

**Czech University of Life Sciences Prague**  
**Faculty of Economics and Management**  
**Department of Trade and Finance (FEM)**



## **Master's Thesis**

**«Assessment of the Financial Position and Performance of  
the Chosen Companies Operating in the Meat Industry in  
the Russian Federation»**

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## DIPLOMA THESIS ASSIGNMENT

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Economics and Management

Economics and Management

Thesis title

**Assessment of the Financial Position and Performance of the Chosen Companies Operating in the Meat Industry in the Russian Federation**

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### Objectives of thesis

The aim of this thesis is to assess and compare the financial position and performance of three chosen Russian companies operating in the meat industry, by analyzing the financial statements of companies with focus on the representation and changes of the reported assets, liabilities, expenses and revenues for a chosen period to identify the potential financial problems and the most significant factors influencing the profit from the company and industry point of view.

### Methodology

Methodology for the literature overview is based on data collection from the relevant legal framework, specialized publications and other written or online sources. The practical part of the thesis will be based on the information gained from the published annual reports of the chosen companies. Vertical and horizontal analysis and ratio analysis of the financial statements will be used to assess the financial position and performance of the company and to prepare the practical part of the thesis. The methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the thesis.

## The proposed extent of the thesis

60-80

### Keywords

financial statements, financial analysis, financial position, balance sheet, assets, liabilities, equity, financial performance, Income statement, expenses, revenues, profit, meat industry

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## **Declaration**

I declare that I have worked on my master's thesis titled "Assessment of the Financial Position and Performance of the Chosen Companies Operating in the Meat Industry in the Russian Federation " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 31 March 2022

Tatiana Timoshina

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# **«Assessment of the Financial Position and Performance of the Chosen Companies Operating in the Meat Industry in the Russian Federation»**

## **Abstract**

Today, the analysis of changes in assets, liabilities, expenses and income, as well as the analysis of financial indicators, is the most useful tool for assessing the financial position and performance of operations.

In this diploma thesis, attention is paid to assessing the financial position and performance of companies in the meat industry and a case study of two enterprises operating in the analyzed area of the Russian Federation.

Diploma Thesis consists of a theoretical and practical part.

The theoretical significance of the study lies in the development of a methodological approach to the analysis of the financial activities of an economic entity, as well as in improving the methodology for calculating indicators that takes into account the "non-monetary" reporting items and characterizes the liquidity, solvency and profitability of companies.

The practical significance of the study lies in the possibility of using the author's methodology for analyzing the financial and economic activities of an economic entity by organizations, analytical companies, as well as rating agencies.

**Keywords:** Balance sheet, Statement of financial results, liquidity, solvency, financial stability, vertical analysis, horizontal analysis, International Financial Reporting Standards (IFRS), Russian Accounting Standards (RAS), financial problems.

## «Hodnocení finanční pozice a výkonnosti vybraných společností působících v masném průmyslu v Ruské federaci»

### Abstrakt

Dnes je analýza změn aktiv, pasiv, nákladů a výnosů, stejně jako analýza finančních ukazatelů, nejužitečnějším nástrojem pro hodnocení finanční situace a výkonnosti operací.

V této diplomové práci je pozornost věnována zhodnocení finanční situace a výkonnosti podniků v masném průmyslu a případové studii dvou podniků působících na analyzovaném území Ruské federace.

Diplomová práce se skládá z teoretické a praktické části.

Teoretický význam studie spočívá ve vývoji metodologického přístupu k analýze finanční činnosti ekonomického subjektu, jakož i ve zdokonalení metodiky výpočtu ukazatelů, která zohledňuje «nepeněžní» položky výkaznictví a charakterizuje likvidita, solventnost a ziskovost společností.

Praktický význam studie spočívá v možnosti využití autorské metodiky pro analýzu finanční a ekonomické činnosti ekonomického subjektu organizacemi, analytickými společnostmi i ratingovými agenturami.

**Klíčová slova:** Rozvaha, Výkaz o finančních výsledcích, likvidita, solventnost, finanční stabilita, vertikální analýza, horizontální analýza, Mezinárodní standardy účetního výkaznictví (IFRS), Ruské účetní standardy (RAS), finanční problémy.

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## **1 Introduction**

With the global economy facing many challenges due to the negative impact of COVID-19, companies are making efforts to overcome this crisis. Especially during this period, the greatest concern of the financial manager is whether the current financial situation is promising for continuing business. An assessment of the financial position and performance of an enterprise can solve a number of problems, not only by providing a comprehensive overview of the company's resources, but also by helping managers quickly adjust decisions in accordance with market changes.

In this dissertation, attention is paid to assessing the financial position and performance of companies in the meat industry and a case study of two enterprises operating in the analyzed area of the Russian Federation.

The subject of the study is the system of indicators of financial statements of organizations, tools and methods for its analysis.

The scientific novelty of the study lies in the development of a set of proposals for improving the financial policy of organizations in the meat industry, based on a comparison of the results of the analysis of international financial statements, differentiated depending on the legal form and solvency of the economic entity and allowing to increase its investment attractiveness, solvency and profitability.

The theoretical significance of the study lies in the development of a methodological approach to the analysis of the financial activities of an economic entity, as well as in improving the methodology for calculating indicators that takes into account the «non-monetary» reporting items and characterizes the liquidity, solvency and profitability of companies.

The practical significance of the study lies in the possibility of using the author's methodology for analyzing the financial and economic activities of an economic entity by organizations, analytical companies, as well as rating agencies.

## **2 Objectives and Methodology**

### **2.1 Objectives**

The purpose of the study is to develop directions for improving the financial policy of meat industry companies based on the assessment and comparison of their financial position and performance, using the analysis of financial statements with an emphasis on the presentation and change in declared assets, liabilities, expenses and income for the selected period.

To achieve the goal of the study, it is necessary to perform the following tasks:

1. define and designate the essence, significance and goals of the analysis of the financial condition of organizations;
2. determine the role and methods for assessing the financial position and performance;
3. briefly characterize the selected organizations;
4. to analyze the financial condition of the two selected organizations;
5. formulate the main directions for improving financial analysis indicators;
6. offer recommendations for improving the financial results of the selected companies.

### **2.2 Methodology**

Methodological basis of the study. Methodology for analyzing databases of economics, specialized publications and other written or source sources. The practical part of the dissertation will be based on information obtained from the published annual reports of selected companies. Vertical and horizontal analysis, analysis of financial reporting ratios to assess financial receipts and performance of companies, as well as to prepare the practical part of the work. Methods of analysis, synthesis, comparison and deduction will be used to formulate the conclusions of the dissertation.

The data used in the dissertation was collected from the consolidated financial statements of PJSC Cherkizovo Group and CJSC Mikoyanovsky Meat Processing

Plant, prepared in accordance with International Financial Reporting Standards (IFRS) for 5 years from 2015 to 2019.

In addition, to analyze specialized reports, the standard regulatory framework and online sources in the accounting report.

### **3 Literature Review**

This chapter discusses all the theoretical aspects of the subject area, namely: the essence, meaning and purpose of analyzing the financial condition of organizations; the role and methods of assessing the financial position and performance; application of International Accounting Standards IFRS in Russia as the basis for the formation of reporting indicators.

#### **3.1 Theoretical aspects of assessing the financial performance of enterprises**

First, it should be noted that the process of evaluating the financial position and performance of financial statements to understand and assist in making decisions related to business operations and strategies is referred to as "financial analysis".

In other words, financial analysis is the use of financial statements to analyze the financial position and performance of a firm, as well as to assess current and forecast financial performance in the future [5].

Financial analysis, depending on the goals and users of information, is divided into: external financial analysis and internal financial analysis.

The purpose of external financial analysis is to assess the organization, its financial stability, solvency and reliability.

Users of external financial analysis are usually divided into users with direct financial interest and users with indirect financial interest. For users with a direct financial interest, the goal is the possibility of making a profit from investments in this organization, so their interest is primarily directed to the financial results and financial condition of the organization. Examples of such users include: credit institutions, investors.

External analysis is carried out by an analyst who is an outsider (external) person for this organization, it can be: auditors, regulatory authorities, investors, and others [12].

The purpose of internal financial analysis is to determine the systematic flow of funds, to ensure a sufficient amount of working and non-current assets for the

normal functioning of the enterprise, as well as predicting the likelihood of bankruptcy and maximizing profits.

Users of internal financial analysis are considered to be users whose interest is primarily directed not to the financial condition of the organization, but to its internal financial reserves, solvency, liquidity, management efficiency. Users with an interest in internal financial analysis include: tax and statistical authorities, shareholders of the organization, owners, counterparties and suppliers, as well as buyers.

Internal financial analysis is carried out directly to the employees of the organization, represented by leaders and managers [14].

The source of information for financial analysis, both external and internal, is the organization's financial statements.

Firms and interest groups such as: managers, shareholders, creditors, suppliers and others seeking to answer important questions such as:

1. What is the financial position of the firm at this point in time?
2. What are the financial performance of the company for a certain period?

These questions can be answered through the process of assessing the financial position and performance of the company. This process involves the use of financial statements.

Usually, the financial position is reflected in the report - the balance sheet, which reflects the financial position of the company at the end of the financial year. A position statement helps to identify and understand a firm's total assets, liabilities, and equity. Users can understand the strengths and weaknesses of a concern through a position statement.

Financial ratios are used to measure how well a firm can use a resource from its business model and generate profits. As general indicators, you can evaluate the overall financial condition for a certain period, and can also be used to compare similar firms in the same industry. Financial results are reflected in the income statement and other reports such as the cash flow statement. The profit and loss statement provides information on the financial results of the company's economic

activities for a certain period of time. It reports how much income the company received during the period and what expenses it incurred in connection with the receipt of this income. On the other hand, financial performance information can help users understand the profit that a business has made from its resources and shows how efficiently and effectively they have been managed, and provides a better basis for evaluating past and future performance of a business than information on cash receipts and payments [16].

As a rule, the financial position and results of operations are reflected in the financial statements, which helps the reader to absorb useful information about the company's finances in the decision-making process. Analysis of the financial position of the company on the basis of the balance sheet allows you to predict the possible financial problems of the company, make strategic business decisions. Through the assessment of financial performance, managers can understand the company's position in the industry and develop marketing, business strategies and financial strategies that will help the company achieve business goals and realize the vision and mission of the business.

The main tasks of analyzing the financial condition of an enterprise are: determining the quality of the financial condition, studying the reasons for its improvement or deterioration over the period, preparing recommendations to improve the financial stability and solvency of the enterprise [13].

It is common for all enterprises to achieve a planned use of invested resources in order to create, over time, a reasonable added value that can cover all the resources spent and provide an acceptable level of income. In this regard, only financial analysis is able to comprehensively explore and evaluate all aspects and results of cash flows, the level of relations associated with cash flows, as well as the possible financial condition of the enterprise.

Financial analysis should be used as a tool to justify short-term and long-term economic decisions, as a means of assessing the quality of management and as a way to predict future results.

Features of financial analysis are as follows:

- the plurality of subjects of analysis (users of information);
- a variety of goals and interests of the subjects of analysis;
- availability of standard methods, accounting and reporting standards;
- orientation of the analysis to the public and internal reporting of the enterprise;
- maximum openness of the results of the analysis for users of information about the activities of the enterprise [12].

Financial analysis has its own objects and subject of study. The objects of research are business entities (enterprises, firms, organizations). The subject of financial analysis is the totality of the analyzed financial relations, financial resources and their flows, cause-and-effect relationships and methods for their study.

The composition and content of financial statements is currently regulated by the following regulatory documents:

- Federal Law of December 06, 2011 № 402-FZ «On Accounting», with subsequent amendments and additions;

- Regulations on accounting and financial statements of the organization (PBU 4/99), approved by order of the Ministry of Finance of the Russian Federation of July 06, 1999 № 43n with subsequent changes and additions;

- Chart of accounts for financial and economic activities of organizations, approved by order of the Ministry of Finance of the Russian Federation of October 31, 2000 № 94n with subsequent changes and additions.

The Federal Law «On Accounting» contains the most general provisions regarding reporting. In accordance with the Federal Law «On Accounting», the Regulation on Accounting and Accounting in the Russian Federation and the Accounting Regulation “Accounting Statements of an Organization” (PBU 4/99), the annual financial statements of organizations consist of:

- 1) balance sheet (form № 1);
- 2) report on financial results (form № 2);
- 3) annexes to the balance sheet and income statement:

- statement of changes in equity (Form № 3);
- report on changes in cash (Form № 4).

The financial condition depends on all aspects of the enterprise:

- implementation of production plans;
- reduce the cost of production and increase profits;
- growth of production efficiency;
- improvement of relationships with suppliers of raw materials and materials, buyers of products, improvement of settlement processes [12].

In market conditions, financial analysis is one of the main tools of financial management of enterprises. In order for an enterprise to be able to survive in a highly competitive environment and be profitable, management needs to master the methodology of financial analysis, have a certain information base for its implementation and qualified analysts to implement this methodology in practice.

In Russia, IFRS accounting standards were already adopted at the end of 2011, and since the beginning of 2012 they have become mandatory in accordance with the Federal Law. IFRS standards are mandatory for consolidated financial statements. The company's other separate financial statements must be prepared in accordance with Russian Accounting Standards.

A company that is not included in any group, but is recognized by the Federal Law of December 26, 1995 № 208-FZ «On Joint Stock Companies» with subsequent amendments and additions as consolidated financial statements, for example: some banks, insurance companies must be prepared in accordance with IFRS standards. All Russian companies that trade on the domestic market and trade on the exchange are required to use IFRS standards in their financial statements, with the exception of banks with a basic license, which do not have subsidiaries and are required to prepare financial statements in accordance with the rules of the Central Bank of the Russian Federation, which similar to IFRS standards. For companies that are traded on a stock exchange, but are presented in the financial statements as a separate company, unconsolidated financial statements are not required to be prepared in accordance with IFRS [14]. For foreign companies operating in Russia, the situation



is almost the same. If the company is public and uses consolidated financial statements, they must be prepared in accordance with IFRS standards. If a foreign company uses US GAAP, Japan GAAP or other internationally recognized standards, then this is allowed for use in the Russian Federation. Currently, IFRS standards are part of the Russian accounting system, which is spelled out in Federal Laws 208-FZ on consolidated financial statements and 402-FZ on accounting. Adoption or adaptation of new IFRS rules takes place in two stages.

The first is NOFA's technical assessment of IFRS standards. NOFA is a national organization for accounting and reporting standards, which is an independent organization established by the Ministry of Finance.

The second stage is administrative. The Russian government publishes approvals of new IFRS standards approved by the Ministry of Finance jointly with the Central Bank of Russia and the Ministry of Justice of Russia.

IFRS establishes general requirements for financial statements, including how they should be structured, the minimum requirements for their content. A complete set of financial statements, including a statement of financial position, a statement of profit or loss and other comprehensive income, a statement of changes in equity and a statement of cash flows. IFRS does not prescribe the format of the statement of financial position [12]. Assets can be presented as short-term and then non-current, or vice versa, and liabilities and equity can be presented as short-term, then non-current, then equity, or vice versa.

Presentation of net assets (assets less liabilities) is allowed. In the income statement, expenses should be analyzed either by their nature or by function. If an entity classifies by function, additional disclosures should be made about the nature of the expense, including minimum depreciation and employee benefit costs.

Russian Accounting Standards (RAS) are regulated by the Federal Law on Accounting № 402-FZ dated December 6, 2011 and are mandatory for use on the territory of the Russian Federation. Information obtained from financial statements prepared in accordance with RAS is necessary for internal users of financial statements (managers, founders, participants and owners of the organization's

property) to make economically sound decisions in the course of business activities, as well as for external users (investors, creditors, state executive bodies and etc.). This information is also used by the tax authorities for: fiscal purposes, establishing the correctness of accounting, calculating taxes and fees [8].

A distinctive feature of accounting in Russia is its strict regulation. The state regulates the national accounting system with the help of a number of legal acts that are mandatory for execution. In turn, organizations, guided by the requirements of the regulator, form a package of local acts to regulate the internal accounting process, based on industry specifics, business conditions, structure, management needs and other factors.

In order to reduce the accounting burden and reduce labor costs, Russian legislation provides for certain preferences for individual business entities. So, in accordance with Federal Law № 402-FZ, individual entrepreneurs (IEs) have the right to completely refuse to maintain accounting records if they carry out accounting for taxable items in the manner prescribed by tax legislation [11].

For organizations, there are no opportunities for exemption from accounting. All legal entities, regardless of their form of ownership, size, industry, business structure and applicable tax regime, are required to maintain accounting records and prepare financial statements.

However, some of them have the right to carry out these procedures according to a simplified scheme. Such enterprises include non-profit organizations, participants in the Skolkovo project, and most of the small businesses.

These economic entities are allowed to apply a simplified accounting procedure, including: use an abbreviated chart of accounts; do not take into account individual requirements of RAS and do not apply some RAS as a whole; generate financial statements in a reduced volume, presenting relevant information on groups of articles without detailing them (Table 1).

