Architecture of effectiveness of use of assets of an agricultural organization of fishery complex

Yu.V. Lysenko[1,*], *D. N.* Korneev[1], *N. Y.* Korneeva[1], *M.V.* Lysenko[2], *G. P.* Butko[3], and *E. N.* Filipsonova[4]

[1]South Ural State Humanitarian and Pedagogical University, Chelyabinsk, Russia
[2]St. Petersburg State Forest Engineering University named after S.M. Kirov, Saint Petersburg, Russia
[3]Ural State Economic University, Ekaterinburg, Russia
[4]Chelyabinsk State University, Miass Branch, Miass, Russia

Abstract. This article outlines the economic essence of current assets, reveals their concept, examines the sources of formation and indicators characterizing the efficiency of using the assets of a business entity. Effective use of current assets in the fishery complex is a key factor for the successful sale and production of agricultural products. The optimal distribution and size of current assets play an important role in ensuring a continuous circulation process. The organizational and economic characteristics of an agricultural organization engaged in agriculture allow us to more deeply study the structure and dynamics of its assets, as well as evaluate the effectiveness of their use. To increase the rationality of the sale of current assets, it is proposed to develop recommendations that will help optimize their use. Suggested recommendations may include improving inventory management, optimizing the procurement and sales process, and the use of financial resources. Working capital of the fishery complex is the most liquid assets, which participate in the production cycle only once and are immediately taken into account in the cost price. This means that the effective use of working capital directly affects the financial results of the organization of agriculture and the fishery complex. Proper management of these assets can reduce costs, increase profitability and ensure sustainable development of the fisheries sector.

1 Introduction

In modern conditions, each agricultural organization needs to ensure stable, dynamic and sustainable functioning. The most important tool for financial management of the organization of agriculture and fishery complex is the mechanism for managing current assets. Today, the development of such a mechanism is an urgent problem, since the efficiency of planning and use of current assets allows us to ensure a high level of solvency of agricultural production, as well as increase the level of liquidity. At the same time, thanks to the high-quality management of current assets, the organization's provision with

* Corresponding author: lysenkoyulia@mail.ru

material and technical resources increases, which contributes to the stable and uninterrupted operation of the organization that is engaged in agriculture.

The problem of developing a mechanism for managing current assets was considered in their publications and research by the following authors: Safonova N. S., Blazhevich O. G., Karpycheva E. Yu., Derbush N. M., Krasova E. V., Vasiliev. V. P., Galichenko M. A., N. A. Chernova, Shubina T. V., Romanovsky R. V., Birman A. M. et al [5, 7, 9, 10, 13].

The purpose of this study is to develop recommendations for improving the management of current assets of an agricultural organization, as well as assessing their effectiveness.

2 Materials and Methods

The methods used include horizontal and vertical analysis, as well as comparison and grouping methods.

Working capital is an integral part of the property of any organization with industry specialization, and it does not matter what organizational and legal form of activity it is represented by. There is a direct relationship between these assets and the financial condition of the organization of agriculture and the fishery complex: the more correctly the current assets are used, the greater the profit, and, as a result, the greater its success. It should be noted that the concept of working capital begins to appear in economic literature not so long ago: only from the beginning of the twentieth century. At that time, their main feature was the implementation of payment services for the financial circulation of an agricultural organization, as well as covering current costs [4, 8, 14].

When characterizing working capital, some economists focus their attention exclusively on their natural material component. They are often placed on a par with objects of labor as a set of material resources and values expressed in kind or monetary form. Barngolts S.B., in turn, formed the concepts of current assets with a completely different approach, since they simultaneously cover their quantitative and qualitative features and characteristics. So, in a broad sense, current assets are understood as a set of funds advanced to stimulate uninterrupted circulation and, upon completion of the process of selling products, returned to their original form in the form of cash. Economic dictionaries also use the concept of working capital, which refers to mobile assets in the form of cash or the form that can later be converted into them during the financial year, production cycle, etc. Today, the concepts of working capital, current assets and assets are often defined by scientists as equal to each other.

Working capital and the mechanism for managing them play a key role from the point of view of the organization's need to ensure its uninterrupted and profitable operations. Due to the fact that very often changes in the size of current assets occur against the background of changes in the volume of short-term liabilities, each of these elements needs not to be studied separately, but jointly when establishing the development vector for managing net working capital with a value equal to the difference between working capital and short-term liabilities.

