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**EVALUATION OF FINANCIAL POTENTIAL DEVELOPMENT  
FACTORS IN AGRICULTURAL PRODUCTION**

*The article deals with the evaluation of agricultural production financial potential development with the emphasis on its financial assurance key figures. Peculiarities of agricultural production potential facilities development and improvement of regional agricultural enterprises financial assurance have been defined. The analysis of the peculiarities of financial resources use under current conditions has been carried out. Based on monitoring of financial assets, the forecasted value of financial potential in agricultural production has been determined.*

*Keywords: financial resources; financial potential; agricultural production.*

*JEL classification: E62, G32.*

Інна Ю. Гришова, Оксана В. Митяй, Віталій В. Кужель  
**ОЦІНЮВАННЯ ЧИННИКІВ ФОРМУВАННЯ ФІНАНСОВОГО  
ПОТЕНЦІАЛУ АГРАРНОГО ВИРОБНИЦТВА**

*У статті розглянуто проблему формування фінансового потенціалу аграрного виробництва з окресленням показників його фінансового забезпечення. Визначено особливості формування фінансового потенціалу аграрного виробництва і удосконалення фінансового забезпечення аграрних підприємств регіону, що дає змогу проаналізувати можливості використання фінансових ресурсів у сучасних умовах. За допомогою моніторингу фінансових ресурсів визначено прогностичну величину фінансового потенціалу аграрного виробництва.*

*Ключові слова: фінансові ресурси; фінансовий потенціал; аграрне виробництво.*

*Рис. 1. Табл. 1. Літ. 10.*

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**ОЦЕНКА ФАКТОРОВ ФОРМИРОВАНИЯ ФИНАНСОВОГО  
ПОТЕНЦИАЛА АГРАРНОГО ПРОИЗВОДСТВА**

*В статье рассмотрена проблема формирования финансового потенциала аграрного производства с учетом показателей его финансового обеспечения. Определены особенности формирования финансового потенциала аграрного производства и усовершенствования финансового обеспечения аграрных предприятий региона, что позволяет проанализировать возможности использования финансовых ресурсов в современных условиях. С помощью мониторинга финансовых ресурсов определена прогностическая величина финансового потенциала аграрного производства.*

*Ключевые слова: финансовые ресурсы; финансовый потенциал; аграрное производство.*

**Problem setting.** Agricultural production may have efficient development due to commensurability and equation of real and potential volumes of financial resources, which play an important role in stable agricultural production. At the same time, dynamic market environment causes change in agricultural production conditions. Distribution and redistribution of income and financial assets between agricultural market entities influences the volume of agricultural enterprises financial resources, determining the conditions of their access to finances.

Reasonability of problems solving concerning agricultural production potential is caused, on the one hand, by retargeting of financial system towards more

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favourable financial environment. On the other hand, it is caused by the improvement of agricultural enterprises business function adjusted to external environment realia.

**Recent research and publications analysis.** The problem of financial potential development has not been given enough attention for a long period of time by national scholars. Nowadays different aspects of this problem are in focus of interest of the famous agrarian researchers, including A.A. Aiupov et al. (2015), V.G. Boronos (2011), I.I. Chunyańska (2009), O.Y. Hudz et al. (2013), M.Y. Demianenko (2005), I.V. Karpochuk (2011) etc. The main attention in their studies is paid to development, distribution and use of financial resources at the level of the state, agricultural production in general and particular agricultural enterprises. At the same time there are a lot of problems, which have been investigated insufficiently or still have the polemical character. There is no univocacy as for the methodical principles of specification of time and resource measures of agricultural production financial assurance.

**The aim of the article** is to define the factors of agricultural production financial potential, which form the basis for macroeconomic analysis and explanation of forecasting characteristics of regional agricultural enterprises development in Ukraine's agroclimatic zones.

