The Economic Nature of Financial Leverage of Agricultural Production

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Abstract:

This article notes that the main formation of the market mechanism of financial and credit relations requires new scientific developments and recommendations in the field of development of the agricultural sector, improvement of financial relations in agricultural production and substantiation of the main measures of rational impact of finance on the development of agricultural production in a multi-structured agricultural sector. Based on the works of domestic and foreign economists in the field of problems and improvement of financial and credit policy, a theoretical study of the essence of financial leverage characteristic of the agrarian sector is given.

The analysis of the volume of financing of the agro-industrial sector in 2017, the composition of budget programs for 2016-2018 has been conducted, the reasons for the non-appropriation of budget funds are shown.

Keywords agricultural production; republican budget; economy; financial management; financial leverage

JEL Classification: C52; C53; Q14

Introduction

Financial management by adjusting the forms and methods in accordance with the requirements of the modern stage is a rational way to increase their role and importance in the management of the agricultural sector. This was reflected in the Message of the President of the Republic of Kazakhstan N. Nazarbayev to the people of Kazakhstan dated October 5, 2018. "Growth of the welfare of Kazakhstan: increase in income and quality of life": it is necessary to allocate at least 100 billion tenge annually (Nazarbayev 2018). A qualitatively new level of organization of the

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financial mechanism should be achieved, the long-term nature of financial levers and incentives strengthened, the organizational structure of financial system management improved.

1. Research Background

Financial leverage and incentives are the most important subsystem of a financial mechanism. These are the specific forms and methods of mobilization and use of financial resources, with the help of which the functions of finance are realized, the purpose and role of this economic category are manifested. In the economic literature, considerable attention has been paid to the problems of organizing financial levers as the forms and method of the impact of finance on the efficiency of social production. Each economic category has its own specifics, manifested through certain forms and methods of expression of the corresponding relationship. It is these concepts - the forms and methods of implementing relations that appear in economic life as tools (levers) for managing the relevant processes. That is, financial levers (instruments) are the forms and methods of expressing financial relations associated with the formation and use of monetary incomes and funds. To specific forms - levers of control include: in income allocate value added tax, excise taxes, income tax, deductions for social insurance, income from state property, rental payments, *etc.*; in expenditures, expenditures on the economy (national economy) with further detailed elaboration for socio-cultural purposes (education, health care, social insurance and security, *etc.*), science, management (Melnikov and Ilyasov 2017).

The content of financial regulation is that it operates with specific methods and methods of distributing the value of the social product, which are classified as follows:

- types of regulation: economic, including financial and administrative;
- types of regulation: tax; budget; monetary and financial; customs; state credit; on-farm (intra-company within the enterprise, organization, corporation, holding, society and similar structures);
- forms of regulation: planning (forecasting); taxation; financing; corporatization; investment; government loans; self-financing (self-sufficiency); stimulation.

Methods of regulation: tax rates; fees; duties; norms and standards of deductions, payments, savings; norms and standards for the formation and use of funds; benefits and tax preferences; debt cancellation; advance payments of taxes, fees, deductions; declaration of income for tax purposes; declaration of goods and items in customs control; the size of sanctions for violation of financial discipline; balancing (budgets, financial plans); subventions, subsidies; indexation (income, funds); financial reserves; issue of securities (by the state and enterprises); quotation of currency and securities (Melnikov 2014).

Sychev (2015) gives the following definition of the essence of financial leverage: "Financial levers are forms and methods of expressing financial relations, generating and using monetary incomes and funds of monetary resources" and that many of them act as "financial indicators of the economic activities of associations and enterprises, and as tools used in the mobilization of financial resources to the state budget." Exploring the essence of financial leverage, Also, Sychev (2015) underlines that, unlike cash funds, they reflect one side of the organization of finance: either the formation of funds of funds or its use. The financial levers he considers: income, expenses, profits, net income of collective farms, profitability, payment for funds, turnover tax, water charge, income tax on collective-farm organizations, tax on bachelors, single and multi-family citizens, deductions for social insurance, insurance premiums and payments, subsidies, pensions, allowances and lump-sum payments.

