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# Asset Allocation and Risk Assessment in the Securities Portfolio Management System

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## ABSTRACT

The agro-industrial complex is an important component of the economy. However, this sector is characterized by a complex structure, limited resources and dependence on government actions. For these reasons, portfolio management in the agro-industrial sector requires special attention when developing the investment strategy. In this regard, the study of the strategy and methodology of managing the securities portfolio of the agro-industrial complex is an urgent topic in the context of restructuring of the Russian economy. The main task in managing the securities portfolio is to attract the financial resources of the company for the needs of organizations and to increase their economic activities. Investment portfolio in the market of financial instruments is an independent product, its implementation in full or in part brings profit to the investor when he makes investments of monetary resources on the stock exchange. As a rule, the securities market implements an asset portfolio with established proportions of profitability and risk, the indicators of which may improve or worsen during the management process. As part of structural asset allocation development and risk assessment, the authors set out to explore various approaches to developing mechanisms for managing securities portfolio in the agro-industrial sector in order to maximize profits for the investor. The subject of the study is approaches to managing securities portfolio in the agro-industrial sector, data analysis methods used in conducting the study, as well as possible investment strategies in this sector. The methodological basis of this work is the economic and statistical methods of information processing, as well as mathematical modeling. Based on the data obtained, it is concluded that new data in the field of securities portfolio management in the agro-industrial sector allow investors to make optimal and profitable decisions when choosing investment strategies based on a risk-based approach. As a result, the current state of the agro-industrial complex was studied and the risks of the securities portfolio of the agro-industrial complex of Russia were assessed, recommendations for the formation of a securities portfolio in the agro-industrial sector for the future were developed.

**Keywords:** profitability; risk; securities portfolio; strategy; optimal portfolio; investing; uncertainty

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## INTRODUCTION

The development of the economy directly depends on investments, which are the main force for its growth. The state plays an important role in this, stimulating and supporting the main segments of the agro-industrial complex through various mechanisms [1, 2]. Last year was not easy for the stock market: sanctions imposed on Russia had a huge impact on financial indices, causing a collapse in prices on the stock exchange and the cessation of trading. The largest exporters of raw materials have lost important export routes for their products listed on the stock market. A number of organizations decided to refuse to pay dividends due to the ambiguity of the situation, but other companies, on the contrary, paid huge dividends. The number of transactions on the stock exchange has decreased significantly, trading is mainly conducted by individual investors and traders, and operations on the securities market are mainly speculative. Portfolio investments, in their essence, make it possible to optimize the investment of funds by giving securities those properties that are impossible when acquiring one asset, but only when combining them. The rationality of including financial assets of the foreign exchange market in securities portfolios is investigated when assessing the financial feasibility of structuring financial instruments based on the multidimensional scaling method [3, 4].

In a modern economy where market relations occupy a significant part of the decision-making process, securities portfolio management is an important tool for financial planning and investment [5–8]. Regardless of the size, type, or goals of investors, precise portfolio management can ensure optimal returns and reduce risks. The design of modern securities markets provides investors with the opportunity to invest in various sectors of the economy [9–11], including the agro-industrial sector. Investing in such a sector, against the background of growing globalization, is strategically important and

provides an opportunity to receive high returns on investments.

The degree of scientific development of this topic lies in the fact that there are many studies and mathematical models related to portfolio investment. The main ideas in this area were laid down in the work of G. Markowitz “Portfolio Selection”, published in 1952, which became the starting point for further research [12]. Other well-known foreign authors who have contributed to the development of portfolio theory include J. Tobin [13], W.F. Sharpe [14] and others. There were also many scientists in Russia who were engaged in research in the field of portfolio investment. Among them are O. Y. Vorobyov, T. A. Martynov, A. A. Novoselov, S. Ya. Shorgin, A. N. Ignatov, A. I. Kibzun, I. S. Menshikov, E. M. Bronstein, O. V. Kondratiev, V. I. Rotar, A. G. Sholomitsky, S. I. Spivak and others [15–21].

The empirical database of the research is open sources presented on the securities market, provided by the Federal State Statistics Service, as well as regulatory legal acts of legislative and executive bodies of Russia, reports of companies issuing securities prepared in accordance with the requirements. Articles from industry and territorial conferences, online resources and research results conducted by the authors were also used.