**Key research findings.** Financial resources, which are the complex of cash resource funds, are in the possession of economic entities (the state or enterprise) and describe only one component of financial potential – the consumed part. Therefore, financial resources do not reflect the variety of financial peculiarities, such as the possibility to realize secret reserves, the ability to increase the volume of financial assets, the probability of additional investment resources etc.

In particular, the inability of the concept "financial resources" to describe all economics possibilities adherent to financial flows caused the appearance of the concept "financial potential". The most meaningful and at the same time laconic definition of it was given by I.I. Chunyańska (2009): "the state's ability to raise funds and use them efficiently with the aim to provide economic development". While investigating the concept "financial potential" at the state level V.G. Boronos (2011) defines it as a complex of specifications "which are able to provide integral assessment on the first place – of financial condition at the macrolevel and microlevel; factors of financial condition change on the second place; and finally challenges for the stable economic growth or financial economic activity success on the microlevel". We share the scientists' opinion that state financial facilities are the process of financial resources efficient use providing "the removal of the possibility of financial means abuse and financial flows redirection to the use of spheres which are not supported by the law" (Anisimova, 2009). We agree that financial facilities are also the complex of diagnostic, support and control measures, which have financial character, provide the efficiency of financial activity of economic entities and minimize the exposure of internal and external environment to financial resources (Ajupov et al., 2015). However, in our opinion, state financial facilities are the complex of real and potential financial resources and income, which may be used for any solution, including measures, received through redistribution from one sphere to another. It may happen without the transition of critical limits, that is without the threat to destroy the areas, from which financial assets have been withdrawn.

It has a clear explanation, as financial resources stockout causes the underfunding of material production needs; the use of funds inappropriately; great amount of debts and problems with their operation; higher interest rates for credit; decrease of long-term crediting; the increase of inflation and currency fluctuations; withdrawal of financial assets; deformations in accounting and financing fraud.

With the aim to unite the key features of this complicated economic category and solve the problems of this investigation, we offer to determine the financial potential of agricultural production as the general function the development, distribution and use of financial resources for regional agricultural enterprises efficient functioning.

Financial potential components in agricultural production should be reflected in the system of financial indicators, which can be direct and relative. However, for agricultural enterprises financial indicators are important in their threshold amounts – boundary values. Their nonobservance leads to financial flexibility breakdown, hinders of normal development of different reproduction elements, causes the development of negative, destructive tendencies in agriculture.

Definiton of financial potential with the use of relative efficiency rates (rates of business activity) is based on the integrated index of agricultural production financial potential, which is calculated as the geometric average of efficiency rates – the factors of financial potential development. In such a case, taking into account the significance of financial resources and their sources as factors of financial potential development, we suppose it is expedient to review not financial resources and their sources, but to consider the complex influence of component rates: circulation of manufactured goods, debit debts, cash resources, their equivalents and financial investments, long-term and short term bank loans, state financial support (Gudz et al., 2013).

Direct rates of agricultural production financial potential determination are the indicators of earning capacity valuation for regional agricultural enterprises as well as market variables (prices, demand and supply, competitiveness etc.), which may be potentially and practically obtained on the basis of financial market information.

Every region, which takes part in the process of agricultural production earning creation has benefits from the appropriate primary income (in the sense, in which it is formed by the market). Actually, a region gets such earning capacity in the process of primary distribution of created and realized gross domestic (or regional) product. General income of agricultural production (income or gross value added, that is income without financial loss) is formed and distributed among regions not only in real practice, but also implicitly, on the basis of rated limiting conditions of financial potential.

Total income, which falls on every region, implicitly corresponds to the limiting level of agricultural production financial potential. In a wide sense, the complex of agricultural production primary income is the general agricultural production potential income, apart from income, which legally belongs to the state in the form of direct or indirect taxes.

In such a way, agricultural production complex earning capacity consists of the gross value added (including depreciation), because the latter takes the form of operating earnings in the short term. Agriculture production and region agricultural enterprises financial potential may develop in manner of the accuracy degree growth according to:

- gross produce (private financial resources);
- gross value added (gross produce);
- added value (net income, without depreciaton);
- total profit;
- income, which remains at disposal after tax as and other obligatory payments.

