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## ANALYSIS OF FINANCIAL EFFICIENCY OF THE AGROHOLDINGS IN UKRAINE

*The article deals with the scientific and methodical approaches to the analysis of the financial state of Ukraine's agroholding and its definition of financial efficiency, in order to ensure their sustainable development. The purpose of the article is to review the financial efficiency of Ukrainian agroholdings. The focus of the research is made on profitability and liquidity relations of research objects. The research was based on the generally accepted methods for data quantification, processing, presentation, statistical observation, summary and grouping of observation materials. The study presents an analysis of such agroholdings as LLC Avangard, LLC Agroton, LLC IMK, LLC Kernel.*

**Key words:** financial status, financial efficiency, own capital, liquidity, share capital, current assets, profitability.

**Introduction and problem statement.** The market economy defines specific requirements for the enterprise management system. It is necessary to respond more quickly to changes in the economic situation in order to maintain a stable financial situation and continuous improvement of production in line with changing market conditions.

Determining the financial condition of the company is a very important problem in our time. The dependence of stability relates to the use of a certain system of indicators, which must clearly reflect revenue, the use of financial resources.

The study of financial activity on the basis of actual information gives a quantitative and qualitative description of changes that occurred at an agricultural enterprise relative to a given program. With it, selected options for managerial decisions, which are aimed at preventing the causes of negative deviations and creating favorable conditions for the development of progressive phenomena. Unfinished opportunities are discovered, the implementation of which allows either accelerate the development of the enterprise as a whole.

**Analysis of recent research and publications.** A stable financial position can be achieved at the expense of regularly analysis of its financial and economic activity.

The study of the financial and economic condition of enterprises was carried out by foreign and domestic economists as I. Blank, R. Brailli, O. Zarubi, V. Kovaleva, O. Pylypchenko, E. Stoyanova, E. Helferta, O. Sheremeta, A. Peltek, and others. All authors investigated a lot of problems regarding the financial condition of the company, and paid a lot of attention to the indicators of financial analysis.

With all the significance of conducting scientific research, some issues of the formation of effective financial activity of the enterprise are not sufficiently studied. Demand further development of the issue of developing specific mechanisms for improving the effectiveness of business entities. Significant practical significance of this problem for the development of enterprises emphasizes the objective nature of the relevance of the subject.

**The purpose of this article.** The purpose of the article is to analyze the financial condition of the companies and find effective ways to improve it. The purpose of the study is to determine the content of financial state, which are formed in the process of integrated assessment of the financial activity of the enterprise in market conditions.

**Research results.** In modern conditions, each enterprise should be clearly oriented in the complex labyrinth of market relations, correctly assess the production and economic potential, the strategy of further development, the financial state of both its enterprise and its partner enterprises.

Financial state is the ability of an enterprise to finance its activities. It is characterized by the availability of financial resources that are necessary for the normal functioning of the enterprise, the feasibility of their placement and the efficiency of use, financial relationships with other legal entities and individuals, solvency and financial sustainability.

It is imperative to analyze the financial position of any enterprise. Financial analysis is a means for estimating and forecasting the financial state of an enterprise on the basis of its financial statements. Financial analysis can be performed both by the management of the enterprise itself and by any external analyst.

The results of the financial analysis are used to plan, control and forecast the financial condition of the enterprise. Its purpose is to establish a regular cash flow and place its own and borrowed funds in such a way as to ensure the normal functioning of the enterprise, obtaining the maximum profit and effective management of it, as well as preventing bankruptcy.

The main purpose of the analysis of the financial state is to identify and eliminate in a timely manner the shortcomings of financial activity and to find reserves for improvement of the financial state of the enterprise and its solvency.

The analysis of the financial state should help financial analysts justify their financial plans, identify weaknesses in the financial operations of the enterprise, take appropriate measures that will help correct the situation, decide on more efficient investment of resources and resources, adjust the direction of the future activities of the enterprise.

