. These considerations should only exclude stud farms and stallion herds, which, due to the specific nature, cannot participate in the market for agricultural products.

Figure 8

Indicators of labour factor management in APA companies in 2001-2009



Source: As in figure 2.V.

All discussions on how to improve the efficiency of economic activities point that it is very important to reduce labour costs. By analysing these costs in plant and animal breeding APA companies, it is clear that their management carried out little radical reduction strategy. In the period of 2001-2009, the number of jobs reduced by more than 7.2% and that was in conditions of very large modernisation investments. The biggest job reductions were in 2003-2005. There were intensive restructuring in order at that time to improve the efficiency of companies in relation to European integration.

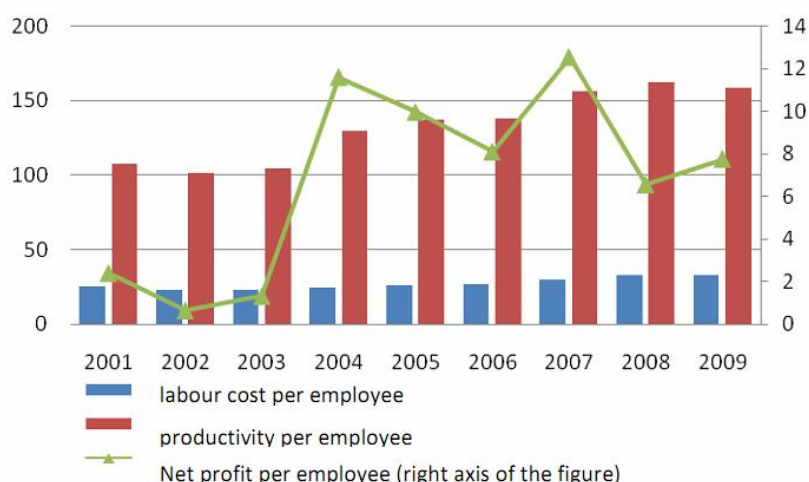
As a result of simultaneous increase in revenues and financial performance, the indicators of labour productivity (Figure 8) improved significantly during this period. The largest increase in profit (net) per employee was recorded in 2004, i.e. in the year of the greatest improvement in price brackets rate and an increase in agricultural production resulting from good weather conditions.

Improvement of the financial situation of the companies, along with the growing wages, led to an increase in wage expectations of employees in the whole economy. As a result, since 2004, the companies raised wages regularly. It is worth mentioning that over the years, these units has been characterised by a higher level of labour charges. This trend has not changed. In recent years, wages in APA companies were higher compared to private companies by about 18% [Kagan 2008]. It should be emphasised that it is understandable, if only because of the conduct of works on biological progress. In pursuing this primary objective, the APA companies often use the latest technology and are somehow forced to employ highly qualified staff, and thus, to provide competitive wages.

In the last 8 years the plants and animal breeding APA companies extensively expanded and modernised owned property. The most significant investments were in resources and in buildings and structures. Their value rose respectively by 258 and 223%. A big impact on the valuation of assets had the increase in the valuation of land owned by companies (an increase of 191%). Despite the high investment activity, the companies were characterised by a high rate of liquidity. Current liquidity increased from 2.13 in 2001 to 3.39 in 2009. In relation to the values that are suggested in the literature [Grzegorzewska 2008, Kowalczyk 1999], one can even talk about a liquidity surplus. Similarly high rates were achieved in 2009 in the field of rapid liquidity and cash liquidity. They were respectively: 1.15 and 0.77, and were more than twice as high as in 2001. This was possible because the vast majority of investments in companies in the period were carried out with subsidies to the capital and with own funds of companies.

In the financial analyses of economic operators the most important indicator from the owner point of view is the return on equity (figure 9). The analysis of this indicator showed that throughout the period, the APA companies were characterised by a positive level of this indicator. The highest return on equity (ROE) was in animal companies (average of 6.1%), much lower in plant companies (3.6), and the lowest of the so-called “horse” companies (stud farms and stallion herds) - 0.7%. Highest ROE values were reached in all types of companies in 2004. In subsequent years it underwent fluctuations. The changes resulted from the increase in the value of capital in the conditions of changing profitability of business. As in most of these financial indicators, the breeding objectives of companies and their huge capital intensity significantly decreased the profitability of capital. In the period between 2003 and 2007 the plant and animal breeding APA companies had a lower return on equity on average by 5.2 percentage points than the entire IAFE sample - 160 large-scale farms.

Figure 9.
Return on equity (ROE) and the size of fixed and current assets of the plant and animal breeding APA companies in total in 2001-2009



Source: As in figure 2.V.

Summary

Throughout the period the average financial performance of breeding companies was positive. These results were strongly differentiated according to the type of breeding activities. The highest rates were achieved by animal companies, lower by plant companies and the lowest by horse companies.

Average values of business viability and sales profitability and value creation index (VCI) for the entire group of APA companies were lower than those achieved by typical commercial agricultural enterprises. APA companies only fared better in terms of added value indicator.

The reason of lower results in APA companies, except much less profitability of breeding operation than the typical commodity business, to some extent may be due to recent restructuring, based largely on broad investment program. Positive effects of significant restructuring costs, including implemented investments, can be seen only after several years.

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Keywords : breeding companies, economic efficiency

Abstract: The aim of this paper is the economic and financial condition of the test group of Agricultural Property Agency companies. We used horizontal and vertical analysis of profit and loss accounts and in-depth indicator analysis. We focus on the period 2001-2009, in view of the fact that it was a specific period for APA companies, mainly due to the implementation of a broad restructuring, including through substantial investments. In the analysed eight-year period (which covers the time before and after Polish accession to the EU), APA plant and animal breeding companies were characterised by a positive ratio of profitability of business activity. In respect of APA companies, an analysis of the return on equity showed that in the whole discussed period, it was characterised by a positive level. The animal breeding companies had the highest return on equity (ROE) (average of 6.1%), subsequently, plant companies had a 3.6% average, while the so-called 'horse' companies (horse and stallion studs) had a 0.7% average.