

UDC 336.647/.648

DOI: 10.25140/2411-5215-2020-1(21)-301-308

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OF AGRICULTURAL ENTERPRISES***Олена Базилінська, Олена Панченко, Вікторія Суровець***ФАКТОРИ ВПЛИВУ НА ФІНАНСОВУ СТІЙКІСТЬ
ПІДПРИЄМСТВ АГРОСЕКТОРУ***Елена Базилинская, Елена Панченко, Виктория Суровец***ФАКТОРЫ ВЛИЯНИЯ НА ФИНАНСОВУЮ УСТОЙЧИВОСТЬ
ПРЕДПРИЯТИЙ АГРОСЕКТОРА**

The article reveals the importance of analyzing financial stability for the development of agricultural enterprises in Ukraine and improving the country's economy as a whole. Based on the study of the current state of the agricultural sector by the main indicators and their comparison with developed countries, its features and main problems were determined. In addition, the analysis of the main indicators of financial stability for the largest enterprises in the agricultural sector was carried out and the factors influencing their dynamics were determined, as well as forecasting the profitability of the agricultural business using financial stability modeling.

Keywords: financial stability; agriculture; financial results; modeling of financial stability; entrepreneurship in the agricultural sector.

Fig.: 7. Table: 2. References: 16.

У статті розкрито важливість аналізу фінансової стійкості для розвитку сільськогосподарських підприємств України та поліпшення економіки країни загалом. На основі дослідження сучасного стану сфери сільського господарства за основними індикаторними показниками та порівняння їх з розвинутими країнами, було визначено її особливості та основні проблеми. Крім цього, було проведено аналіз основних показників фінансової стійкості для найбільших підприємств агросектору та визначено фактори, які впливають на їхню динаміку, а також проведено прогнозування прибутковості аграрного бізнесу за допомогою моделювання фінансової стійкості.

Ключові слова: фінансова стійкість; сільське господарство; фінансові результати; моделювання фінансової стійкості; підприємництво в агросекторі.

Рис.: 7. Табл.: 2. Бібл.: 16.

В статье раскрыто важность анализа финансовой устойчивости для развития сельскохозяйственных предприятий Украины и улучшения экономики страны в целом. На основе исследования современного состояния сферы сельского хозяйства на основе индикаторных показателей и сравнение их с развитыми странами, было определено ее особенности и основные проблемы. Кроме этого, был проведен анализ основных показателей финансовой устойчивости для крупнейших предприятий агросектора и определены факторы, влияющие на их динамику, а также проведено прогнозирование доходности аграрного бизнеса с помощью моделирования финансовой устойчивости.

Ключевые слова: финансовая устойчивость; сельское хозяйство; финансовые результаты; моделирование финансовой устойчивости; предпринимательство в агросекторе.

Рис.: 7. Табл.: 2. Библ.: 16.

JEL Classification: G32; Q14

Target setting. Ukraine has all prerequisites for the development of the agricultural sector of the economy, in particular, natural conditions and geographic allocation of the country. However, financial results of the above sphere functioning will be significant only with a sufficient level of the development of related activities, certain state regulation and competent management of agricultural companies. At present, Ukrainian agricultural enterprises have a number of problems, which ultimately have a negative impact on the country's economy as a whole.

In the conditions of macroeconomic instability, Ukrainian enterprises seek to minimize the impact of financial risks, therefore, the topic of the research of their financial stability is relevant for determining development trends of corporate sectors of the economy, in particular the agricultural sector. It is important not only to assess financial stability of agricultural enterprises, but also study the level of agricultural development and analyze the experience of developed countries in the effective conduct of business in the field of agribusiness. A more detailed study of this issue will provide an opportunity to understand what factors really affect financial stability of companies and as a result will develop recommendations for the process of reforming entrepreneurship in the agricultural sector.

Actual scientific research and matters analysis. Certain problems of the analysis and modeling of financial stability, in particular for agricultural enterprises, the research of factors influencing financial stability are considered in the works of both domestic and foreign scientists. Leon P. [4], Belyalov T. E. [5], Miokova G. I. [6] and many other scientists have devoted their scientific works to the study of financial stability. Modeling of financial and economic stability and methods of the above models implementation in the business environment are covered in scientific works of Koreshchyna T. [7], Chornostana Zh. [8], Karpets O. S. [9] and many other scientists. Peculiarities of doing business in the field of agriculture can be found in the works of Korol M. [3], Madzigon V. [1] and others.

