Budgetary Agricultural Funding Programs in Ukraine

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ABSTRACT:
The article considers and generalises the fiscal aspects of actual financing of agriculture through the state budget programs of Ukraine. The estimation of actual financing of agriculture through the state budget programs of Ukraine in 2012-2017 has been assessed and the following trends are identified: 1) reduction of expenditures on agriculture in 2007-2016; 2) budget programs mainly medium and long-term, 3) average annual expenditures under one budget program was less than 1 billion USD, 4) the heterogeneity of the total budget programs by their share in the total amount of expenditures on agriculture, 5) the vast majority of budget funds is directed to management and management of agriculture, and 6) the absence of linear functional dependence between budget expenditures on agriculture and industry development.
The reasons for reforming the budget support for agriculture were substantiated. Optimization of budget programs was proposed based on compliance with the requirements of system, efficiency and effectiveness, publicity and transparency, determination of the share of financial support of agriculture in GDP and allocation of these expenditures to protected items of budget expenditures.

Keywords: Budget, Budget Program, Agriculture, Budget Support of Agriculture.

INTRODUCTION
The state support is characterized as a set of state regulation instruments in Ukraine that provide acceptable conditions for agricultural producers to carry out activities in three main forms, including: direct (direct budget payments); indirect (budget funds are stimulating); conditionally direct (mediated) (through organizational and economic measures, often not directly related to the agrarian sector of the economy). The full use of these state support instruments requires balancing the agrarian budget both in absolute terms and in relation to GDP. In general, budget support (mainly for direct and partly for conditionally direct forms) amounts to a maximum of 12 billion UAH, which is 60% of the minimum needs of the agrarian sector, which is estimated at 20 billion UAH.
The main problem for domestic agricultural producers is the limited financial resources in the absence of the necessary amount of own funds and the difficulties of access to borrowed and attracted financial resources. Therefore, state financial support, which involves budget financing of national
and regional plans (projects, programs) of the industry development, becomes of great importance today. Their development and adoption is usually an effective tool for consolidating of the state efforts and its institutional partners around the solution of socially significant problems and the basis for business entities in forecasting future business environment parameters for economic activity.

Agricultural development programs are developed with a view to implementing state policy on regulating the development of the industry, concentrating financial, logistical and other resources, industrial and scientific and technical potential of the country, as well as coordinating the activities of central and local authorities.

Ensuring sustainable agricultural development requires state support, including through the use of budget support for agricultural producers. Since the beginning of the 2000s the introduction of the program-target method in the budget process has begun, which involves the use of budget funds on the terms of effectiveness and evaluation of efficiency at all stages of the budget process.

On the priority of tasks, the solution of which is foreseen for the state budget, it is possible to draw a conclusion on the basis of analysis of the composition and structure of the expenditure part of the budget. Thus, according to the results of 2017, the budget programs of the State Budget of Ukraine, which belong to the Top 10 in terms of budget allocations, belonged to 2506080 "Financial provision of pensions, allowances and increases to pensions allocated for pension programs, and the deficit of the Pension Fund" (Amount of expenditures – 133.5 billion UAH), 3511350 "State debt service" (110.5 billion UAH), 3511150 "Subvention from the state budget to local budgets to provide privileges and housing subsidies to the population for payment of electricity, natural gas, heat, water supply (maintenance of houses and structures and adjoining territories), removal of household rubbish and liquid sewage" (UAH 69.7 billion), 2311410 "Medical subvention from the state budget to local budgets" (UAH 56.2 billion), UAH 2101020 "Ensuring the activity of the Armed Forces of Ukraine and training of troops" (UAH 54.5 billion), 3511340 "Subvention from the state budget to local budgets for the payment of assistance to families with children, low-income families, invalids from childhood, children with disabilities, temporary state child care and nursing care for invalids of Group I and II as a result of mental illness" (UAH 51.6 billion), 2211190 "Educational subvention from the state budget to local budgets" (UAH 51.5 billion), 1007020 "Ensuring the activities of units, institutions and institutions of the National Police of Ukraine" (UAH 20.8 billion), 2201160 "Training of higher educational institutions of the III and IV accreditation levels and ensuring the activity of their practice bases" (UAH 20.3 billion), 3511060 "Additional subsidies from the state budget to local budgets" (UAH 15.0 billion)