Working capital is a part of working capital that differs in monetary expression, regardless of its content. Consequently, the working capital of the organization of agriculture and the fishery complex is an element of working capital, expressed in the form of cash and fully used during one production cycle. In turn, working capital is a stock in agricultural production, part of which is used as an advance for the purchase of labor and labor. It is expressed by elements of constant capital, which includes raw materials, fuel, work in progress, and variable capital, which includes the cost of acquiring labor, whose value is not transferred to the finished agricultural product, but is formed into a new value - the sum of its own equivalent and surplus value [12, 15].

Working capital in agriculture is very different from working capital in all other economic sectors due to the characteristics of agricultural production; they have as their main characteristic a long circulation due to a long production cycle. In this regard, the concept of working capital of the organization of agriculture and fishery complex should be formulated as part of the value of the property, which is expressed in monetary form, advanced gradually into production assets and circulation funds in order to organize an uninterrupted operating cycle under the influence of various external and internal factors, as well as aimed at obtaining added value expressed in the form of profit [6, 11].

It is possible to understand whether the working capital of an agricultural organization is being used in the right direction, first of all, with the help of the sources of their formation. The management bodies of an agricultural organization should never forget that for normal functioning it is necessary to combine the volumes of own and borrowed funds at a normal level, and most often this combination directly depends on the specifics of the implementation of the circulation of funds. Traditionally, among the sources of working capital formation, own funds are distinguished, which includes retained earnings and authorized capital, borrowed and attracted funds.

The most important role is played by own working capital, since they ensure the independence of the organization of agriculture and the fishery complex and reflect its financial stability. This type of funds always appears in the first stages of organization. Own capital consists of fixed and working capital, without which it is impossible to carry out agricultural entrepreneurship in the amounts established by the constituent documents of the agricultural organization. In order to implement the assigned tasks, the authorized capital is formed depending on the organizational and legal forms.

Invested funds are consumed for the purchase of stocks supplied to agricultural production and then used in the manufacture of agricultural products. Before receiving proceeds from the sale of agricultural products, working capital serves as a source of financing for the costs of agricultural production.

To understand how to use sources of working capital, special indicators are used. In particular, one of them is own working capital - current assets financed by the own funds of the organization of agriculture and fishery complex. If the indicator of own working capital is positive, then the agricultural organization is able to carry out the function of ensuring the continuity of the circulation of circulating sources. Through current financial needs, in turn, the size of the lack of own working capital to finance current assets in the required volume is determined, that is, the existing financial needs reflect the need for the organization of agriculture to take out a short-term loan.

In turn, there are also stable liabilities, but today they are called additionally attracted funds. They are in circulation on an ongoing basis and are used as a source of formation of their own working capital in the amount of the minimum balance. They are a source of covering own working capital only in the amount of growth - the difference between their value at the end of the coming year and at its beginning. Borrowed funds are important. Thanks to them, the temporary need of agricultural organizations for funds is covered. The need for borrowed funds is determined by the specification of agricultural production, the complexity of settlement operations and other emerging reasons. Borrowings typically include bank, commercial, investment tax credits and loans.

Moreover, funds can also be raised in the form of accounts payable. It is usually associated with depreciation of working capital and the occurrence of overdue debt of the debtor. Traditionally, its share in the structure of sources exceeds 85%, and the share of debt on received loans and borrowings is 10%.

One of the main reasons for the non-payment crisis is the depreciation of working capital, which is directly related to accounts payable. When consumer receivables reach impressive sizes, advanced working capital may be returned late or not returned at all. In this regard, we can conclude that there is a close relationship between own working capital and accounts receivable: the smaller the size of the first element, the more the volume of the second increases. The crisis of non-payments also has a special impact, introducing changes into the structure of the formation of current assets. Together, these effects negatively affect the reproductive process on the organization of agriculture and the fishery complex.

The management bodies of any agricultural organization are well aware that it is always necessary to use available resources in the most rational way, and then this will have a positive impact on the agricultural production process and economic results. It is this rationalism that helps to achieve your goals in the shortest possible time. Several indicators characterizing the degree of use of working capital help to understand whether an agricultural organization is using its resources effectively. One of these is the ratio of the placement of working capital in agricultural production and circulation. The more the production sector is provided with working capital, the more rational their use.