Defining previously unsolved parts of the overall problem. Despite a sufficient number of scientific papers devoted to the study of the agribusiness functioning, the aspect of the impact of financial stability of enterprises on its development is insufficiently covered and needs further research. Identification of the factors influencing the indicators of financial stability of enterprises, as well as its modeling to forecast the financial condition of the agricultural sector, comparison of key indicators and legislative features with European countries in order to identify current problems are up-to-date. Systematization of the experience of the leading countries in the agricultural sector, which have successfully reformed the agricultural sector, is relevant.

Purpose of the article. The purpose of the article is to identify and study the factors that have a significant impact on financial stability of enterprises in the agricultural sector, as one of the leading sectors of the economy of Ukraine. Analysis of the state of agriculture in terms of individual economic indicators, comparing them with data from European countries, as well as developing practical recommendations for the economic activity in agribusiness, based on the experience of effective management of financial stability of leading enterprises in Ukraine.

Statement of the main material. The field of agriculture is important for the economy of Ukraine. In terms of the number of business entities, the obvious leader is whole sale and retail trade, and in terms of sales, agriculture shares third place with transport, after wholesale and retail trade and industry. Despite a rather small size in terms of the number of enterprises and the volume of sales, the share of enterprises that made a profit is the largest in the field of agriculture (Code KVED – 2010 – A) (Fig. 1). For a large amount of direct investment in Ukraine, the sphere is located at the 10th position out of 16.

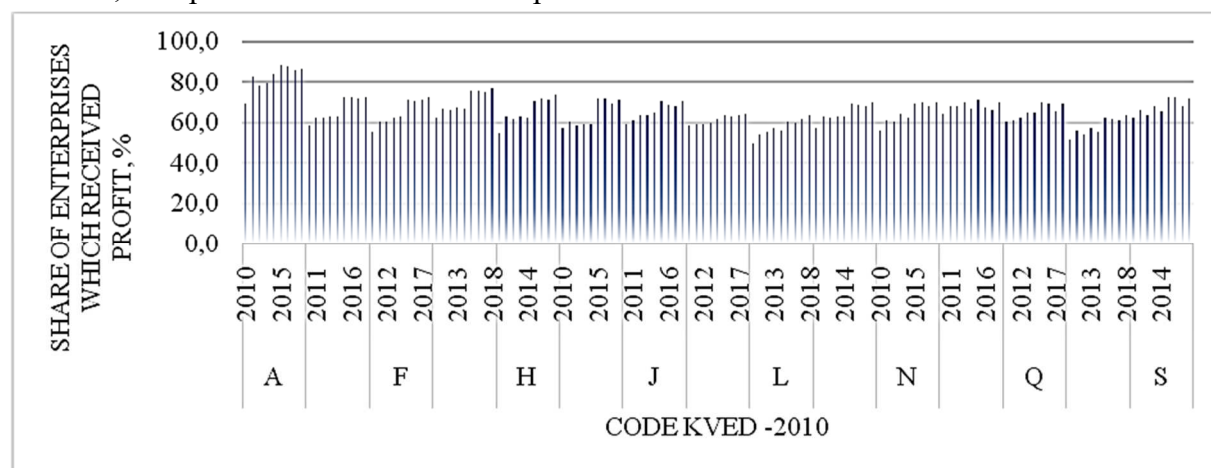


Fig. 1. Financial results before taxation of enterprises by types of economic activity of Ukraine for 2010–2018

Source: compiled by authors based on [10].

Each area has its own characteristics of entrepreneurship, and the field of agriculture is no exception. It is advisable to compare certain features of agricultural entrepreneurship in Ukraine with European countries such as the Netherlands, France, Germany and Poland. These countries have a developed agricultural sphere, to which much attention is paid.

If we compare the share of agricultural exports to GDP, the largest of the countries selected for comparison, it will be in Ukraine – 14,22 %, the Netherlands is in the first place – 9,69 %, Poland – in the third place – 5,13 %, and Germany and France have 1,66 % and 1,61 % respectively.

