Urgency of the research. It is impossible to form competitive agricultural production in Ukraine without solving the problem of improvement of the mechanism of state support for agricultural production. At present deficit of new scientific economic knowledge is acutely felt. Alternative mechanism of state support on the basis of “markets challenges” was proposed. By this mechanism it is provided to implement disposable previously previously normalized compensation payments calculated per one percentage point, of the actual growth sales, and its starting level.

Target setting. Backlog of Ukraine behind developed countries by parameters of efficiency of domestic agricultural producers (low crop yields, livestock productivity, etc.) is the result of lack of state support for agricultural production.

Actual scientific researches and issues analysis. The basis of modern mechanism of state support of agricultural production has formed by works of B. Andriychuk [1], O. Borodina [3], S. Demyanenko [8], B. Galushko [6], S. Kvasha [10], A. Mohylko [13].

Uninvestigated parts of general matters defining. Research works of the scientists listed above does not allow solving questions concerning finding of alternative option of the mechanism of state support, considering market demand strategy.

The research objective. The aim of research is justification of the alternative mechanisms of state support for production on the basis of «market challenges».

The statement of basic materials. Substantiates the feasibility of implementation of the alternative variant mechanism of state support which provides for procedurally to perform a single dose normalized stimulating compensation payments, calculating per one percentage point of the actual growth in sales.

Conclusions. Previously normalized compensation payments – is universal indicator, the foundation of reforming the entire system of government and comprehensive incentives for businesses in order to increase volume of production.

Keywords: state support; production; agricultural producer; mechanism of state support of agricultural production.

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Urgency of the research. It is impossible to form competitive agricultural production in Ukraine without solving the problem of improvement of the mechanism of state support for agricultural production. At present deficit of new scientific economic knowledge is acutely felt.
Target setting. Backlog of Ukraine behind developed countries by parameters of efficiency of domestic agricultural producers, low crop yields, livestock productivity is the result of lack of state support for production.

Actual scientific researches and issues analysis. The basis of modern mechanism of state support of agricultural production has formed by works of V. Andriychuk [1], O. Borodina [3], S. Demyanenko [8], B. Galushko [6], S. Kvasha [10], A. Mohylny [13].

Uninvestigated parts of general matters defining. Research works of the scientists listed above does not allow to solve questions concerning finding of alternative option of the mechanism of state support, considering market demand strategy.

The research objective. The aim of research is justification of the alternative mechanisms of state support for agricultural production on the basis of «market challenges». Material and methods of research. General scientific and special methods were used during the research, in particular, monographic method, method of analogy, method of combination of quantitative and qualitative analysis, method of systems analysis, and method of pluralism or alternatives, method of comparisons. Works of domestic and foreign scientists, legislative and normative documents of Ukraine, statistical data, materials of scientific conferences, periodicals, and results of author's research and calculations made up informational base of performed research.