In any case financial potential is based in the theory of financial resources management and financial flows development. Change in its characteristics influences the financial results of activity and paying capacity of regional enterprises and agricultural production altogether.

Macroeconomical analysis of agricultural production should serve as an economic justification of financial potential description, taking into account the regional agricultural enterprises efficient functioning criteria and sustainable financial flows. Net Pure income, as the factor of financial potential development, is a direct rate of regional agricultural enterprises financial obligations absorbing.

During 2008–2014 net income of agricultural enterprises of the Forest-steppe zone in Ukraine increased in 4.4 times. In the structure of financial assurance the amount of private financial resources overbalances the amount of borrowed assets by more than twice. In the structure of borrowed financial assets the relative share of short-term loans increased in 2.6 times. As for long-term loans, their relative share increased more than twice (Register of the licensed participants of fund market, 2008–2014). The share of state financial support was on average 7.4%, household spending was 49.2% (for plant production – 0.6%, for animal production – 48.6%); special taxation scheme – 50.8% (in plant production – 3.5%, in animal production – 47.3%) (The State Statistics Service of Ukraine, 2014).

In the Polissia zone and the Western region the share of short-term loans in the structure of borrowed assets financing distribution comprises 8.7%, the share of long-term loans was 50.3% (Register of the licensed participants of fund market, 2008–2014). The share of region agricultural production state financial support comprises only 3.3%. The household spending on plant production was within 0.2%, for animal production – 5.6%; financing at the expense of tax allowance in plant production comprises 71.9%, in animal production it was 22.3% (The State Statistics Service of Ukraine, 2014).

During the period of investigation the Polissia and the Western regions increased the volume of private financial resources 2.8 times, the volume of net income – 4.4 times. In such a case the amount of long-term loans for the sectors development increased 1.9 times, the amount of short-term loans increased 3.0 times (Register of the licensed participants of fund market, 2008–2014).

Agricultural production of the Steppe zone is provided with its own financial resources by 61.4%, net income makes 42.5%. The region financing at the expense of borrowed assets with short-term validity is formed within 12.4%, for long-term period – 80.4% (Register of the licensed participants of fund market, 2008–2014). Distribution of state government funding is percentagewise to the volume of plant and animal production as 70:30. At the expense of value-added accumulation the support of agricultural producers increased during 2008–2014 under the special taxation scheme to 1950.7 mln UAH, that is in 3.8 times (The State Statistics Service of Ukraine, 2014).

In «MatCad» we have conducted the calculation of the influence of financial sources activity on agricultural production net income with its further distribution by Ukraine’s agroclimatic zones, especially the Steppe zone (with and without account of Crimea). It was done taking into account the fact that bank crediting and state financial support are several times bigger than the levels of other financial facilities.

Variable-based scheme of agricultural production net income forecasting by Ukraine’s agroclimatic zones on the basis of curvilinear relation is shown in Table 1, forecasting of financial potential for 2014 is given in Figure 1.

Table 1. Agricultural production net income by Ukraine’s agroclimatic zones, authors’ calculations

