Comparative analysis of the financial status of industrial rabbit breeding enterprises in Russia

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Abstract. Rabbit breeding is one of the perspective and strategically important sectors of livestock in Russia. It is worth noting that insufficient attention has been paid to the study of the financial status of Russian rabbit breeding enterprises. Thus, the relevance of our study is due to the need to analyze key financial indicators of industrial rabbit breeding enterprises and to propose directions for improving their financial status. Seven leading Russian industrial rabbit breeding enterprises were selected as objects of research, and the empirical base was compiled by the data of public accounting reports, the main of which are the Balance sheet report and the Statement of financial results. Based on the results of the comparative analysis, the main indicators of the financial position and performance of the industrial rabbit enterprises under consideration for the period 2017-2018 were identified and grouped. The coefficients of financial stability, solvency and indicators of efficiency of activity of enterprises were reviewed, and the structure of the balance sheet was analyzed. Also, in the course of the study, a rating of industrial rabbit breeding enterprises was built and it was found that the bulk of the indicators of four of the seven enterprises under consideration fit into the normative values, therefore they are attractive to investors, they can apply for credit and further development, and three enterprises have significant financial difficulties associated mainly with poor governance. Working with these rabbits requires a balanced approach. Significant changes must be made in their financial and economic activities. The proposed activities will help bring key indicators of financial activity of industrial rabbit breeding enterprises to the established values, thereby increasing their attractiveness to investors, banks and suppliers of raw materials, which will accelerate the development of the Russian rabbit breeding industry.

1. Introduction

The financial status of the enterprise is a complex element consisting of many factors of a financial nature, which are aimed at providing the necessary monetary resources for all activities of the enterprise [1, p. 127].

Financial analysis is one of the most important tools for identifying reserves that can be used to improve the company's financial and economic performance. Based on the results of financial analysis, you can predict and plan the management of the object [1, p. 128].

Financial stability is part of the competitive development of agricultural enterprises in all sectors of animal husbandry, especially in such a strategically important industry as rabbit breeding.

Rabbit breeding is a rapidly developing branch of meat livestock, aimed at solving food security issues, since the main products of this industry are dietary meat, the demand for which is constantly increasing both in our country and on a global scale, occupying an important place in the diet of...
residents of many countries [2]. Currently, both specialized enterprises and non-specialized farms are engaged in breeding and rearing rabbits, in which rabbit breeding acts as an additional branch intended for the production of additional commodity products in order to increase income [3, p.194].

However, it should be noted that sufficient attention was not paid to the study of the financial status of enterprises in this industry. O. Tsuglenok states that “The dynamism of enterprise development depends on many factors, so the efficiency, reliability of accounting and control, and the depth of analysis should always be at a high level” [4, p. 45].

The study of the financial condition allows you to assess the effectiveness of economic activities of enterprises and is the basis for determining the competitiveness and development potential in the current market conditions.

The purpose of our research is to study the financial condition of industrial enterprises in the rabbit breeding industry and to propose directions for their further development.

Seven industrial rabbit breeding enterprises were selected as the research objects: Roschinsky APK (Tyumen region); Agroholding Semirechye LLC (Tver region); Bryukhovetsky rabbit LLC (Krasnodar region); Krol and Co LLC (Smolensk region); Polyus LLC (Karachay-Cherkessia); Russian rabbit LLC (Kostroma region); Kovrovsky rabbit LLC (Vladimir region) [5, 6].

2. Materials and methods
The following methods were used during the research:
- horizontal (time-series) analysis to compare the Balance sheet items of the analyzed rabbit breeding enterprises and the indicators calculated for them at the beginning and end of one period, in order to identify deviations that require further study [7];
- comparative (spatial) analysis for calculating the coefficients necessary to compare the performance of analyzed rabbit breeding enterprises with the indicators of other enterprises and with the average coefficients for the industry (sectoral coefficients) [7],
- methodology [8] for rating the financial condition of rabbit breeding enterprises, which is necessary to summarize the financial condition and development prospects of the analyzed rabbit breeding enterprises, to show the result, the classic gradation of financial condition from D (Critical) to AAA (Excellent) is used;
- graphical method for visual representation of the results obtained.