This ratio is calculated as net profit after tax divided by the total assets. This ratio measure for the operating efficiency for the company based on the firm's generated profits from its total assets [4]

Return on assets (ROA) ratio: Net profit after taxes/ Total assets.

According to this table, we can conclude that return on assets of agroholdings of Ukraine, which are under consideration, has increased for 2012-2016. Return on assets of Avangard increased from 0,14% in 2012 to 0,18% in 2016. This indicates that the efficiency of the biogas station has increased. It was caused by the fact that net profit in 2016 was decreased on 42,2%, and it was 96245,0 USD in 2016 and 227856,0 USD in 2012.

The norm for the coefficient of return on assets, as well as for all coefficients of profitability is  $K > 0$ . If the value is less than zero – this is the reason to think seriously about efficiency of an enterprise. It will be caused by the fact that the enterprise works at a loss [4]. This situation can be observed in the case of Kernel. As we can notice here, the coefficient of return on assets for 2012-2016 grew by 0,05 pp., but in each of the analyzed year, it was more than

zero. We can conclude that the company during that period was profitable, which is positive for the enterprise, but dynamics from 2012-2015 indicates the growth of profitability, which also indicates the profitability of the enterprise in the nearest future.

If we consider return on assets of Agroton, we can say that during that period the coefficient decreased by 0,44 and only in 2015 the agroholding became profitable, which is positive for the enterprise, as evidenced by the growing tendency of coefficients for the entire research period.

The highest indicator of return on assets for the four years Agroton has. In 2012, it was 0,61 which indicates a prominent level of profitability of the agroholding. In this case, It is the high rate of profitability. In 2016, the coefficient of return on assets fell to 0,17 the main reason for the decline in this coefficient was the decrease in net profit in that year.

Return on assets is highly dependent on the industry in which an enterprise operates. As agroholding is quite capital-intensive industry this indicator is lower, if we compare it with the sphere of services that does not require large capital investments and investments in working capital, return on assets will be higher.

According to the table, we can say that coefficients of profitability for 2013-2014 tend to grow, which indicates profitability of agroholdings in the future.

IMK had a satisfactory and more stable year compared with the other enterprise having the highest with 0,52 in 2012 and 2015. There was no major change in the results from the other years with the deviation of 0,07 which has a decrease tendency.

Return on Equity effectively measures how much profit a company can generate on the equity capital investors have deployed in the business, and can be used over time to evaluate changes in a company's financial situation [5].

This ratio is calculated as net profit after tax divided by the total shareholder's equity. This ratio measures the shareholders rate of return on their investment in the company [4].

Return on owner's equity (ROE) ratio: Net profit after taxes/Total shareholders' equity.

Table 1

The coefficients of return of assets of Ukrainian agroholdings for 2012-2016 (%)

Enterprises	2012	2013	2014	2015	2016	Deviation (+/-)
Avangard	0,14	0,13	0,06	0,69	0,18	0,04
Agroton	0,61	0,42	0,35	0,23	0,17	-0,44
IMK	0,52	0,48	0,44	0,52	0,45	-0,07
Kernel	0,47	0,54	0,55	0,55	0,52	0,05

Sources: own research

Table 2

The coefficients of return of equity of Ukrainian agroholdings for 2012-2016 (%)

Enterprises	2012	2013	2014	2015	2016	Deviation (+/-)
Avangard	0,20	0,17	1,19	1,87	0,75	0,55
Agroton	0,05	0,05	0,17	0,03	0,35	0,30
IMK	0,15	0,17	4,69	0,53	0,15	0,00
Kernel	0,17	0,10	0,31	0,14	0,12	-0,05

Sources: own research

According to the table of coefficient of return on equity Avangard had positive coefficient with progressive normative in all the years with more than zero indexes and the highest in 2014 and 2015 1,19; 1,87 coefficients respectively. And 2013 had 0,17 which indicate a little decline in the enterprise productivity likewise 2012 which is slightly above with the coefficient of 0,20.