The statement of basic materials. It is necessary to point out that Ukrainian agricultural production's fate will depend on its ability to find a new critical path and new model of development. Technological upgrading of industries and creating conditions for investments can be carried out through the active participation of business entities in the market environment. The struggle for economic leadership is possible and acceptable for each industry [2]. Agrarian complex has to reduce the gap with high-tech industries in economically developed countries, to improve the dynamics of economic and financial performance management. This should give a great positive effect in future. Within the above, there is an urgent task to assess the state support schemes of agro-industrial complex. Let's analyse the period from 2006 till 2009, as the best period from the point of view of state support of agricultural producers. Until 2009, a group of farms that received the most public funds represented by large commercial units with average number of 290 employees, which is 2.7 times higher than the average aggregate livestock. These companies received from the state in average per year for one employee 3.25 gryvnia grants and payments, and their revenues from sales for 1 hryvnia of grants 2.2 times lower than the average livestock enterprises whereas in the group of farms with number of 64 workers amount of subsidies and payments per employee amounted to 0.04 UAH and revenues from sales per one gryvnia grants exceeded the average of 14.5 times [15]. Reckless policy concerning expenditure on support causes decline of production [18]. Bet on development of small and medium-sized enterprises were not realized in full force. It should be clearly understood the need for stable expenditure for support of production. Measures at the expense budget expenditures tended to reduce: partial compensation to producers for purchase of elite seeds in 1994 – 20.4 mln USD USA, in 1999 – 1.9 mln USD USA; breeding livestock in 1994 – 18.9, 1999 – 7.2; radical improvement of land in 1994 – 12.9, 1999 – 0.1; preferential price for electricity used for production needs in agriculture 1994 – 178.7 mln USD USA, in 1999 – 6.0 mln USD USA [11]. The information above confirms the view of the need to develop sustainable systems to support budget expenditures. It is necessary to pay more attention to issues concerning improvement of budgetary funds. In this regard Y. Luzan [11] indicates that in 2007 the use of public funds largely constrained because of the inefficiency of existing orders to use them. Approaches to distribution of budget financing were changed during development and approval of their usage – not only at regional but also at district level. Major troubles in support were related, as usual, to domestic origin and were deepened as a result of inconsistent and unbalanced measures of economic policies. Question of construction of modern mechanism of state support, and overcoming of systemic imbalances were remained far from being solved. We must remember that purchasing power of population remains unacceptably low, which pushes constant narrowing to the consumer market. This is, in turn, brings almost meaningless all measures to support producers in agriculture. Attention has to be paid to the fact that during the analysis of investigated problems according to statistics, in recent years a significant part in
agricultural farms were unprofitable. Lack of motivation to work, poverty, labour migration continue to be the most acute problems in rural areas [15],[9]. The salary is less than half the average for industries. Wage arrears were observed in the farms. It should be noted that state support for the state budget was growing dynamically until 2008: total support of 9.3 bln UAH, including State budget expenditures to support agriculture – 5.2 and VAT exemptions – 4.2 bln UAH. It does not cover existing disparity in prices – the prices of industrial products are rising faster than agricultural products. As a result, an adequate improvement in agricultural development is not provided. However, there is support of the production due to non-payment. Payables arrears in agro-industrial sector amounts significantly, not less than receivables. This situation means that some production work at the expense of others. In addition, there is a permanent loans from the population to ineffective enterprises through non-payment of wages. At the basis of these resources usage a new type of support for enterprises were formed. The mechanism of their use does not encourage the development of production in agriculture. Waiting for sustainable agricultural development in many ways enters into conflict with the public interest and profit enhancement processes [4; 7]. The analysis shows that in the literature on economics found a lot of proposals on agriculture for a fundamentally new or alternative system or model of government support, taking into account current imperfections, mistakes and failures recorded in the global and national levels [5; 12; 14; 16; 17]. With this determined, that in Ukraine the problem of providing state support to industries in general is almost in its infancy condition. There is no adequate scientific providing for such support. The question arises. What are the recommended radical innovations in this regard? New mechanisms for distributing subsidies to producers, which focus on market signals, rather than subsidies, are recommended [1; 2; 8; 10; 11; 13]. Therefore, subsidies should: first – not to create incentives for the production of (positive or negative); secondly – not to depend on consumption of agricultural resources; third – not to depend on volume of agricultural production. To determine a reasonable, competitive, or rather key way in which state support of agricultural production should develop, we will attempt to understand the criterion postulates that are able to meet the needs of today. In this regard, we note that in agriculture recently, producers of cattle meat were payed of 59% subsidy payments, but realized only 31% of the products; pork producers have received 88% of the budget, but have implemented only 81% of the products; poultry producers, received 98% of subsidies and have implemented 63% of poultry products; milk producers received 56% of the funds but have implemented 43% of total milk production. These findings give grounds for thoughts: whether maintained the principle of fairness in the allocation of budget funds according to the units produced and sold products. There are reasons to believe that adequate indicator of sales equated with «market call» or in other words of application markets. The above specificity ratio between the received and realized funds especially with regard to budgetary programs 28001210 «Financial support of livestock production and crop», 2801230 «Financial support of farmers», 2801480 «Financial support of dairy processing» required determining whether there is a link among performed indicators. To assess the density of correlation between features ordinal (rank) we will use the scale factor rank correlation, between signs ordinal (rank) scale use ratio rank correlation \( \rho \), which is identical in content to the linear correlation coefficient. We use the formula of Spearman (1) where \( d_i \) – deviation ranks of factor \( R_s \) and effective \( R_f \) features; \( n \) – the number of ranks:

\[
\rho = 1 - \frac{6 \sum d_i^2}{n(n^2-1)},
\]