The return on working capital indicator is often used. Thanks to it, the amount of profit received per ruble of working capital is calculated. Moreover, profitability also forms the assessment of the activities of an agricultural organization.

Another indicator of the intensity of use of current assets is the turnover rate of working capital. Due to the specifics of agricultural production, the conditions for marketing agricultural products and the structure, any individual agricultural organization has its own turnover of working capital, unlike others. Usually, to calculate it, they use the duration of turnover in days, the number of turnovers for a certain period and the amount of current assets per unit of sold agricultural products.

There is also a direct turnover ratio. With its help, the amount of profit per one ruble of working capital is determined. If it increases, then this indicates an increase in sales of agricultural products for each ruble of working capital, as well as a drop in current assets by a similar amount of revenue.

Turnover for individual types, such as raw materials or fuel, is found when calculating working capital standards. In this case, it comes from the balances of inventory items of these types, as well as the turnover of their consumption.

Turnover tends to change, accelerating or slowing down. When there is a slowdown, additional funds are attracted into circulation. In the process of acceleration, there is a reduction in the need for working capital, as their use improves, and also due to savings. This directly affects agricultural production volumes and, as a consequence, financial results in the form of growth.

When assessing the efficiency of using working capital, we must not forget about studying the dynamics of changes in their value, taking into account the relationship between the debts of the debtor and the creditor. When agricultural products are sold on credit, an agricultural organization has a need for current assets in order to maintain accounts receivable until payment is made. The full cycle of their turnover is subject to measurement by time from the moment of purchase of raw materials from the supplier through payment of accounts payable to payment by buyers of finished products in the form of repayment of accounts receivable.

Financial cycle - separation of the period for repaying debts to suppliers and acquiring funds from debtors. It reflects the time period when a full turnover is made with one's own working capital, and with a negative value, the concept of a financial cycle is absent. Sometimes a decrease in the cycle indicates a positive dynamics in the development of the organization of agriculture and the fishery complex. The main reasons for its reduction usually include a decrease in the shelf life of inventories or production of agricultural products - in other words, a decrease in the process of agricultural production, acceleration of debt turnover of the debtor and creditor.

The study of the rationality of the sale of current assets is carried out by comparing turnover indicators [2]. Thus, to carry out the study, calculations were made of the necessary values showing the rationality of the sale of current assets (Table 1).

Table 1. Indicators characterizing the rationality of the sale of current assets of an organization of agriculture and fishery complex

Index	year					Absolute change by the end of 2023 year
	2019	2020	2021	2022	2023	
1	2	3	4	5	6	7
Sales revenue, thousand rubles	813761	1167600	1539100	1503100	1495812	682051
Average current assets, thousand rubles	525619	880364	1256345	1966964	2815734	2290114.5
Average inventory, thousand rubles	343211	560664.5	735221	742609	721386	378174.5
Average accounts receivable, thousand rubles	163478	303361.5	494924	1205806	2090869	1927391
Average accounts payable, thousand rubles	160432	297778.5	500496	832386	1016192	855759.5
Number of days in period	360	360	360	360	360	-
Profit on sale, thousand rubles	228065	256879	135053	187642	137156	-90909
Return on current assets, %	43.39	29.18	10.75	9.54	4.87	-38.52
Current asset turnover ratio	1.548	1.326	1.225	0.764	0.531	-1.017
Current asset utilization rate	0.646	0.754	0.816	1.309	1.882	1.236
Duration of one turnover of current assets, days	233	271	294	471	678	445
Inventory turnover ratio	2.371	2.083	2.093	2.024	2.074	-0.297
Duration of one inventory turnover, days	152	173	172	178	174	22
Accounts receivable turnover ratio	4.978	3.849	3.110	1,247	0.715	-4.262
Duration of one receivables turnover, days	72	94	116	289	503	431
Accounts payable turnover ratio	5.072	3.921	3.075	1.806	1.472	-3.600
Duration of one turnover of accounts payable, days	71	92	117	199	245	174
Duration of the operating cycle, days	224	266	288	467	677	453
Length of financial cycle, days	153	175	171	267	432	279

Source: compiled by the authors.