Konstantinov (2018) writes that the peculiarity of financial methods of influence on production efficiency is manifested in their dual nature. On the one hand, these are funds of funds, financial resources, and on the other, financial and economic leverage. In the first case, these methods play the role of injections into the economic organism and are a necessary basis for national economic planning; in the second case, financial methods act as economic stimulants. They affect direct producers economically through material interests, prompting them to conduct production most efficiently. He considers payments to the budget and methods of financing the national economy, incentive funds and control with the ruble, punishing and encouraging sanctions, etc. to be specific forms of manifestation of financial and credit levers.

Allahverdyan (2018) emphasis that financial leverage, being forms and methods of financial relations, "is always associated with the formation and use of monetary funds". The financial leverage can be divided into two groups according to the forms and methods of their formation: those used in the process of distribution of national income and used in the redistribution of net income. In both cases, this is accompanied by the formation of monetary incomes and funds of either the state, or associations and enterprises. On this issue, Shermenev (2017) debates in this research that financial levers as forms and methods of financial relations "express that part of the production relations that arises about the distribution of the total social product through the formation and use of

monetary funds". Voznesensky (2018) notes this as "the process of forming and using various decentralized cash funds and incomes.

Bazarova (2016) explains that in the broad sense of the word, the system of financial leverage and incentives includes a set of centralized and decentralized funds of funds associated with providing expanded reproduction and other needs of society with the necessary financial and credit resources, with the development of science and technology and economic incentives for financial reserves; it covers a set of specific forms, standards and norms that reflect the relationship of enterprises, associations and industries with the state budget, credit system and higher organizations.

Balabanov (2017) writes that financial leverage is a method of operating a financial method. If the financial method answers the question: "How to influence?", Then the financial lever answers the question: "What to influence?". He considers financial leverage to include: profit, income, depreciation, rent, interest rates, financial sanctions, payment methods, types and forms of credit, *etc*.

2. Methodology

Thus, the research of economists allows us to identify two sides of the use of financial leverage. The first side is the formation of sustainable basic incomes of the state. The second is education, the use of funds of economic entities in order to meet the personal interests of production participants. Each economic category is characterized by its own individual specific forms of expression, including the category of finances, which are expressed through their forms and methods.

The scope of application of financial levers as methods and forms of the impact of finance on social production, including agricultural, is diverse. It is through financial leverage that the results are achieved by which finances affect social production. The financial aspect of the impact on production efficiency, considered in the researches of Birman (2015): "... the side of the financial aspect is to select and recommend those forms and methods of monetary relations that are most conducive to increasing the profitability (efficiency) of production".

The first and most important feature of financial leverage is the expression of financial relations between the participants of the expanded reproduction process, the state and the population, covering the entire set of economic relations. This feature comes from the law of commodity-money relations. The second feature follows from the nature of the complexity of their application in the process of formation and use of monetary fund's with the addition of stimulating and distributive functions. The third feature is the functioning of financial levers in the economic mechanism and its dependence on the existing methods of planning and management.

It is particularly important to focus on the fact that with the improvement of the economic mechanism, the forms and methods of their impact on the efficiency of social, including agricultural, production change.

Thus, the results of the study of the essence of financial leverage allow us to give the following definition: "Financial leverage is a set of forms and methods of financial relations associated with the formation and use of cash incomes and funds of monetary resources designed to influence the activities of economic entities in order to ensure support and effective development production.

The state has a large arsenal of financial levers for regulating agricultural production in the country:

- special procedure for lending to agricultural producers and associated agricultural enterprises;
- state support for insurance of producers of the agrarian sector;
- subsidies for the production of the most important food products;
- regulation of prices for goods and services for the enterprise;
- preferential taxation or a special procedure for self-sufficiency of agricultural enterprises;
- regulation of foreign economic activity (Ivanov 2017).

Agrarian and economic science and practice have developed a number of indicators that allow assessing the level of government regulation of the agri-food sector with varying degrees of accuracy. The most complex indicators of direct and indirect subsidies and taxes in the agri-food sector are equivalents of subsidies to agricultural producers (PSE) and consumers (CSE).

SAP measures all types of cash receipts (transfers) of the agricultural producer as a result of the agri-food policy - transfers from food buyers (as a result of price support in domestic markets and, accordingly, higher prices for agricultural products) and from taxpayers (as a result of direct expenditures from the budget). The principal formula for calculating the PSE is as follows:

$$SAPi = (Pfi^{d} - Pi^{r}) + (Si - Ti) \quad (1)$$

where: *Pfi* – internal purchasing (farm level) product price *i*; *Si* and *Ti* – respectively direct subsidies and taxes related to product *i*; *Pi*^{r} – as before reference price.

