that theoretical studies of international financial centers are closely related to the study of various categories of cities of world importance. The scientific concepts that identified global cities as international (world) financial centers were developed in the 70's and 80's of the 20th century when the factor of capital export has become especially important for the development of globalization and transnationalization processes. The scientific approaches to the definition of the content and the main features of the category of "international financial center" and the interpretation of concepts that are used to mark the cities important for the world economy ("metropolis", "world city", "global city") are investigated.

Although the size of the territory and the population remain the basic criteria for interpreting a city as a metropolis, the availability of resources and its functions (significance) in the global markets also matter. World cities, traditionally serving as centers of international trade, play a special role in global development, mainly due to their advantageous location in strategically important places of the world. The differences between the world city and the global city are considered. It is proved that the international financial center does not necessarily have to be formed on the basis of a metropolis, for which the size of territory and population matter, or a world city, for which the good geographical location and developed trade infrastructure are important.

The global city is a relatively new concept that corresponds to the current stage of world economic development, and for which the duration of existence, physical size and size of the territory are not significant. Instead, it is global influence that becomes extremely important feature for the global city. Economic studies devoted to the global cities emphasize their particular role in the global financial system. A financial component in defining the concept of a global city is identified. It is justified that there is a close essential correlation between the notions of the global city and the international financial center.

It is determined that any global city at the same time acts as an important international financial center whose value is determined not by the size or geographic location, but by its role as a strategic point of management and control functions. Acting as international financial center global city is characterized by a high level of internationalization and financial activity, a significant concentration of financial and credit institutions; it specializes in the provision of highly professional business services, including those in the field of finance; it has the ability to use the information technology; it provides high-tech services and management of cross-border financial flows.

Key words: *metropolis, world city, global city, international financial center, financial capital, financial services, cross-border financial flows*

УДК 338.439.4(478)

D. Parmacli

A. Ianioglo

FEATURES OF THE ANALYSIS OF AGRICULTURAL PRODUCTION

Abstract. *The article highlights the influence of climatic conditions on the agricultural production in the Republic of Moldova and reveals the importance of analyzing the indicators of realization of potential of land use, that will comprehensively reflect the achieved level of land use efficiency and possible reserves of increasing the agricultural production. The article aims at justifying some features of calculating potential indicators of crops production. There is presented the dynamics of yield of leading crops over the past 16 years are proposed formulas for calculating indicators of potential land productivity. Also, the article provides calculations of the*

optimal values of financial safety margin and operating leverage necessary for the implementation of basic and expanded reproduction in the conditions of the southern region of the Republic of Moldova. Proposed method can be applied in practice to control the production process, cost structure and to increase efficiency and economic security of the enterprise as a whole.

Key words: *crop yield, economic security, financial safety margin, operating leverage, stability.*

DOI 10.34079/2226-2822-2019-9-17-55-63

The operating activity of agricultural enterprises is carried out under the influence of unpredictable fluctuations in weather conditions. Often, adverse weather conditions not only affect the quality, but also make it impossible to produce the planned volume of production, and as a result to receive the necessary profit. In this context, along with the traditional indicators of the efficiency of productive land use, it is advisable to apply the indicator of the level of realization of their potential that will comprehensively reflect the achieved level of land use efficiency and possible reserves of increasing the production of agricultural products.

The purpose of the study is to justify some features of the calculations of potential indicators of crop production and to develop practical recommendations for their direct use, both for educational purposes and in real production conditions.

The direct dependence of agriculture on climatic conditions necessitates the creation, if possible, of natural and monetary insurance and reserve funds in case of force majeure. Agricultural enterprises should, first of all, protect themselves from possible risks and increase the sustainability of their business. This is especially relevant in the conditions of volatility of market prices and insufficient development of production infrastructure. At the same time, if economic processes are manageable with the help of legislative and regulatory acts and other measures, then the natural conditions cannot be directly influenced by a person. Thus, the problem of sustainability of agriculture should be solved, first of all, in regards to the natural conditions.

Overview of recent literature.