Agroton had a relative stable coefficient with 2012 and 2013 with 0,5 coefficients which signifies not change but only to have an increase of 0,17 in 2014 which shows increase then a decline and the lowest in 2015 with a coefficient of 0,03. The coefficient of return of equity in 2016 is the highest with the coefficient of 0,35 showing an increase and potential in the future.

The coefficient of return of equity of IMK in 2014 has the highest coefficient of 4,69 which shows a massive increase. 2012, 2016 and 2013 had the coefficient of 0,15; 0,15 and 0,17 respectively; this index is more than zero. We can say that invested capital is used effectively. Though with a positive ratio it is still good according to the rule the index of the coefficient is compared to alternative investments of money in stock of other enterprises and, in some cases, in a bank.

In case of Kernel. coefficient of equity for the period 2012-2016 has a tendency to increase. In 2015 this coefficient was 0,31 that is bigger in comparison with 2014 with the coefficient of 0,10. We can say that the individual years show future growth but the deviation is negative with 0,05 which indicate a threat and a possible decline in the future.

The liquidity reflects the capacity of the company to transform assets in cash [1]. Quick liquidity ratio characterizes the ability of an organization to pay off its short-term liabilities due to selling of liquidity ratio. Even so in liquid assets in this case is included as money and short-term financial investment and also short-term accounts receivable. The coefficient of quick liquidity is calculated by division of liquid assets into short-term liabilities [2].

The higher quick liquidity ratio is; the better financial condition of the company is. It is obvious that in Agro-

ton the coefficient is more than 1 in each investigated year. 1,0 and more is a norm. It indicates the ability of the enterprise to fulfill short-term liabilities using all current assets.

At the same time, the coefficient may differ in different spheres. When the coefficient is less than 1, liquid assets do not cover current liabilities, as a result, there is a risk to lose paying capacity that is a negative signal for investors. Such type of situation we can observe in IMK in each year and in Avangard and Kernel in 2014,

It should be mentioned that dynamics of coefficients of liquidity of Kernel during the researched period tends to reduction. The main reason was decrease in circulating assets in 2016 in comparison with 2012 to 400573,0 USD.

In order to increase the coefficient of liquidity it is important to decrease bills payable and other current liability and increase the amount of circulating assets.

Researching dynamics of liquidity ratio of Avangard, one may indicate that they approached the most to normal indexes and during the researched period of time increased to 1,79 that shows the ability of the agroholding to fulfill its short-term financial liabilities in time.

Sometimes an analyst needs to view the liquidity of a firm from an extremely conservative point of view. For example the company may have pledged its receivables and its inventory, or the analyst suspects severe liquidity problems with inventory and receivables. The best indicator of the company's short-term liquidity may be the cash ratio. The cash ratio indicates the immediate liquidity of the firms. If the cash ratio for the company is too low. This indicates that this company is having immediate problem with paying bills [4].

The formula of liquid cash ratio:

CR (Cash Ratio) = monetary funds / short-term liabilities [4]

Let us calculate absolute liquid cash ratio of Ukrainian agroholdings which are under consideration in the following table.

According to this table, we can conclude that for 2012-2016 were able to pay off current liabilities at the expense of liquid working capital and other free assets.

Table 3

The coefficients of quick liquidity ratio of Ukrainian agroholdings for 2012-2016 (%)

Enterprises	2012	2013	2014	2015	2016	Deviation (+/-)
Avangard	2,104	4,075	0,968	1,500	1,795	-0,309
Agroton	2,277	4,351	1,951	11,047	27,580	25,303
IMK	0,779	0,308	0,231	0,336	0,880	0,101
Kernel	1,584	1,171	0,959	1,091	1,394	-0,190

Sources: own research

Table 4

The cash ratio of Ukrainian agroholdings for 2012-2016 (%)

Enterprises	2012	2013	2014	2015	2016	Deviation (+/-)
Avangard	0,997	1,446	0,380	0,346	0,269	-0,728
Agroton	0,813	0,447	0,234	2,798	8,327	7,514
IMK	0,026	0,105	0,035	0,095	0,115	0,090
Kernel	0,185	0,112	0,109	0,282	0,162	-0,023

Sources: own research

Considering dynamics of coefficients of monetary liquidity of Agroton, we can conclude that the liquidity is growing rapidly, in 2016 this ratio was 8,3, which is 6,0 more than in 2014.