In the PSE, there are almost two types of components: (P^d-P^r) and (S+T). The first term is often called the price difference (price gap), it reflects not explicit (implicit) net subsidies (+) or taxes (-) actually received or paid by the manufacturer due to the fact that domestic prices differ from the equilibrium prices (reference). The second term is a net subsidy (+), that is, a cash transfer received by the manufacturer of product i in direct (explicit form), or a net tax (-), that is, a cash payment made by manufacturer of product i also in direct (explicit form). PSE can be calculated as a percentage:

$$\mathrm{PSE}_{\%} = \frac{\mathrm{PSE}}{\sum_i Pfi^d \times Qi + S - T} \times 100\% \quad (2)$$

where: *Qi* – sales volume of product *i*; PSE - gross or net PSE.

When calculating the PSE, the following types of measures of the state agri-food policy are considered.

- all measures affecting producer and consumer prices such as price support and foreign trade regulation (market price support). For example, minimum guaranteed prices, differential payments, production quotas and restrictions on land use or import tariffs and quotas, export subsidies and tariffs;
- all direct payments (taxes) to agricultural producers that do not lead to changes in consumer prices (direct payments). For example, compensation payments in the course of the reform of the UAP (unified agrarian policy) or production taxes;
- all measures that reduce production costs, including subsidies for resources and the main factors of production (reduction of production costs). For example, a soft loan or subsidy for the purchase of fertilizers, insurance or transportation subsidies;
- measures leading to a decrease in costs in agriculture in the long term, but not directly paid to producers (general services). For example, the development of rural infrastructure or market information systems, support for agricultural research;
- all other measures of implicit support for agriculture, the main elements of which are regional support measures and tax incentives. Positive equivalents mean positive support, that is, subsidizing of producers, a negative equivalent means evidence of negative support, that is, taxation.
- the PSE/CSE methodology is used by official international organizations to evaluate and compare national agri-food policies. For the first time, this methodology was developed by the American economist T.E. Jazling in the mid-1970s (within FAO). Then it developed in different directions in the OECD and the US Department of Agriculture. For the OECD, these indicators are today adopted as the main quantitative characteristics of the agri-food policy of member countries (Krylov 2012).

State support, in our opinion, can be carried out mainly by using appropriate forms and methods that can be divided into the main ones: financing, taxation, lending, insurance (Figure 1). Consider them in more detail. The initial beginning of the relationship of economic entities of the agrarian market with the state budget is economic financial relations that have a complex structure. The main source of covering the costs of managing agriculture and providing financial assistance to it was formerly the state budget. Now, in the conditions of market relations, agricultural enterprises have switched to self-financing. As a special part of the cost distribution, the state budget fulfills a specific public purpose - it serves the satisfaction of nationwide needs. The budget affects the economy through a budget mechanism. This shows the role of the budget as a tool to influence the economy as a whole, including agriculture (Melnikov and Ilyasov 2017).

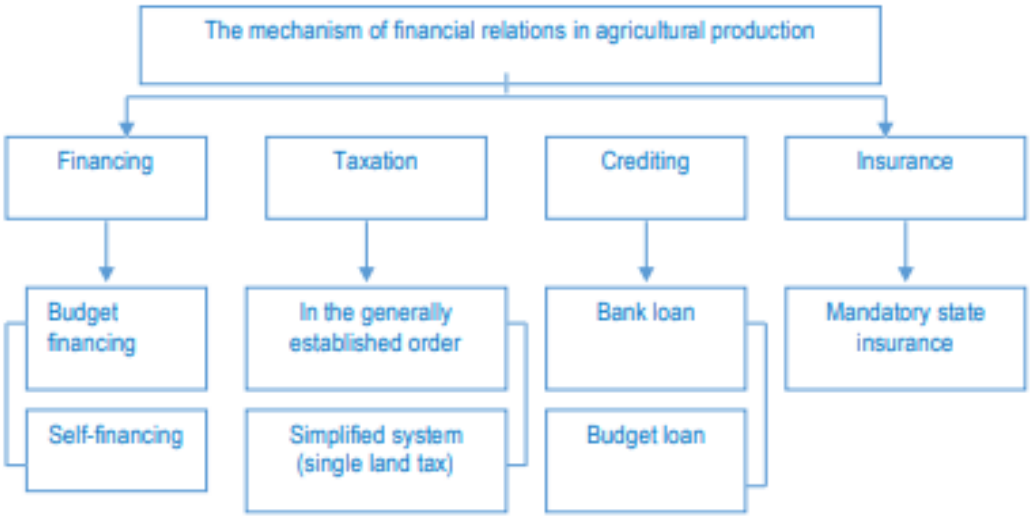
The development of the system of financing of agriculture occurred simultaneously with the transformations in the agrarian sector of the economy. Under the conditions of a planned economy, enterprises conducted a farm on the basis of organizational plans approved by the government and income and expense estimates generated annually for a long time, being planned and unprofitable. Grants were issued from the state budget to cover the difference between the planned cost of production delivered to the state and the transfer price.