According to the information in Table 1, despite the increase in revenue, the average indicator of current assets and the average amount of inventories, in an organization engaged in agriculture, a decrease in the rationality of the implementation of current assets is visible. This is associated with a decrease in the inventory turnover ratio, the current assets turnover ratio and the accounts receivable turnover ratio.

According to Figure 1, the trend in turnover of current assets of the organization of agriculture and fishery complex in 2019-2023 is visible.

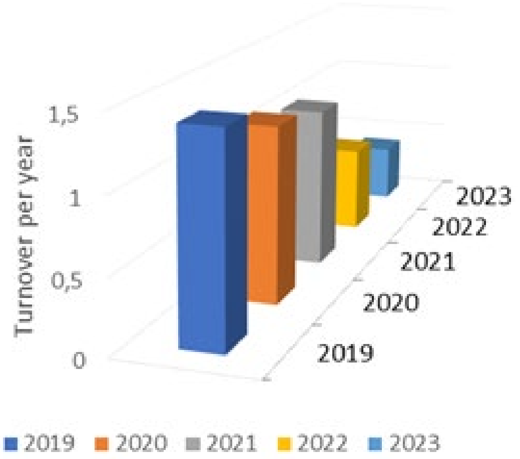

Fig. 1. Dynamics of changes in the turnover of current assets of the organization of agriculture and fishery complex since 2019. until 2023
Source: compiled by the authors.

According to Figure 1, the turnover ratio of current assets gradually decreased from 2019 to 2023. Over the analyzed period, the magnitude of this reduction is slightly more than 1 revolution per period, which indicates negative dynamics in economic activity. A decrease in the duration of turnover of current assets could be a consequence of a high increase in accounts receivable [4].

Figure 2 shows the dynamics of changes in the load factor of current assets of an organization of agriculture and fishery complex in 2019-2023. During this period, by reducing the turnover ratio of current assets, the load factor of current assets increased.

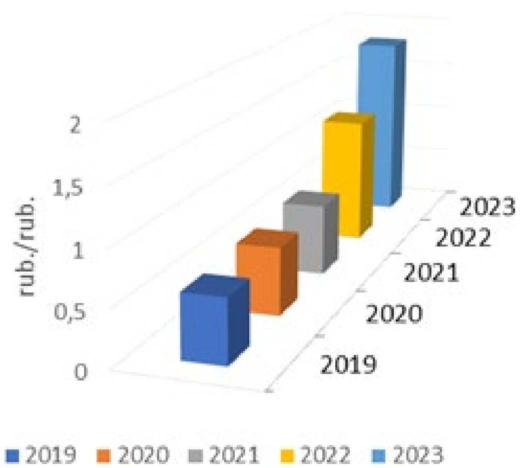

Fig. 2. Trend in the load factor of current assets of the organization of agriculture and fishery complex from 2019 to 2023.
Source: compiled by the authors.

Based on the indicators in the figure, the value increased from 0.646 rubles/ruble. in 2019 to 1,882 rubles/ruble. in 2023, almost three times. Here, the upward trend in the load

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factor is a negative result, since it illustrates how many rubles of current assets account for 1 ruble of income, and this increase also shows the irrationality of the use of current assets.

Figure 3 shows the dynamics of changes in the profitability of current assets of an organization of agriculture and fishery complex in 2019-2023.

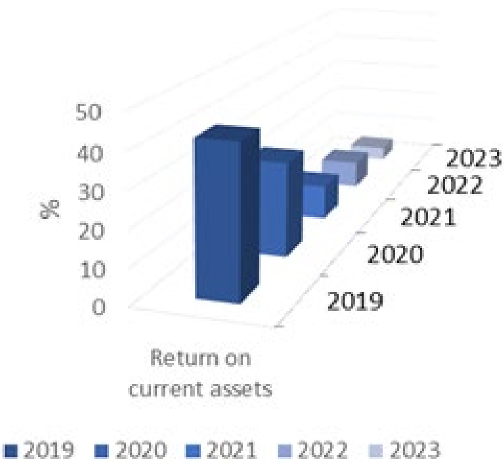

Fig. 3. Dynamics of changes in the profitability of current assets of the organization of agriculture and fishery complex from 2019 to 2023
Source: compiled by the authors.

According to Figure 3, the dynamics of profitability of current assets for all 5 years is negative. This downward trend may be due to an increase in the price of current assets and a decrease in their turnover.