Studies on the problems of economic sustainability of agricultural production, including innovative development, aimed at increasing the land productivity in crop production were carried out by such scientists as P.T. Sabluk, M.V. Prisyazhnyuk [Prisyazhnyuk et al. 2011], V.Ambrosov [Ambrosov 2003], V.I. Nechaev [Nechaev 2012] and others. N.V. Ambrosov, the correspondent of Ukrainian Academy of Agrarian Sciences, noted in his works that the growth of production is not a guarantee of the economic well-being of the commodity producer. The need to ensure the livelihoods of agricultural enterprises is the reason of the transformation processes in the industry. According to V.I. Nechaev and other scientists, the technical and technological potential of agricultural production represents the maximum possible production result in the current climatic conditions, which can be obtained using the available resources within the framework of new technologies and forms of production organization. This approach will allow to objectively assess the stability of agricultural production and to identify real reserves of efficiency growth in the industry.

Research results.

The land is the main means of agricultural production, an important productive force. The use of agricultural land resources without increasing their fertility leads to land degradation. The results of agricultural enterprises activity depends on the state of land resources, their rational and effective use. Consequently, the quality of land use plays an important role in the economy of agriculture and the country as a whole [Ianioglo 2017: 48].

Under the conditions of risky (unsustainable) farming, the use of land resources in time has an unstable, cyclical nature, which reflects the feature of the natural resources

potential. In this regard, the gross harvest and crops yield are cyclical in nature with characteristic downturns and rises. Thus, for 2001-2016 in agriculture there were significant fluctuations in crop production.

Taking into account the decisive importance of the efficiency of land use in agriculture as the main means of production, we consider the dynamics of the yield of major crops in the Republic of Moldova over the past 16 years (Table 1). It is important to note that crops of wheat, corn and sunflower in the country occupy $\frac{3}{4}$ of the total cultivated area. That is why it is very important to analyse the production of these crops for 2001-2016 and at the same time to identify the level of their sustainability and the dynamics of changes.

Table 1.

**Yield of wheat, corn and sunflower in the Republic of Moldova for
2001-2016 (q/ha)**

Year	Wheat		Corn		Sunflower	
	actual	moving average	actual	moving average	actual	moving average
2001	27,2	-	23,7	-	13,4	-
2002	25,1	-	26,7	-	12,4	-
2003	5	-	25,5	-	11,1	-
2004	27,5	23,4	30,7	26,9	12,4	12,09
2005	26	23,0	33,0	28,9	12,1	11,87
2006	23,2	22,8	29,1	29,5	13,3	12,11
2007	13,2	23,3	8,6	26,0	6,9	11,35
2008	31,2	24,7	34,9	26,6	16,5	12,26
2009	21	23,3	28,9	25,4	12,7	12,41
2010	22,9	22,7	34,5	26,7	15,3	12,91
2011	26	25,6	32,5	32,7	15,6	15,06
2012	15,8	21,4	12,3	26,7	10,0	13,32
2013	27,6	23,2	31,0	27,3	18,3	14,70
2014	31,7	25,5	33,5	27,3	17,7	15,37
2015	26,7	25,7	22,0	26,0	14,7	15,14
2016	34,9	30,3	29,9	30,6	18,7	17,34
Average	25,0	24,3	27,7	27,7	13,8	13,5

Source: [Statistical Yearbook of the Republic of Moldova 2016: 244]

During the research, it is important to substantiate the real levels of land productivity in the production of mentioned crops. It is recommended to calculate indicators of potential land productivity, characterizing the yield of certain crops per unit area for a certain period, according to the formula:

$$q_{\text{pot}} = \sqrt[k]{M}, \text{ q/ha} \quad (1)$$

where: $k = \sqrt{T}$ (T – number of years in the analysed period);

M – multiplication of the highest values of yield for "k" years

When determining the indicator "k", the calculated values should be rounded to the whole value. For example, from 16 analysed years there should be taken into account the highest rates of four years ($k = \sqrt{16} = 4$).