A significant part of the costs of agricultural enterprises was financed by direct and indirect allocations from the state budget, as well as the redistribution of funds through higher authorities. The main determining factor in the organization of finance of agricultural enterprises was the cost recovery system and included: a price system; redistribution of funds; centralized funds; budget financing; insurance; credit; budget subsidies.

The mechanism of redistribution of funds was widely used. From some enterprises (highly profitable) they were withdrawn and transferred to low-profitable or even unprofitable enterprises both in a planned manner during the year (planned redistribution of working capital and profits), and in a single order for the year. The redistribution of funds also occurred through centralized funds. Enterprises in the established amounts made contributions to centralized reserve funds and reserves (centralized incentive funds, centralized reserves of depreciation). Of these

funds, costs were reimbursed to enterprises that were in financial difficulties or who lacked their own funds for certain needs.

Figure 1. The system of financial relations in agricultural production



Source: compiled by authors

At the present time, almost all agricultural production is concentrated in private property. The role of the state is to determine the overall strategy for the development of the industry, create the conditions for the most favorable conditions, and solve general infrastructure problems, on the solution of which the successful development of agriculture in the republic depends.

State investment priorities in the field of agriculture are the following areas:

- institutional development;
- creation of conditions for the greatest crediting of the agrarian sector;
- information support of agricultural producers and other participants of the agricultural market and the development of an information and marketing system;
- solving common infrastructural problems, such as, providing elite seeds, creating a favorable phytosanitary and epizootic situation, developing pedigree business, veterinary services, *etc.*;
- improving the efficiency of irrigated agriculture and soil fertility of agricultural lands (Program of development of the agro-industrial complex up to 2020).

The system of state regulation and support of agriculture in a market economy is based on state programs (budgetary investment of state programs), which is a system of interrelated measures and measures of the state aimed at achieving certain goals and solving national problems. The main methods of financing expenditures for the development of agriculture are:

- non-repayable financing costs;
- allocation of funds from the budget on a returnable basis. An example would be the grain procurement program for updating state reserves; provision of agricultural equipment on a leasing basis;
- allocation of funds from the budget on a returnable and paid basis (all investment projects).

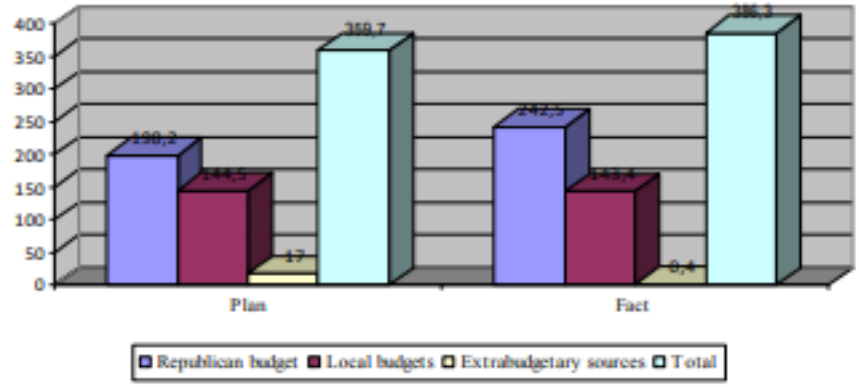
The goal of the modern period of state regulation of agricultural production in our republic is to ensure the country's food security, increase sales of agricultural products and their processing on domestic and foreign markets on the basis of competitiveness, improve the quality of products, rationalize government support for agricultural production, and form an effective agribusiness system. The main goal of the agri-food program is the stabilization of domestic agricultural production (Aimurzina and Kamenova 2017).