**Table 1 - Comparison of Russian accounting standards and IFRS**

	IFRS	RAS
Financial periods	Comparative information for the previous year must be presented for all financial statements.	Comparative information must be provided for the previous two years for the balance sheet and for the previous one year for the rest of the financial statements.
Required balance sheet and income statement format	According to IFRS standards, there are no standards for the balance sheet and income statement, but there are requirements for the minimum number of items.	PBU 4/99 «Accounting statements of an organization» and Order No. 66n “Forms of financial statements of an organization” describe all the requirements for the preparation of a balance sheet and a profit and loss statement.
Cost classification	According to IFRS standards, a company cannot present expenses either by function or by nature. But if you choose according to the purpose, then the nature of the costs must be indicated in the notes.	In accordance with Russian accounting standards, all expenses must be classified by function in the financial statements and described in an explanatory note.
Extraordinary items in the income statement	Not allowed in the income statement.	Extraordinary items must be presented as other income or other expenses in the income statement and may be presented in the notes to the financial statements of income if they are material.
Number of periods reported in the report (in years)	The third year is required as an early comparative period, or if the company applies a new policy or makes some reclassification affecting the accounts, then a balance sheet of 3 years is required.	3 years should always be presented in the financial statements of income as a comparison to the previous year.

Source: compiled by the author himself.

In accordance with Russian accounting standards, the annual report must include: balance sheet, income statement and explanatory notes to all reports, while in accordance with IFRS standards, the annual report must include: statement of financial position, income statement, as well as statement of comprehensive income.

In RAS, changes in equity must be reported in the notes to the balance sheet, while under IFRS, changes in equity must be presented as a separate statement.

### **3.2 The main methods of analyzing the financial condition of the enterprise**

In accordance with the main purpose and objectives of assessing the financial position and performance, we can assume that it plays a very important role in the successful functioning of the enterprise.

Financial analysis of an enterprise is one of the main prerequisites not only for successful financial management, but also for business management. The efficient operation of an enterprise requires accurate and timely management decisions, taking into account changes in the business, based on an analysis of current operating and financial activities.

The results of the analysis allow us to highlight the main problems that the company's management should pay attention to. Thus, a company's management may be aware that a change in the current business policy, accounting policy or marketing policy is needed, or a restructuring is needed, and through regular financial analysis, can determine the most useful measures to ensure the company's success and future performance.

Of particular note is the role of financial reporting, in particular with regard to the multidimensional measurement of property resources, performance, cash flows (financial indicators), as well as various estimates and judgments, including assessment of effects, identification of risk factors and specification of a threat.

The methodological basis for the analysis of financial results in the conditions of market relations is the model of their formation and use adopted for all enterprises, regardless of the organizational and legal form and form of ownership.

Like any kind of analytical work, the application of financial analysis methodology is quite subjective. However, it is possible to formulate some general principles and the sequence of its implementation.

Financial analysis can be performed in four steps:

I stage. Preliminary financial analysis.

II stage. In-depth financial analysis.

III stage. Generalization of the results of financial analysis, turning into the development of recommendations aimed at improving financial results and improving the financial condition of the organization.

IV stage. Forecasting financial results and financial condition of the organization.

The purpose of the preliminary financial analysis is a clear and simple (in terms of execution time and complexity of the implemented algorithms) assessment of the financial condition of the organization.

In the process of performing a preliminary financial analysis of the organization's activities, as a rule, there are three following stages:

- 1) preparatory stage;
- 2) a preliminary review of financial statements;
- 3) calculation and analysis of the most important analytical indicators.

The preparatory stage is reduced to a visual and simple accounting check of financial statements on formal grounds and in essence (checking the completeness of financial statements, correctness and clarity of filling, availability of all necessary details, arithmetic calculations and basic control ratios), as well as analytical linking and regrouping of balance sheet items to make it more convenient for analysis (building the so-called analytical or reclassified balance sheet).

A preliminary review of financial statements is associated with familiarization with the auditor's report and explanatory note, assessment of qualitative changes in the financial condition of the organization over the past period, as well as with the study of the impact of macroeconomic factors on changes in financial statements.

### **3.2.1 Horizontal and vertical analysis**

The purpose of the horizontal and vertical analysis of financial statements is to visually present the changes that have occurred in the main items of the balance

sheet, income statement and statement of cash and help the company's managers decide how to continue their activities.

Horizontal analysis consists in comparing the financial data of the enterprise for the past two periods (years) in relative and absolute form.

The analysis technology is quite simple: sequentially in the second and third columns data on the main balance sheet items at the beginning and end of the year are placed. In foreign

In practice, end-of-year data are placed first. Then, in the fourth column, the absolute deviation of the value of each balance sheet item is calculated. The last column defines the relative change in percentage of each item.

Vertical analysis allows you to draw a conclusion about the structure of the balance sheet and income statement in the current state, as well as analyze the dynamics of this structure. The technology of vertical analysis is that the total amount of the enterprise's assets (when analyzing the balance sheet) and revenue (when analyzing the income statement) is taken as one hundred percent, and each item of the financial report is presented as a percentage of the accepted base value.

### **3.2.2 Coefficient analysis**

The calculation and analysis of the most important analytical indicators is the most important stage of the preliminary financial analysis (table 1). At this stage, as a rule, based on the data of the most significant forms of financial statements (balance sheet and income statement), the most important indicators for assessing the financial condition of the organization are calculated and analyzed in the following areas: analysis of the property situation, analysis of financial stability, analysis of solvency and liquidity, analysis of business activity.

**Table 2 - Set of analytical indicators for preliminary financial analysis**

Direction of analysis of the financial condition	Analytical indicators
1. Analysis of property status	1. Property dynamics 2. Share of current assets in property 3. The share of cash and short-term financial investments in current assets
2. Analysis of financial stability	1. Financial independence ratio 2. Equity ratio 3. Equity mobility ratio
3. Analysis of solvency and liquidity	1. Investment ratio 2. Absolute liquidity ratio 3. Quick liquidity ratio 4. Current liquidity ratio
4. Business activity analysis	1. Turnover ratio of current assets 2. Asset turnover ratio 3. Profitability of sales 4. Return on assets 5. Return on equity

Source: compiled by the author himself.

The main results of the preliminary financial analysis, as a rule, are drawn up in the form of a small text report, which is a preliminary conclusion on the financial condition of the organization.

The purpose of an in-depth financial analysis is a fairly detailed description of the financial results and financial condition of the organization for the past reporting period, as well as the possibilities of their change in the short and long term. It is carried out on the basis of a database of all forms of financial reporting and accounting, concretizes, expands and supplements certain areas (procedures) of preliminary financial analysis.

At the initial stage, an analysis of the property and the sources of its formation should be carried out. This analysis allows assessing the degree of financial dependence of the enterprise on borrowed sources, the level of its liquid assets and possible solvency, assessing its financial well-being based on the dynamics of retained earnings. In particular, by the ratio of own and borrowed sources of financing, one can judge the degree of financial independence and the level of

financial risk in the implementation of the policy of financing the activities of the enterprise.

Comparison of the sections of liabilities and assets of the balance sheet allows us to establish from what sources non-current assets were formed, what was the source of the formation of current assets and how this affected the financial stability of the enterprise. For analysis, based on the data of the balance sheet, an aggregated balance sheet is compiled, in which balance sheet items are grouped in order to carry out horizontal and vertical analyses. In addition, a more detailed analysis of individual groups of articles is carried out.

The next stage of financial analysis is the analysis of liquidity and solvency of the enterprise. Analysis of the liquidity of the balance sheet consists in comparing the assets of the asset, grouped by the degree of their liquidity and arranged in descending order of liquidity, with the liabilities of the liability, grouped by their maturity and arranged in ascending order of maturity.

An analysis of the financial stability of an enterprise allows you to get an idea of its true financial position and assess the financial risks associated with its activities. In a broad sense, the financial stability of an enterprise is commonly understood as its ability not only to maintain the achieved level of business activity and business efficiency, but also to increase it, while guaranteeing solvency, increasing investment attractiveness within the acceptable level of risk. At the same time, the enterprise must maintain the structural balance of assets and liabilities in dynamically changing market conditions, as well as under the influence of internal factors.

Next, it is necessary to evaluate the effectiveness of the enterprise. Profitability indicators are important for assessing the effectiveness of the economic activity of each enterprise.

Profitability is one of the most important indicators characterizing the efficiency of the enterprise. Profitability more fully than profit characterizes the final results of management, since its value shows the ratio of the effect to the resources used.



Let's consider the most commonly used indicators for evaluating profitability: profitability of gross profit, profitability of sales, return on equity, return on assets.

The gross profit margin is the percentage obtained by comparing a company's gross profit with its net sales (Formula 1).

Gross Margin: Gross margin shows the percentage of revenue available to cover the cost of goods sold. If a product has a competitive advantage (such as superior branding, better quality, or exclusive technology), the company is more able to charge more for it. In terms of costs, a higher gross margin can also indicate that a company has a competitive advantage in product costs.

$$\text{Gross Profit Ratio} = \frac{\text{Gross profit}}{\text{Volume of sales}} * 100 \quad (1)$$

Net profit margin: net profit or net income is calculated as revenue minus all expenses (Formula 2). Net profit margin is calculated by finding net profit as a percentage of revenue. Typically, net income margin measures how well a company can convert its earnings into profit.

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Volume of sales}} * 100 \quad (2)$$

Return on assets (ROA): the ratio calculates the level of income received from the assets used by the enterprise (formula 3). This is an important overall performance measure because it takes into account the level of income in relation to the level of assets used in the business.

$$\text{ROA} = \frac{\text{Net profit}}{\text{Total Assets}} * 100 \quad (3)$$

Return on equity (ROE) is a ratio equal to the ratio of net income to the total cost of capital of an organization (formula 4). This indicator is a key one for large investors, since it is the analysis of return on capital that makes it possible to assess how effectively the funds are invested.

$$\text{ROE} = \frac{\text{Net profit}}{\text{Own capital}} * 100 \quad (4)$$

Both ROA and ROE are important indicators of a firm's profitability. As with other ratios, profitability ratios should be assessed individually and as a group to understand what drives profitability.

Activity ratios are also known as asset utilization rates or operating efficiency ratios to measure how well a company manages various activities, especially how effectively it manages its various assets [17]. Activity ratios are analyzed as indicators of current operating activity, how efficiently the company uses assets. Overall activity ratios include:

The asset turnover ratio reflects the level of investments in all assets (including working capital, fixed assets and equipment, as well as intangible assets) in relation to revenue (formula 5).

$$\text{Asset turnover ratio} = \frac{\text{Proceeds}}{\text{Average annual value of assets}} \quad (5)$$

Equity turnover measures the share of sales in a firm's equity. It reflects the effectiveness of the company's capital management (formula 6).

$$\text{Capital turnover ratio} = \frac{\text{Proceeds}}{\text{Average cost of capital}} \quad (6)$$

The receivables turnover shows how many times a year the company received from counterparties an amount that is equal to the average balance of receivables (formula 7).

$$\text{Receivables turnover ratio} = \frac{\text{Proceeds}}{\text{Average annual accounts receivable}} \quad (7)$$

Days Outstanding Sales (DSO) is a measure of the time required to collect receivables from customers (Formula 8). It will be influenced by the industry in

which the company is involved, the creditworthiness of customers, and even the countries in which the company operates.

$$DSO = \frac{\text{Number of days in the period (365 days)}}{\text{Receivables turnover}} \quad (8)$$

Liquidity analysis, which focuses on cash flows, measures a company's ability to meet its short-term obligations. Liquidity measures how quickly assets are converted into cash. Liquidity ratios also measure the ability to repay short-term liabilities.

The current liquidity ratio measures a company's ability to repay short-term liabilities with current assets. This liquidity ratio calculates the ratio of current assets (which will be converted to cash within one year) to current liabilities (which require payment of cash within one year).

Thus, he compares the level of assets available to meet short-term obligations (formula 9).

$$\text{Coefficient of current liquidity} = \frac{\text{Current assets}}{\text{Short-term liabilities}} \quad (9)$$

The quick liquidity ratio, also known as the acid check ratio, is a liquidity ratio that measures the ability of an individual or company to pay current liabilities [16].

The quick ratio is a more conservative measure of liquidity than the current ratio because it removes holdings from other assets that are easier to convert to cash (Formula 10).

$$\text{Fast Liquidation Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Short-term liabilities}} \quad (10)$$

The absolute liquidity ratio measures a company's ability to pay its obligations in cash. It measures the liquidity of an individual enterprise in a crisis situation. Only short-term financial investments and funds that are in high demand in the market are included (formula 11).

$$\text{Coefficient absolute liquidity} = \frac{\text{Cash and cash equivalents}}{\text{Short-term liabilities}} \quad (11)$$

Using ratio analysis in the process of evaluating the financial position and performance of the firm, enables the manager to understand the financial performance of the company in comparison with competitors or in relation to the industry in order to develop a business strategy, predicting the expected financial position, profit, risk and growth [7].

Thus, we can say that the analysis of financial results is one of the most important aspects of the study of the economic activity of the enterprise. Studying the composition and structure of profits, conducting a factor analysis of the result from sales, studying profitability indicators are necessary in order to identify the correspondence between internal reserves and the organization's capabilities to ensure competitive advantages and meet future market needs, that is, economic forecasting.

### **3.3 Characteristics of the companies**

The meat industry is one of the most important industries in the economy, processing livestock and poultry. In Russia, in recent years there has been a steady trend towards an increase in demand for meat-packing products. The growth in consumption indicates an improvement in the quality of living standards in the country.

The meat industry is an important segment of the agro-industrial complex, closely related to poultry and livestock. The state of the country's agriculture directly affects the development of industry. The rise in prices for grain and feed, the decrease in the number of poultry and livestock leads to an increase in the cost of meat products.

Growth in meat consumption accelerated to 1.1% in 2020 after decelerating in 2018-2019. Stocks of meat products at the end of the year decreased for the first

time after 3 years of growth. Despite the reduction in the purchasing power of Russians, demand turned out to be strong due to the stimulating policy of the state and the absence of external tourism. The conditions of self-isolation led to a reduction in supplies to the HoReCa segment, and the reduction in purchasing power stimulated a redistribution of consumption towards cheaper products, in particular, the demand for sausages increased by 3.8%.

Export flows of meat products have been growing steadily since 2013. According to Rosstat, in 2020, exports increased by 46% to 609 thousand tons. China was the largest buyer with a 37% share. In February 2019, China opened the doors to the supply of Russian poultry, and in 2020, the first volumes of cattle meat (cattle) were sent to China. Vietnam occupied the second line in the list of importers with a share of 16% due to the opening of the market for Russian pork. The TOP-5 also includes Ukraine, Hong Kong and Belarus.

### **3.3.1 Brief description of PJSC «Cherkizovo Group»**

PJSC «Cherkizovo Group» (hereinafter referred to as the Group) is the largest meat producer in Russia and one of the leading processors. The company ranks first in the chicken market, second in the turkey market and fourth in the pork market. The Group is focused on the production of high-quality products that take into account consumer preferences.

The production assets of the «Cherkizovo Group» are located in the most densely populated part of the Russian Federation — the Central Federal District, the region with the highest purchasing power in the country. The company is also present on the market of the Siberian Federal District. This location of the production facility allows more than 80% of the Russian population to have access to the company's products.

The main categories of products are products of deep processing: various types of sausages, smoked meat, meat delicacies, cold cuts.

The main enterprises are meat processing plants (MPZ): Cherkizovsky MPZ in Moscow and enterprises in Penza, Ulyanovsk, the Kaliningrad region and Kashira.

Cherkizovo Group's portfolio includes 16 brands, including the leading brands in the sausage and poultry market: Cherkizovo, Petelinka, Chicken Kingdom, Pava-Pava. The company continues to develop a range of high value-added products. In 2020, its share in revenue was 64%. The company launches new products in response to changing consumer preferences.

PJSC «Cherkizovo Group» is a public joint stock company registered in the Russian Federation. Legal address of the Company: st. Cherkizovskaya, 1, Topkanovo village, Kashira, Moscow region, Russian Federation, 142931.

As at 31 December 2019 and 2018, the Group comprised the following main entities (table 3).