According to the formula 1, the value of the potential yield could be determined (q_{pot}):
wheat

$$q_{\text{pot}} = \sqrt[4]{34,9 \cdot 31,7 \cdot 31,2 \cdot 27,6} = 31,2 \text{ q/ha}$$

corn

$$q_{\text{pot}} = \sqrt[4]{34,9 \cdot 34,5 \cdot 33,5 \cdot 33,0} = 34,0 \text{ q/ha}$$

sunflower

$$q_{\text{pot}} = \sqrt[4]{18,7 \cdot 18,3 \cdot 17,7 \cdot 16,5} = 17,8 \text{ q/ha}$$

Indicators of reserves of land productivity growth are presented in Figure 1.

Fig.1. Indicators of reserves of land productivity growth in the production of wheat, corn and sunflower in the Republic of Moldova for 2001-2016

Source: developed based on Table 1.

From figure 1 it is clear that for the analysed 16 years the potential indicators of land productivity were used in the production of wheat by 80.2%, corn and sunflower - by 81.5% and 77.6% respectively.

Operational analysis and economic security of an enterprise.

The economic security of an enterprise is a state that characterizes the ability of an economic entity to ensure efficient use of resources and entrepreneurial opportunities to prevent possible threats and achieve stable functioning and business objectives. Ensuring the economic security of the enterprise is important for the implementation of the continuous process of reproduction [Ianioglo 2017].

In the process of ensuring the economic security and viability of the enterprise, special attention should be paid to the economic security of its main activity - production. An enterprise develops when the results of its activity allow it to conduct continuous reproduction at its own expense. When planning the production, each company calculates the volume of all types of costs, which are divided into fixed and variable. The structure of costs can significantly affect the trend of changes in revenues or costs. In this context, the use of operational analysis allows identifying the impact of the cost structure and volumes of production revenue on the company's financial results. Operational analysis includes such important indicators as financial safety margin and operating leverage. In pursuit of maximum profit, enterprises must take into account increasing production risks. The analysis of financial safety margin gives more objective assessment of the sustainability and economic security of the cultivation of crops. The level of operational leverage is an indicator of enterprise

riskiness. This explains the importance of assessing mentioned indicators when determining the level of economic security of an enterprise.

Financial safety margin (D) is one of the indicators of an enterprise's financial condition, i.e. the level of its financial sustainability. There are two major methods of determining financial safety margin.

According to the first method, the calculation represent the difference between the actual (planned) sales volumes and break-even point, i.e. financial safety margin shows how many lei or tons of production can be reduced, without incurring losses. The higher the financial safety margin, the more opportunities to maintain the relative level of profitability while reducing sales revenue, which positively affects the economic security of the enterprise.

The formula for calculating the indicator in absolute terms is:

$$D = q - q_{\min}, \quad (2)$$

where: q и $q_{\min}$ – respectively, the actual and critical level of crop yield, q/ha

The second method implies the calculation of the percentage of the financial safety margin to the actual (planned) volume. This indicator shows how many percent the sales can decrease so that the enterprise can avoids losses. The higher financial safety margin ensures more sustainable enterprise and less risk of losses.

The relative indicator of the financial safety margin is calculated by the formula:

$$D = \frac{q - q_{\min}}{q} \cdot 100, \% \quad (3)$$

Another indicator which reflects the state of economic security of an enterprise is **operating leverage** (L). This indicator is higher in those companies, in which the ratio of fixed costs to variable costs is higher, and correspondingly lower in the opposite case. Understanding of the operating leverage mechanism allows to purposefully control the ratio of fixed and variable costs in order to improve the efficiency of an enterprise's current activity. Operating leverage demonstrates the percentage point change in the enterprise profit given a change in revenue by one percentage point and is determined by the formula:

$$L = 1 + \frac{FC}{Pr} \quad (4)$$

There is an inverse relationship between the financial safety margin and the operating leverage. The higher the operating leverage, the lower the financial safety margin and vice versa:

$$L = \frac{1}{D} \quad (5)$$

The operating leverage characterizes the degree of business riskiness. The profit of an enterprise with a higher operating leverage is more sensitive to changes in revenue [Damodaran 2012: 194]. With a sharp drop in sales, such enterprise can very quickly “fall” below the break-even point. Therefore, an enterprise with a higher level of operating leverage is considered more risky. The activity of an enterprise with a low operating leverage is associated with less risk, but also with less reward (profit).