The Russian agricultural sector is one of the key sectors of the country’s economy, which covers the production and sale of agricultural products, including cereals, vegetables and fruits, as well as livestock and fishing. In recent years, the agricultural sector has been steadily growing, creating prospects for development and investment.<sup>1</sup> Thus, investing in the Russian agricultural sector represents an opportunity to generate high returns

<sup>1</sup> Statistics. Information about Happy Valley Village hoziai in inland country. URL: [https://ru.theglobaleconomy.com/rankings/share\\_of\\_agriculture/](https://ru.theglobaleconomy.com/rankings/share_of_agriculture/) Statistics. Village hoziiye in Russia. Federal Office of state statistics. URL: [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 18.04.2023).

with relatively high risks. At the same time, making investments in this industry requires a conscious and analysis-based approach [22, 23] and strategy. It should be borne in mind that each company has its own characteristics that can affect their profitability and risks. A particularly important role in this industry is played by PJSC PhosAgro, PJSC RusAgro and PJSC Cherkizovo Group, which control a significant share of agricultural production and sales in Russia. However, each of these companies has its own characteristics that can affect their profitability and risks. For example, PJSC PhosAgro specializes in the production of mineral fertilizers and phosphate ores, which may affect the demand for their products depending on the global market conditions and the need for agricultural crops.<sup>2</sup> In turn, PJSC RusAgro is engaged in the production and processing of grain, butter, milk and meat, which carries risks associated with weather conditions and fluctuations in food prices.<sup>3</sup> Cherkizovo Group PJSC focuses on the production of meat products and poultry, but also has its own peculiarities<sup>4</sup> related to exchange rates, as a company with many assets abroad.

When investing in individual company shares, it is important to consider their potential profitability, level of risk, and relationship with other stocks in your portfolio. The evaluation of each company should be based on analysis of its financial performance, strategy, market position, and industry. While it's important to consider individual company shares, investing in the agriculture sector also means investing in a whole industry that is subject to both general and specific risks. To maximize profitability

and minimize risk, we recommend including shares from different sectors in your portfolio, such as finance, technology, healthcare, transportation, and motor transport. We also recommend adding risk-free financial instruments to your portfolio to help mitigate risk and distribute returns evenly.

When managing a portfolio in the agricultural sector, it is important to be aware of the unpredictability associated with this industry which is associated with weather conditions and fluctuations in prices for raw materials and food. Portfolio management should be based on active monitoring of the market and asset redistribution in accordance with changes in the market, which is very dynamic [25]. It is important to pay attention to the strategies of companies and their positioning in comparison with competitors. Investors need to take into account that the agricultural sector is high-risk and requires a more active portfolio management strategy than sectors with more predictable dynamics. To reduce risks, it is important to create a balanced portfolio that takes into account both the potential for return and the level of risk. This should be done by considering factors such as seasonality and market forecasts for agricultural and food products.

#### **METHODOLOGY FOR THE STUDY OF ASSET ALLOCATION AND RISK ASSESSMENT IN THE SECURITIES PORTFOLIO MANAGEMENT SYSTEM**

Stock market quotations are publicly available, which means that investors have the opportunity to compare information and select assets that best match their investment strategies. Market conditions are constantly changing and a thorough analysis of quotes is essential to achieve the best investment results.

Based on the analysis of the share prices of RusAgro, Cherkizovo and PhosAgro groups for 2022, formulas are used to determine the optimal ratio of assets in the portfolio and

<sup>2</sup> Annual report. PJSC "PhosAgro". URL: <https://www.phosagro.ru/investors/reports/year/#accordion-2022> (accessed on 03.27.2023).

<sup>3</sup> Annual report: PJSC "RusAgro". URL: <https://www.rusagroup.ru/ru/investoram/otchet-y-i-publikacii/godovye-i-kvartalnyy-otchet/> (accessed on 03.26.2023).

<sup>4</sup> Accountability of PJSC Group "Cherkizovo". URL: [https://cdn.financemarket.ru/reports/2022/MOEX/G/GCHE\\_2022\\_12\\_Y\\_\IFRS.pdf](https://cdn.financemarket.ru/reports/2022/MOEX/G/GCHE_2022_12_Y_\IFRS.pdf) (accessed on 03.27.2023).