The Netherlands is considered one of the largest exporters of agricultural products in the world. The most exported goods are plants, meat and dairy products, fruits and vegetables. Today, the country focuses on developing innovation and doing business environmentally friendly using renewable energy sources. In addition, small and medium enterprises can obtain loans from the state, which must be spent on business development in this area. Besides, there is additional assistance for young farmers (up to 41 years old), the purpose of which is to attract young entrepreneurs to farming. The use of bio fuels by farms and rejection of pesticides and other chemicals are also supported. Sale of these goods is stimulated by the state.

A feature of entrepreneurship in Poland is the popularity of small businesses, they own almost 90 % of arable land. This model is supported by the government, because it is more environmentally friendly, and more jobs are generated in villages. Poland also supports small farmers in such a way that half of the interest rate on a long-term agricultural loan can be reimbursed by the state.

Like Poland, Germany has a large number of small family farms. Their support from the state is manifested in the provision of various subsidies, such as assistance to producers who have suffered losses from low prices.

In France, the state pays most attention to agriculture. This can be determined by the presence of a developed network of trade unions, and their task is to take care in the event of crop failure or natural disasters to maintain a certain minimum level of the income of enterprises. Taxation of enterprises engaged in agriculture is based on a large number of factors, such as crop yields or average cost of production. Loans for farmers are popular, as well as in Poland. There are also loan benefits that are used to purchase new equipment and land.

Based on all of the above, Ukraine can be compared with the Netherlands, Poland, Germany and France and it is possible to identify "vulnerabilities". The first thing that can be noticed is the inefficient use of land in Ukraine, as one hectare of agricultural land accounts for 448,07 dollars of exports of agricultural products, and in the Netherlands, this figure makes 49,16.667 dollars.

In Ukraine, large business in the field of agriculture predominates, and in all the countries discussed above, small farms are wide spread. Such enterprises are much more efficient than our domestic farmers, focused on the export of raw materials, because they are engaged in growing and processing products with higher added value. Small businesses focus on growing products that can bring in more profits, and large ones focus on the least risky products, such as grain. That is why Ukraine, with such a large area of agricultural land, has such a small income compared to other countries from their cultivation.

If we compare different countries, the share of arable land in the total area of Ukraine is in first place (Table 1).

Table 1

Ranking of countries with the largest share of arable land in the total area of the country

Position	Country	Arable land area from the total area of the country, %
1	Ukraine	56,1
2	Moldova	53,7
3	Poland	35,7
4	Germany	34,0
5	France	33,5
6	The Netherlands	31,0
7	Belarus	27,9
8	Great Britain	25,8
9	The USA	16,9
10	Austria	16,4

Source: compiled by authors based on [13].

Some of the leading and most successful enterprises in the agricultural sector of Ukraine are: Kernel (Kernel Group) – the largest producer and exporter of sunflower oil and the main supplier of agricultural products to world markets, MHP (Mironivsky Hliboproduct) – the leading producer of the domestic meat market and IDC (Industrial Dairy Company) – an integrated agricultural company for the production of crops and milk.

In order to summarize the situation based on financial statements of these enterprises, let's calculate indicators of financial stability, as well as liquidity and solvency. The results of the analysis of financial stability ratios demonstrate the ability of all companies to remain solvent and able to finance their assets through equity and long-term capital (Table 2).

In addition, the liquidity analysis shows that companies will be able to repay their short-term liabilities in the near future and have a normal asset structure for the inventory formation.

Table 2

Dynamics of the coefficient of financial stability for the companies: Kernel, MHP and IDC

Coefficient of financial stability	Years				
	2015	2016	2017	2018	2019
Kernel	0,69	0,75	0,85	0,78	0,81
MHP	0,82	0,82	0,93	0,88	0,89
IDC	0,60	0,77	0,75	0,64	0,74

Source: compiled by authors based on [14; 15; 16].

The Food and Agriculture Organization (FAO) of the UN, which is engaged in the research and promotion of agriculture, has carried out the analysis of indicators that have as significant impact on the financial sustain ability of agricultural enterprises. One of them is the index of orientation to agriculture, which was taken for Ukraine in 1995-2016; it is calculated as the share of agriculture in government expenditure divided by the share of agriculture in GDP.