Thus, according to the Statistics Committee of the Ministry of National Economy of the Republic of Kazakhstan, the gross output (services) of agriculture in 2017 amounted to 4,070.9 billion tenge, which is 8.1% more in physical terms than in 2015. At the same time, the gross output of crop production in 2017 amounted to 2,249.2 billion tenge, which is in real terms more by 9.4% than in 2015. Gross output of livestock products in 2017 amounted to 1,810.9 billion tenge, which is 6.7% more than in 2015.

The inflow of investments in the fixed capital of agriculture in 2017 compared to 2015 has almost doubled and amounted to 348.4 billion tenge. In 2017, 260.5 billion tenge was transferred from the state budget to support the agro-industrial complex, 1.5 times (by 86.8 billion tenge) more than in 2015.

According to the Government report on the results of 2017, the financing of the program was at the level of 387.3 billion tenge (Figure 2).

Figure 2 - Volumes of financing of the Program of the agro-industrial complex for 2017



Source: compiled by authors

In 2017, financing of agro-industrial complex from the republican budget, local budgets, as well as from other sources of financing in the total amount of about 359.7 billion tenge is provided, including:

- from the republican budget - 198.2 billion tenge;
- from local budgets - 144.5 billion tenge;
- from other sources - 17.0 billion tenge.

Thus, in 2017, the actual amount of funding for the implementation of the State Program exceeded its plan, due to the allocation of about 45.5 billion tenge from the national budget. At the same time, state support of the main consumers (beneficiaries), who are agricultural producers and the population, is carried out through subsidies, concessional lending, preferential taxation, the provision of services free of charge, *etc.* (Table 1).

Table 1. Expenditures on budget programs, thousand tenge

Name of budget programs	2016	2017	2018 plan
Increasing the availability of financial services	57.994.023	106.312.713	68.149.133
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty for reimbursement of part of the expenses incurred by the subject of the agro-industrial complex, with investments	25.486.968	76.006.434	38.033.190
Number of investment projects covered by subsidies, units	2.465	7.532	1.413
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty to subsidize the interest rate on credit and leasing obligations in the framework of the direction for the financial rehabilitation of the subjects of the agro-industrial complex	24.698.771	14.069.555	15.077.721
The number of subjects of agrarian and industrial complex participating in the program of financial improvement, a unit	307	238	240
Target current transfers to regional budgets, budgets of Astana and Almaty cities for reimbursement of interest rates on loans (leasing) for agricultural support	7.511.723	15.760.696	15.038.222
Number of the agro-industrial complex subjects included in the program, units	3.739	1.334	1.159

Source: compiled according to the data of Ministry of Agriculture of the Republic of Kazakhstan

Kazakhstan's practice shows that the creation of an organizational-procedural mechanism of program-targeted funding can be very costly, absorbing a significant part of the resources mobilized for the implementation of the program objectives (programs, subprograms, etc.). For the execution of budget programs in the implementation of which various executive bodies take on a long-term vision of development, forecasts of budget parameters for the planning period, which according to the forecast results should be indicative and can be refined

when developing the forecast for the next planning period, taking into account changes situations of socio-economic development, budget monitoring and evaluation of the implementation of budget programs, other internal and external factors.

3. Application functionality

For this study, we use the exponential smoothing method, the feature of which is that the procedure for finding the smoothed level uses only the previous levels of the series taken with a certain weight, and the weight decreases as it moves away from the point in time for which the smoothed level is determined row. If for the initial time series y1, y2, y3, ..., yn we denote the corresponding smoothed level values by St, t = 1,2, ..., n, then the exponential smoothing is carried out according to the formula:

$S_t = (1-\alpha)\, y_t + \alpha\, S_{t-1}$

Some sources give a different formula:

$St = \alpha\, y_t + (1-\alpha)\, S_{t-1}$

where: St - the value of the exponential average at time t; S_{t-1} - the value of the exponential average at time (t =1); α - smoothing parameter (0 < α < 1).

In practical tasks of processing economic time series, it is recommended (unreasonable) to choose the value of the smoothing parameter in the range from 0.1 to 0.3. There are no other precise recommendations for choosing the optimal value of the parameter *α*.

As for the initial parameter S_0, in problems it is taken either equal to the value of the first level of the *y1* series, or equal to the arithmetic average of the first few members of the series. The consistent application of the formula makes it possible to calculate the exponential average through the values of all levels of a given series of dynamics.