Table 1

**Determination of the Expected Return and Risk of Shares as of 2022**

Date	Share price, RUB.			The profitability of the stock, %		
	RusAgro	Cherkizovo	PhosAgro	RusAgro	Cherkizovo	PhosAgro
03.01.2022	1187.00	3063.5	5936.0			
31.03.2022	1083.00	3277.0	8045.0	-9.17%	6.74%	30.40
30.06.2022	863.80	2684.0	7880.0	-22.61%	-19.96%	-2.07
30.09.2022	711.00	2220.5	6305.0	-19.47%	-18.96%	-22.30
30.12.2022	660.80	2710.0	6390.0	-7.32%	19.92%	1.34
Expected profitability, %				-14.64	-3.07	1.84
Stock risk $\sigma$ , %				7.54	19.69	21.71

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

Table 2

**Covariance Matrix of Stock Returns**

Indicator	RusAgro	Cherkizovo	PhosAgro
RusAgro	0.0042	0.0108	0.0075
Cherkizovo	0.0108	0.0290	0.0179
PhosAgro	0.0075	0.0179	0.0353

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

minimize risks. To determine the optimal ratio of shares of these companies, we will conduct a comparative analysis within the framework of the comparative content of price and profitability (Table 1).

An analysis of the tabular data on the market quotations of RusAgro, Cherkizovo and PhosAgro shares for 2022 showed that PhosAgro has the highest risk, but the expected return is the largest among these three companies. Cherkizovo has a high

risk, but the expected return is negative. Interestingly, RusAgro has the least risk, but the expected return is as negative as possible compared to the other two companies.

From this we can conclude that if an investor has investment funds, then in order to obtain the highest profit, it is recommended to pay attention to PhosAgro.

Using the calculated data for 2022, we will construct a covariance matrix of asset returns, which is presented in Table 2.

Table 3

## Correlation Matrix of Stock Returns

Indicator	RusAgro	Cherkizovo	PhosAgro
RusAgro	1.00	0.97	0.61
Cherkizovo	0.97	1.00	0.56
PhosAgro	0.61	0.56	1.00

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

PhosAgro has the strongest correlation with all other companies, which indicates the possible greatest impact of changes in PhosAgro's share price on the share prices of RusAgro and Cherkizovo.

A strong correlation was also found between RusAgro and Cherkizovo, which indicates a possible strong influence of changes in the share price of one company on the share price of another company.

On the whole, we can conclude that all three companies have a fairly strong relationship with each other. Thus, knowing the data on the average return and the average deviation of the return of each stock, we can analyze the risk of investing in a portfolio of stocks and make informed decisions when creating a portfolio. Next, we will calculate the correlation matrix of asset returns (Table 3).

RusAgro has the highest correlation with Cherkizovo (0.97), which indicates the proximity and interdependence of their share yield dynamics. The correlation between RusAgro and PhosAgro is much weaker (0.61). Cherkizovo has a strong correlation with RusAgro (0.97), as well as with PhosAgro (0.56), which indicates possible changes in the profitability of one company that will affect the other. The correlation between PhosAgro and RusAgro is also significantly stronger than between PhosAgro and Cherkizovo (0.61 and 0.56, respectively).

Thus, it can be concluded that the parameters are in acceptable values, and the profitability of these companies is moving in the same direction. Next, we need to distribute

shares between the various assets in our portfolio in order to achieve the best balance between possible returns and risks. To do this, we need to effectively distribute our capital among various assets in the portfolio, taking into account the balance between potential profits and possible risks, using a hybrid recommendation system using the Sharpe ratio in order to diversify the investment portfolio [26].

To optimize a portfolio of securities consisting of several assets with minimal risk [27, 28], we will calculate the portfolio risk using a formula that will help minimize this risk in accordance with Markowitz theory. The formula we use is (1):

$$\sigma_q^2 = \sum_{i=1}^n \sum_{j=1}^n \theta_i \theta_j \text{cov}_{i,j} \rightarrow \min, \quad (1)$$

where  $\sigma_q^2$  — is the risk (variance) of the portfolio;  $\theta_i \theta_j$ , — is the covariance of returns on assets  $i$  and  $j$ ;  $\text{cov}_{i,j}$ , — the specific weights of  $i$  and  $j$  assets in the portfolio.