In Figure 4 you can see that in a given year inventory turnover is not constant. The growth can be attributed to a faster rate of revenue growth in 2019 and 2023 over the rate of inventory growth.

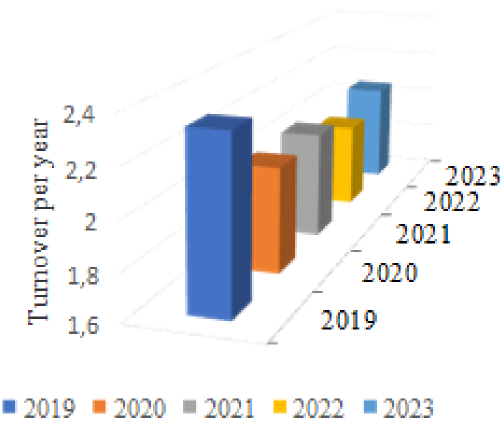

Fig. 4. Dynamics of changes in inventory turnover of the organization of agriculture and fishery complex from 2019 to 2023
Source: compiled by the authors.

The most important value in the process of studying the rational use of current assets belongs to the turnover of receivables, which is presented in Figure 5.

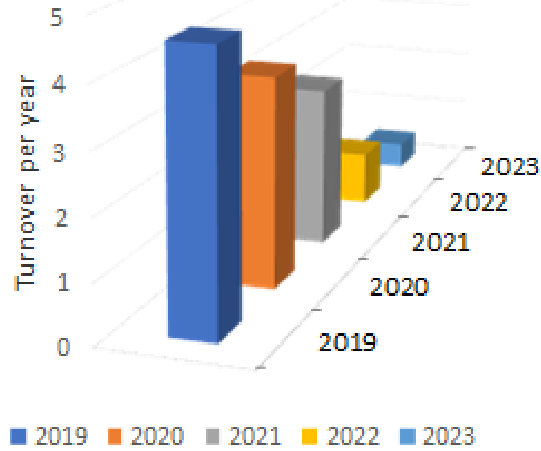

Fig. 5. Trend in accounts receivable turnover ratio from 2019 to 2023
Source: compiled by the authors.

According to Figure 5, it should be noted that the receivables turnover ratio during this year decreased and by 2023 decreased seven times. This dynamics indicates an increase in the number of “poor” buyers. But the decrease may also be due to the transition of the organization of agriculture and the fishery complex to very soft relationships with buyers, aimed at increasing market share.

A fairly significant indicator is the accounts payable turnover ratio, the dynamics of which are shown in Figure 6 [3].

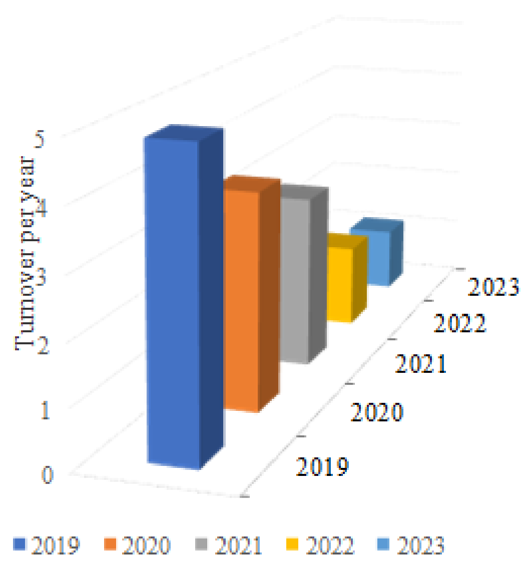

Fig. 6. Trend in accounts payable turnover ratio from 2019 to 2023
Source: compiled by the authors.

According to Figure 6, for the period under review, a decrease in the indicator is visible from 5.072 to 1.472 revolutions per year. This suggests that the rapid pace of organizing the agricultural and fishery complex to pay money for their debts to counterparties is decreasing.

The duration of the operating and financial cycles indicates how long it takes to complete certain processes in an agricultural organization related to operational and financial activities. The dynamics of changes in the duration of the operating and financial cycles for the entire analyzed period are clearly depicted in Figure 7.