We will demonstrate the calculation carried out on the budget program "The number of AIC subjects participating in the program of financial rehabilitation, units". Using the least squares method, we find the trend equation:

$y = 328.667 - 33.5\, t$

The empirical trend coefficients *a* and *b* are only estimates of theoretical coefficients *βi*, and the equation itself reflects only a general trend in the behavior of the variables in question. The trend coefficient b = -33.5 shows the average change in the effective indicator (in units of measurement y) with a change in the time period *t* per unit of measurement. In this example, with *t* increasing by 1 unit, *y* will change on average by -33.5 (Table 2).

Table 2. Evaluation of the quality of the parameters of the equation

t	y	y(t)	(yi-ycp)2	(yi-y(t))2	(t-tp)2	(yi-y(t)): yi
1	307	295.167	2055.111	140.028	1	0.0385
2	238	261.667	560.111	560.111	0	0.0994
3	240	228.167	469.444	140.028	1	0.0493
		785	3084.667	840.167	2	0.1870

Source: compiled and calculated by authors

We will analyze the accuracy of determining the estimates of the parameters of the trend equation, for which we will calculate the parameters: Standard error of the equation:

$$S_y = \sqrt{S_y^2} \tag{3}$$

$$S_y = \sqrt{S_y^2} = 2{,}98$$

F-statistics. Fisher criterion:

$$F = \frac{R^2}{1-R^2}\frac{n-m-1}{m} \tag{4}$$

$$F = \frac{R^2}{1-R^2}\frac{n-m-1}{m} = \frac{0,7276}{1-0,7276}\frac{3-1-1}{1} = 2,6715$$

Coefficient of determination:

$$R^2 = 1 - \frac{\Sigma(y_i - y_t)^2}{\Sigma(y_i - \overline{y})^2} \quad (5)$$

$$R^2 = 1 - \frac{\sum(y_i - y_t)^2}{\sum(y_i - \overline{y})^2} = 1 - \frac{840,1667}{3084,6667} = 0,7276$$

We find from the Table 2, that: Fcr (1;1;0.05) = 161, *where* m is the number of factors in the trend equation (m = 1). Since F<Fcr, the coefficient of determination (and, in general, the trend equation) is not statistically significant.

The time dependence of *Y* on time *t* was studied. At the specification stage, a linear trend was chosen. Its parameters are estimated by the least squares method. The statistical significance of the equation is verified using the coefficient of determination and the Fisher criterion. It has been established that in the situation under study, 72.76% of the total variability of *Y* is explained by the change in the time parameter. It was also established that the parameters of the model are not statistically significant. Economic interpretation of the model parameters is possible — with each time period *t*, the value of *Y* decreases by an average of 33.5 units. The obtained estimates of the regression equation allow us to use it for prediction. By analogy of calculations, projected expenditures were obtained for the remaining budget programs (Table 3).

Table 3. Equations of trend models of projected indicators for the period 2019-2020

Name of budget programs	Equation trend models	RMS estimate error	Coefficient of determination, R^2	F-criterion
Increasing the availability of financial services	Yt = 67330179,667 + 5077555 t	734,870	0,983	4,225
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty for reimbursement of part of the expenses incurred by the subject of the agro-industrial complex, with investments	Yt = 33962642 + 6273111 t	448,510	0,938	9,152
Number of investment projects covered by subsidies, units	Yt = 253354784855,33 – 526 t	1.791,34	0,871	3,065
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty to subsidize the interest rate on credit and leasing obligations in the framework of the direction for the financial rehabilitation of the subjects of the agro-industrial complex	Yt = 18233559 – 2870961,5 t	3.167,940	0,727	1,643
The number of subjects of agrarian and industrial complex participating in the program of financial improvement, a unit	t = 328,667 – 33,5 t	28,980	0,742	2,671
Target current transfers to regional budgets, budgets of Astana and Almaty cities for reimbursement of interest rates on loans (leasing) for agricultural support	Yt = 5243714,667 + 3763249,5 t	3.662,250	0,678	2,115
Number of the agro-industrial complex subjects included in the program, units	Yt = 4657,333 – 1290 t	910,394	0,806	4,016

Source: compiled and calculated by authors

The model, on the basis of which the forecast was carried out, with the obtained probability levels R^2, allows us to assert that while maintaining the existing patterns of development, the predicted value falls into the calculated value of the revealed trend of indicators (Table 4).