We can observe the reverse trend considering dynamics of liquidity ratio of Avangard. In 2016 it was 0.26, which is 0,72 less than in 2012. Despite apparent easiness of the analysis (the higher ratio is, the better it is), it is not so simple. From the one hand, of course, the more part of the short-term liabilities the biogas stations can instantly pay off, the more stable it will be.

From the other hand, large cash balances are evidence of their inefficient usage. That is, if in 2012 the coefficient was 0.99, which is closer to the normative value, the better it is. If there is a constant growing balance of financial resources in financial activities of agroholdings, it is expedient either to reinvest in the same activity, for example, to buy new machines, or to reward shareholders or employees.

It is also important to note here that decline in the absolute liquidity ratio can point not only at deteriorating solvency and liquidity of Agroton, but at increasing of efficiency of usage of assets. This often happens when the value of the coefficient is much higher than the norm, which we notice in this case.

Considering coefficients of monetary liquidity of IMK we can conclude also that the financial situation of this enterprise has improved, because for the investigated period 2012-2016 coefficients of monetary liquidity increased on 0,089.

The graph of a linear trend was build in the Excel spreadsheet. This graph illustrates the relationship between periods and the specific gravity of the autonomy coefficient

(R2), which is calculated automatically. It makes it possible to estimate the density of the relationship between the phenomena being investigated, which is determined by the quantitative meaning. The closer R2 to 1, the more reliable is the trend line, that is, the more accurately chosen dependence reflects the connection between the values [3].

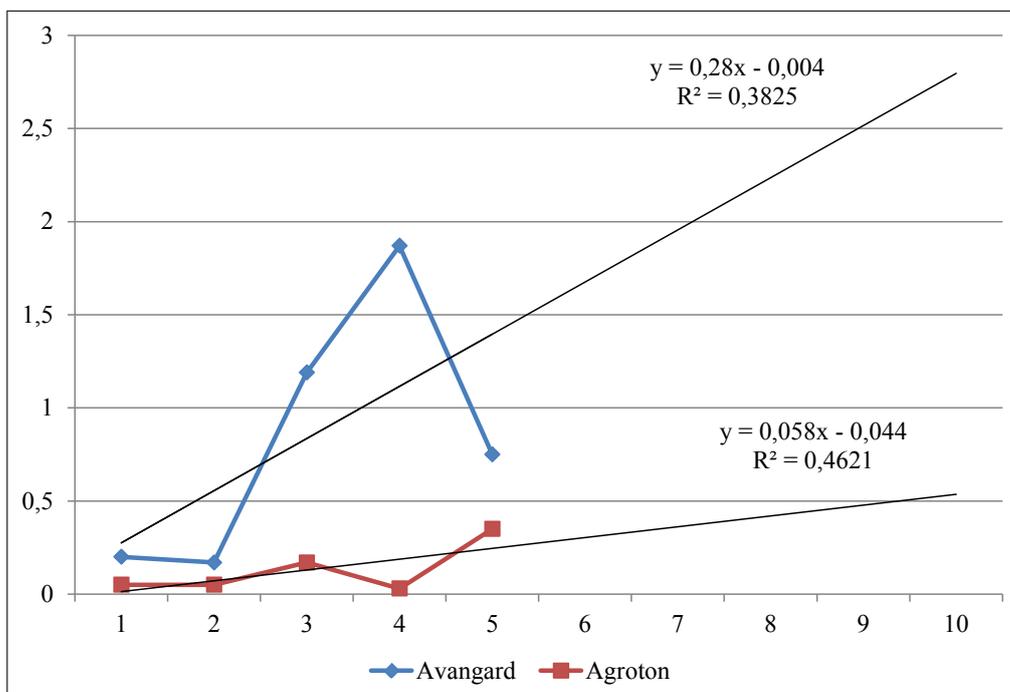
R2 on our graph is 0.3825 of Avangard and R2 of Agroton is 0,4621. Consequently, the relationship between the values is classified as significant, that is, the constructed model is adequate to the real data.