According to the data given in the text, we estimate the density of connection between the level of sales (absolute number – 10) and reliability of benefits received (responses to the market). Since the information is presented in the form of integrated indicators (percentage-points scoring assessment), we need a ranking of products: poultry products – A; production of pig farming – B; meat products – C and dairy products – D. To the smallest value of integral index is given rank 1, the largest - rank \( n = 4 \). We construct a Tab. 1.
Table 1

<table>
<thead>
<tr>
<th>Type of production</th>
<th>Integrated parameter</th>
<th>Ranks of indicators</th>
<th>Deviations of ranks</th>
<th>$d_{ij}^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sold goods $(m=10)$</td>
<td>$R_x$</td>
<td>$R_y$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>payments received $(max=100)$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>6.3</td>
<td>3</td>
<td>4</td>
<td>-1</td>
</tr>
<tr>
<td>B</td>
<td>8.1</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>3.1</td>
<td>1</td>
<td>2</td>
<td>-1</td>
</tr>
<tr>
<td>D</td>
<td>4.3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The sum of squared deviations ranks is (2):

$$\sum_{j} d_{ij}^2 = 4,$$

and the coefficient of rank correlation (3):

$$p = 1 - \frac{6 \cdot 4}{4(4^2 - 1)} = 1 - \frac{24}{60} = 1 - 0.4 = 0.6,$$

Assessment $p$ carried out within the available information. Unfortunately, statistical information was very limited. But even with this value coefficient of rank correlation $p$ indicating the presence of direct and highly visible connection between components of government support of enterprises. Consequently, with the alternative variant of the mechanism of state support for agricultural production on the basis of «market challenges», or receiving payments there is no need to use a large range of selected indicators and actions for support, namely the namely the: increasing agricultural productivity, support of competitiveness and redistribution of income in favor of business entities, guarantee income, opposition to crowding out from market of weak competitors, support of prices, providing cost payments per unit of output and the area of agricultural fields. Sometimes such figures are unsystematic, not coordinated. They are often unable purposefully to influence on the development of agriculture. With alternative mechanism of state support of agricultural production based on «market challenges» it is provided procedurally to implement once previously normalized stimulating compensation, calculating for one percent – point of the actual growth of sold product, which starting level is determined on the base of the previous period (previous year, five-year plan, the first year of the program). This assumption is logical, as compensation payments in complex are able to perform the production, distribution, stimulating and other important functions. From here «challenges of markets» have a significant impact on specific business decisions making. Previously normalized compensation payments - is universal indicator, the foundation of reforming the entire system of government support of enterprises, and comprehensive incentives for businesses in order to increase agricultural production volume and increase of production efficiency. Regarding the estimation of cost of one percentage-point compensation payments, then calculations can be performed in different ways. One of them, which illustrate proposed methodology can be as follows: on the program 2801230 «Financial support farmers» approved in the state budget expenditures for the year 10 250 thousand. UAH registered entities that really need help and voluntarily participate in the implementation of the program in 2000, forecasted sales growth for a particular year – 5 percentage points. Under these conditions, we have 10,000 interest-points and the value of each percentage-point concerning compensation – 1,025 thousand USD. If an entity has provided a sales increase of 5 percent-points during the year, then he is entitled to receive 5,125 thousand UAH compensation. Payments are not limited. Stimulation of producers, or companies, but not intermediary not a commercial bank – is the main feature of this mechanism.
Conclusions. Previously normalized compensation payments – is universal indicator, the foundation of reforming the entire system of government and comprehensive incentives for businesses in order to increase volume of production. Using an alternative variant of the mechanism of state support for agricultural production on the base of the “market’s calls”, it is offered to carry out one-time pre-arranged compensatory payments per one percentage point of the actual increase in sales, starting level of which is determined by the volume of the previous period.

References
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