Table 4. Forecast values of the projected indicators for the period 2019-2020

Name of budget programs	2019	2020
Increasing the availability of financial services	87.640.400	92.717.955
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty for reimbursement of part of the expenses incurred by the subject of the agro-industrial complex, with investments	59.055.086	65.328.197
Number of investment projects covered by subsidies, units	2.751	2.225
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty to subsidize the interest rate on credit and leasing obligations in the framework of the direction for the financial rehabilitation of the subjects of the agro-industrial complex	8.327.632	3.517.107
The number of subjects of agrarian and industrial complex participating in the program of financial improvement, a unit	195	161
Target current transfers to regional budgets, budgets of Astana and Almaty cities for reimbursement of interest rates on loans (leasing) for agricultural support	20.296.713	24.059.962
Number of the agro-industrial complex subjects included in the program, units	503	-

Source: compiled and calculated by authors

The state program for the development of the agro-industrial complex for 2017–2021 is aimed at increasing the availability of financial services through the implementation of financial instruments, including through: expanding the access of agro-industrial complex entities to earthly funds provided by financial organizations through reducing interest rates, extending credit terms, shortening terms payback of investment projects through the provision of investment subsidies; the mechanism of financial recovery of the subjects of the agro-industrial complex in order to improve solvency, reduce the credit load and minimize the risks of bankruptcy of the subjects of the agro-industrial complex. The cost reduction in 2018 compared with 2017 under the program is associated with the transfer of subsidy costs to agro-industrial procurement organizations in the amount of value-added tax paid to the budget, within the calculated value-added tax to program 265 "Creating conditions for the development of processing agricultural products" and with limited possibilities of the republican budget. Also, the amount of non-development in the amount of 38 million tenge was due to the lack of applications from investors and agricultural producers, which indicates a lack of effective work of the responsible state bodies.

According to the program "Target current transfers to regional budgets, budgets of Astana and Almaty cities for reimbursement of part of expenses incurred by the subject of the agro-industrial complex with investments", aimed at encouraging agribusiness entities to invest in fixed capital, which will affect the increase in labor productivity in rural the amount of non-development amounted to more than 16 million tenge due to the lack of applications from investors in the Mangystau region, savings in public procurement on the Kostanay region field (operator granted certificate of completion in the amount of less than planned). It should be noted that the Accounts Committee, in the framework of a preliminary assessment of the draft republican budget for 2018–2020, noted an established trend of annual over fulfilment of indicators under subprogram 102 "Targeted current transfers to regional budgets, budgets of the cities of Astana and Almaty for reimbursement of part of expenses incurred by the subject of the agro-industrial complex with investments. This situation, according to the Ministry of Agriculture, is due to the emerging at a lower level (on average, 27%) of the planned (on average, 30%).

In the first Strategic direction "Development of the agro-industrial complex of the Republic of Kazakhstan" was not achieved in the planned volume. Goal 1. "Increasing production efficiency in the agro-industrial complex". 1 target indicator was not fulfilled, the number of projects implemented through PPP mechanisms (against the plan - 1 units, totaled - 0 units). With the full development of the allocated funds, 6 indicators of direct results are not fulfilled.

Poor-quality planning of indicators of direct and final results is noted. Thus, according to the budget program 250 "Increasing the availability of financial services", the number of investment projects covered by subsidies was increased from 1,625 to 6,846 units. (4.2 times). Only under the budget program "Improving the efficiency of the production of agricultural products by improving the use of financial measures of state support" the total amount of non-development amounted to more than 74 million tenge (Table 5).

Thus, there is a need to accelerate the work on the implementation of the methodology of influence and evaluation of invested funds, including loans and preferences provided for the achievement of indicators of direct and final results of budget programs focused on the achievement of strategic goals and indicators.

The development of agriculture and the entire agro-industrial complex will require various sources of financing - public, private, foreign. In general, the investment policy in agriculture in the near future should focus

on preserving and maintaining the existing production potential on the basis of its reconstruction and technical re-equipment, creating quickly paying back investment projects, developing a base for processing and storing products, purchasing modern technology to introduce new production technologies livestock and agriculture, creating the lack of infrastructure of the village, support and development of farms, *etc.* (Aimurzina and Kamenova 2018).