This indicator reached its greatest value in 2008-2010, i.e. in this period there was the most significant focus on agriculture (Fig. 2).

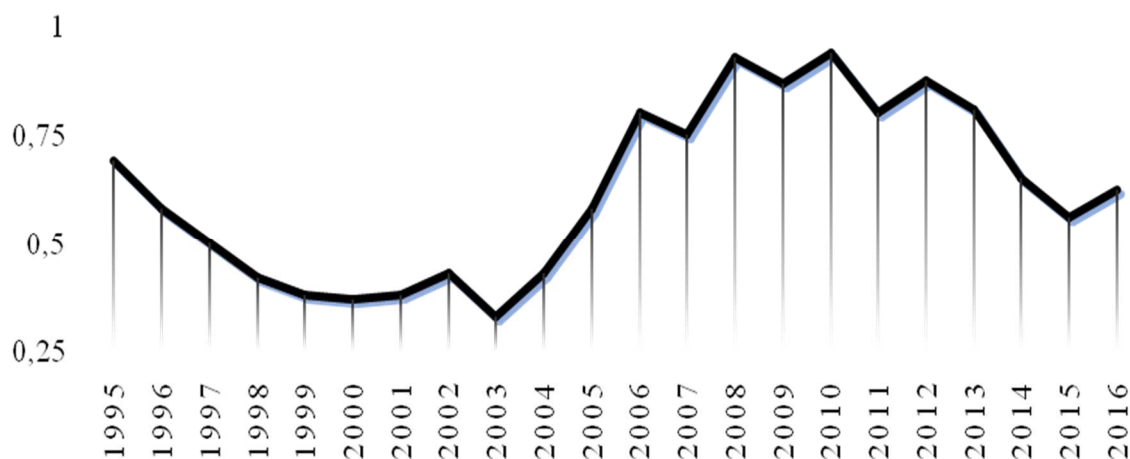


Fig. 2. Index of orientation to agriculture for Ukraine

Source: compiled by authors based on [11].

It is also necessary to analyze the revenues for the development of agriculture in Ukraine from donors: commitments show donors' intentions to invest in agriculture, and disbursements show actual payments, i.e. the implementation of donors' intentions. Based on the graphs presented in Figure 3, it can be concluded that the largest liabilities were in 2012-2014, and the largest payments – in 2010 and 2014.

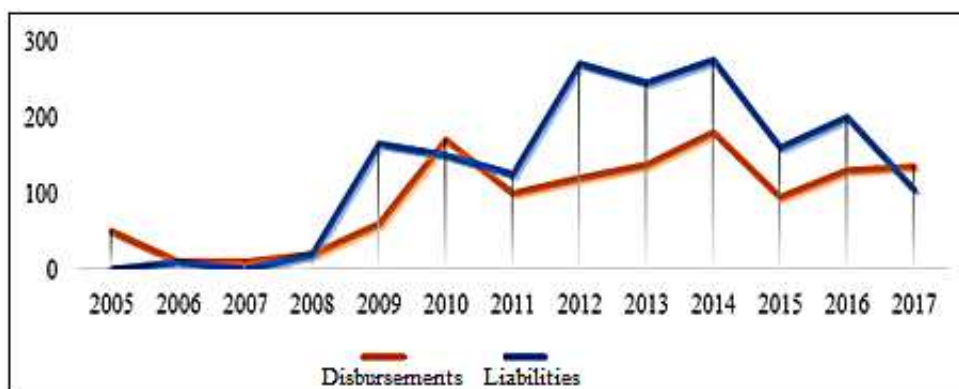


Fig. 3. Revenues from donors for the development of agriculture in Ukraine

Source: compiled by authors based on [11].

Among foreign countries, most foreign direct investment comes to Romania and Italy, as well as a large amount goes to Poland, France, Britain, Turkey and Spain. These countries receive investment not only because they have large areas of agricultural land, but because they use resources efficiently.

To forecast the profitability of agribusiness, it is necessary to build a model of financial stability based on a simplified model of Goodwin-Minsky-Keen (Fig. 4). This model includes such indicators as the level of employment in agriculture, the wage fund of workers in this area, productivity, cost of production, capital of agricultural enterprises and other factors influencing the formation of profits.