It is known that each enterprise in the industry cultivates, as a rule, several crops. Production and sale of some crops ensures a high return on investment, others - low profitability. However, it is not always possible to abandon the production of the latest crops due to

agrotechnical requirements for crop rotation or other reasons, both internal and external. In other words, the structure of sales is always different in terms of profitability. In the conditions of the Republic of Moldova, primarily, depending on the prevailing weather and climatic conditions of cultivation and harvesting, the effectiveness of a particular type of product may differ significantly: from a loss ratio to a level of profitability exceeding 30%. For example, the level of profitability of sold grain in the country changed from -3.5% in 2009 to + 39.9% in 2011, sunflower - from 16.6% in 2009 to 89.8% in 2010, grapes - from 6.0% in 2009 to 37.0% in 2012 [Statistical Yearbook of the Republic of Moldova, 2017]. It is important for an enterprise to know and, therefore, objectively plan that amount of costs, which will ensure the volume of production per unit area required for simple and/or extended reproduction.

At the same time, **product profitability** (R) shows the profit that the enterprise receives per each unit of cost and is calculated as follows:

$$R = \frac{P}{Z} \quad (6)$$

where: Z – stands for the cost price of production in Moldovan lei.

Bearing in mind that according to equation 6, $P = R \cdot TC$, and the cost of production is $Z = TC$, the operating leverage can be calculated as:

$$L = 1 + \frac{\beta}{R} \quad (7)$$

where β stands for the share of fixed costs in the total cost structure ($\beta = \frac{FC}{TC}$).

The given formula demonstrates that operating leverage is directly proportional to the relative weight of fixed costs in the total cost structure and is inversely related to an increase in the level of production profitability. In other words, business efficiency is higher (and the value of operating leverage is lower) in those enterprises, in which ceteris paribus the share of fixed costs is lower and production profitability is higher.

Financial safety margin may be represented by the following formula:

$$D = \frac{R}{R+\beta} \quad (8)$$

Only knowing the required optimal level of **operating leverage** and financial safety margin, an enterprise can plan its production activities, manage the costs of the enterprise, increase its own competitiveness and improve the level of its economic security.

Knowing the value of the **operating leverage** or financial safety margin, we can find the coefficient of profitability of products:

$$R = \frac{\beta}{L-1} \quad (9)$$

$$R = \frac{\beta}{\frac{1}{D}-1} \quad (10)$$

Let us consider further the features of calculating the financial safety margin and the **operating leverage** of agricultural enterprises in the Autonomous Territorial Unit of Gagauzia (ATU Gagauzia), located in the southern zone of the Republic of Moldova - in the area of high-risk (unstable) agriculture. Studies have shown that, in such circumstances, an enterprise is able to realize simple reproduction at the level of production profitability of 25% and above, while extended reproduction is possible at the level of 37% and higher [Todorich 2014: 76].

It has been proved that under conditions of unstable agriculture in the ATU Gagauzia, the average share of fixed costs of the enterprises producing crops in 2010-2012 constituted: [Parmacli 2014: 23]:

- cereal and leguminous crops – 0,389;
- cereal and leguminous crops without corn – 0,413;

- corn – 0,549;
- sunflower – 0,648.

Based on the formulas 7 and 8 let us determine the values of financial safety margin and **operating** leverage required for simple and extended reproduction on the planting area of the indicated types of crops. The results obtained will be called normative. Calculated data are presented in the table 2.

Table 2.

Normative levels of financial safety margin and operating leverage for the production of basic crops in ATU Gagauzia

Crops	Share of fixed costs	Financial safety margin for reproduction (not less than)		Operating leverage for reproduction (not more than)	
		simple	extended	simple	extended
cereal crops	0,389	0,391	0,487	2,556	2,051
cereal crops without corn	0,413	0,377	0,473	2,652	2,116
corn	0,549	0,313	0,403	3,196	2,484
sunflower	0,648	0,278	0,363	3,592	2,751

Source: developed by the authors [Parnaceli, Ianioglu 2015: 63]

Conclusion.