Table 5. Non-appropriation of budget funds by the budget programs of the agro-industrial complex in 2017

Indicator	Plan	Fact	Undevelopment, thousand tenge	% of completion
Expenses for budget programs:				
Increasing the availability of financial services	106.312 713,0	106.275 156,7	-37.556,3	99,96
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty for reimbursement of part of the expenses incurred by the subject of the agro-industrial complex with investments	76.224 873,0	76.208 665,6	-16.128,2	99,98
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty for subsidizing in the framework of guaranteeing and insuring loans to the subjects of the agro-industrial complex	1.781,0	-	-1.781,0	0
Targeted current transfers to the regional budgets, budgets of the cities of Astana and Almaty to subsidize the interest rate on loan and leasing obligations in the framework of the financial rehabilitation of the agro-industrial complex	14 002 750,0	14 000 799,7	-1 950,3	99,99
Targeted current transfers to regional budgets, budgets of the cities of Astana and Almaty for reimbursement of interest rates on loans (leasing) to support agriculture	15 609 062,0	15 591 447,5	-17 614,5	99,9

Source: compiled by authors

The basis of the methodology for determining the effectiveness of budgetary expenditures in terms of expenditure, laid down the distinction between criteria and indicators of social efficiency, as well as criteria and indicators of economic efficiency. Evaluation of the effectiveness of budget expenditures should be carried out at all stages of the budget process. Social efficiency is defined as the achievement of a certain qualitative, socially significant result per unit of expenditure, that is, the final (qualitative) results of budget expenditures are considered. Economic efficiency is defined as the achievement of a certain quantitative result per unit of expenditure, that is, the immediate (quantitative) results of budget expenditures are considered.

The weight of a group is defined as the ratio of the expenditures of regional budgets, taking into account the indicators of 2 groups: expenditures on social expenditures and budget expenditures aimed at the development of the regional economy.

The main general criterion for assessing the indicators of social and economic efficiency is the degree of compliance of the achieved results with their planned values. The deviation of the achieved values from the planned is calculated by the formula (6):

$$D = ((Vp - Va)/Vp) * 100\%, \quad (6)$$

where: D - is the deviation of the achieved values of the indicator from the planned, Vp - is the planned (target) value of the indicator; Va - actually achieved value of the indicator.

The calculated deviation value is assigned points on a scale in accordance with Table 6. If the deviation of the achieved values from the planned ones corresponds to the extreme positions (+ 21-100%; -30-100%), it is necessary to treat this with caution and carry out a detailed check, as this indicates either an extremely low level of budget planning or exposure to unaccounted external or internal factors.

Efficiency score for each section of the classification of expenses is assigned on a scale in accordance with Table 7.

Table 6. Estimated value of the deviation of the achieved value from the planned indicator

Deviation (with "+" sign)	Number of points	Deviation (with "-" sign)	Number of points
1-10%	2	0-10%	1
11-20%	3	11-20%	0
21-30%	4	21-30%	-1
31% and above	5	31% and above	-2

Source: compiled by authors

Table 7. Scale of the values of the integral indicator of the effectiveness of budget expenditures

Intervals of calculated values of the integral indicator, in % of the maximum value	Qualitative performance evaluation	Number of points
0-20%	Catastrophic level of efficiency	0,1
20-40%	Critical level of efficiency	0,2
40-60%	Low level of efficiency	0,4
60-70%	Satisfactory level of efficiency	0,65
70-90%	Average level of effectiveness	0,8
90% and above	High level of efficiency	1

Source: compiled by authors

Conclusion

Using this technique, you can get a general conclusion about the state of the effectiveness of budget expenditures in terms of their spending (Isakhova 2015). In order to improve the rationality of the use of budgetary funds, conduct a comprehensive audit of all government support measures for their effectiveness, eliminate duplication and mutual contradiction, which does not allow improving the effectiveness of measures aimed at balanced economic growth.

There is a need to develop an effective mechanism for the selection of long-term investment projects. If these projects in the future cease to generate income, it is necessary to immediately suspend their financing or abandon them and release the released resources to other more efficient projects. That is, it is becoming necessary to tighten monitoring over the use of budget and attracted funds, to carry out a thorough analysis of all resources expended, and their impact on the environment. The economy of Kazakhstan requires the improvement of methodological approaches to assessing the effectiveness of invested investment resources, the choice of effective state projects financed from the budget.

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