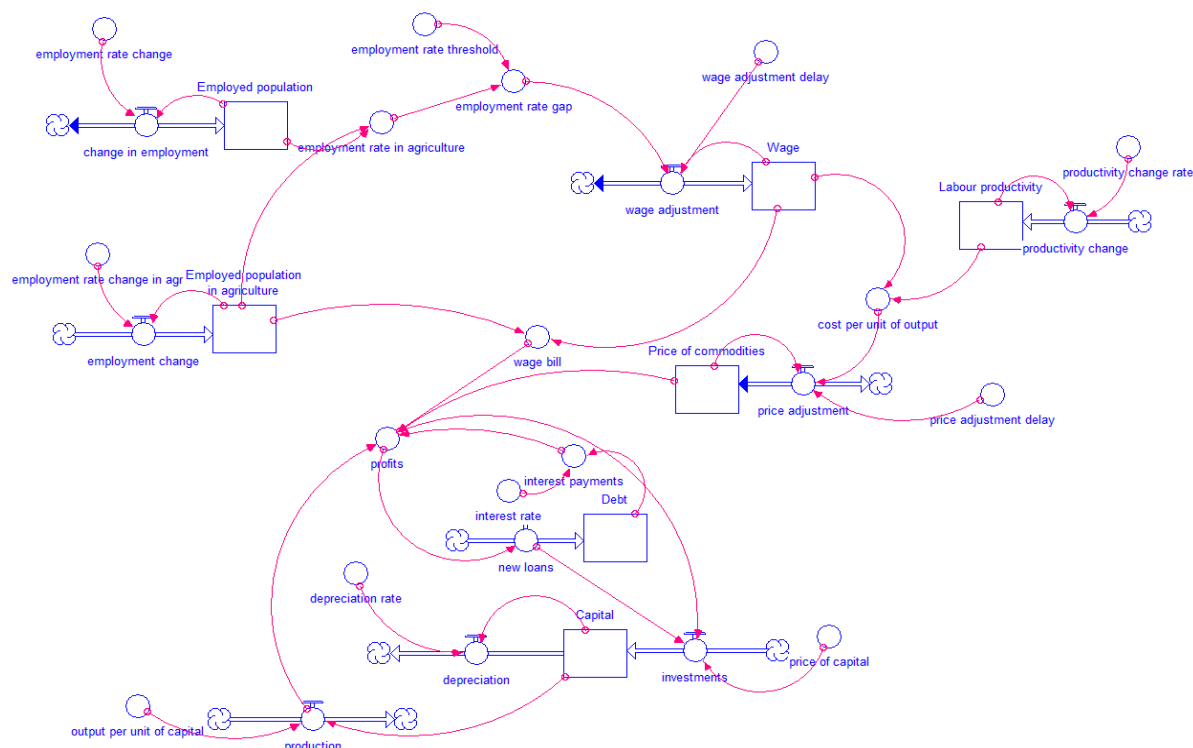


Fig. 4. Model of financial stability of agricultural enterprises, based on the simplified model Goodwin-Minsky-Keen (GMK)

Source: compiled by authors based on [12].

According to the simulation results, it can be concluded that if the demand for labor in the agricultural sector is higher than 2% of the available labor force, wages will increase (Fig. 5).

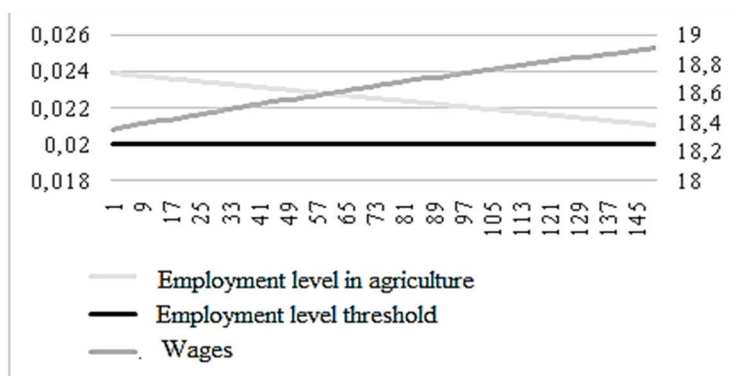


Fig. 5. The impact of the employment level in agriculture on wages (duration of 150 months)

Source: compiled by authors based on [12].