Thus, the priority in expenditures was to finance the Pension Fund deficit of Ukraine, servicing the state debt, ensuring the activity of the Armed Forces of Ukraine and the National Police of Ukraine, housing subsidies to the population, payments to families with children, low-income families, disabled children, children- disability, medical and educational subvention from the state budget to local budgets, as well as expenditures on training of higher educational institutions of the III and IV accreditation levels.

Agricultural expenditures do not belong to the priority expenditures, since none of the above-mentioned budget financing programs provide for financing of the investigated branch.

ANALYSIS OF THE LATEST RESEARCH AND PUBLICATIONS

A lot of scholars are interested in researching budget support for agriculture, including: Yu. O. Lupenko [2], M. Ya. Demyanenko [3], A. V. Kyrychenko [4], S. P. Leontovich [5], O.D. Radchenko [6], O. S. Shkekovich [7], etc., who in their works substantiated the necessity of supporting agriculture at the expense of budgetary funds, as well as suggested ways to improve the system of budget financing of agriculture.
THE PURPOSE

The article is devoted to the definition of the main tendencies of agricultural financing through the state budget programs of Ukraine, their effectiveness, efficiency and degree of influence on the state of the industry as a whole.

MATERIALS AND METHODS

In the process of scientific research, the following research methods were applied: abstract-logical - in developing the directions of reforming the budget support of agriculture; settlement-constructive - when conducting analytical calculations for assessing the current state of budget expenditures on agriculture; economic-statistical - when processing and analyzing statistical information.

The study used the normative basis of state financing of agriculture in Ukraine, the statistical and analytical information of the State Treasury Service of Ukraine, the State Statistics Service of Ukraine, publications of domestic and foreign scientists and practitioners, the results of their own studies of authors regarding the state and trends of budget programs for financing agriculture in Ukraine, as well as scientific information posted on the World Wide Web.

RESULTS AND DISCUSSION

Analysis of budget expenditures for agriculture requires the elucidation of certain methodological aspects of the research: firstly, expenditures on agriculture are expenditures under the code 0421 of the functional classification of expenditures and budget lending [8], and secondly, the time interval for the analysis of total expenditures on Agriculture 2007-2017, for the analysis of expenditures under the program classification – 2012-2017, which corresponds to the availability of indicators for the implementation of the state budget on the official website of the State Treasury Service of Ukraine [1].

As a result of the analysis of the dynamics of absolute and relative indicators of expenditures on agriculture (Figure 1), it was established that expenditures by the code of 0421 of the functional classification of expenditures tended to decrease in 2007-2016 and only in 2017 there was an increase in the surveyed indicators. The share of expenditures on agriculture reached a peak in 2007 and amounted to 4.29% of the state budget expenditures with an annual decrease of approximately 22%. It is worth noting the rapid decrease in agricultural spending in 2009 (growth rate was negative at 35.33%) and 2015 (-39.83%, respectively), which indicates an extremely negative tendency for the state to refuse to support of agriculture through the cessation of financing of the three budget programs at the same time and the reduction of financing of the existing programs.

![Graph](image_url)

Fig. 1: Dynamics of expenditures of the state budget for agriculture in 2007-2017
Source: constructed by authors according to the data of the State Treasury of Ukraine [1]
The share of expenditures on agriculture in 2017 began to increase after a decade of decline and reached 1.25% of the state budget expenditures versus 0.60% in 2016. The growth rate of agricultural expenditures in 2017 amounted to 110.68%, yielding expenditures on manufacturing industry (727.04%), educational institutions and activities (438.85%) and culture and arts (226.58%), other industry and construction (263.40%), other activities in the sphere of spiritual and physical development and information (200.51%).