**Table 3 - Composition of PJSC «Cherkizovo Group» 2018-2019**

Company name	Organizational and legal form	Kind of activity	% 31.12.20 19	% 31.12.20 18
JSC «Cherkizovsky meat processing plant» (ChMPZ JSC)	Joint-stock company	Meat processing plant	95%	95%
LLC PKO «Domestic Product»	Limited Liability Company	Meat processing plant	95%	95%
JSC «Cherkizovo-Kashira»	Joint-stock company	Meat processing	95%	95%
JSC «Petelinsky poultry farm»	Joint-stock company	plant	88%	88%
JSC «Vasilyevskaya poultry farm»	Joint-stock company	Poultry	100%	100%
JSC «Chicken Kingdom»	Joint-stock company	poultry farming	100%	100%
JSC «Chicken Kingdom Bryansk»	Joint-stock company	poultry farming	100%	100%
JSC «Mosselprom»	Joint-stock company	poultry farming	-	100%
«Lisko Broiler» LLC	Limited Liability Company	poultry farming	100%	100%
JSC «Altaysky Broiler»	Joint-stock company	poultry farming	100%	100%
OOO «Trade House Cherkizovo»	Limited Liability Company	poultry farming	88%	88%
LLC «Cherkizovo-Pig Breeding»	Limited Liability Company	Trade company	100%	100%

LLC «Cherkizovo-Plant»	Limited Liability Company	Pig breeding	100%	100%
«Agrarian Group» LLC	Limited Liability Company	Growing crops	-	100%
JSC «Lipetskmyaso»	Joint-stock company	Growing crops	-	100%

Source: compiled by the author himself.

The activities of PJSC Cherkizovo Group cover all links in the value chain - from the production of grain crops and mixed fodder and livestock rearing to the production of meat products and their sale. The production facilities of PJSC Cherkizovo Group include eight meat processing plants (including a meat processing plant operated by an associate of Samson - Foods), thirteen full-cycle pig breeding sites, twenty-one pig breeding sites for growing and fattening, and two pig farms for breeding sows, nine poultry complexes (including the Belaya Ptitsa production complex, which is currently operated by PJSC Cherkizovo Group under a lease agreement), nine feed mills and about 300,000 hectares of agricultural land.

The distribution network and assets of the Group are spread over the European part of Russia and Siberia.

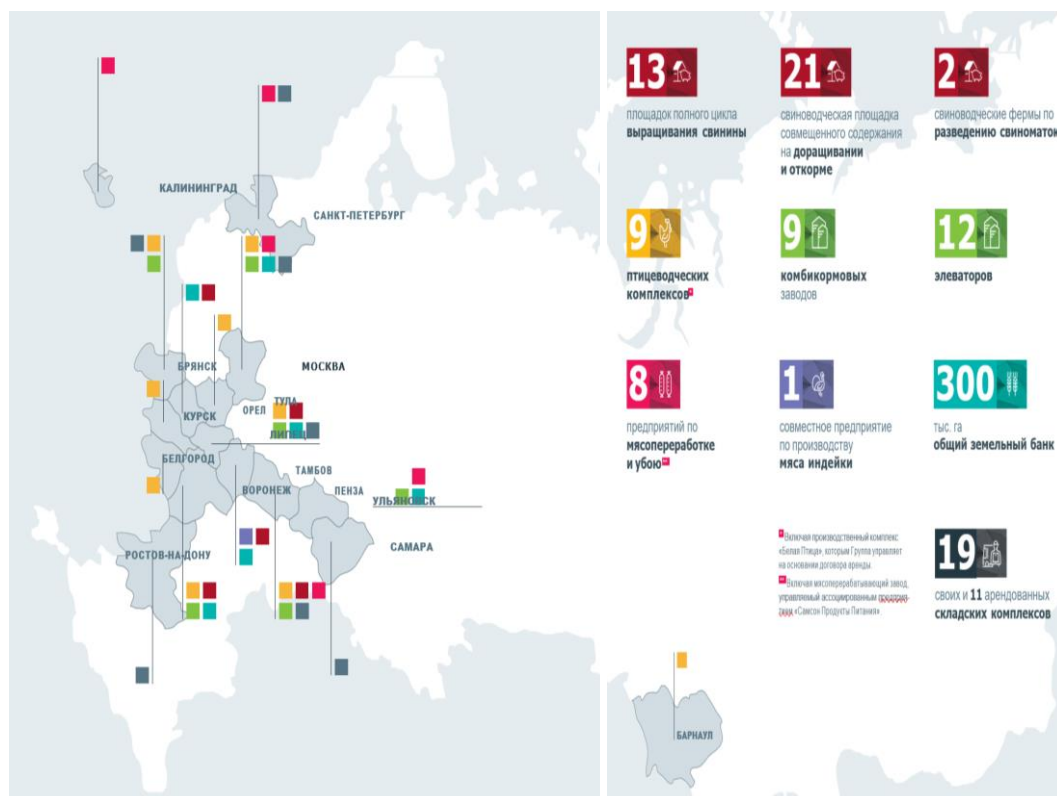


Figure 1 – Distribution network and assets of PJSC «Cherkizovo Group»

The accounting records of the Group's entities are maintained in accordance with the laws and regulations of accounting and reporting in the jurisdictions in which these entities are established and registered. Accounting principles and reporting standards in force in these countries may differ materially from generally accepted principles and standards consistent with IFRS.

The Group's activities are divided into five segments based on the types of products produced: poultry production, pork production, meat processing, grain and feed production. The Group's activities are primarily carried out in the Russian Federation. A single segment manager is responsible for the activities of each segment and makes operational decisions. The chief operating decision maker (CEO) is responsible for allocating resources and evaluating performance for each segment.

The meat processing segment includes the production of two product lines: Sausages and Pork. The Sausages product line is represented by a wide range of processed meat products, including sausages, hams, sausages and others, and the Pork product line includes the production and sale of pork meat.

The Poultry segment is engaged in the breeding, rearing and processing of poultry, and also sells chilled and frozen poultry products.

The pig segment includes breeding, raising and selling live pigs.

The Cereals segment is engaged in the cultivation of wheat and other cereals.

The Feed segment produces feed for internal use by the pig and poultry segments.

In a difficult socio-economic environment, Cherkizovo Group's revenue in 2020 reached its highest level in the company's history, reaching 128.8 billion rubles, which is 7% more than in the previous year. The growth was associated with a change in the sales structure in favor of high value-added products and export sales, as well as a reduction in costs at all stages of production.

Adjusted EBITDA increased by 29% to RUB 26.6 billion under the influence of the changed revenue structure. Adjusted EBITDA margin improved by 350 basis points to 21%. The Group's net profit more than doubled to RUB 15.2 billion, which



allowed the company to significantly increase its dividend payout for the year to RUB 182.79 per share.

Cherkizovo Group prepares the IMPM (Industrial Meat Supply Index) on a monthly basis based on statistics from Rosstat, the Federal Customs Service of the Russian Federation and the Eurasian Economic Commission. During 2020, the IPMI increased by 1%.

The supply of pork increased, while that of poultry and beef decreased. Pork import volumes decreased by 93% due to the abolition of duty-free pork import quotas and the introduction of a 25% duty on pork imports from January 1, 2020. At the same time, pork exports more than doubled - the main export destinations were the countries bordering Russia and the countries of Southeast Asia.

### **3.3.2 Brief description of CJSC «Mikoyanovsky Meat Processing Plant»**

CJSC «Mikoyanovsky Meat Processing Plant» (hereinafter referred to as «Mikoyan») is the oldest meat processing enterprise in the country, its history goes back more than 210 years. To date, Mikoyanovsk Meat Processing Plant is the undisputed leader of the domestic meat processing industry, having no equal in terms of competitiveness of products on the market, the pace of modernization of the production base and the effectiveness of capital investments. According to the results of an independent study of the economic publication "Expert", Mikoyanovsk Meat Processing Plant is included in the rating of two hundred leading companies in terms of sales volume and, at the same time, ranks 10th among them in terms of growth rates.

Since 1998, the Mikoyanovsk Meat Processing Plant has been part of the EXIMA Corporation, the official food supplier for Moscow. Exima's financial support allowed Mikoyan to significantly strengthen its position in the domestic market. Thanks to the marketing strategy, the geography of Mikoyan's regional presence continues to expand rapidly, new representative offices are opening throughout Russia.

Capacities and modern technologies allow the meat giant to produce more than 400 tons of products per day. The range of goods offered to the market today is 250 types of sausages and delicacies, as well as almost 40 types of meat and meat and vegetable canned food.

Location of the joint-stock company: 109316, Moscow, st. Talalikhina, 41, building 14.

The main activity is the production and wholesale of meat products.

CJSC «Mikoyanovsky Meat Processing» Plant is one of the 10 largest meat processing enterprises in the Russian Federation.

As of 12/31/2019, the average number of employees was 1,624 people, as of 12/31/2018 - 1,745 people.

Accounting is maintained by the accounting service, which is headed by the chief accountant.

The management structure consists of the director and the heads of departments and services directly subordinate to him: legal adviser, chief accountant, head of the PPO, personnel department, civil defense headquarters, chief engineer, heads of workshops, deputy director for economics, chief veterinarian.

Accordingly, the relevant departments, services, workshops and others are subordinate to these leaders.

There are no foreign economic services at the enterprise. The main economic services are PPO, supply, sales, marketing, personnel departments. Their main functions are: collecting information in relevant areas, compiling reports, analyzing information, making management decisions, and planning further activities. The planning and production department (PPO) is engaged in planning the volume of production, the range of products. The accounting department keeps records, prepares reports, works with tax authorities and more. All departments are closely interconnected: the accounting department keeps records, shows the achieved results, the planning department analyzes them, plans production based on these data, the sales department directly depends on the volume of output, since it needs

to be implemented, while depending on the situation on the market, the sales department he can determine the required volume of sales, selling prices.

For a successful production process, continuous production rationing is necessary, which is what PPO does. You also need uninterrupted supply, which is what the sales department does. When making a management decision, any department needs the help of a legal adviser; the personnel department is engaged in the selection of personnel. An important role is played by the marketing department, which is closely connected with other departments. He promotes products, advertises them, organizes exhibitions and tastings.

Information management is carried out with the help of almost universal computerization, which provides easy and quick access to information, an accelerated accounting process.

In other words, the company uses a linear-functional organizational structure of management, that is, top-level managers receive recommendations from the heads of functional units, transfer them to lower-level line managers for execution. Such a management system ensures the adoption of qualified and effective management decisions.

## 4 Practical Part

The practical part of the thesis is based on the cases of 2 selected companies operating in the meat industry in different regions of Russia. In the practical part, the data was collected from the consolidated financial statements of PJSC «Cherkizovo Group» and CJSC «Mikoyanovsky Meat Processing Plant», prepared in accordance with International Financial Reporting Standards (IFRS) for 5 years from 2015 to 2019.

### 4.1 Analysis of the financial position and financial results of PJSC Cherkizovo Group

#### 4.1.1 Vertical and horizontal analysis of assets and liabilities of PJSC Cherkizovo Group

In this chapter, the author will analyze the financial position of PJSC Cherkizovo Group by characterizing the balance sheet, as indicated in the practical part.

First, we present a horizontal analysis of the balance sheet items that was applied to total assets in the period 2015-2019. in the balance sheet of PJSC Cherkizovo Group in the following table 4.

**Table 4 - Horizontal balance sheet analysis - Assets of PJSC Cherkizovo Group**

Balance - Assets (in millions of rubles)	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019		CAGR 2015- 2019
	variation		variation		variation		variation		variation		
	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	
Current assets	1267 4	46	(7244 )	-18	(1072 )	-3	16 297	51	(5983 )	-12	1,2%
Cash and cash equivalents	4 553	452	(4 559)	-82	(298)	-30	8 908	1264	(6 309)	-66	-12,2%
biological assets	492	5	883	9	854	8	3 829	33	892	6	13,5%
Short-term accounts receivable	1 574	21	(903)	-10	(1 358)	-17	1 431	21	(1 612)	-20	-7,6%
Stocks	6 090	68	(2 588)	-17	-271	-2	2 101	17	1 281	9	0,9%
Other current assets	(36)	-6	(78)	-13	0	0	28	5	(235)	-42	-14,5%
Fixed assets	7 602	13	5 870	9	13 378	18	13 236	15	2 253	2	10,9%
fixed assets	6 486	12	4 020	7	11 019	17	7 453	10	(75)	0	8,2%
Non-current biological assets	(147)	-8	309	19	362	19	385	17	(338)	-13	9,6%

Long-term investments	720	47	970	43	665	-2	391	33	2 169	55	30,2%
Other noncurrent assets	544	23	571	20	1 333	38	5 008	7	498	10	37,1%
Total Assets	20 276	23	(1 374)	-1	12 307	12	29 533	25	(3 730)	-3	7,6%

Source: compiled by the author himself

The results of Table 4 show that the overall trend of the company's assets to the base year has been increasing, and compared to previous years, the slope of this growth trend was the lowest in the last year of 2019. For 2019, the author calculates a compound annual growth rate (CAGR) of total assets of approximately 7.6%, which is a high rate of asset growth in the meat industry. At the same time, the average annual growth rate of current assets is 1.2%, and for non-current assets - 10.9%. The main motivation for the growth of total assets comes from non-current assets, which is confirmed in Figure 2.

Non-current assets have a higher CAGR of 10.9% and are primarily other non-current assets, which are intangible assets, goodwill, debt receivables, non-current biological assets and investments in joint ventures and associates. In 2019, there was a reduction in fixed assets due to depreciation, while the company did not purchase new fixed assets (table 5).

**Table 5 - Structure of assets of PJSC «Cherkizovo Group» for the period 2015 - 2019 (million rubles)**

Assets	2015	2016	2017	2018	2019
Cash and cash equivalents	5 561	1 002	705	9 613	3 304
biological assets	9 830	10 712	11 566	15 395	16 287
Short-term accounts receivable	8 961	8 058	6 700	8 131	6 519
Stocks	15 095	12 507	12 236	14 338	15 619
Other current assets	613	535	535	563	328
fixed assets	60 869	64 889	75 908	83 361	83 286
Non-current biological assets	1 618	1 927	2 289	2 673	2 335
Long-term investments	2 243	3 213	3 877	4 268	6 437
Other noncurrent assets	2 923	3 495	4 827	9 835	10 333
Total Assets	107 711	106 338	118 644	148 177	144 448

Source: compiled by the author himself.

Table 5 shows the upward trend in the total assets component. Accordingly, it can be seen that the highest growth rate of long-term investments and other non-

current assets shows that the strong external resources of PJSC «Cherkizovo Group» are the result of growth in income and the size of the organization.

To take into account fluctuations in the structure of assets during the study period, the author uses the vertical analysis method that was applied to the total asset, as shown in Table 6 below. Non-current assets have the largest share in total assets with 71% of total assets in 2019. The trend has been increasing the share of non-current assets over the years and, conversely, was to reduce the share of current assets. The shares of other current assets and long-term investments are insignificant. The increase in the share of inventories is the main reason for the increase in the share of working capital.

**Table 6 - Vertical balance sheet analysis - Assets of PJSC «Cherkizovo Group»**

Balance - Assets (%)	2015	2016	2017	2018	2019
Current assets	37	31	27	32	29
Cash and cash equivalents	5	1	1	6	2
Biological assets	9	10	10	10	11
Short-term accounts receivable	8	8	6	5	5
Stocks	14	12	10	10	11
Other current assets	1	1	0	0	0
Fixed assets	63	69	73	68	71
fixed assets	57	61	64	56	58
Non-current biological assets	2	2	2	2	2
Long-term investments	2	3	3	3	4
Other noncurrent assets	3	3	4	7	7
Total Assets	100	100	100	100	100

Source: compiled by the author himself.

The following table 6 shows the growth trend of capital items and liabilities in the period under review.

**Table 7 - Horizontal balance sheet analysis - Liabilities of PJSC «Cherkizovo Group»**

Balance - Liabilities (in millions of rubles)	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019		CAGR 2015- 2019
	variation		variation		variation		variation		variation		
	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	
Capital and reserves	2 610	5	891	2	(1 261)	-2	8 029	15	475	1	3,6%
Authorized capital	0	0	0	0	0	0	0	0	0	0	0,0%

Own shares repurchased from shareholders	(5)	0	(29)	0	(3 607)	-55	-53	-2	(100)	-3	-19,4%
Retained earnings (uncovered loss)	2 615	6	920	2	2 346	5	8 082	16	575	1	5,9%
long term duties	1 622	11	8 275	50	6 767	27	13 910	44	(675)	-1	28,1%
Loans and credits (long-term)	1 834	13	8 351	52	6 133	25	14 040	46	(1 461)	-3	27,9%
Other long-term liabilities	(212)	-27	(76)	-13	633	129	(130)	-12	786	79	33,1%
short-term obligations	16 044	73	(10 540)	-28	6 800	25	7 594	22	(3 529)	-8	0,2%
Loans and credits (short-term)	11 535	85	(10 970)	-44	5 289	37	4 758	25	(2 960)	-12	-4,1%
Accounts payable	4 509	54	430	3	1 512	11	2 836	19	(570)	-3	7,4%
Total Liabilities	20 276	23	(1 374)	-1	12 307	12	29 533	25	(3 730)	-3	7,6%

Source: compiled by the author himself.

Table 7 also shows the trend of annual growth of liabilities and capital, in which total liabilities increased by 7.6%, equity increased by 3.6%. This means expanding the scale of the business, that is, an increase in the number of meat processing plants, pig farms and poultry complexes.