Given the obtained trend equation  $y = 0,3825x - 0,004$ , where “y” is the individual value of the resultant characteristic, namely the specific gravity of the coefficient of return on equity, “x” is the individual value of the factor sign, that is, the actual and projected periods, the predicted value of the coefficient of return on equity for 2012-2021 years.

Similarly, the line of trend of the Agroton coefficient of return on equity was constructed. The value of  $R^2 = 0.4461$  for the coefficient of return on equity, this indicating a rather low connection between the values.

Using the obtained equation of trend of the coefficient of return on equity  $y = 0,058x + 0,044$ , the forecast value of the coefficient of financial independence for 2012-2021 years was calculated. The obtained values of the coefficient of return on equity characterized by their growth throughout the forecast period.

**Conclusion.** Recent years have shown a significant development of the agroholdings in Ukraine. Over the past couple of years, the number of agroholdings has almost doubled, which may indicate profitability of investments. Also, an analysis of the profitability ratios shows the high profitability and effectiveness of the agroholdings being studied for 2012-2016. Liquidity ratios also show a high



Graph. 1. Trend model of coefficient of return on equity of «Avangard» and «Agroton» agroholdings

level solvency of agroholdings on short-term debts. Also, a high current liquidity ratio is observed in almost agroholdings, this indicates that management is operating quickly enough. The indicators of profitability make it possible to assess the effectiveness of the management of the enterprise using its assets.

Using the obtained equation of trend of the coefficient of return on equity the forecast value of the coefficient of return on equity for 2012-2021 years was calculated. The obtained values of the coefficient of return on equity almost of all investigated agroholdings characterized by their growth throughout the forecast period.

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## АНАЛІЗ ФІНАНСОВОЇ ЕФЕКТИВНОСТІ АГРОХОЛДІНГІВ УКРАЇНИ

*У статті розглянуто науково-методичні підходи до аналізу фінансового стану агрохолдингів України та визначення його ефективності для забезпечення їх сталого розвитку. Метою статті є огляд фінансової ефективності агрохолдингів України. Основна увага приділяється дослідженням рентабельності та ліквідності досліджуваних об'єктів. Дослідження було засноване на загальноприйнятих методах кількісної оцінки, обробки даних, статистичного спостереження, складання та групування одержаних даних. У дослідженні представлений аналіз таких агрохолдингів, як ТОВ «Авангард», ТОВ «Агротон», ТОВ «ІМК», ТОВ «Кернел».*

**Ключові слова:** фінансовий стан, фінансова ефективність, власний капітал, ліквідність, акціонерний капітал, оборотні активи, рентабельність.

## АНАЛИЗ ФИНАНСОВОЙ ЭФФЕКТИВНОСТИ ДЕЯТЕЛЬНОСТИ АГРОХОЛДИНГОВ УКРАИНЫ

*В работе рассмотрены научно-методические подходы к анализу финансового состояния агрохолдингов Украины и определению его эффективности для обеспечения их устойчивого развития. Целью статьи является обзор финансовой эффективности агрохолдингов Украины. Основное внимание уделяется исследованиям рентабельности и ликвидности исследуемых объектов. Исследование было основано на общепринятых методах количественной оценки, обработки данных, статистического наблюдения, составления и группировки полученных данных. В исследовании представлен анализ таких агрохолдингов, как ООО «Авангард», ООО «Агротон», ООО «ИМК», ООО «Кернел».*

**Ключевые слова:** финансовое состояние, финансовая эффективность, собственный капитал, ликвидность, акционерный капитал, оборотные активы, рентабельность.