Additional conditions that we use when allocating shares in the portfolio include the following: the sum of the shares of assets in the portfolio must be equal to 1, which ensures that we do not distribute more or less fixed capital between assets. The distribution of shares in the portfolio should ensure a return of at least 1%. This parameter is very important, as it ensures that the portfolio will bring a minimum level of profit, which also corresponds to investment goals.

Formulas (2) and (3) describe calculations that allow us to determine which shares of



Table 4

**Distribution of Shares Between Assets Within the Portfolio, 2022**

Indicator	Min. risk	Max. risk
RusAgro's share, p.p.	0.05	–
Cherkizovo's share p.p.	0.45	0.10
PhosAgros share, p.p.	0.50	0.90
Return on the securities portfolio, %	–1	1
Risk of the securities portfolio, %	15	18

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

capital need to be distributed among assets in order to ensure profitability. Thus, we can use these formulas to create an optimal portfolio that will meet investment goals and constraints.

$$\sigma_q^2 = \sum_{i=1}^n \sum_{j=1}^n \theta_i \theta_j = 1, \quad (2)$$

$$E(r_p) = E(r_1)\theta_1 + E(r_2)\theta_2 + \dots + E(r_n)\theta_n \geq 1\%, \quad (3)$$

where  $E(r_p)$  – the expected portfolio return;  $E(r_n)$  – the expected return on the corresponding  $n$ -th asset;  $\theta_n$  – the specific weight in the portfolio of the corresponding  $n$ -th asset.

As a result, the shares between the assets were distributed as follows (Table 4).

When RusAgro shares are included in the securities portfolio, the portfolio's risk decreases by 3%, but at the same time the portfolio's profitability becomes negative.

This can be explained by the fact that RusAgro shares are the most stable in this group, but their market price has higher volatility. By choosing the most risky portfolio, while removing RusAgro shares, we increase the risk of the portfolio, but at the same time the return is 1%. By investing in riskier assets, the investor earns greater returns.

The corresponding return on the portfolio is due to significant international pressure

on the Russian Federation, especially in 2022. With a minimum level of risk, negative returns are possible, and with maximum risk, only insignificant returns can be obtained from the portfolio.

In general, the choice of a securities portfolio should be based on a balance between risk and possible return [29]. When investing in shares of agricultural companies, it is necessary to take into account the existence of links with shares of other companies in order to assess the impact of various economic and other factors on the share price. It is also necessary to take into account that there is a high degree of uncertainty inherent in this sector, possibly caused by changes in weather conditions and various economic factors.

Thus, it should be noted that the previously created industry portfolio of securities for the end of 2022 was suitable only for an investor willing to take on high risks. The return-risk ratio for this portfolio is risky and justified only if the income of the entire agricultural sector increases.

The profitability of the issuers included in the portfolio correlates with each other, which is usually a characteristic of companies from the same industry. Due to the sanctions, the pace of development of the agricultural sector decreased, stock prices and their profitability sank, which led to a drop in market indicators.

Table 5

**Determination of the Expected Return and Risk of Shares as of 2023**

Date	Share price, RUB.			The profitability of the stock, %		
	GLTR	NBPF	Sovcomflot	GLTR	NBPF	Sovcomflot
03.01.2023	278.6	293.5	37.96			
01.02.2023	322.95	315	47.3	14.77	7.07	22.00
01.03.2023	352.85	319	49.45	8.85	1.26	4.45
03.04.2023	430.7	391	59.59	19.94	20.35	18.65
02.05.2023	437.8	372.5	58.25	1.64	-4.85	-2.27
01.06.2023	462.15	390	84.1	5.41	4.59	36.73
Expected profitability, %				10.12	5.69	15.91
Stock risk $\sigma$ , %				7.31	9.34	15.33

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

However, when assessing the financial condition of companies, it can be concluded that each of them may be of interest to a conservative investor interested in the long term.

When constructing a portfolio of investments, it is crucial to consider the importance of risk diversification. By including a variety of independent assets, the portfolio's volatility can be reduced. Given that the primary risks in the industry for the upcoming years are primarily related to logistics, it was decided to incorporate shares of companies involved in cargo transportation and logistics to spread out the risks and mitigate their impact on the portfolio.