Liabilities tend to decrease throughout the analyzed period; by the end of 2019, the growth rate of long-term liabilities was 28.1%, and short-term liabilities 0.2%. This is a favorable trend and indicates that the organization is paying suppliers' bills on time, is consistently able to pay salaries to employees, and is also able to cover its costs from its own funds without obtaining new loans and borrowings.

**Table 8 - The structure of liabilities of PJSC «Cherkizovo Group» for the period 2015 - 2019 (million rubles)**

Liabilities	2015	2016	2017	2018	2019
Authorized capital	0	0	0	0	0
Own shares repurchased from shareholders	6 566	6 537	2 930	2 878	2 777
Retained earnings (uncovered loss)	46 583	47 503	49 850	57 932	58 507
Loans and credits (long-term)	16 119	24 470	30 603	44 643	43 182
Other long-term liabilities	568	493	1 126	996	1 782
Loans and credits (short-term)	25 093	14 123	19 412	24 170	21 210
Accounts payable	12 782	13 212	14 723	17 560	16 990
Total Liabilities	107 711	106 338	118 644	148 178	144 448

Source: compiled by the author himself.

From the horizontal analysis of equity in Table 8, it is clear that the cost of equity and retained earnings increase year on year because PJSC «Cherkizovo Group» issues shares and pays dividends on shares. At the same time, there is a downward trend in long-term and short-term liabilities. At the end of the reporting period, loans and credits, both short-term and long-term, tend to decrease. This is due to the successful management and planning of financing their expenses.

To understand the structure of liabilities and capital, it is necessary to analyze the vertical analysis, which is presented in table 9.

**Table 9 - Vertical analysis of the balance sheet - Liabilities of PJSC «Cherkizovo Group»**

Balance - Liabilities (%)	2015	2016	2017	2018	2019
Capital and reserves	49	51	44	41	42
Authorized capital	0	0	0	0	0
Own shares repurchased from shareholders	6	6	2	2	2
Retained earnings (uncovered loss)	43	45	42	39	41
long term duties	15	23	27	31	31
Loans and credits (long-term)	15	23	26	30	30
Other long-term liabilities	1	0	1	1	1
short-term obligations	35	26	29	28	26
Loans and credits (short-term)	23	13	16	16	15
Accounts payable	12	12	12	12	12
Total Liabilities	100	100	100	100	100

Source: compiled by the author himself.

In general, the overall structure of capital and liabilities has changed over the years, but there have been no significant changes. The structure of liabilities mainly consists of equity and reserves of the organization, on average, not less than 40% of the total amount. In the structure of the company's borrowed capital, both long-term and short-term, each accounted for less than 30% throughout the entire period. Short-term liabilities make up a small share between 2015 and 2019 and tend to decline proportionally in 2019 due to the impact of debt collection policies and business scaling, as described above.



Last year, the structure of liabilities amounted to 71%, mainly the organization's own capital. At the same time, retained earnings amount to at least 40% of the total liabilities of the balance sheet. The company increased its charter capital by issuing additional shares.

At the next stage of financial analysis, it is necessary to analyze the statement of financial results of PJSC «Cherkizovo Group» using vertical and horizontal methods. Horizontal analysis of the income statement is an integral part of the analysis of financial statements. Results of horizontal analysis of the statement of financial results of PJSC «Cherkizovo Group» for the period 2015-2019 are presented in table 10.

**Table 10 - Horizontal analysis of the statement of financial results of PJSC «Cherkizovo Group» for the period 2015 - 2019, million rubles**

Indicator	2015/2016		2016/2017		2017/2018		2018/2019		CAGR 2015- 2019
	variation		variation		variation		variation		
	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	
Revenue (net) from the sale of goods, products (works, services)	6 208	8,18	8 240	10,04	14 183	15,70	14 259	13,64	11,85
Cost of sales of goods, products, works, services	7 502	13,23	2 536	3,95	8 560	12,82	15 578	20,68	12,51
Gross profit (loss)	(1 294)	-6,76	5 704	31,95	5 623	23,87	(1 319)	-4,52	9,83
Selling expenses	1 183	10,19	1 035	8,09	(206)	-1,49	4 236	31,09	11,36
Profit (loss) from sales	(2 478)	-32,89	4 670	92,37	5 829	59,93	(5 366)	-34,50	7,84
Interest receivable	58	20,28	(67)	-19,48	13	4,69	(47)	-16,21	-3,99
Percentage to be paid	2 373	173,85	(75)	-2,01	(396)	-10,81	1 217	37,25	34,63
Other income	298	0,00	(298)	-100,00	0	0,00	749	0,00	0,00
other expenses	(583)	-100,00	384	0,00	401	104,43	(785)	-100,00	-100,00
Profit (loss) before tax	(3 912)	-66,62	3 996	203,88	5 837	98,00	(5 096)	-43,21	3,34
Current income tax	73	0,00	235	321,92	(308)	-100,00	46	0,00	0,00
Net profit	(4 133)	-68,64	3 760	199,15	6 332	112,11	(5 329)	-44,48	2,52

Source: compiled by the author himself.

The results in this table show that the overall trend in revenue, expenses and net income to the base year is increasing compared to previous years. In particular, revenue has a CAGR of 11.85%, which is above the industry average. Revenue has

approximately doubled over the past 5 years, and «Cherkizovo Group» PJSC has always maintained high and stable revenue growth rates. General expenses in the period 2015-2019 had a CAGR of 12.51%, which is much higher than the change in revenue, and in contrast, general and administrative expenses had a lower CAGR of 11.36%. This suggests that the company has good control over general and administrative expenses.

The first component of the income statement is revenue. As can be seen from the results of Table 10, the organization saw a significant increase in revenue in 2019 by 14%, and the lowest growth in 2016 was only 8% due to the impact of swine flu reducing sales with a lower gross margin.

At the next stage of the scientific research, we will analyze in more detail the structure of income and expenses of the organization PJSC «Cherkizovo Group» (shown in Table 11).

**Table 11 - The structure of income and expenses of PJSC «Cherkizovo Group» for the period 2017 - 2019, million rubles**

Indicators	2017 год		2018 год		2019 год		Change 2019 to 2018		Change 2018 to 2017	
	(+/-)	sp.gr. %	(+/-)	sp.gr. %	(+/-)	sp.gr. %	(+/-)	sp.gr. %	(+/-)	sp.gr. %
Total income, including	90 594	100,0	104 790	100,0	119 751	100,0	14 961	14,3	14 196	11,9
from normal activities	90 317	99,7	104 500	99,7	118 759	99,2	14 259	13,6	14 183	11,9
operating income	277	0,3	290	0,3	243	0,2	-47	-16,2	13	5,3
non-operating income	0	0,0	0	0,0	749	0,6	749	0	0	0,0
Total expenses, including	84 638	100,0	92 997	100,0	113 243	100,0	20 246	21,8	8 359	7,4
expenses for ordinary activities	80 591	95,2	88 945	95,6	108 759	96,0	19 814	22,3	8 354	7,7
operating expenses	3 663	4,3	3 267	3,5	4 484	4,0	1 217	37,3	-396	-8,8
non-operating expenses	384	0,5	785	0,8	0	0,0	-785	-100,0	401	0
Ratio of income and expenses (total)	5 956	7,0	11 793	12,7	6 508	5,7	-5 285	-44,8	5 837	89,7
The ratio of income and expenses from ordinary activities	9 726	12,1	15 555	17,5	10 000	9,19	-5 555	-35,7	5 829	58,3

Source: compiled by the author himself.

Analyzing the structure of income and expenses of the organization, it is necessary, first of all, to note that income from ordinary activities during the entire analyzed period accounts for more than 99% of all income of the organization. It is due to this type of income that the organization covers its current expenses and generates profit.

So in 2019, compared to the previous year, the company's revenue in the reporting year increased by 14,259 thousand rubles, which indicates an improvement in the financial condition. The company, among other income, does not have interest receivable, as well as income from participation in other organizations.

The table shows that the costs of ordinary activities increased by 19,814 thousand rubles. This is due, first of all, to an increase in the cost of sales of the enterprise in the reporting year (2019). The opposite is observed for other expenses.

An analysis of the structure of expenses shows that in 2019, the main share of expenses was expenses for ordinary activities - 96%, while the share of other expenses is only 4%. This is a positive point, since it means that PJSC «Cherkizovo Group» is engaged in its core business, that is, it sells goods to the side.

#### **4.1.2 Ratio analysis of PJSC «Cherkizovo Group»**

The data in Table 12 show that at the end of the analyzed period, net profit decreased by 44.5% compared to 2018, which amounted to 5 billion rubles.

At the end of 2019, there is an increase in revenue, which indicates that the organization receives more income from its core activities.

Decrease in profit from sales is also not a favorable factor. This indicator indicates a decrease in the profitability of products and a relative increase in production and distribution costs of the analyzed company.

**Table 12 - Dynamics of profit indicators of PJSC «Cherkizovo Group» for the period 2015 - 2019, billion rubles**

Indicators	2015	2016	2017	2018	2019	Deviations			
						2019 to 2018		2018 to 2017	
						+/-	%	+/-	%

Revenue	76	82	90	105	119	14	13,6	43	56,53
Gross profit (loss)	19	18	24	29	28	-1	-4,5	9	45,51
Profit (loss) from sales	8	5	10	16	10	-5	-34,5	3	35,24
Balance of other income/expenses	-1	0	-0	-1	1	2	x	1	x
Profit (loss) before tax	6	2	6	12	7	-5	-43,2	1	14,05
Net profit	6	2	6	12	7	-5	-44,5	1	10,46

Source: compiled by the author himself.

**Table 13 - Structure and dynamics of the property of PJSC «Cherkizovo Group» and sources of financing for the period 2017 - 2019, million rubles**

Balance Articles	2017		2018		2019		Change over the period (2018 to 2017)			Change over the period (2019 to 2018)		
	(+/-)	in % to the balance currency	(+/-)	in % to the balance currency	(+/-)	in % to the balance currency	absolute	Relative	structural	absolute	Relative	structural
1	2	3	4	5	6	7	8	9	10	8	9	10
Fixed assets	86 902	73,25	100 137	67,58	102 391	70,88	13 235	15,23	-5,67	2 254	2,25	3,31
current assets	31 743	26,75	48 040	32,42	42 057	29,12	16 297	51,34	5,67	-5 983	-12,45	-3,31
Balance	118 644	100,00	148 177	100,00	144 448	100,00	29 533	24,89	0,00	-3 729	-2,52	0,00
Capital and reserves	52 780	44,49	60 809	41,04	61 284	42,43	8 029	15,21	-3,45	475	0,78	1,39
long term duties	31 729	26,74	45 639	30,80	44 964	31,13	13 910	43,84	4,06	-675	-1,48	0,33
short-term obligations	34 135	28,77	41 729	28,16	38 200	26,45	7 594	22,25	-0,61	-3 529	-8,46	-1,72
balance	118 644	100,00	148 177	100,00	144 448	100,00	29 533	24,89	0,00	-3 729	-2,52	0,00

Source: compiled by the author himself.

Analyzing the structure of the organization's balance sheet (table 13), first of all, it is worth paying attention to non-current assets, which at the end of the reporting period account for more than 70% of the total value of the organization's assets. It should also be noted that this trend is observed throughout all analyzed periods. This trend is optimal for the meat industry, since non-current assets in this industry include not only fixed assets, machinery and equipment, but also biological assets, which are cattle. The balance sheet liability of this organization is also stable throughout all analyzed periods. More than 40% of all liabilities of the organization is occupied by equity, which is a favorable factor in the activity of any organization,

regardless of the industry. The obligations of this organization at the end of the reporting period amounted to about 30%, both short-term and long-term, which is optimal and does not indicate the insolvency of this organization.

**Table 14 - Analysis of the liquidity of the balance sheet of PJSC «Cherkizovo Group» for the period 2015 - 2019, million rubles**

Assets	2015	2016	2017	2018	2019
Most liquid assets (A1)	5 561	1 002	705	9 613	3 304
Marketable assets (A2)	9 574	8 593	7 235	8 694	6 847
Slowly realizable assets (A3)	27 168	26 432	27 679	34 001	38 343
Hard-to-sell assets (A4)	65 410	70 310	83 025	95 869	95 954
Balance: (A1+A2+A3+A4)	107 713	106 337	118 644	148 177	144 448
Passive	2015	2016	2017	2018	2019
The most urgent obligations P1)	12 782	13 212	14 723	17 560	16 990
Short-term liabilities (P2)	25 093	14 123	19 412	24 169	21 210
Long-term liabilities (P3)	16 687	24 963	31 729	45 639	44 964
Permanent liabilities (P4)	53 149	54 040	52 780	60 809	61 284
Balance: (P1+P2+P3+P4)	107 711	106 338	118 644	148 177	144 448
Payment surplus or shortfall on	2015 год	2016 год	2017 год	2018 год	2019 год
Most urgent liabilities (P1)	-7 221	-12 210	-14 018	-7 947	-13 686
Short-term liabilities (P2)	-15 519	-5 530	-12 177	-15 475	-14 363
Long-term liabilities (P3)	10 481	1 469	-4 050	-11 638	-6 621
Permanent liabilities (P4)	12 261	16 270	30 245	35 060	34 670

Source: compiled by the author himself.

Based on table 14, we can talk about the presence of one problem, which is observed throughout the period under review. P1 is greater than A1. This suggests that the company will not have enough absolutely liquid assets to pay off its short-term accounts payable. It should be noted that in 2019 the gap between the assets of the most liquid assets and the most urgent liabilities only increased. This suggests that management and managers need to increase control and try to solve this problem in the near future.

Articles A3-P3 and A2-P2 for all periods under review also had problems with solvency.

It should be noted that by the end of 2019, the company had no problems only in column A4-P4. This suggests that the company would be able to pay off long-term obligations with the help of hard-to-sell assets. It can be assumed that the

company had a lot of long-term borrowings during this period and too few receivables.

**Table 15 - Analysis of liquidity ratios of PJSC Cherkizovo Group for the period 2015 – 2019**

Indicators	2015	2016	2017	2018	2019	Absolute deviation for the period			Growth rates for the period, %					
						(+/-)			5-4	6-5	6-2	5-4	6-5	6-2
						5-4	6-5	6-2						
Absolute liquidity ratio	0,15	0,04	0,02	0,23	0,09	0,210	-0,144	-0,060	1015,4	-62,5	-41,1			
Quick liquidity ratio	0,38	0,33	0,22	0,43	0,26	0,208	-0,168	-0,126	96,0	-39,5	-32,9			
Current liquidity ratio	1,06	1,20	0,93	1,15	1,10	0,221	-0,050	0,043	23,8	-4,4	4,1			
Current liquidity, million rubles	2 183	5 479	-2 392	6 311	3 857	8 703	-2 454	1 674	-363,8	-38,9	76,7			
Prospective liquidity, million rubles	10 481	1 469	-4 050	-11638	-6 621	-7 588	5 017	-17102	187,4	-43,1	-163,2			

Source: compiled by the author himself.

Based on Table 15, we can conclude that in this area the company had problems that were solved. Thus, the current liquidity ratio at the end of 2019 did not meet the recommended value of  $\geq 2$ . This suggests that if the company had to pay off its short-term obligations in 2019 in a relatively short time, they would be able to pay only 60%, and normally they need to do this at least 70%. Note that the same problem existed in 2018 and 2019. This would prevent the company from continuing its normal activities and, at best, it would lead to serious problems, at worst, to bankruptcy. It should be noted that the indicator is growing every year and in 2019 approached the optimal value. This indicates a significant reduction in the company's short-term liabilities.

The absolute liquidity ratio also does not correspond to the optimal value ( $\geq 0.1$ ) for all the periods under consideration. This suggests that if the company needs to pay off its short-term obligations as soon as possible, then this will be impossible and the payment will be no more than 30% of all existing short-term obligations. This indicates the problems of solvency of the organization. The solvency indicator indicates the ability of the organization to pay off its obligations,

therefore this indicator is an important criterion for investment. The managers of this organization need to strengthen control over solvency, and it is also possible to refinance short-term obligations into long-term ones.

**Table 16 - Analysis of the sources of formation of reserves of PJSC «Cherkizovo Group» for the period 2015 – 2019**

№	Indicators	2015	2016	2017	2018	2019	Absolute change, +/- 2019 к 2015	Relative change, 2019 к 2015
1	Stocks with VAT	24 925	23 219	23 802	29 733	31 906	6 981	28,01 %
2	Equity	53 149	54 040	52 780	60 809	61 284	8 135	15,31 %
3	Fixed assets	67 653	73 523	86 902	100 137	102 391	34 738	51,35 %
4	Availability of own working capital	2 183	5 479	-2 392	6 311	3 857	1 674	76,68 %
5	long term duties	16 687	24 963	31 729	45 639	44 964	28 277	169,46 %
6	Availability of own and long-term sources of reserves formation	69 836	79 003	84 509	106 448	106 248	36 412	52,14 %
7	Short-term credits and loans	37 875	27 335	34 135	41 729	38 200	325	0,86%
8	The total value of the main sources of reserves formation	107 711	106 338	118 644	148 177	144 448	36 737	34,11 %

Source: compiled by the author himself.