The empirical base of the research was made up of data from public accounting reports of rabbit breeding enterprises, the main of which are the Balance sheet report and the Statement of financial results.

3. Results
Based on the results of the financial analysis, the main indicators of the financial position and performance of the considered industrial rabbit breeding enterprises for the period 2017-2018 are identified and grouped by quality. The key financial indicators are presented in the table 1.

| Table 1. The key financial indicators. |
|---------------------------------------|
| **Indicator name** | Roschinsky APK | Agroholding Semirechye LLC | Bryukhovetsky rabbit LLC | Krol and Co LLC |
|---------------------|----------------|---------------------------|-------------------------|----------------|
| 1. Financial stability |                |                           |                         |                |
| 1.1. Coefficient of autonomy (financial independence) | 0.9 | 0.9 | -0.05 | 0.09 | -0.2 | 0.02 | -0.04 | -0.05 |
1. Working capital to CURRENT assets ratio

|        | Polyus LLC | Russian rabbit LLC | Kovrovsy rabbit LLC | sectoral | all-Russia |
|--------|------------|--------------------|---------------------|----------|------------|
| 2017   | 0.8        | 0.7                | -0.5                | -0.2     | -3.1       |
| 2018   | 0.7        | -0.1               | -0.1                | -0.2     | -3.1       |

2. Solvency

|                    | Polyus LLC | Russian rabbit LLC | Kovrovsy rabbit LLC | sectoral | all-Russia |
|--------------------|------------|--------------------|---------------------|----------|------------|
| Current liquidity ratio | 5.5        | 2.9                | 1.7                 | 1        | 5.2        |
| Quick liquidity ratio      | 0.9        | 0.1                | 0.2                 | 0.2      | 1.6        |
| Absolute liquidity ratio | 0.36       | 0.09               | 0.03                | 0.03     | 0.5        |

3. Efficiency of activity

|                        | Polyus LLC | Russian rabbit LLC | Kovrovsy rabbit LLC | sectoral | all-Russia |
|------------------------|------------|--------------------|---------------------|----------|------------|
| Profit margin pricing  | -45.9%     | -67.9%             | -2.8%               | 14.1%    | -4.9%      |
| Net profit margin      | -36.6%     | -70.9%             | -4.4%               | 2.4%     | -6.97%     |
| Return on assets       | -15.6%     | -19.4%             | -5.8%               | 6.4%     | -6.9%      |

3.1. Financial stability

Based on the comparative analysis of the values of the coefficients of financial stability of rabbit breeding enterprises, the following conclusions can be drawn:

- by the values of the coefficient of autonomy (financial independence)

The Roschinsky APK and Polyus LLC values of this coefficient significantly exceed the sectoral and all-Russia values and are close to one for both analyzed years, which indicates that the pace of development of enterprises is restrained. If they refuse to raise debt capital, they lose an additional source of financing for asset growth, which can help them increase their income. At the same time, this reduces the risks of deterioration of financial solvency in the event of an adverse development of the situation. For other enterprises, the values of the coefficient under consideration have negative values, that is, almost all of the enterprises' funds are not their own, but borrowed.

- by the values of the working capital to CURRENT assets ratio

The Roschinsky APK and Polyus LLC values of this coefficient are much higher than the standard and sectoral and all-Russian values. Roschinsky APK is provided by 80 % in 2017 and 70 % in 2018, and Polyus LLC by 60 % and 60 %, respectively, with its own working capital. For other enterprises,
the values of the coefficient under consideration have negative values – enterprises are not able to finance working capital at the expense of their own working capital.

- the values of the ratio of investment

The values of this coefficient for six of the seven analyzed enterprises exceed the sectoral and all-Russian values and are close to one for both analyzed years. Companies were able to fully cover long-term investments in their activities with their own and borrowed funds with a long repayment period. During the analyzed period, the values of the investment coverage ratio for the Agroholding Semirechye LLC were much lower than the norm and did not reach the industry and national values.

Thus, it can be argued that only Roschinsky APK and Polyus LLC are financially stable. Absolutely not financially stable was the Agroholding Semirechye LLC. For the other companies, the situation did not change during the two analyzed years.