The article emphasizes the strong dependence of agricultural production in the Republic of Moldova on the natural and climatic conditions. There was proposed a methodology for calculating potential yield indicators of the main cultivated crops.

It was also noted that, when analysing the viability and economic security of enterprises, it is necessary to take into account operational performance indicators: financial safety margin and operating leverage. These indicators help in determining reserves for the improvement of technology and organization of production, in achieving maximum profit. If the financial and economic position of the enterprise is favourable, then it is efficient, competitive and, therefore, is characterized by economic security.

In conclusion, the research showed a close relationship between the indicators of financial safety margin, **operating** leverage and profitability of production and confirmed the presence of significant potential for increasing the efficiency of production and sales of products, which will allow ensuring economic security of agricultural enterprises of the ATU Gagauzia.

Список використаної літератури

1. Аграрний сектор економіки України (стан і перспективи розвитку) / М. В. Присяжнюк, М. В. Зубець, П. Т. Саблук та ін.; за ред. М. В. Присяжнюка та ін. – Київ : ННЦ ІАЕ, 2011. - 1008 с.; Ahrarnyi sektor ekonomiky Ukrainy (stan i perspektvy rozvytku) / M. V. Prysiazhniuk, M. V. Zubets, P. T. Sabluk ta in.; za red. M. V. Prysiazhniuka ta in. – Kyiv : NNTs IAE, 2011. - 1008 s.
2. Амбросов В. Трансформационные процессы в аграрной сфере региона / В. Амбросов // Экономика Украины. - 2003. - №8. – С. 66-70; Ambrosov V. Transformatsionnye protsessy v agrarnoy sfere regiona / V. Ambrosov // Ekonomika Ukrainy. - 2003. - №8. – С. 66-70.

3. Damodaran A. Investment valuation: tools and techniques for determining the value of any asset / A. Damodaran. - 3rd ed. – Hoboken : John Wiley & Sons, 2012. - 992 p.

4. Яниогло А. И. Комплексная система обеспечения экономической безопасности предприятий : моногр. / А. И. Яниогло". - Комрат, 2017. - 161 с.; Yanioglo A. I. Kompleksnaya sistema obespecheniya ekonomicheskoy bezopasnosti predpriyatiy : monogr. / A. I. Yanioglo". - Komrat, 2017. - 161 s.

5. Нечаев В. И. Эффективность экономического и технико-технологического потенциала в растениеводстве / В. И. Нечаев, К. Тюпаков, Н. Сайфетдинова // Экономика сельского хозяйства России. - 2012. - №6. – С. 70-84; Nechaev V. I. Effektivnost ekonomicheskogo i tekhniko-tehnologicheskogo potentsiala v rastenievodstve / V. I. Nechaev, K. Tyupakov, N. Sayfetdinova // Ekonomika selskogo khozyaystva Rossii. - 2012. - №6. – S. 70-84.

6. Пармакли Д. М. Некоторые особенности графического метода исследований в сельском хозяйстве / Д. М. Пармакли // Economic growth in conditions of globalization: International Scientific and Practical Conference IX-th edition. – Chisinau : INCE, 2014. – Vol. 1. - С.20-25; Parmakli D. M. Nekotorye osobennosti graficheskogo metoda issledovaniy v selskom khozyaystve / D. M. Parmakli // Economic growth in conditions of globalization: International Scientific and Practical Conference IX-th edition. – Chisinau : INCE, 2014. – Vol. 1. - S. 20-25.

7. Parmacli, D. Operating leverage and production profitability: functional dependence / D. Parmacli, A. Ianioglo // Економіка АПК. – 2015. - № 3. - С. 60-64 ; Parmacli D. Operating leverage and production profitability: functional dependence / D. Parmacli, A. Ianioglo // Ekonomika APK. – 2015. - № 3. - S. 60-64.

8. Statistical Yearbook of the Republic of Moldova, 2017. – Chisinau : Biroul Național de Statistică al Republicii Moldova, 2017. – 485 с.