The data given in Table 16 show that the organization of PJSC «Cherkizovo Group» is not only provided with a good foundation of its own working and non-current assets, but also tends to increase them. However, managers need to monitor the growth rate of working capital, as their accumulation can lead to obsolescence and unsuitability for use in production. In the meat industry, an increase in working capital and equity of an organization indicates both the expansion of its market position and the strengthening of its market share, as well as competitiveness.

**Table 17 - Indicators of the financial condition of PJSC «Cherkizovo Group» for the period 2018 – 2019**

Name of indicator	2018		2019	
	the actual level of the indicator	number of points	the actual level of the indicator	number of points
Absolute liquidity ratio	0,23	3	0,09	0
Quick liquidity ratio (“critical assessment” ratio)	0,43	8	0,26	0
Current liquidity ratio	1,15	0	1,10	3
Coverage ratio with own sources of financing	0,13	3	0,09	0
Financial Independence Ratio	0,41	3	0,42	1,8
The coefficient of financial independence in terms of the formation of reserves and costs	0,44	1,8	0,25	0
Total	x	15,8	x	4,8

Source: compiled by the author himself.

The assessment of the financial condition of the organization was carried out using the complex (scoring) method, which consists in classifying organizations according to the level of financial risk, that is, any organization can be assigned to a certain class depending on the number of points scored, based on the actual values of its financial ratios (Table 18).

At the end of 2018, this organization had a total score of 15.8 points, which puts it in the 4th class - an organization with an unstable financial condition.

By the end of 2019, the position of this organization worsens to 4.8 points and classifies the organization in the last 5th class - organizations with a financial crisis. This is directly related to the fact that this organization increased long-term liabilities at the expense of short-term ones, as well as increasing non-current assets.

**Table 18 - Assessment of business activity of PJSC «Cherkizovo Group» for the period 2017 – 2019**

Indicators, million rubles	2017	2018	2019	Growth rate, %
Net profit	5 648	11 980	6 651	55,5
Revenues from sales	90 317	104 500	118 759	113,6
Average annual asset value	112 491	133 411	146 313	109,7

Source: compiled by the author himself.



The data in table 18 allow us to evaluate the business activity of the organization and pay attention to the steady increase in the organization's revenue, as well as the growth in the average annual value of assets, which is a favorable result of the activity of this organization. However, along with the growth in revenue, this organization has a tendency to reduce net profit, this indicates an increase in the organization's expenses, as well as an excess of the growth rate of expenses over the growth rate of income.

**Table 19 - Analysis of business activity of PJSC «Cherkizovo Group» for the period 2017 – 2019**

Name of financial ratio	2017	2018	2019	Abs. devi.	Growth rate, %	Abs. devi.	Growth rate, %
				2019 to 2018		2018 to 2017	
				+/-		+/-	
Sales proceeds, million rubles	90 317	104 500	118 759	14 259	13,6	14 183	15,7
Average annual value of assets, million rubles	112 491	133 411	146 313	12 902	9,7	20 920	18,6
Average annual value of current assets, million rubles	32 279	39 892	45 049	5 157	12,9	7 613	23,6
Average annual cost of fixed assets, million rubles	70 399	79 635	83 324	3 689	4,6	9 236	13,1
Average annual cost of equity, mln. rub.	53 410	56 795	61 047	4 252	7,5	3 385	6,3
Average annual value of inventory, million rubles	12 372	13 287	14 979	1 692	12,7	916	7,4
Average annual value of accounts receivable, million rubles	7 379	7 416	7 325	-91	-1,2	37	0,5
Average annual value of accounts payable, million rubles	13 968	16 142	17 275	1 134	7,0	2 174	15,6
Asset turnover ratio (capital return), turnover	0,803	0,783	0,812	0,03	3,6	-0,02	-2,4
Duration of asset turnover, days	454,61	465,98	449,68	-16,29	-3,5	11	2,5
Working capital turnover ratio (mobile), turnover	2,80	2,62	2,64	0,02	0,6	-0,18	-6,4
Duration of mobile funds turnover, days	130,45	139,33	138,45	-0,88	-0,6	8,89	6,8
return on assets, turnover	1,283	1,312	1,425	0,11	8,6	0,03	2,3
Duration of fixed assets turnover, days	284,50	278,15	256,09	-22,06	-7,9	-6,35	-2,2

Equity turnover ratio, turnover	1,691	1,840	1,945	0,11	5,7	0,15	8,8
Duration of equity turnover, days	215,85	198,37	187,62	-10,75	-5,4	-17,47	-8,1
Turnover ratio of material assets (stocks), turnover	7,30	7,86	7,93	0,06	0,8	0,56	7,7
Inventory turnover duration, days	50,00	46,41	46,04	-0,37	-0,8	-3,59	-7,2
Accounts receivable turnover ratio, turnover	12,24	14,09	16,21	2,12	15,0	1,85	15,1
Duration of accounts receivable turnover, days	29,82	25,90	22,51	-3,39	-13,1	-3,92	-13,1
Accounts payable turnover ratio, turnover	6,47	6,47	6,87	0,40	6,2	0,01	0,1
Duration of accounts payable turnover, days	56,45	56,38	53,09	-3,29	-5,8	-0,07	-0,1

Source: compiled by the author himself.

The data in table 19 show that the turnover ratio of working capital at the end of the analyzed period was 0.03, which indicates the inefficiency of their use, and also that it brings low profit for the organization. The organization should increase the turnover ratio by eliminating working capital stocks or optimizing their number. The return on assets ratio increased by 8.6% by the end of 2019, which indicates an increase in production volumes due to an increase in additional production capacities and an increase in labor resources. The equity turnover ratio also strengthens by the end of the analyzed period and indicates an increase in the intensity of the use of the organization's assets. By the end of 2019, the inventory turnover ratio increased by almost 1%, which indicates the efficiency of the use of inventory and materials.

A positive factor should be considered a reduction in the turnover of receivables by 3 days, the reason for the improvement of this indicator may be good purchasing solvency, as well as the conclusion of an agreement with buyers and customers on the terms of their cash payment. Finally, it should be noted that the accounts payable turnover ratio also increases at the end of the reporting period by 6.2%, which shows the organization's ability to pay off its obligations to the state, suppliers, employees of the organization in the near future.

**Table 20 - Profitability analysis of PJSC «Cherkizovo Group» for the period 2017 – 2019**

Name of indicator	2017	2018	2019	Deviation,	Growth rate, %
				(+/-)	
Profit from sales, million rubles	9 726	15 555	10 189	-5 366	-34,5
Sales proceeds, million rubles	90 317	104 500	118 759	14 259	13,6
Net profit (NP), million rubles	5 648	11 980	6 651	-5 329	-44,5
Average annual value of assets, million rubles	112 491	133 411	146 313	12 902	9,7
Average annual value of non-current assets, million rubles	80 213	93 520	101 264	7 745	8,3
Average annual value of current assets, million rubles	32 279	39 892	45 049	5 157	12,9
Average annual cost of equity, mln. rub.	53 410	56 795	61 047	4 252	7,5
Average annual cost of long-term liabilities, million rubles	28 346	38 684	45 302	6 618	17,1
Return on sales (Ppr), %	6,25	11,46	5,60	-5,9	X
Economic profitability (Rec), %	5,02	8,98	4,55	-4,4	X
Return on non-current assets (Rboa), %	7,04	12,81	6,57	-6,2	X
Return on current assets (Roa), %	17,50	30,03	14,76	-15,3	X
Return on equity (Rsk), %	10,57	21,09	10,89	-10,2	X
Return on permanent capital (Rpc), %	6,91	12,55	6,25	-6,3	X

Source: compiled by the author himself.

According to table 20, the profitability of sales at the end of the reporting period decreased by 5.9% compared to the profitability of the previous period. This decrease occurred under the influence of higher prices for manufactured products.

In the process of profitability analysis, it is necessary to evaluate the profitability of all capital, equity, permanent funds. For example, return on assets (economic profitability) is a general indicator showing how much profit falls on 1 ruble. property. The amount of dividends on shares in joint-stock companies depends on the value of this coefficient.

Profitability ratios can be calculated not only for the entire volume of the enterprise's funds, but also for certain types of resources (in particular, fixed assets).

The profitability ratio of both equity and working capital decreased. This coefficient demonstrates the profit from each monetary unit invested by the capital

owners. It is a basic coefficient that characterizes the effectiveness of investments in any activity.

Based on the analysis of the profitability of the production activities of PJSC «Cherkizovo Group», it can be concluded that both the profitability of sales and the overall profitability of this organization have decreased. In addition, the overall profitability of the organization was negatively affected by a decrease in income from core activities and an increase in other expenses.

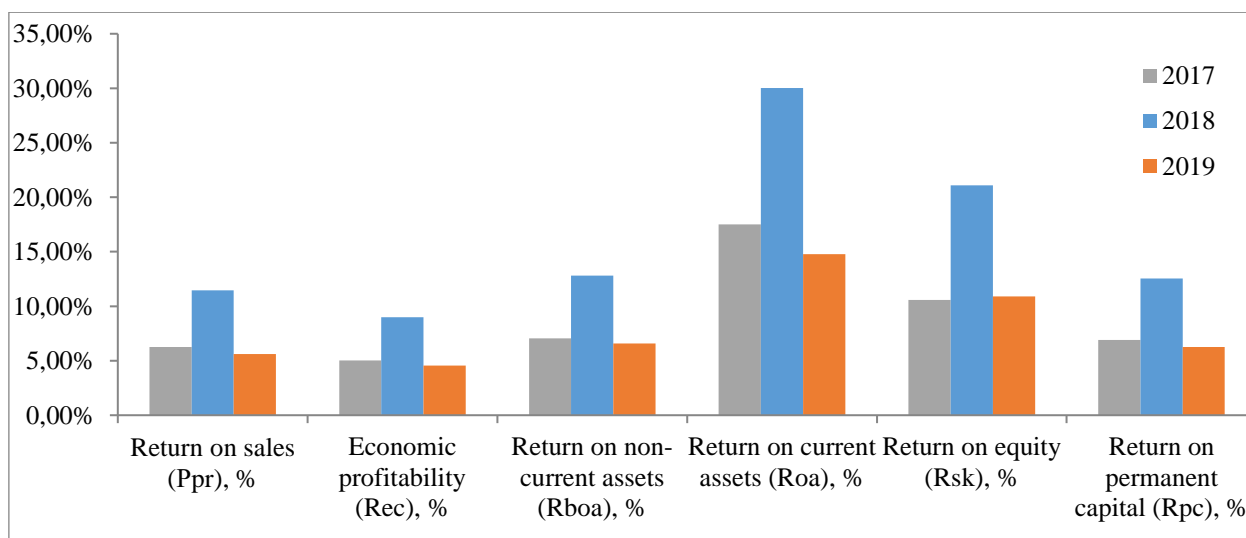


Figure 2 - Chart of profitability indicators of PJSC «Cherkizovo Group» for the period 2017 - 2019

This graph (Figure 2) allows you to visually see the ratio of profitability indicators of the organization, as well as to observe that the highest profitability indicators for this organization were in 2018 for all indicators, by the end of 2019 all profitability indicators decreased due to the excess of the growth rate of expenses over income.

**Table 21 - Factor analysis of the return on equity of PJSC «Cherkizovo Group» for the period 2018-2019**

Name of the factor indicator	Change in return on equity due to:	The share of the influence of the factor
Profitability of sales	-10,08%	113,88%
Equity turnover ratio	1,60%	-18,03%
Financial activity ratio	-0,37%	4,15%
Cumulative influence of factors	-8,85%	100,00%

Source: compiled by the author himself.

This table 21 allows us to determine that the return on equity at the end of the reporting period decreased due to a decrease in equity turnover, a decrease in return on sales and a decrease in financial activity. The greatest negative impact was made by the return on sales of more than 10%, which is associated with an increase in the organization's expenses.

**Table 22 - Factor analysis of the return on assets of PJSC «Cherkizovo Group» for the period 2018-2019**

Name of the factor indicator	Change in return on assets	Share of influence of the factor
Profitability of sales	-4,59%	103,59%
Asset turnover ratio	0,16%	-3,59%
Cumulative influence of factors	-4,43%	100,00%

Source: compiled by the author himself.

This table 22 allows us to once again strengthen the conclusion that the negative change in the return on sales at the end of the reporting period led to a decrease in the return on assets. However, it should be noted that the asset turnover ratio at the end of the reporting period was positive, and also had no negative impact on the return on assets.

#### 4.1.3 Bankruptcy probability analysis of PJSC «Cherkizovo Group»

**Table 23 - Analysis of the probability of bankruptcy of PJSC «Cherkizovo Group» based on the Altman model for the period 2018 – 2019**

Indicators	2018	2019	Absolute deviation,	Rate of increase
			+/-	
X1 = own working capital / amount of assets	0,043	0,027	-0,016	-37,3%
X2=retained earnings/amount of assets;	0,391	0,405	0,014	3,6%
X3=earnings before interest/total assets;	0,080	0,046	-0,033	-41,7%
X4=book value of equity/debt capital;	0,696	0,737	0,041	5,9%

$X5 = \text{sales volume (revenue)} / \text{total assets.}$	0,705	0,822	0,117	16,6%
$Z = 0,717X1 + 0,847X2 + 3,107X3 + 0,42X4 + 0,995X5$	1,603	1,634	0,031	1,9%
$Z = 1,2 K1 + 1,4 K2 + 3,3 K3 + 0,6 K4 + 1 K5$	1,984	2,016	0,032	1,6%

Source: compiled by the author himself.

In this table 23, two five-factor models for analyzing the probability of bankruptcy of an organization were used. Both coefficients at the end of the analyzed period corresponded to the norm that the probability of bankruptcy of the company is from 35% to 50%. The accuracy of the forecast in this model for the horizon of one year is 95%, for two years - 83%, which is its advantage.

The disadvantage of this model is that it can essentially be considered only in relation to large companies that have placed their shares on the stock market.

**Table 24 - Analysis of the probability of bankruptcy of PJSC «Cherkizovo Group» based on the Taffler model for the period 2018-2019**

Indicators	2018	2019	Absolute deviation,	Rate of increase
			+/-	
$X1 = \text{profit from sales} / \text{short-term liabilities}$	0,287	0,174	-0,113	-39,4%
$X2 = \text{Current assets} / \text{borrowed capital};$	0,550	0,506	-0,044	-8,0%
$X3 = \text{current liabilities} / \text{amount of assets};$	0,282	0,264	-0,017	-6,1%
$X4 = \text{Revenue} / \text{assets};$	0,705	0,822	0,117	16,6%
$Z_t = 0,53 \times X1 + 0,13 \times X2 + 0,18 \times X3 + 0,16 \times X4$	0,387	0,337	-0,050	-12,9%

Source: compiled by the author himself.

Based on the data obtained in Table 24, we can conclude that this organization has a low chance of insolvency, as it is in the "green zone" and the coefficient is  $>0.3$ . However, attention should be paid to the decrease by the end of the analyzed period of this indicator by almost 13%, which may further lead to the possibility of bankruptcy in the future.

Note that in the R. Taffler equation, the variable  $X1$  plays a dominant role, and the predictive ability of the model is lower compared to the Altman Z-score, as a result of which slight fluctuations in the economic situation and possible errors in

the initial data, in the calculation of financial ratios and the entire index can lead to to the erroneous conclusions of economists-researchers.

## 4.2 Analysis of the financial position and financial results of ZAO «Mikoyanovsky Meat Processing Plant»

### 4.2.1 Vertical and horizontal analysis of assets and liabilities of ZAO «Mikoyanovsky Meat Processing Plant»

This chapter will characterize the financial position of CJSC «Mikoyanovsky Meat Processing Plant» by analyzing the balance sheet, as indicated in the practical part.

First, the author shows a horizontal analysis that was applied to total assets in the period 2015-2019. in the balance sheet of CJSC «Mikoyanovsky Meat Processing Plant» in the following table 25.

**Table 25 - Horizontal balance sheet analysis - Assets of ZAO «Mikoyanovsky Meat Processing Plant»**

Balance - Assets (in thousands of rubles)	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019		CAGR 2015-19
	change		change		change		change		change		
	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	
Current assets	-1 213 735	-24	-631 769	-16	559 256	17	-280 210	-7	-990 986	-28	-10,0%
Cash and cash equivalents	-389 796	-34	-344 091	-45	480 441	115	150 595	17	-606 898	-58	-12,7%
Loans granted (short-term)	-34 150	-15	-69 184	-36	-16 100	-13	-8 200	-8	-2 000	-2	-15,5%
Short-term accounts receivable	-499 640	-22	-110 301	-6	-100 380	-6	-356 959	-23	-241 533	-20	-14,0%
Stocks	-290 149	-20	-108 193	-9	195 295	18	-65 646	-5	-140 555	-12	-2,6%
Fixed assets	-224 579	-3	-75 655	-1	-138 109	-2	41 478	1	469 674	7	1,1%
fixed assets	-221 421	-3	-77 298	-1	-139 127	-2	33 989	1	40 544	1	-0,5%
Intangible assets	-3 517	-5	-873	-1	4 282	6	7 520	10	427 929	506	62,4%
Other noncurrent assets	359	57	2 516	255	-3 264	-93	-31	-13	1 201	580	9,3%
Total Assets	-1 438 314	-12	-707 424	-7	421 147	4	-238 732	-2	-521 312	-5	-2,5%

Source: compiled by the author himself.