The distribution of budget programs was carried out according to the following criteria: the duration of implementation of the budget program (Figure 2a), the total funding in 2012-2017 and the average annual funding (Figure 2, b), the average level of implementation of the planned indicators (Figure 2, c), share in expenditures on agriculture (Fig. 2, g), target allocation of expenditures.
Based on the distribution of budget programs, the following features are identified: mid-term and long-term financing, since most budget programs are implemented over 3 years; the level of implementation of the planned indicators of budget allocations was about ¾ with a tendency to increase the share of implementation of planned indicators (2012 – 70.00%, 2013 – 78.07%, 2014 – 81.22%, 2015 – 88 , 12%, 2016 – 94.18%, 2017 – 94.22%); the average annual expenditures for one budget program amounted to less than 1 billion UAH, except for the budget program 2407050 "Exploitation of the state water management complex and water resources management" in 2012-2017, 2802030 "Organization and regulation of the activities of the institutions of veterinary medicine and phytosanitary service" in 2012-2014 biennium, 2801580 "Financial support of agricultural producers" in 2017; the heterogeneity of the totality of budget programs by their share in the total amount of expenditures on agriculture. The heterogeneity of the aggregate of budget programs is also proved, if the limit value of the variation coefficient is exceeded: the budget program execution time ($V_\sigma = 53.78\%$), the total financing ($V_\sigma = 204.16\%$), the average annual funding ($V_\sigma = 216.25\%$), 38.05 average level of implementation of planned indicators ($V_\sigma = 38.05\%$), share in agricultural expenditures ($V_\sigma = 185.85\%$).

In 2017, significant changes occurred in the distribution of expenditures by target orientation: expenditures received directly by agricultural commodity producers (budget programs by codes of program classification 2801030, 2801180, 2801350, 2801360, 2801520, 2801540, 2801580, 6591080) were secondary (the share of expenditures from In 2012, by 2016, it decreased by 1.6 times, but in 2017 it increased by 6 times, which is related to the implementation of budget program 2801580 "Financial support of
of agricultural producers" in the amount of 4134,06 million UAH); Expenditures for financing management and management of agriculture (budget programs by codes of program classification 2407010, 2407050, 2755010, 2755020, 2801200, 2801250, 2801290, 2801310, 2801370, 2801480, 2802010, 2802020, 2802030, 2802080, 2803010, 2803030, 2803600, 2807010, 2807020, 2809020, 2809030, 6801020) had an advantage (the share of expenditures in 2012 was 87.08% versus 92.34% in 2016). O. M. Paljuk, on the basis of the study of budget expenditures on financing of the agrarian sector of Ukraine, determined: "the vast majority of budget funds are directed to the functioning of state authorities" [9, p. 250], which confirms the trends we have identified in the distribution of budget programs. Thus, by 2016, agricultural expenditures mainly contained expenditures for the maintenance of state institutions, but in 2017 about half of the expenditures were directed to agricultural producers (Table 1).

Table 1: Structure of expenditures of budget programs of the State Budget of Ukraine under the code 0421 of the functional classification of expenditures and budget lending in 2012-2017,%

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditures received by agricultural producers</td>
<td>29.64</td>
<td>21.05</td>
<td>15.72</td>
<td>11.85</td>
<td>7.46</td>
<td>48.18</td>
</tr>
<tr>
<td>Other expenses</td>
<td>70.36</td>
<td>78.95</td>
<td>84.28</td>
<td>88.15</td>
<td>92.54</td>
<td>51.82</td>
</tr>
<tr>
<td>Actual costs</td>
<td>12.92</td>
<td>12.19</td>
<td>8.11</td>
<td>8.05</td>
<td>7.66</td>
<td>47.05</td>
</tr>
<tr>
<td>Other expenses</td>
<td>87.08</td>
<td>87.81</td>
<td>91.89</td>
<td>91.95</td>
<td>92.34</td>
<td>52.95</td>
</tr>
</tbody>
</table>

Source: constructed by the authors according to the data of the State Treasury Service of Ukraine [1] and the Laws of Ukraine "On the State Budget of Ukraine" [10; 11; 12; 13; 14; 15].