9. Todorici L. Perfecționarea mecanismului de asigurare a sustenabilității economice a întreprinderilor agricole (pe baza UTA Găgăuzia) : teză de doctor în economie / L. Todorici. - Chișinău, 2014. - 181 p.

Стаття надійшла до редакції 26.02.2019.

Д. Пармаклі

А. Іаніогло

ОСОБЛИВОСТІ АНАЛІЗУ СІЛЬСЬКОГОСПОДАРСЬКОГО ВИРОБНИЦТВА

У статті наголошується на сильній залежності сільськогосподарського виробництва в Республіці Молдова від природних і кліматичних умов. Запропоновано методику розрахунку потенційних показників урожайності основних культурних культур. Також у дослідженні було зазначено, що при аналізі життєздатності та економічної безпеки підприємств необхідно враховувати показники операційної ефективності: маржу фінансової безпеки та операційний леверидж. Ці показники допомагають у визначенні резервів для вдосконалення технології та організації виробництва, у досягненні максимального прибутку. Якщо фінансово-економічне становище підприємства є сприятливим, то воно відповідно є ефективним, конкурентоспроможним і, отже, характеризується економічною безпекою.

На закінчення дослідження показало тісний взаємозв'язок між показниками маржі фінансової безпеки, операційного важеля та прибутковості виробництва, що підтвердило наявність значного потенціалу для підвищення ефективності

виробництва та реалізації продукції, і в свою чергу дозволить забезпечити економічну безпеку сільськогосподарських підприємств АТО Гагаузія.

Ключові слова: урожайність, економічна безпека, фінансовий запас міцності, операційний леверидж, стабільність.

УДК 378:339.9

О.В. Булатова
О.С. Зайковський

ГЛОБАЛІЗАЦІЯ ОСВІТНЬОГО ПРОСТОРУ: ОСНОВНІ ХАРАКТЕРИСТИКИ ТА ПРИНЦИПИ РОЗВИТКУ

У науковій роботі визначено, що процеси глобалізації вищої школи є об'єктивним результатом дії законів еволюційного розвитку суспільства, мають дискусійний характер, визначаються позитивними та негативними наслідками, викликами та загрозами.

Доведено, що освіта знаходиться під впливом різноманітних процесів, що відбуваються у політичній, соціальній, культурній, економічній та інших сферах. Виділено та проаналізовано глобальні тенденції, що характеризують характер розвитку сфери вищої світи як суб'єкта глобального освітнього простору.

Обґрунтовано незворотність глобалізації освітнього простору, що формується у результаті розвитку інтеграційних процесів, які охоплюють різні національні освітні системи. Визначення освітнього простору, як суспільно-економічної моделі, дозволило виділити основні характеристики та принципи розвитку з позицій соціально-географічного, системно-цілісного, локально-постерного підходів. Запропоновано використання інтеграційного підходу у дослідженні освітнього простору.

Визначено, що структура освітньої сфери як суспільно-економічної моделі має складний багатопрофільний характер, елементи структури освітнього простору (інформаційне середовище, соціальне середовище, інституційне середовище) характеризуються складною системою взаємозв'язків і взаємозалежності. Виділено та надано характеристику основних компонентів сучасного освітнього простору та визначено основні його ознаки – системність, поліструктурність, комплементарність, ієрархічність, просторову та інституційну визначеність, відкритість та динамічність. Доведено, що кожна національна система освіти об'єктивно виступає суб'єктом глобального освітнього простору. Розвиток освітньої системи кожної країни, як суспільно-економічної моделі, характеризується, з одного боку, внутрішніми (національними) особливостями та закономірностями розвитку, а з іншого, на розвиток національних систем безпосередньо впливає зовнішнє середовище, що визначається, в перш за все, глобальними процесами.

Обґрунтовано, що глобалізація стала викликом для вищої освіти, в якій сучасні університети стають глобальними установами. Визначено, що глобалізація університетської освіти - об'єктивний історичний процес, логіка розвитку якого визначається відповідними етапами, характеристику яких наведено у роботі.

Ключові слова: глобалізація, освітній простір, вища освіта, глобалізація університетської освіти, глобальний освітній простір

DOI 10.34079/2226-2822-2019-9-17-63-71