The results of Table 25 show that the overall trend of the company's assets to the base year has declined, and compared to previous years, the slope of this decline

trend was the highest in the last year of 2019. For 2019, the author calculates a compound annual growth rate (CAGR) of total assets of approximately -2.5%, which is a high rate of decline in assets in the meat industry. At the same time, the average annual growth rate of non-current assets is 1.1%, and for current assets - 10%. The main motivation for the growth of total assets comes from non-current assets.

Non-current assets have a higher CAGR of 10% and are primarily other non-current assets, which are intangible assets, goodwill, debt receivables, non-current biological assets and investments in joint ventures and associates. In 2019, there was a reduction in fixed assets due to depreciation, while the company did not purchase new fixed assets.

**Table 26 - Structure of assets of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2015 – 2019, thousand roubles**

Assets	2015	2016	2017	2018	2019
Cash and cash equivalents	762 359	418 268	898 709	1 049 304	442 406
Loans granted (short-term)	194 484	125 300	109 200	101 000	99 000
Short-term accounts receivable	1 790 875	1 680 574	1 580 194	1 223 235	981 702
Stocks	1 172 285	1 064 092	1 259 387	1 193 741	1 053 186
fixed assets	6 779 517	6 702 219	6 563 092	6 597 081	6 637 625
Intangible assets	73 590	72 717	76 999	84 519	512 448
Other noncurrent assets	986	3 502	238	207	1 408
Total Assets	10 774 096	10 066 672	10 487 819	10 249 087	9 727 775

Source: compiled by the author himself.

Table 26 shows the downward trend in the component of total assets. Accordingly, it can be seen that fixed assets and intangible assets have the highest growth rate, showing that the strong external resources of CJSC «Mikoyanovsky Meat Processing Plant» are the result of growth in income and the size of the organization.

To take into account fluctuations in the structure of assets during the study period, the author uses the method of vertical analysis, which was applied to the total asset, as shown in table 27 below.



**Table 27 - Vertical balance sheet analysis - Assets of CJSC  
«Mikoyanovsky Meat Processing Plant»**

Balance - Assets (%)	2015	2016	2017	2018	2019
Current assets	36	33	37	35	26
Cash and cash equivalents	7	4	9	10	5
Loans granted (short-term)	2	1	1	1	1
Short-term accounts receivable	17	17	15	12	10
Stocks	11	11	12	12	11
Fixed assets	64	67	63	65	74
fixed assets	63	67	63	64	68
Intangible assets	1	1	1	1	5
Other noncurrent assets	0	0	0	0	0
Total Assets	100	100	100	100	100

Source: compiled by the author himself.

Non-current assets have the largest share of total assets with 74% of total assets in 2019. The trend has been increasing the share of non-current assets over the years and, conversely, was to reduce the share of current assets. The shares of other current assets and intangible assets are insignificant.

The following table 28 shows the growth trend of capital items and liabilities in the period under review.

**Table 28 - Horizontal balance sheet analysis - Liabilities of ZAO  
«Mikoyanovsk Meat Processing Plant»**

Balance - Liabilities (in thousands of rubles)	2014/2015		2015/2016		2016/2017		2017/2018		2018/2019		CAGR 2015-2019
	change		change		change		change		change		
	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	
	73 515	1	6 990	0	108 843	2	118 067	2	150 652	2	1,5%
Capital and reserves	0	0	0	0	0	0	0	0	0	0	0,0%
Authorized capital	73 515	1	6 990	0	108 843	2	118 067	2	150 652	2	1,6%
Retained earnings (uncovered loss)	-1 471 189	-60	105 549	11	46 683	4	38 644	3	394 058	34	12,5%
long term duties	-1 438 314	-100	98 504	0	75 500	77	41 344	24	427 728	199	0%
Loans and credits (long-term)	-32 875	-3	7 045	1	-28 817	-3	-2 700	0	-33 670	-4	-1,5%
Deferred tax liabilities	-34 280	-1	-829 791	-24	276 519	10	-386 466	-13	-1 063 373	-42	-19,4%
short-term obligations	-233 123	-10	-1 016 498	-47	-16 931	-1	-955 764	-85	141 213	81	-38,2%

Loans and credits (short-term)	198 843	19	186 707	15	293 450	21	569 298	33	-1 204 586	-53	-3,3%
Accounts payable	-6 360	-7	9 828	11	-10 898	-11	-8 977	-10	-2 649	-3	-3,7%
reserves	-1 431 954	-12	-717 252	-7	432 045	4	-229 755	-2	-518 663	-5	-2,5%

Source: compiled by the author himself.

Table 28 shows the trend of annual growth of liabilities and capital, in which total liabilities decreased by 3.5%, equity capital increased by 1.5%. This means expanding the scale of the business, that is, an increase in the number of meat processing plants, pig farms and poultry complexes.

Liabilities tend to decrease throughout the analyzed period; by the end of 2019, the growth rate of long-term liabilities was 12.5%, and short-term liabilities - 19.4%. This is a favorable trend and indicates that this organization pays suppliers' invoices on time, is consistently able to pay salaries to employees, and is also able to cover its expenses from its own funds without obtaining new loans and borrowings.

Table 29 - The structure of liabilities of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2015 – 2019, thousand roubles

Liabilities	2015	2016	2017	2018	2019
Authorized capital	306 751	306 751	306 751	306 751	306 751
Retained earnings (uncovered loss)	6 008 701	6 015 691	6 124 534	6 242 601	6 393 253
Loans and credits (long-term)	0	98 504	174 004	215 348	643 076
Deferred tax liabilities	972 004	979 049	950 232	947 532	913 862
Loans and credits (short-term)	2 163 857	1 147 359	1 130 428	174 664	315 877
Accounts payable	1 232 866	1 419 573	1 713 023	2 282 321	1 077 735
reserves	89 917	99 745	88 847	79 870	77 221
Total Liabilities	10 774 096	10 066 672	10 487 819	10 249 087	9 727 775

Source: compiled by the author himself.

Equity capital shows a stable upward trend over the period under review. From the horizontal analysis of equity in Table 29, it is clear that the cost of equity and retained earnings increase year by year because CJSC «Mikoyanovsky Meat Processing Plant» issues shares and pays dividends on shares. At the same time, there is a downward trend in long-term and short-term liabilities. At the end of the

reporting period, loans and credits, both short-term and long-term, tend to decrease. This is due to the successful management and planning of financing their expenses.

To understand the structure of liabilities and capital, it is necessary to analyze the vertical analysis, which is presented in table 30.

**Table 30 - Vertical analysis of the balance sheet - Liabilities of ZAO «Mikoyanovsky Meat Processing Plant»**

Balance - Liabilities (%)	2015	2016	2017	2018	2019
Capital and reserves	59	63	61	64	69
Authorized capital	3	3	3	3	3
Retained earnings (uncovered loss)	56	60	58	61	66
long term duties	9	11	11	11	16
Loans and credits (long-term)	0	1	2	2	7
Deferred tax liabilities	9	10	9	9	9
short-term obligations	32	26	28	25	15
Loans and credits (short-term)	20	11	11	2	3
Accounts payable	11	14	16	22	11
reserves	1	1	1	1	1
Total Liabilities	100	100	100	100	100

Source: compiled by the author himself.

In general, the overall structure of capital and liabilities has changed over the years, but there have been no significant changes. The structure of liabilities mainly consists of equity and reserves of the organization, on average, not less than 60% of the total amount. In the structure, the company's borrowed capital, both long-term and short-term, was less than 20% each throughout the entire period.

Short-term liabilities represent a negligible share between 2015 and 2019 and tend to decrease proportionally in 2019 due to the impact of debt collection policies and business scaling as described above.

At the next stage of financial analysis, it is necessary to analyze the statement of financial results of CJSC «Mikoyanovsky Meat Processing Plant» using vertical and horizontal methods.

Horizontal analysis of the income statement is an integral part of the analysis of financial statements. The results of a horizontal analysis of the statement of financial results of ZAO «Mikoyanovsky Meat Processing Plant» for the period 2015-2019 are presented in table 31.

The results in this table show that the overall trend of revenue, expenses and net income to the base year is decreasing compared to previous years.

**Table 31 - Horizontal analysis of the statement of financial results of CJSC Mikoyanovsky Meat Processing Plant for the period 2015 - 2019, thousand rubles**

Indicator	2015/2016		2016/2017		2017/2018		2018/2019		CAGR 2015- 2019
	change		change		change		change		
	(+/-)	%	(+/-)	%	(+/-)	%	(+/-)	%	
Revenue (net) from the sale of goods, products (works, services)	181 445	1,50	(231 476)	-1,88	14183	15,70	14259	13,64	-3,33%
Cost of sales of goods, products, works, services	523 363	5,32	148 776	1,44	8560	12,82	15578	20,68	-2,62%
Gross profit (loss)	(341 918)	-15,08	(380 252)	-19,74	5623	23,87	(1319)	-4,52	-6,57%
Selling expenses	(189 332)	-12,28	(403 477)	-29,84	(206)	-1,49	4236	31,09	-8,55%
Profit (loss) from sales	(145 111)	-32,25	2 264	0,74	5829	59,93	(5366)	-34,50	-8,21%
Interest receivable	0	0,00	0	0,00	13	4,69	(47)	-16,21	0,00%
Percentage to be paid	(200 710)	-59,89	(64 179)	-47,74	(396)	-10,81	1217	37,25	-37,69%
Other income	(47 591)	0,00	2 747	14,83	0	0,00	749	0,00	0,00%
other expenses	(78 999)	-66,69	68 799	0,00	401	104,43	(785)	-100,0	-8,36%
Profit (loss) before tax	87 007	139,19	391	0,26	5837	98,00	(5096)	-43,21	35,83%
Current income tax	47 489	0,00	(6 426)	-13,53	(308)	-100,00	46	0,00	0,00%
Net profit	28 511	38,78	6 817	6,68	6332	112,11	(5329)	-44,48	19,65%

Source: compiled by the author himself.

In particular, revenue has a CAGR of 3.33%, above the industry average. General expenses in the period 2015-2019 had an CAGR of 8%, much higher than the change in revenue, and in contrast, general and administrative expenses had a lower CAGR of 2%. This suggests that the company has good control over general and administrative expenses.

The first component of the income statement is revenue. As can be seen from the results of Table 28, the organization had a significant increase in revenue in 2019 by 13.64%, and the lowest growth in 2017 was 1.88% due to the impact of swine flu reducing sales with a lower gross margin. Further, we will analyze in more detail the structure of income and expenses of the organization ZAO «Mikoyanovsky Meat Processing Plant» (Table 32).

**Table 32 - The structure of income and expenses of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017 - 2019, thousand rubles**

Indicators	2017		2018		2019		Change 2019 to 2018		Change 2018 to 2017	
	(+/-)	sp.gr. .%	(+/-)	sp.gr. .%	(+/-)	sp.gr. .%	(+/-)	sp.gr. .%	(+/-)	sp.g r. %
total income, including	12 073 020	100,0	11 148 187	100,0	10 597 508	100,0	-550 679	-4,9	- 924833	-8,7
from normal activities	12 051 747	99,8	11 065 804	99,3	10 570 139	99,7	-495 665	-4,5	- 985943	-9,3
operating income	0	0,0	38 697	0,3	0	0,0	-38 697	-100,0	38 697	0,0
non-operating income	21 273	0,2	43 686	0,4	27 369	0,3	-16 317	-37,4	22 413	81,9
Total expenses, including	11 923 114	100,0	10 992 627	100,0	10 384 732	100,0	-607 895	-5,5	- 930487	-9,0
expenses for ordinary activities	11 744 608	98,5	10 977 321	99,9	10 250 662	98,7	-726 659	-6,6	- 767287	-7,5
operating expenses	70 252	0,6	15 306	0,1	50 517	0,5	35 211	230,0	-54 946	- 108,8
non-operating expenses	108 254	0,9	0	0,0	83 553	0,8	83 553	0,0	- 108254	- 129,6
Ratio of income and expenses (total)	149 906	1,3	155 560	1,4	212 776	2,0	57 216	36,8	5 654	2,7
The ratio of income and expenses from ordinary activities	307 139	2,6	88 483	0,8	319 477	3,12	230 994	261,1	- 218656	-68,4

Source: compiled by the author himself.

Analyzing the structure of income and expenses of the organization, it is necessary, first of all, to note that income from ordinary activities occupy more than 99% of all income of the organization throughout the analyzed period. It is due to this type of income that the organization covers its current expenses and generates profit.

So in 2019, compared with the previous year, the company's revenue in the reporting year decreased by 550,679 thousand rubles, which indicates a deterioration in the financial condition. The company, among other income, does not have interest receivable, as well as income from participation in other organizations.

The table shows that the expenses for ordinary activities also decreased by 607,895 thousand rubles. This is due, first of all, to an increase in the cost of sales of the enterprise in the reporting year (2019).

An analysis of the structure of expenses shows that in 2019, the main share of expenses was expenses for ordinary activities - 98%, while the share of other expenses is only 2%. This is a positive thing, since it means that CJSC «Mikoyanovsky Meat Processing Plant» is engaged in its main activity, that is, it sells goods to the side.

#### 4.2.2 Ratio analysis of CJSC «Mikoyanovsk Meat Processing Plant»

The data in Table 33 show that at the end of the analyzed period, net profit decreased by 27.6% compared to 2018, which amounted to 33 thousand rubles. At the end of 2019, there is a decrease in revenue, which indicates that the organization's income was due to cost reductions. Increasing profit from sales is also a favorable factor.

This indicator indicates an increase in the profitability of products and a relative increase in production and distribution costs.

**Table 33 - Dynamics of profit indicators of «Mikoyanovsky Meat Processing Plant» CJSC for the period 2017 - 2019, thousand rubles**

Indicators	2015	2016	2017	2018	2019	Deviations			
						2019 to 2018		2018 to 2017	
						+/-	%	+/-	%
Revenue	12 102	12 283	12 052	11 066	10 570	- 496	-4,5	-1 532	-12,66
Gross profit (loss)	2 268	1 926	1 546	1 327	1 728	401	30,2	- 540	-23,82
Profit (loss) from sales	450	305	307	88	319	231	261,1	- 131	-29,00
Balance of other income/expenses	-52	-21	-87	44	-56	- 100	x	-4	x

Profit (loss) before tax	63	150	150	156	213	57	36,8	150	240,40
Net profit	74	102	109	118	151	33	27,6	77	104,93

Source: compiled by the author himself.

**Table 34 - Structure and dynamics of the property of CJSC «Mikoyanovsky Meat Processing Plant» and sources of financing for the period 2017 - 2019, thousand rubles**

Balance Articles	2017		2018		2019		Change over the period (2018 to 2017)			Change over the period (2019 to 2018)		
	(+/-)	in % to the balance currency	(+/-)	in % to the balance currency	(+/-)	in % to the balance currency	absolute	Relative	structural	absolute	Relative	structural
	6640329	63,31	6681807	65,19	7151481	73,52	41478	0,62	1,88	469674	7,03	8,32
	3847490	36,69	3567280	34,81	2576294	26,48	-280210	-7,28	-1,88	-990986	-27,78	-8,32
Fixed assets	10487819	100,00	10249087	100,00	9727775	100,00	-238732	-2,28	0,00	-521312	-5,09	0,00
current assets	6431285	61,32	6549352	63,90	6700004	68,87	118067	1,84	2,58	150652	2,30	4,97
Balance	1124236	10,72	1162880	11,35	1556938	16,01	38644	3,44	0,63	394058	33,89	4,66
Capital and reserves	2932298	27,96	2536855	24,75	1470833	15,12	-395443	-13,49	-3,21	-1066022	-42,02	-9,63
Long term duties	10487819	100,00	10249087	100,00	9727775	100,00	-238732	-2,28	0,00	-521312	-5,09	0,00

Source: compiled by the author himself.

Analyzing the structure of the organization's balance sheet, first of all, it is worth paying attention to non-current assets, which at the end of the reporting period account for more than 70% of the total value of the organization's assets. It should also be noted that this trend is observed throughout all analyzed periods. This trend is optimal for the meat industry, since non-current assets in this industry include not only fixed assets, machinery and equipment, but also biological assets, which are cattle. The balance sheet liability of this organization is also stable throughout all

analyzed periods. More than 68% of all liabilities of the organization is occupied by equity, which is a favorable factor in the activity of any organization, regardless of the industry. The obligations of this organization at the end of the reporting period amounted to about 20%, both short-term and long-term, which is optimal and does not indicate the insolvency of this organization.