In general, the structure of expenditures of the budget programs of the State Budget of Ukraine for agriculture is considered unsatisfactory as direct financial support of agricultural producers was minimized in 2012-2016 and only the growth of absolute and relative indicators took place in 2017.

In accordance with the Concept of application of the program-target method in the budget process of September 14, 2002, No. 538-p [16], the purpose of implementing the program-target method in the budget process is to establish a direct link between the allocation of budget funds and the results of their use. For a more detailed analysis of budget programs under the code 0421 of the functional classification of expenditures and budget lending, we will apply correlation analysis technologies (linear correlation coefficient (r) and elasticity coefficient (E), tables 2 and 3, respectively.

Table 2: The resulting table of linear correlation coefficient (r1, r2)

| Number of agricultural animals as of January 1, thousand head | Production of agricultural crops, thousand tons |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | cattle | pigs |
| sheep and goats | bird, million heads | grain crops and legumes | beet sugar factory | sunflower | potato | vegetable crops | fruit crops and berries |
| 2012 | 4425.8 | 7373.2 | 1739.4 | 200.8 | 46216.0 | 18439.0 | 8387.0 | 23250.0 | 10017.0 | 2009.0 |
| 2013 | 4645.9 | 7576.7 | 1738.2 | 214.1 | 63051.0 | 10789.0 | 11051.0 | 22259.0 | 9873.0 | 2295.0 |
| 2014 | 4534.0 | 7922.2 | 1735.2 | 230.3 | 63859.0 | 15734.0 | 10134.0 | 23693.0 | 9638.0 | 1999.0 |
| 2015 | 3884.0 | 7350.7 | 1371.1 | 213.3 | 60126.0 | 10331.0 | 11181.0 | 20839.0 | 9214.0 | 2153.0 |
| 2016 | 3750.3 | 7079.0 | 1325.3 | 204.0 | 66088.0 | 14011.0 | 13627.0 | 21750.0 | 9415.0 | 2007.0 |
| 2017 | 3682.3 | 6669.1 | 1314.8 | 201.7 | 61917.0 | 14882.0 | 12236.0 | 22208.0 | 9286.0 | 2048.0 |
| r1 | -0.13 | -0.55 | -0.07 | -0.39 | -0.14 | 0.25 | -0.03 | 0.21 | 0.02 | 0.04 |
| r2 | -0.45 | -0.73 | -0.40 | -0.43 | 0.04 | 0.17 | 0.23 | 0.00 | -0.32 | -0.11 |
Without taking into account the temporarily occupied territory of the Autonomous Republic of Crimea, the city of Sevastopol and parts of the zone of the anti-terrorist operation

**Source:** constructed by the authors according to the data of the State Statistics Service of Ukraine [17] and the State Treasury Service of Ukraine [1]

The value of the linear correlation coefficient (r1) with the factor "Expenditures of the budget programs of the State Budget of Ukraine by code 0421" and the correlation coefficient (r2) with the factor "Expenditures of budget programs of the State Budget of Ukraine by code 0421 according to the codes of program classification 2801030, 2801180, 2801350, 2801360, 2801520, 2801540, 2801580, 6591080 », that is, the expenditures received by agricultural producers show a lack of linear functional dependence between budget expenditures on agriculture and industry development. The existence of a weak inverse relationship between the expenditures of the budget programs of the State Budget of Ukraine by code 0421 and the number of cattle (r1 = -0.13), sheep and goats (r1 = -0.07), grain and legume production (r1 = -0.14), sunflower (r1 = -0.03); weak direct communication – the production of beet sugar (r1 = 0.25), potatoes (r1 = 0.21), vegetable crops (r1 = 0.02) and fruit and berry crops (r1 = 0.04); moderate inverse relationship – the livestock of pigs (r1 = -0.55) and poultry (r1 = -0.39). The confirmation of the absence of communication is found in the works of O. D. Radchenko: "Support for the agricultural sector in the 2015 budget and plans for 2016, as in previous years, is purely formal" [18, p. 109].