3.2. Solvency

Based on the comparative analysis of the values of the solvency coefficients of rabbit breeding enterprises, the following conclusions can be drawn:

- by current liquidity ratio values

The coefficient values for Roschinsky APK in 2018, for Agroholding Semirechye LLC in 2017, and for Russian rabbit LLC in 2018 were within the norm and approximately at the level of sectoral and all-Russian values, these enterprises were able to repay current (short-term) liabilities at the expense of current assets only. The irrational balance structure was observed in Roschinsky APK in 2018; in Bryukhovetsky rabbit LLC, Krol and Co LLC, Polyus LLC and Kovrovsky rabbit LLC in 2017 and 2018. Agroholding Semirechye LLC in 2018 and Russian rabbit LLC in 2017 were not able to pay their current bills stably.

- by quick liquidity ratio values

Only in 2017 the Roschinsky APK coefficient value was within the norm, the solvency of the enterprise is improving and the turnover of its own funds invested in reserves is accelerating, but in 2018, the coefficient value sharply decreased, which allows us to assert the probability of the risk of losing investors, increasing collateral and possible refusal of lending. At Bryukhovetsky rabbit LLC, Krol and Co LLC, Polyus LLC and Kovrovsky rabbit LLC the coefficient value in the analyzed period exceeds the allowed value, that is, there is an irrational distribution of resources. The situation of Agroholding Semirechye LLC has remained unfavourable for two years, while the situation of Russian rabbit LLC has improved significantly (the coefficient value is close to the normal and industry values). As of 2018, six enterprises have not reached the sectoral and seven have not reached the all-Russian coefficient values.

- by absolute liquidity ratio values

Only in 2017, the coefficient values for Roschinsky APK and Bryukhovetsky rabbit LLC were within the norm, but in 2018, the situation at both enterprises worsened. However, in 2018, the coefficient values for five enterprises exceeded the sectoral one, and only one enterprise (Roschinsky APK) was within the all-Russian one. The companies were not able to repay at least 20 % of their short-term liabilities, as required by the regulatory limit.

Summing up, we can conclude that the solvency of all industrial rabbit-breeding enterprises has deteriorated for the two analyzed years.

3.3. Efficiency of activity

Based on the comparative analysis of the efficiency of activity of rabbit breeding enterprises, the following conclusions can be drawn:

- by profit margin pricing

The profit margin pricing of Roschinsky APK, Russian rabbit LLC and Kovrovsky rabbit LLC for 2017-2018 has negative values, since the organizations received both a loss from sales and in general from financial and economic activities. For the rest of the companies, the return on sales increased and was higher than the sectoral and all-Russian values. The reasons for this may include an increase in
sales volumes and a change in the product range.
- **by net profit margin**

Negative and continuing to decrease profit rate at Roschinsky APK, Krol and Co LLC and Russian rabbit LLC allows to assert that the enterprise receives a loss from each ruble of revenue. In 2018, the profit rate of Agroholding Semirechye LLC and Bryukhovetskaya rabbit LLC acquired a positive value, and thus, the enterprises received 2.4% and 16.4% of profit from each ruble of revenue, respectively, and increased their attractiveness to investors. The profit margins of four enterprises exceeded the industry and national values, but the value of 8%, which is considered good, was not reached.

- **by return on assets**

The return on assets of Roschinsky APK and Krol and Co LLC during the analyzed period is falling, which may be due to a decrease in the turnover of assets, an increase in the average cost of fixed assets, other non-current assets, as well as current assets. Russian rabbit LLC has a negative dynamics, but since 2018, the indicator value will tend to improve. The rest of the enterprises have positive dynamics of return on assets and indicators exceed the industry and national values, although Kovrovsky rabbit LLC has decreased by 47%. The reasons for the increase in return on assets include an increase in the turnover of assets, an increase in the amount of net profit of the enterprise and a decrease in expenses related to production and sales of products.

Thus, the efficiency of Roschinsky APK, Russian rabbit LLC and Kovrovsky rabbit LLC decreases every year, and the rest increases.

### 3.4. Analysis of the balance sheet structure

The analysis of the balance structure of the considered industrial rabbit farms was performed for the period from 01.01 to 31.12.2018. Since as of 31.12.2018, the values of the current liquidity ratios and equity security were within acceptable values for Roschinsky APK and Polyus LLC, the coefficient of loss of solvency was calculated as the third indicator, in order to assess the prospects for the loss of the normal balance structure (solvency) within three months, while maintaining the dynamics of the first two coefficients that took place in the analyzed period. The values of the coefficient of loss of solvency were 1.09 and 5.77, respectively, which indicates a low probability of a significant deterioration in the solvency indicators of these enterprises.