According to the Moscow Stock Exchange Index, the fastest growing securities in the transport industry are: Globaltrans Investment PLC (hereinafter Globaltrans or GLTR) (with an increase of 62.1%), PJSC Novorossiysk Bakery Plant (hereinafter NBPF) (with an increase of 58.9%) and PJSC Sovcomflot (with an increase of 58.5%). Let's make a calculation table to determine the expected return and risk of the assets in question as of 2023 (Table 5).

The share prices of several companies (RusAgro, Cherkizovo, PhosAgro, GLTR, NBPF, and Sovcomflot) showed a steady upward trend during the period from 03.01.2023 to 06.01.2023. During this time, the profitability of these companies' shares also fluctuated. GLTR and Sovcomflot had the highest expected returns in 2023, while NBPF and Sovcomflot were associated with the highest risk.

Based on this data, it can be concluded that the securities market was quite volatile during this time period, and investors must be prepared to take risks and analyze each stock in their portfolio in order to minimize losses and protect their investments.

There is a positive correlation between stock returns within the range, which can help in building a diversified portfolio. The strongest correlation is observed between Cherkizovo and PhosAgro shares (correlation coefficient 0.8025) and between NBPF and RusAgro shares (correlation coefficient 0.7738).

A positive correlation was observed between Cherkizovo and Sovcomflot shares

Table 6

**Correlation Matrix of Stock Returns**

Indicator	RusAgro	Cherkizovo	PhosAgro	GLTR	NBPF	Sovcomflot
RusAgro	1	0.3169	0.3086	0.1535	0.7738	0.5511
Cherkizovo	0.3169	1	0.8025	0.1152	0.4180	0.6838
PhosAgro	0.3086	0.8025	1	0.4861	-0.0924	0.4539
GLTR	0.1535	0.1152	0.4861	1	0.5300	0.2938
NBPF	0.7738	0.4180	-0.0924	0.5300	1	0.5921
Sovcomflot	0.5511	0.6838	0.4539	0.2938	0.5921	1

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

Table 7

**Portfolio of the “Conservative” Investor**

Indicator	2023	Forecast	Changes in the indicator
RusAgro	0.27	0.23	-0.04
Cherkizovo	0.24	0.24	–
PhosAgro	0.20	0.20	–
GLTR	0.06	0.08	0.02
NBPF	0.03	0.03	–
Sovcomflot	0.20	0.22	0.02
Profitability of the securities portfolio, %	6.36%	6.70%	0.34%
Securities portfolio risk, %	1.85%	2.01%	0.16%

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

(correlation coefficient 0.6838). There are negative correlations between PhosAgro and NCCP stocks (correlation coefficient -0.0924). The GLTR stock is poorly correlated with other stocks.

Based on the above, the conducted research allows us to conclude that it is advisable to include shares of these companies in the securities portfolio, since this will minimize risks and increase the profitability of this portfolio. Using all the data that we have

calculated, we can create asset portfolios based on their condition for the first 5 months of 2023 and make a forecast for 2025. A comparative assessment of these assets, based on a historical analysis of the profitability and risk of the compiled portfolio (*Tables 7–9*), allows us to build a forecast trend for a conservative investor's portfolio.

In 2023, RusAgro, Cherkizovo, PhosAgro and Sovcomflot hold the largest shares in the portfolio. NBPF and GLTR companies



Table 8

**Portfolio of the “Aggressive” Investor**

Indicator	2023	2026 forecast	Changes in the indicator
RusAgro	0.02	0.01	-0.01
Cherkizovo	0.02	0	-0.02
PhosAgro	0.03	0	-0.03
GLTR	0.38	0.48	0.1
NBPF	0.12	0.12	-
Sovcomflot	0.43	0.44	0.01
Profitability of the securities portfolio, %	11.60%	13.44%	1.84%
Securities portfolio risk, %	4.65%	6.97%	2.32%