<table>
<thead>
<tr>
<th>Year</th>
<th>Cattle as of January 1, thousand head</th>
<th>Sheep and goats</th>
<th>Bird, million heads</th>
<th>Grain crops and legumes</th>
<th>Beet sugar factory</th>
<th>Sunflower</th>
<th>Potato</th>
<th>Vegetable crops</th>
<th>Fruit crops and berries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1.38</td>
<td>0.7</td>
<td>0.02</td>
<td>1.84</td>
<td>10.14</td>
<td>-11.55</td>
<td>8.84</td>
<td>-1.19</td>
<td>-0.40</td>
</tr>
<tr>
<td>2014</td>
<td>0.10</td>
<td>0.1</td>
<td>0.01</td>
<td>-0.31</td>
<td>-0.05</td>
<td>-1.89</td>
<td>0.34</td>
<td>-0.27</td>
<td>0.10</td>
</tr>
<tr>
<td>2015</td>
<td>0.74</td>
<td>0.3</td>
<td>0.19</td>
<td>1.09</td>
<td>0.38</td>
<td>0.30</td>
<td>1.78</td>
<td>-0.53</td>
<td>0.62</td>
</tr>
<tr>
<td>2016</td>
<td>2.09</td>
<td>2.2</td>
<td>2.02</td>
<td>2.64</td>
<td>-0.01</td>
<td>-21.59</td>
<td>-13.26</td>
<td>-2.65</td>
<td>-1.32</td>
</tr>
<tr>
<td>2017</td>
<td>1.01</td>
<td>0.0</td>
<td>0.00</td>
<td>-0.01</td>
<td>-0.04</td>
<td>0.04</td>
<td>-0.06</td>
<td>0.01</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

| Year | | |
|------| | |
| 2013 | -1.20 | 1.2 |
| 2014 | 0.05 | 0.00 |
| 2015 | 0.72 | 0.3 |
| 2016 | 0.54 | 0.5 |
| 2017 | 0.00 | 0.0 |

1 Without taking into account the temporarily occupied territory of the Autonomous Republic of Crimea, the city of Sevastopol and parts of the zone of the anti-terrorist operation.

**Source:** constructed by the authors according to the data of the State Statistics Service of Ukraine [17] and the State Treasury Service of Ukraine [1].
The value of the coefficient of elasticity (E1) with the factor "Expenditures of the budget programs of the State Budget of Ukraine by code 0421" and the coefficient of elasticity (E2) with the factor "Expenditures of budget programs of the State Budget of Ukraine by code 0421 according to the codes of program classification 2801350, 2801360, 2801520, 2801540, 2801580, 6591080" indicate a lack of a single reaction of a productive trait (livestock and crop production) to change the size of expenditures in 2013-2017. It is worth noting the absolute value of it astychnist (E1 = 0 and E2 = 0) budget program expenditures of the State Budget of Ukraine for agriculture in 2017.

CONCLUSION

The analysis of actual financing of agriculture through the state budget programs of Ukraine in 2012-2017 has been carried out and the following trends are identified: 1) reduction of expenditures on agriculture in 2007-2016 and only in 2017 increase of absolute and relative indicators (in 2, 6 and 2 times, respectively); 2) budget programs mainly medium and long-term, 3) average annual expenditures under one budget program was less than 1 billion USD, 4) the heterogeneity of the total budget programs by their share in the total amount of expenditures on agriculture, 5) the vast majority of budget funds is directed to management and management of agriculture (Ministry of Agrarian Policy and Food of Ukraine, State Service of Ukraine for Food Safety and Consumer Protection, State Service of Ukraine the issues of geodesy, cartography and cadastre, the State Inspection of Agriculture of Ukraine), only 7-13% of budget expenditures in 2012-2016 were directed to direct financial support to agricultural producers; 6) the absence of linear functional dependence between budget expenditures on agriculture and industry development. The directions of reforming the budget support of agriculture are proposed to optimize budget programs based on compliance with the requirements of systematality, efficiency and effectiveness, publicity and transparency, the determination of the share of financial support of agriculture in GDP and the allocation of these expenditures to protected items of budget expenditures.

REFERENCES

Using of budget funds by enterprises of the agro-industrial complex of Ukraine.