Agroclimatic zone	Polynomial of net income forecasting	Determination coefficient (R <sup>2</sup> )
The Forest steppe	$Y = -2 \times 10^{-17}x^5 - 3 \times 10^{-12}x^4 + 2 \times 10^{-7}x^3 + 0.0053x^2 - 72.76x + 391390$ $Y = 0.00002x^2 - 0.5438x + 58689.24$	0.9921 0.4256
The Polissia and the Western region	$Y = 1 \times 10^{-11}x^4 - 4 \times 10^{-7}x^3 + 0.0046x^2 - 19.01x + 36481$ $Y = 0.00008x^2 - 0.8278x + 16798.43$	0.8766 0.4537
The Steppe with the Autonomous Republic of Crimea	$Y = 6 \times 10^{-13}x^4 - 6 \times 10^{-8}x^3 + 0.0022x^2 - 30.85x + 184232$ $Y = 1.523x + 30812.49$ $Y = 0.00005x^2 - 0.7436x + 51164.98$	0.9763 0.796 0.8668
The Steppe (without Crimea)	$Y = 4 \times 10^{-13}x^4 - 5 \times 10^{-8}x^3 + 0.0018x^2 - 27.17x + 176533$ $Y = 1.506x + 35677.82$ $Y = 0.00005x^2 - 0.7186x + 56484.88$	0.9798 0.787 0.8612

It has been determined that there is a close relationship between the level of financial assurance and net income for all agroclimatic zones. For the Forest steppe zone the polynomial of the second order is acceptable (R<sup>2</sup> = 0.4256). In this context forecasting characteristics of net income for one region will range from 3104.4 mln UAH, which is 11% of the compound rate of this zone – 27940 mln UAH.

The tightness of the rates parametric interrelation for the Polissia zone and the Western region (R<sup>2</sup> = 0.4537) defines the polynomial of net income forecasting per one region 1601.4 mln UAH on average, or 14.3% of its total (11210 mln UAH). For the Steppe zone the polynomial of the rate forecasting shows significant density (R<sup>2</sup> = 0.8612). It means that agricultural enterprises profitability of 9 regions directly depends on bank crediting and state financing.

Under all Steppe zone regions integration for forecasting of net income volume, its level will correspond to 54.5% of Ukraine’s agricultural production compound income. In this context one region will receive on average 5220 mln UAH of net income. At the same time, under temporary absence of the Autonomous Republic of Crimea, agricultural production will receive less private financial resources in the amount of 205 mln UAH. The level of one region profitability will correspond to 12% of the overall of the agroclimatic zone agricultural production (40120 mln UAH).

Taking into account the financial potential of Crimea, the overall rate of the Steppe zone agricultural production would correspond to 139705.6 mln UAH on

average, the amount of bank crediting will comprise not less than 72146.37 mln UAH (including short-term loans – 9379 mln UAH and long-term loans – 52770.37 mln UAH), state financial support will be 4643.53 mln UAH (especially to support plant production at the expense of government with 46.44 mln UAH, to support animal production – 116.08 mln UAH). Boundary parameters of financial potential per one region will correspond to 9612.87 mln UAH on the average (Figure 1).