**Table 35 - Analysis of the liquidity of the balance sheet of CJSC Mikoyanovsk Meat Processing Plant for the period 2015 - 2019, thousand rubles**

Assets	2015	2016	2017	2018	2019
Most liquid assets (A1)	956 843	543 568	1 007 909	1 150 304	541 406
Marketable assets (A2)	1 790 875	1 680 574	1 580 194	1 223 235	981 702
Slowly realizable assets (A3)	1 245 875	1 136 809	1 336 386	1 278 260	1 565 634
Hard-to-sell assets (A4)	6 780 503	6 705 721	6 563 330	6 597 288	6 639 033
Balance: (A1+A2+A3+A4)	10 774 096	10 066 672	10 487 819	10 249 087	9 727 775
Passive					
Most urgent liabilities (P1)	1 232 866	1 419 573	1 713 023	2 282 321	1 077 735
Short-term liabilities (P2)	2 253 774	1 247 104	1 219 275	254 534	393 098
Long-term liabilities (P3)	972 004	1 077 553	1 124 236	1 162 880	1 556 938
Permanent liabilities (P4)	6 315 452	6 322 442	6 431 285	6 549 352	6 700 004
Balance: (P1+P2+P3+P4)	10 774 096	10 066 672	10 487 819	10 249 087	9 727 775
Payment surplus or shortfall on					
Most urgent liabilities (P1)	-276 023	-876 005	-705 114	-1 132 017	-536 329
Short-term liabilities (P2)	-462 899	433 470	360 919	968 701	588 604
Long-term liabilities (P3)	273 871	59 256	212 150	115 380	8 696
Permanent liabilities (P4)	465 051	383 279	132 045	47 936	-60 971

Source: compiled by the author himself.

Based on Table 35, we can talk about the presence of one problem that has been observed throughout the entire period under review. P1 is greater than A1. This



suggests that the company will not have enough absolutely liquid assets to pay off its short-term accounts payable. Note that in 2019 the missing amount is the smallest. This suggests that the problem has been noticed and the management is trying to solve it.

Articles A3-P3 and A2-P2 for all periods under review had the required indicators.

It should be noted that by the end of 2019, the enterprise additionally had a problem in column A4-P4. This suggests that the company would not be able to pay off long-term obligations with the help of hard-to-sell assets. It can be assumed that the company had a lot of short-term borrowings during this period and too few receivables.

**Table 36 - Analysis of liquidity ratios of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2015 – 2019**

Indicators	2015	2016	2017	2018	2019	Absolute deviation for the period			Growth rates for the period, %					
						(+/-)			5-4	6-5	6-2	5-4	6-5	6-2
						5-4	6-5	6-2						
1	2	3	4	5	6	7	8	9	10	11	12			
Absolute liquidity ratio	0,27	0,20	0,34	0,45	0,37	0,110	-0,085	0,094	31,9	-18,8	34,1			
Quick liquidity ratio	0,79	0,83	0,88	0,94	1,04	0,053	0,100	0,247	6,0	10,7	31,4			
Current liquidity ratio	1,12	1,23	1,31	1,41	1,75	0,094	0,345	0,627	7,2	24,6	55,8			
Current liquidity, thousand rubles	433363	621557	915192	1030425	1105461	115233	75036	672 098	12,6	7,3	155,1			
Prospective liquidity, thousand rubles	273871	59 256	212 150	115 380	8 696	-96770	-106684	-265175	-45,6	-92,5	-96,8			

Source: compiled by the author himself.

Based on table 36, the following conclusion can be drawn, in this area the company had problems that were solved. Thus, the current liquidity ratio at the end of 2019 did not meet the recommended value of  $\geq 2$ . This suggests that in the event

that the company had to pay off its short-term obligations in 2019 in a relatively short time, they would be able to pay only 60%, and normally they need to do this at least 70%. Note that the same problem existed in 2018 and 2019. This would prevent the company from continuing normal activities and, at best, it would lead to serious problems, at worst, to bankruptcy. It should be noted that the indicator is growing every year and in 2019 approached the optimal value. This indicates a significant reduction in the company's short-term liabilities.

The absolute liquidity ratio is several times higher than the recommended value ( $\geq 0.1$ ) for all periods under review. This suggests that if the company needs to pay off its short-term obligations as soon as possible, then this will be possible and the payment will be more than 30% of all existing short-term obligations. This indicates a solid amount of money in the settlement accounts of the organization.

**Table 37 - Analysis of the sources of formation of stocks of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2015 – 2019**

№	Indicators	2015	2016	2017	2018	2019	Absolute change, +/- 2019 к 2015	Relative change, 2019 к 2015
1	Stocks with VAT	1 172 285	1064 092	1 259 387	1 193 741	1 053 186	-119 099	-10,16%
2	Equity	6 315 452	6 322 442	6 431 285	6 549 352	6 700 004	384 552	6,09%
3	Fixed assets	6 854 093	6 778 438	6 640 329	6 681 807	7 151 481	297 388	4,34%
4	Availability of own working capital	433 363	621 557	915 192	1 030 425	1 105 461	672 098	155,09%
5	long term duties	972 004	1 077 553	1 124 236	1 162 880	1 556 938	584 934	60,18%
6	Availability of own and long-term sources of reserves formation	7 287 456	7 399 995	7 555 521	7 712 232	8 256 942	969 486	13,30%
7	Short-term credits and loans	3 486 640	2 666 677	2 932 298	2 536 855	1 470 833	-2 015 807	-57,82%
8	The total value of the main sources of reserves formation	10 774 096	10 066 672	10 487 819	10 249 087	9 727 775	-1 046 321	-9,71%

Source: compiled by the author himself.

The data given in table 37 show that the organization of CJSC «Mikoyanovsky Meat Processing Plant» is not only provided with a good foundation of its own working and non-current assets, but also tends to increase them. However, managers need to monitor the growth rate of working capital, as their accumulation can lead to obsolescence and unsuitability for use in production. In the meat industry, an increase in working capital and equity of an organization indicates both the expansion of its market position and the strengthening of its market share, as well as competitiveness.

**Table 38 - Indicators of the financial condition of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2018 – 2019**

Name of indicator	2018		2019	
	the actual level of the indicator	number of points	the actual level of the indicator	number of points
Absolute liquidity ratio	0,45	16	0,37	12
Quick liquidity ratio (critical assessment ratio)	0,94	0	1,04	1
Current liquidity ratio	1,41	7,5	1,75	12
Coverage ratio with own sources of financing	0,29	6	0,43	12
Financial Independence Ratio	0,64	17	0,69	17
The coefficient of financial independence in terms of the formation of reserves and costs	0,86	8,5	1,05	13,5
Total	x	55	x	67,5

Source: compiled by the author himself.

In this table 38, an assessment of the financial condition of the organization was carried out by applying the methodology of a comprehensive (point) assessment. This technique consists in classifying organizations by the level of financial risk, that is, any organization can be assigned to a certain class depending on the number of points scored, based on the actual values of its financial ratios. At the end of 2018, this organization scored 55 points, which correspond to organizations with an average financial condition. At the end of 2019, the organization's positions are strengthening and the number of points is 67.5, which

makes it possible to classify this organization as an organization with a normal financial situation.

**Table 39 - Assessment of business activity of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017 – 2019**

Indicators, thousand rubles	2017	2018	2019	Growth rate, %
Net profit	108 843	118 067	150 652	127,6
Revenues from sales	12 051 747	11 065 804	10 570 139	95,5
Average annual asset value	10 277 246	10 368 453	9 988 431	96,3

Source: compiled by the author himself.

The data in Table 39 allows us to assess the business activity of the organization and pay attention to the steady increase in the organization's revenue, as well as the growth in the average annual value of assets, which is a favorable result of the organization's activities. Along with the growth in revenue, this organization has a tendency to increase net profit, this indicates an increase in the organization's income, as well as an excess of the growth rate of income over the growth rate of expenses.

**Table 40 - Analysis of business activity of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017 – 2019**

Name of financial ratio	2017	2018	2019	Abs. devi. 2019 to 2018	Growth rate, %	Abs. devi. 2018 to 2017	Growth rate, %
				+/-		+/-	
Sales proceeds, thousand rubles	12 051 747	11 065 804	10 570 139	-495 665	-4,5	-985 943	-8,2
Average annual value of assets, thousand rubles	10 277 246	10 368 453	9 988 431	-380 022	-3,7	91 208	0,9
Average annual value of current assets, thousand rubles	3 567 862	3 707 385	3 071 787	-635 598	-17,1	139 523	3,9
Average annual cost of fixed assets, thousand rubles	6 632 656	6 580 087	6 617 353	37 267	0,6	-52 569	-0,8
Average annual cost of equity, thousand rubles	6 376 864	6 490 319	6 624 678	134 360	2,1	113 455	1,8
The average annual cost of inventory, thousand rubles.	1 161 740	1 226 564	1 123 464	-103 101	-8,4	64 825	5,6
Average annual value of accounts receivable, thousand rubles	1 630 384	1 401 715	1 102 469	-299 246	-21,3	-228 670	-14,0

Average annual value of accounts payable, thousand rubles	1 566 298	1 997 672	1 680 028	-317 644	-15,9	431 374	27,5
Asset turnover ratio (capital return), turnover	1,173	1,067	1,058	-0,01	-0,8	-0,11	-9,0
Duration of asset turnover, days	311,26	342,00	344,91	2,91	0,9	31	9,9
Working capital turnover ratio (mobile), turnover	3,38	2,98	3,44	0,46	15,3	-0,39	-11,6
Duration of mobile funds turnover, days	108,06	122,29	106,07	-16,21	-13,3	14,23	13,2
return on assets, turnover	1,817	1,682	1,597	-0,08	-5,0	-0,14	-7,4
Duration of fixed assets turnover, days	200,88	217,04	228,51	11,46	5,3	16,16	8,0
Equity turnover ratio, turnover	1,890	1,705	1,596	-0,11	-6,4	-0,18	-9,8
Duration of equity turnover, days	193,13	214,08	228,76	14,68	6,9	20,95	10,8
Turnover ratio of material assets (stocks), turnover	10,37	9,02	9,41	0,39	4,3	-1,35	-13,0
Inventory turnover duration	35,18	40,46	38,79	-1,66	-4,1	5,27	15,0
Accounts receivable turnover ratio, turnover	7,39	7,89	9,59	1,69	21,4	0,50	6,8
Duration of accounts receivable turnover, days	49,38	46,23	38,07	-8,17	-17,7	-3,14	-6,4
Accounts payable turnover ratio, turnover	7,69	5,54	6,29	0,75	13,6	-2,16	-28,0
Duration of accounts payable turnover, days	47,44	65,89	58,01	-7,88	-12,0	18,46	38,9

Source: compiled by the author himself.

It is necessary to immediately make a remark, for most of the indicators presented, it is necessary to use average values, which makes it impossible to calculate for all the periods under consideration.

The company increased turnover on all assets and liabilities. This follows from the duration of turnover and turnover ratios. On the one hand, the high turnover of the company indicates a quick receipt of money, which makes it possible to quickly «turn over» all the company's assets. On the other hand, turnover on short-term liabilities and accounts payable also increased. This suggests that it is necessary to repay obligations more urgently. Perhaps this is what leads the company to the need for a rapid turnover of assets.

It is important to note that the financial cycle has decreased. It was already in a negative value, now its negative value has become even greater. It can be seen as both a positive and a negative event. On the one hand, a negative value indicates that

the company, on average, delays payments on obligations. Note that the value is already more than a crescent and tends to mark a three-week delay. It is possible that some companies will not cooperate with «Mikoyanovsky Meat Processing Plant» CJSC precisely because of a rather large delay. On the other hand, the delay in payments is short-term, it is less than a month, so stable and large enterprises will not place much emphasis on this. It is important to additionally note that the negative value of the financial cycle, which is less than a month, indicates the desire and ability of the company to receive the maximum benefit from the funds and opportunities provided.

**Table 41 - Profitability analysis of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017 – 2019**

Name of indicator	2017	2018	2019	Deviation,	Growth rate, %
				(+/-)	
Profit from sales, thousand rubles	307 139	88 483	319 477	230 994	261,1
Sales proceeds, thousand rubles	12 051 747	11 065 804	10 570 139	-495 665	-4,5
Net profit (NP), thousand rubles	108 843	118 067	150 652	32 585	27,6
Average annual value of assets, thousand rubles	10 277 246	10 368 453	9 988 431	-380 022	-3,7
Average annual value of non-current assets, thousand rubles	6 709 384	6 661 068	6 916 644	255 576	3,8
Average annual value of current assets, thousand rubles	3 567 862	3 707 385	3 071 787	-635 598	-17,1
Average annual cost of equity, thousand rubles	6 376 864	6 490 319	6 624 678	134 360	2,1
Average annual cost of long-term liabilities, thousand rubles	1 100 895	1 143 558	1 359 909	216 351	18,9
Return on sales (Ppr), %	0,90	1,07	1,43	0,4	X
Economic profitability (Rec), %	1,06	1,14	1,51	0,4	X
Return on non-current assets (Rboa), %	1,62	1,77	2,18	0,4	X
Return on current assets (Roa), %	3,05	3,18	4,90	1,7	X
Return on equity (Rsk), %	1,71	1,82	2,27	0,5	X
Return on permanent capital (Rpc), %	1,46	1,55	1,89	0,3	X

Source: compiled by the author himself.

According to Table 41 return on sales at the end of the reporting period increased compared to the profitability of the previous period by 0.4%. This increase occurred under the influence of higher prices for manufactured products.

In the process of profitability analysis, it is necessary to evaluate the profitability of all capital, equity, permanent funds. For example, return on assets (economic profitability) is a general indicator showing how much profit falls on 1 ruble. property. The amount of dividends on shares in joint-stock companies depends on the value of this coefficient.

Profitability ratios can be calculated not only for the entire volume of the enterprise's funds, but also for certain types of resources (in particular, fixed assets).

The profitability ratio of both equity and working capital decreased. This coefficient demonstrates the profit from each monetary unit invested by the capital owners. It is a basic coefficient that characterizes the effectiveness of investments in any activity.

Based on the analysis of the profitability of the production activities of CJSC «Mikoyanovsky Meat Processing Plant», it can be concluded that both the profitability of sales and the overall profitability of this organization have increased. The overall profitability of the organization was positively affected by the reduction in costs from core activities (Figure 3).

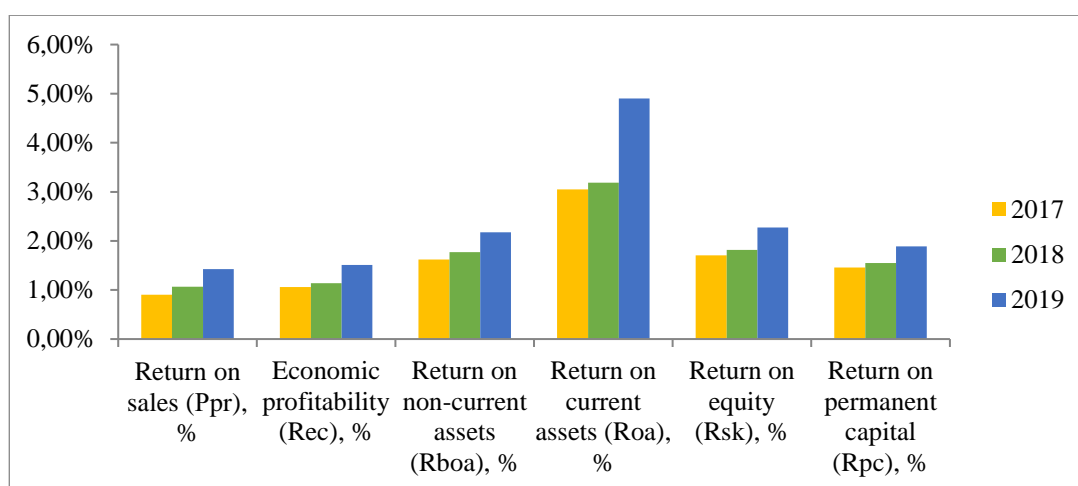


Figure 3 - Chart of profitability indicators of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017 - 2019

This chart allows you to visually see the ratio of profitability indicators of the organization, as well as observe that the highest profitability indicators for this organization were in 2019 for all indicators due to the excess of income growth rates over expenses.

**Table 42 - Factor analysis of the return on equity of «Mikoyanovsky Meat Processing Plant» CJSC for the period 2018 – 2019**

Name of the factor indicator	Change in the return on equity due to	The share of the influence of the factor
Profitability of sales	0,61%	135,80%
Equity turnover ratio	0,02%	3,46%
Financial activity ratio	-0,17%	-39,25%
Cumulative influence of factors	0,45%	100,00%

Source: compiled by the author himself.