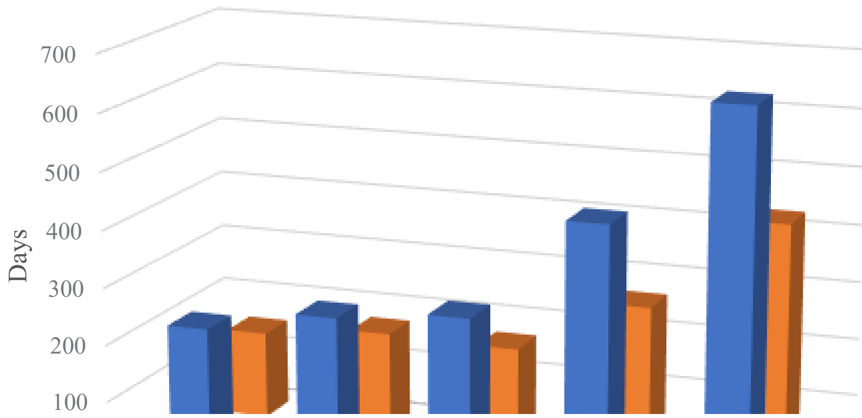

Fig. 7. Trend in the duration of operating and financial cycles from 2019 to 2023
Source: compiled by the authors.

Over the last period of time under review, the operating cycle of the organization of agriculture and the fishery complex increased by 453 days. This increase is an unfavorable factor because it leads to a decrease in the management of accounts receivable and inventory, which ultimately has a negative impact on the economic position of the agricultural organization. The increase in the duration of the operating cycle was due to a significant increase in the maturity of accounts receivable from 72 to 503 days. It is also worth noting that the length of the financial cycle from 2019 to 2023 tended to increase. However, this growth is also negative, since a longer financial cycle requires more funds to finance the activities of the organization of agriculture and the fishery complex.

3 Results and Discussion

An increase in the financial cycle indicates the emergence of problems with the collection of receivables. During the analysis, problems were discovered related to the low efficiency of using current assets. In the period under review, there was a negative trend in reducing the turnover of receivables and payables, or current assets. This signals that the organization of agriculture and fisheries complex is surrounded by problems in regulating assets and debts. The duration of the operating and financial cycles has increased – a negative trend. This perhaps emphasizes the fact that the organization of agriculture and the fishery complex is experiencing difficulties with the return of receivables and the effective management of its cash flows.

As a result of the analysis, it was revealed that the organization of agriculture and the fishery complex faces a number of problems associated with the management of current assets. Negative trends, such as a decrease in debt and asset turnover, as well as an increase in the length of operating and financial cycles, may adversely affect the profitability of current assets.

To carry out productive financial and economic activities of the organization of agriculture and fishery complex, it is necessary to optimize the system for increasing the level of working capital. This will increase the efficiency of using current assets of the agricultural organization under study; in addition, solvency will also improve and the financial position as a whole will be strengthened.

4 Conclusions

Rational use of working capital contributes to the growth of financial assets of the organization of agriculture and fishery complex. Thanks to this trend, agricultural organizations have the opportunity to implement their operational activities while minimizing costs.

Being an integral part of production activities, working capital requires constant replenishment. Sources for the formation of working capital can be divided into three groups: own, borrowed and attracted. Analysis of the rational use of current assets includes the calculation of turnover ratios, which can be determined for the total working capital and for its individual parts.

Working capital in agriculture has a distinctive feature compared to current assets in industry and other sectors of the regional economy, which is directly related to the specifics of agricultural production. The main characteristic of working capital in agricultural organizations is the long cycle of their circulation, due to the specifics of the production process.

In organizing the agriculture of the fishery complex, a number of measures are proposed to improve the rational use of current assets. One of the key tasks is to reduce accounts receivable, which has become a problem for the organization of agriculture as a result of its sharp increase. Recommendations include introducing a discount system, expanding sales markets and considering the possibility of using factoring. These proposed step-by-step steps will optimize the use of current assets and improve operational efficiency.

An assessment of the effectiveness of the discount system measure showed that the introduction of this proposal into economic activity in 2025 would lead to a reduction in the amount of accounts receivable and an increase in revenue from the sale of agricultural products. The turnover of receivables of current assets would generally tend to increase, which would have a positive effect on all financial and economic activities for the period under review.

The prediction results also indicate that not using the discount system will lead to a further decrease in income and an increase in outstanding debt. In turn, the launch of this system in 2025 will contribute to more efficient use of current assets, as outstanding debt will decrease and income will increase.

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