Since Bryukhovetskaya rabbit LLC, Krol and Co LLC, Kovrovsky rabbit LLC, Agroholding Semirechye LLC and Russian rabbit LLC both coefficients on the last day of the analyzed period (31.12.2018) were less than the normalized value, the third indicator was calculated as the coefficient of recovery of solvency, the values of which were 2.81, 3.23, 3.02, 0.34 and 0.95, respectively. It can be concluded that Bryukhovetskaya rabbit LLC, Krol and Co LLC, Kovrovsky rabbit LLC can restore solvency, and the Agroholding Semirechye LLC and Russian rabbit LLC will not be able to restore solvency within six months with the dynamics of the first two coefficients preserved.

### 4. Discussion

Based on the analysis of the financial condition using the method [5], a rating of industrial rabbit breeding enterprises was compiled (table 2).

**Table 2. Rating of industrial rabbit breeding enterprises.**

| Point | Shorthand | Qualitative characteristics of financial status | Titles of enterprises |
|-------|-----------|-----------------------------------------------|-----------------------|
| from  | to        | (rating)                                      |                       |
| 2     | 1.6       | AAA                                           | Excellent             |
| 1.6   | 1.2       | AA                                            | Very good             |
| 1.2   | 0.8       | A                                             | Good                  |
| 0.8   | 0.4       | BBB                                           | Positive              |
| 0.4   | 0         | BB                                            | Normal                |
|       |           |                                               | Bryukhovetskaya rabbit LLC, Polyus LLC |
The main mass of indicators of Bryukhovetsky rabbit LLC, Polyus LLC, Roschinsky APK, Krol and Co LLC fits into the normative values. These companies can be considered as counterparties, in their relationship with which a prudent approach to risk management is required. Businesses can apply for credit resources and further development.

The rating assessment of the Agroholding Semirechye LLC and Kovrovsky rabbit LLC indicates that the financial indicators do not fit into the norm. These companies can only apply for credit resources if they have reliable guarantees of return of funds that do not depend on the financial condition and results of the company's activities in the future (unsatisfactory creditworthiness).

The rating of Russian rabbit LLC corresponds to a very poor state of the organization. Most financial indicators are significantly worse than the standard ones.

Summing up the results of the analysis of seven industrial rabbit breeding enterprises, it can be concluded that three enterprises have significant financial difficulties, mainly due to inefficient management. Working with these companies requires a balanced approach. Significant changes must be made in their financial and economic activities. There is a need for external investment [9]. To improve your financial situation, we can suggest the following activities:

- to change the balance sheet structure in the direction of increasing the share of own funds (capital) (to issue additional shares, and sell some of the main unused funds to pay off creditors);
- reduce the company's inventory and cost levels reasonably;
- find out the reasons for the increase in working capital: production stocks, finished products or work in progress;
- ensuring a balance between the costs of maintaining assets in the amount and structure that guarantees a smooth technological process, between losses associated with the risk of loss of liquidity and income from the involvement of new funds in the turnover;
- if the current activity of the organization is provided by short-term income, then the sources of additional funds can be loans and loans, accounts payable to suppliers and employees of the enterprise;
- modernize and automate the workflow in the economic and production departments;
- organize proper marketing, since a well-developed scheme for attracting customers will bring a large income at a relatively low cost;
- monitor the ratio of receivables and payables;
- monitor the status of payments for overdue debts;
- additionally invest existing funds or provide loans to other companies.

5. Summary

Financial and economic activities should be aimed at solving a set of tasks at enterprises that contribute to the achievement of the main goal, as well as a number of intermediate indicators that arise in accordance with the characteristics of each period of development and the immediate prospects [10].

The proposed activities will help to bring the key indicators of financial performance of industrial rabbit breeding enterprises to the established values, thereby increasing their attractiveness to
investors, banks and suppliers of raw materials and materials, which will accelerate the development of the Russian rabbit breeding industry.

6. References

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