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

Table 9

**Portfolio of the “Moderate” Investor**

Indicator	2023	2026 forecast	Changes in the indicator
RusAgro	0.20	0.11	-0.09
Cherkizovo	0.20	0.10	-0.10
PhosAgro	0.02	0.09	0.07
GLTR	0.20	0.33	0.13
NBPF	0.02	0	-0.02
Sovcomflot	0.36	0.37	0.01
Profitability of the securities portfolio, %	9.28%	10.24%	0.96%
Securities portfolio risk, %	3.15%	3.65%	0.50%

Source: Compiled by the authors according to: Statistics. History of Russian stock market quotations. URL: <https://ru.investing.com/equities/>; [https://rosstat.gov.ru/enterprise\\_economy](https://rosstat.gov.ru/enterprise_economy) (accessed on 12.05.2023).

are also present in the portfolio, but occupy smaller shares. At the same time, the return on the portfolio for 2023 amounted to 6.36%, which is due to the overall increase in the securities market after last year's sanctions. However, it is predicted that by 2024, the yield will rise to 6.70%, which is 0.34% higher

than the yield in 2023. The portfolio risk will increase slightly by 2023 to 0.16%, and the Russian stock market is gradually emerging from the difficulties caused by sanctions and COVID-19 [30].

It should be noted that this investment portfolio is focused on securities of companies

in the agro-industrial sector and companies related to cargo transportation. At the same time, in order to reduce the risk of the portfolio, it would be possible to add risk-free financial instruments to it, such as stocks, bonds of major companies and government loan bonds. Let's move on to the aggressive type of strategy (*Table 8*).

As presented in *Table 8*, in 2023, NBPF accounted for 12% of the portfolio, while Sovcomflot and GLTR accounted for 81%, and RusAgro, Cherkizovo and PhosAgro accounted for only 7%. In the projected 2026, the situation at NBPF will not change significantly and will amount to 12% of the total portfolio, RusAgro will occupy a small share, and Cherkizovo and PhosAgro companies will not be present in the portfolio at all. The projected portfolio risk will increase by 1.84% in 2026. It is worth noting that the forecast of the total portfolio return showed an increase from 11.60% in 2023 to 13.44% in 2026.

Thus, the portfolio of securities with a higher weight of Sovcomflot and GLTR is more promising in the future due to a slight increase in risks and an increase in profitability next year. However, it would be desirable to include more diverse companies in the portfolio in order to diversify risks.

For a portfolio with a more aggressive approach, the optimal strategy is to employ an active management approach that involves closely monitoring the securities market and regularly adjusting the portfolio composition in response to fluctuations in the value of the assets it contains. This approach allows for timely adjustments to the portfolio, ensuring that it remains well-positioned to capitalize on opportunities and mitigate risks.

*Table 9* outlines a more conservative approach to portfolio management.

The return on the securities portfolio is expected to increase by 9.28% to 10.24% in 2026, an increase of 0.96%. This is good news for a moderate investor who is not willing to take on a lot of risk. The risk associated with the portfolio for 2026 is estimated to be 3.65%,

an increase of 0.5% from 2023, which is within the acceptable range for a moderate investor.

The weight of NBPF shares in the portfolio is expected to decrease to zero, indicating that this company will be excluded from the portfolio. Overall, the securities portfolio shows positive growth in profitability, but the slight increase in risk could cause some concern for the investor. Based on the analysis, a "moderate" investment strategy may be appropriate for this portfolio during the time period under review.

## CONCLUSIONS

Based on the economic analysis, we can only offer recommendations for possible investment options. Experienced professional investors, on the other hand, use balanced strategies to form and manage a securities portfolio in the Russian market. This approach allows them to achieve higher returns with minimal risk, acting intuitively and considering existing risks.

In any case, decisions made by investors should be based on thorough analysis and risk assessment. The securities portfolio should be tailored to the individual needs and goals of each investor. Considering all factors and current market conditions, we can only provide guidance, and the final choice of strategy and portfolio remains up to each individual investor. Investors need to compare the fees and commissions of different brokers, as well as consider their ratings and reputation in the market.

In conclusion, it should be noted that the Russian agriculture sector is an important part of the economy, but it requires a more proactive portfolio management strategy due to its high level of risk. When considering investing in stocks of companies in this sector, it is essential to take into account their specific characteristics, potential profitability, and risk level. It is also crucial to create a portfolio that balances risk and potential return while considering seasonality and market forecasts.

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