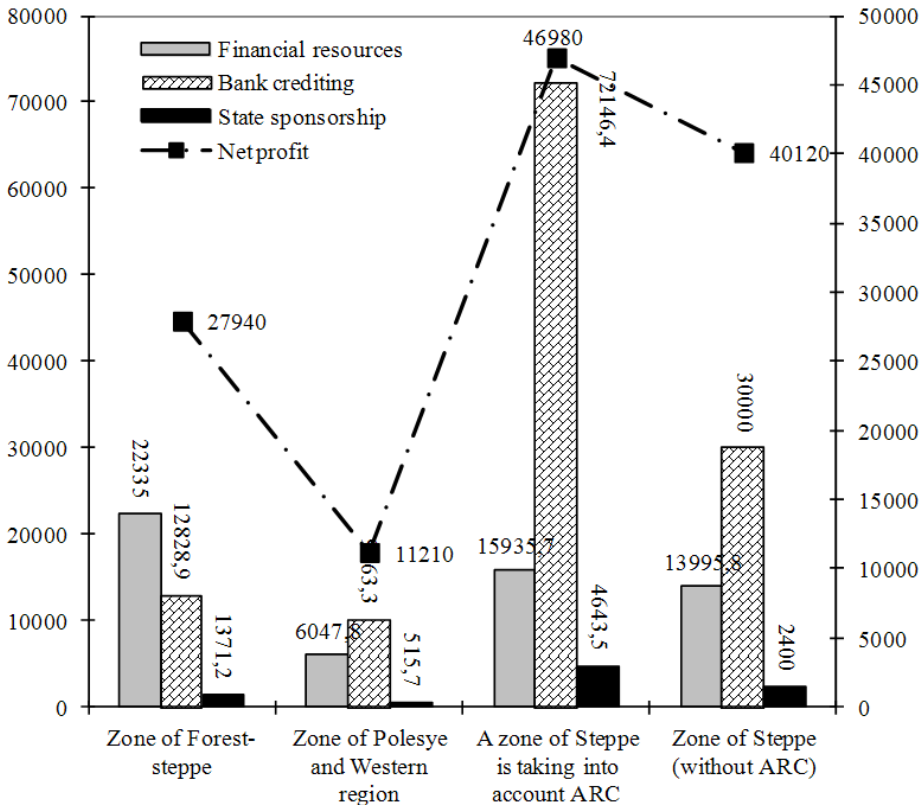


Figure 1. Forecasted parameters of financial potential for agroclimatic zones of agrarian production of Ukraine as of 2014, mln UAH, authors' calculations

Agricultural production financial capacity, under the exclusion of Crimea from the Steppe zone of Ukraine, will decrease by 38% comprising 86515.8 mln UAH. Undersupply of overall private financial assets will be 8800 mln UAH. Besides, the volume of state financial support will decrease to 48.3%, especially the funds under the special taxation scheme for plant and animal production sphere which will be 13% from the level of 2013.

**Conclusion.** Complexity of the category "financial potential" shows that it should be reviewed as the ability to transform financial resources into the real factor of agricultural production development. Financial potential may be used as the estimating rate of profitability critical range, cost saving, financial resources distribution for agricultural enterprises.

Taking into account the importance of bank crediting and state financial support as the factors of region financial facilities development, it is reasonable to consider their overall influence on earning capacity, which corresponds to agricultural production financial potential critical level.

#### References:

- Борнос В.Г.* Методологічні засади управління фінансовим потенціалом території: Монографія. – Суми: Сумський державний університет, 2011. – 310 с.
- Гудзь О.Є., Стецюк П.А., Навроцький С.А., Алексійчук В.М.* Науково-методичне забезпечення формування та реалізації фінансової політики підприємства // Облік і фінанси.– 2013.– №2. – С. 69–86.
- Дем'яненко М.Я.* Кредитування сільськогосподарських підприємств: теорія і практика // Облік і фінанси АПК.– 2005.– №7. – С. 9–19.
- Карпчук І.В.* Аналіз фінансового потенціалу регіону // СХІД: Аналіт.-інформ. журнал.– Спецвип.– 2011.– №3. – С. 32–36.
- Основні економічні показники виробництва продукції сільського господарства в сільськогосподарських підприємствах за 2013 рік: Стат. бюлетень. – К.: Державна служба статистики України, 2014. – 85 с.
- Реєстр ліцензованих учасників фондового ринку // Національна комісія з цінних паперів та фондового ринку (НКЦПФР), 2008–2014 // [www.nssmc.gov.ua](http://www.nssmc.gov.ua).
- Україна у цифрах 2013: Стат. збірник. – К.: Державна служба статистики України, 2014. – 239 с.
- Чуницька І.І.* Бюджетно-податкові важелі формування фінансового потенціалу держави: Автореф. дис... канд. екон. наук / Податкова академія України. – Ірпінь, 2009. – 18 с.
- Айров, А.А., Kurilova, A.A., Anisimova, Yu.A.* (2015). Energy Roadmap: Techno-Economic Content and Implementation issues. *Mediterranean Journal of Social Sciences*, 6(1, S3): 30–34
- Anisimova, Y.* (2009). The application of financial instruments in the conditions of liberalization of the Russian market of electric energy and power. *Bulletin of Samara state University of transport*, 5(2): 117–121.

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