Based on data from previous years, let's model the growth in the number of employees, in particular in the labor market of agriculture (Fig. 6).

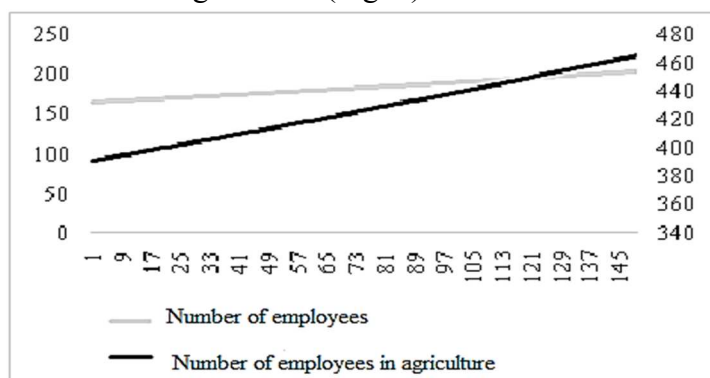


Fig. 6. The results of modeling the number of employees

Source: compiled by authors based on [12].

The graph shows that the number of people employed in the agricultural sector will grow faster than in the economy, which means that agricultural production will grow.

Simulation results show the increase in profit, but the decrease in the total wage bill, and this differs from the assumptions in the Goodwin-Minsky-Keen model (Fig. 7).

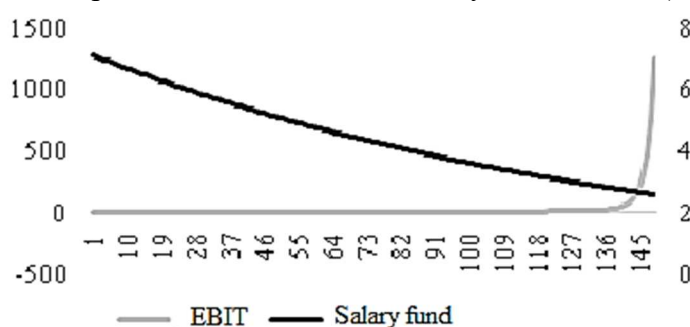


Fig. 7. Results of EBIT and salary fund modeling (duration 150 months)

Source: compiled by authors based on [12].

Therefore, the improvement of the operational model of agribusiness and creation of the system of considering the factors influencing financial stability of enterprises is a necessary condition for effective management of companies and timely response to changes in external and internal factors of doing business. Availability of this system improves the image of companies in the market, helps to attract investment and has a positive effect on their value [3].

Conclusions and proposals. A large number of factors affect the conduct of business in the field of agriculture, ranging from the territorial location of the country to the specifics of the legal framework. Despite the fact that most of the indicators of financial stability for the largest companies in Ukraine in the agro-sphere meet the regulatory values, some shortcomings of doing such business have been identified.

In Ukraine, big business is more common in agriculture, although in European countries, where much attention is paid to this area, small farms predominate, which is much more efficient.

Despite the fact that Ukraine has all the conditions for the development and successful conduct of entrepreneurship in agriculture, there is a problem of inefficient use of agricultural land. This is due to the low added value of exported products, and this problem exists again due to the prevalence of large agricultural holdings that grow and sell low-risk products and do not process them.

The system of incentives for doing business in this area is just beginning to develop: improving the system of the farmers' taxation on the basis of a simplified system, introduction of a program of partial compensation of interest rates on loans, and others. An important fact is that in order to encourage small agricultural enterprises not to hide their profits and pay taxes, Group 4 of single tax payers was introduced. It is believed that if the taxpayer is on a simplified taxation system, it is more profitable for him not to hide profits, but to work transparently.

Constant increase in the area of arable land, which over time will lead to soil degradation, if you do not attract enough investment and do not form a civilized land market, remains problematic. If we compare Ukraine with European countries with developed agro-sphere, it turns out that the cost of logistics is quite high. If you optimize the supply structure, you can reduce the cost of running such a business.

Formation of a civilized system of agricultural insurance is an important direction of increasing financial stability of agricultural enterprises.

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