This table 42 allows us to determine that the return on equity at the end of the reporting period increased due to an increase in equity turnover and return on sales. The financial activity of the organization had the most negative impact of more than 39%, which is associated with a decrease in the organization's income.

**Table 43 - Factor analysis of the profitability of assets of «Mikoyanovsky Meat Processing Plant» CJSC for the period 2018 – 2019**

Name of the factor indicator	Change in return on assets	Share of influence of the factor
Profitability of sales	0,38%	103,48%
Asset turnover ratio	-0,01%	-3,48%
Cumulative influence of factors	0,37%	100,00%

Source: compiled by the author himself.

This table 43 strengthens the conclusion that the positive change in return on sales at the end of the reporting period led to an increase in return on assets. However, it should be noted that the asset turnover ratio at the end of the reporting period was negative, and also had a negative impact on the return on assets.



#### 4.2.3 Analysis of the probability of bankruptcy of ZAO «Mikoyanovsk Meat Processing Plant»

**Table 44 - Analysis of the probability of bankruptcy of CJSC «Mikoyanovsky Meat Processing Plant» based on the Altman model for the period 2018 – 2019**

Indicators	2018	2019	Absolute deviation,	Rate of increase
			+/-	
X1 = own working capital / amount of assets	0,101	0,114	0,013	13,0%
X2=retained earnings/amount of assets;	0,609	0,657	0,048	7,9%
X3=earnings before interest/total assets;	0,015	0,022	0,007	44,1%
X4=book value of equity/debt capital;	1,770	2,213	0,443	25,0%
X5 = sales volume (revenue) / total assets.	1,080	1,087	0,007	0,6%
$Z = 0,717X1 + 0,847X2 + 3,107X3 + 0,42X4 + 0,995X5$	2,453	2,717	0,264	10,8%
$Z = 1,2 K1 + 1,4 K2 + 3,3 K3 + 0,6 K4 + 1 K5$	3,165	3,543	0,378	11,9%

Source: compiled by the author himself.

In this table 44, two five-factor models for analyzing the probability of bankruptcy of an organization were used. Both coefficients at the end of the analyzed period corresponded to the norm that the probability of bankruptcy of the company is from 35% to 50%. The accuracy of the forecast in this model for the horizon of one year is 95%, for two years - 83%, which is its advantage. The disadvantage of this model is that it can essentially be considered only in relation to large companies that have placed their shares on the stock market.

**Table 45 - Analysis of the probability of bankruptcy of Mikoyanovsky Meat Processing Plant CJSC based on the Taffler model for the period 2018 – 2019**

Indicators	2018	2019	Absolute deviation,	Rate of increase
			+/-	
X1 = profit from sales / short-term liabilities	0,047	0,102	0,056	120,1%
X2=Current assets/borrowed capital;	0,964	0,851	-0,113	-11,8%
X3=current liabilities/amount of assets;	0,248	0,151	-0,096	-38,9%
X4=Revenue/assets;	1,080	1,087	0,007	0,6%

$Z_t = 0,53 \times X_1 + 0,13 \times X_2 + 0,18 \times X_3 + 0,16 \times X_4$	0,367	0,366	-0,001	-0,4%
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Source: compiled by the author himself.

Based on the data obtained in Table 45, it can be concluded that this organization has a low chance of insolvency, as it is in the «green zone» and the coefficient is  $>0.3$ . In the R. Taffler equation, the variable  $X_1$  plays a dominant role, and the predictive ability of the model is lower compared to the Altman Z-score, as a result of which slight fluctuations in the economic situation and possible errors in the initial data, in the calculation of financial ratios and the entire index can lead to erroneous conclusions.

## 5 Results and discussion

### 5.1 Assessment and comparison of the financial position of the companies

In the course of an in-depth analysis of financial statements, it is necessary to analyze the structure of the balance sheet, as well as to identify the most significant balance sheet items for each organization. Further, the author will consider the results of the analysis of the balance sheet of PJSC «Cherkizovo Group».

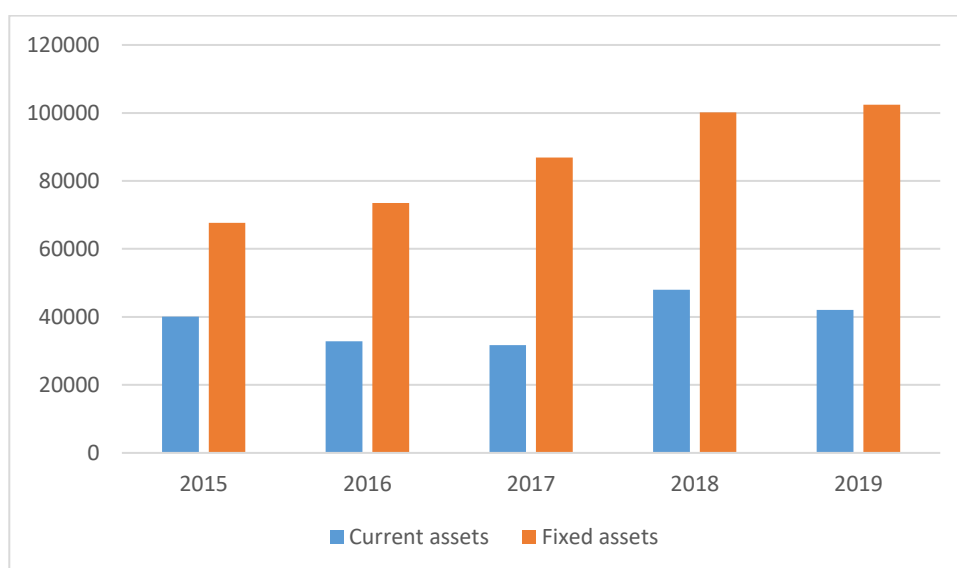


Figure 4 - Graph of changes in the assets of PJSC «Cherkizovo Group» for the period 2015 - 2019 (million rubles)

This graph shows that non-current assets make the main contribution to total assets, while current assets have a declining rate and did not significantly contribute to the growth of total assets due to lower cost.

Total assets tended to grow over the analyzed period, reaching a level of 25%, but in 2019 their growth slowed down by 3% due to a decrease in cash and cash equivalents (-66%) in short-term receivables (-20%) and other current assets (-42%). The growth of assets indicates the expansion of the size of assets due to business performance in the period 2015-2019. Thanks to impressive growth in revenue and profits, which will be analyzed in detail in the next section, PJSC «Cherkizovo Group» used resources to reinvest in digital transformation in technologies in the

field of e-commerce, express delivery and logistics. This is the main reason for the expansion of the business and the growth of total assets.

With a strong monetary base, PJSC «Cherkizovo Group» can expand its network and increase investment in technology and infrastructure. compete with other organizations without the need to raise capital by issuing debt or shares.

Current assets have a higher volatility compared to non-current assets, which have a CAGR of 1.2%, mainly due to an increase in inventories. This shows that in order to expand the company's business, it is necessary to use the external capital of the bank in combination with internal resources. Cash and short-term receivables decrease with decreasing revenue, but this depends on the company's phasing policy on collection of receivables. The balances on these accounts reflect a temporary nature and directly affect the liquidity ratio, which will be analyzed later.

Inventory rose towards the end of 2019 as PJSC «Cherkizovo Group» is essentially the largest meat producer in Russia, the raw material business is the main business, moreover, the inventory is agricultural products harvested from biological assets, so the increase in inventory is not a problem for the financial position of the organization.

Non-current assets have a higher CAGR of 10.9% and are primarily other non-current assets, which are intangible assets, goodwill, debt receivables, non-current biological assets and investments in joint ventures and associates.

Accordingly, it can be seen that the highest growth rate of long-term investments and other non-current assets shows that the strong external resources of PJSC «Cherkizovo Group» are the result of growth in income and the size of the organization.

The percentage changes in assets are graphically reflected in Figure 5. The structural shift towards increasing long-term assets reflects the characteristics of the meat industry.

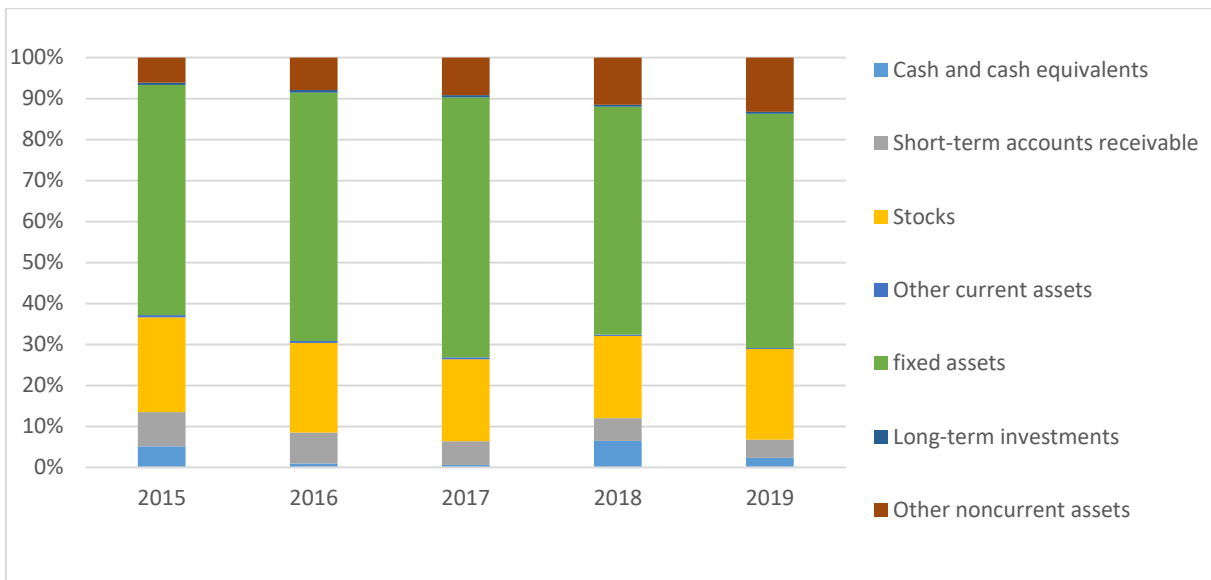


Figure 5 - Graph of the asset structure of PJSC «Cherkizovo Group» for the period 2015 - 2019 (%)

This graph allows us to see that fixed assets and inventories have the largest share in the asset structure of the balance sheet of this organization. An increase in the value of fixed assets indicates the expansion of the organization's activities, the increase in its scale.

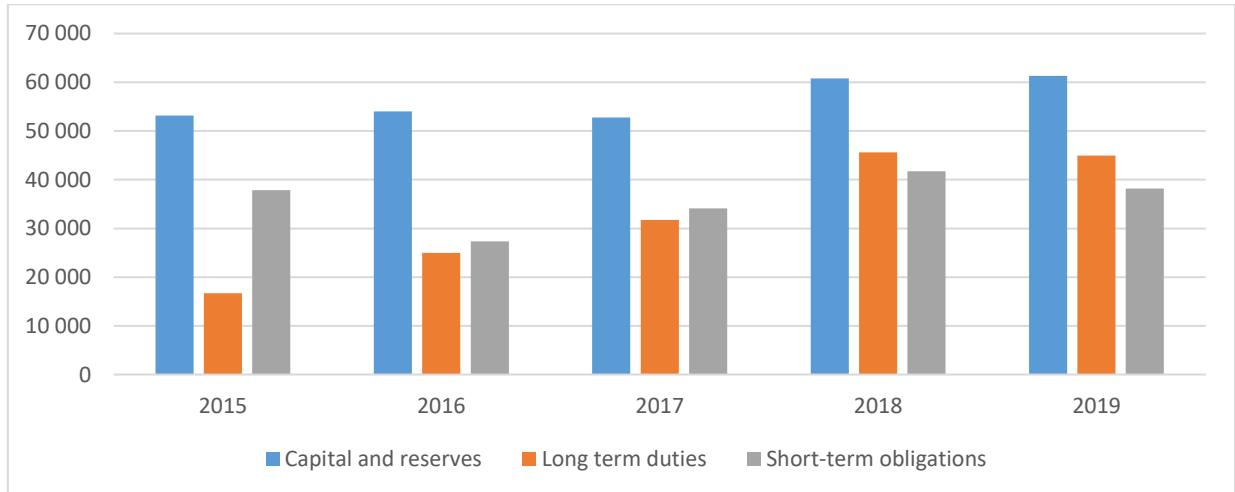


Figure 6 – Schedule of changes in liabilities of PJSC «Cherkizovo Group» for the period 2015 - 2019 (million rubles)

This graph (Figure 6) shows that capital and reserves make the main contribution to total liabilities, while liabilities have a declining rate. Equity capital shows a stable upward trend over the period under review.

Liabilities tend to decrease throughout the analyzed period; by the end of 2019, the growth rate of long-term liabilities was 28.1%, and short-term liabilities 0.2%. This is a favorable trend and indicates that the organization is paying suppliers' bills on time, is consistently able to pay salaries to employees, and is also able to cover its costs from its own funds without obtaining new loans and borrowings.

In general, the overall structure of capital and liabilities has changed over the years, but there have been no significant changes. The structure of liabilities mainly consists of equity and reserves of the organization, on average, not less than 40% of the total amount. In the structure of the company's borrowed capital, both long-term and short-term, each accounted for less than 30% throughout the entire period. Short-term liabilities make up a small share between 2015 and 2019 and tend to decline proportionally in 2019 due to the impact of debt collection policies and business scaling, as described above (Figure 7).

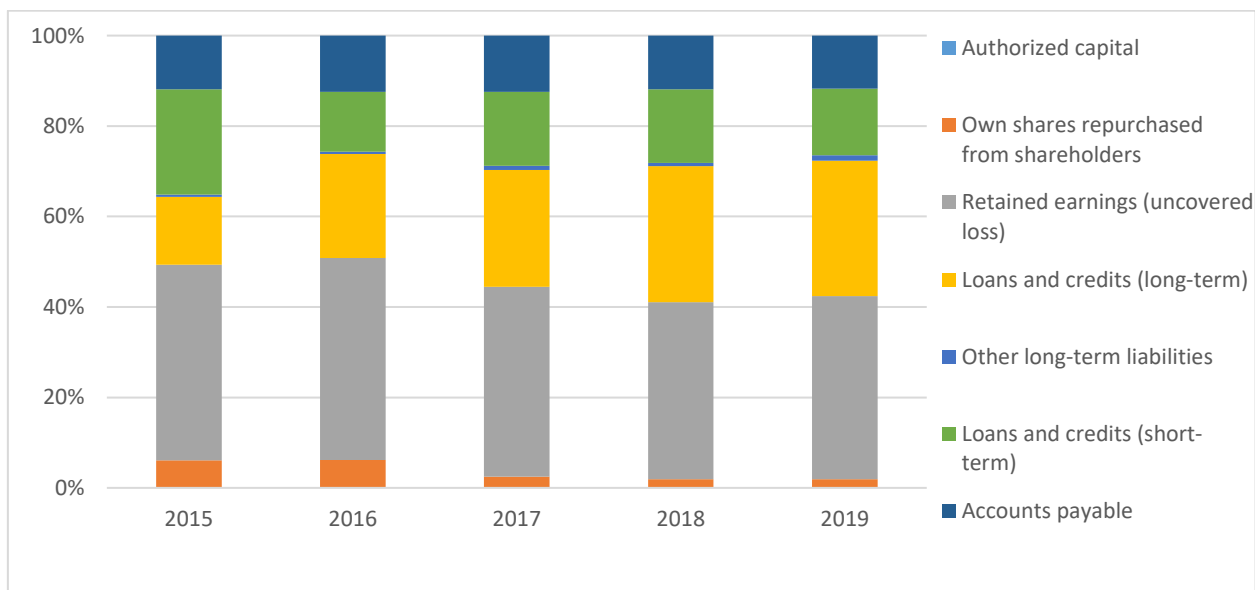


Figure 7 - Chart of the structure of liabilities of PJSC «Cherkizovo Group» for the period 2015 - 2019 (%)

Last year, the structure of liabilities amounted to 71%, mainly the organization's own capital. At the same time, retained earnings amount to at least 40% of the total liabilities of the balance sheet. The company increased its charter capital by issuing additional shares.

Next, consider the changes and structure of assets and liabilities of the company's balance sheet of CJSC «Mikoyanovsky Meat Processing Plant».

The results of analyze that the overall trend of the company's assets to the base year has declined, and compared to previous years, the slope of this decline trend was the highest in the last year of 2019. For 2019, the author calculates a compound annual growth rate (CAGR) of total assets of approximately -2.5%, which is a high rate of decline in assets in the meat industry. At the same time, the average annual growth rate of non-current assets is 1.1%, and for current assets - 10%. The main motivation for the growth of total assets comes from non-current assets, which is confirmed in the following figure 8.

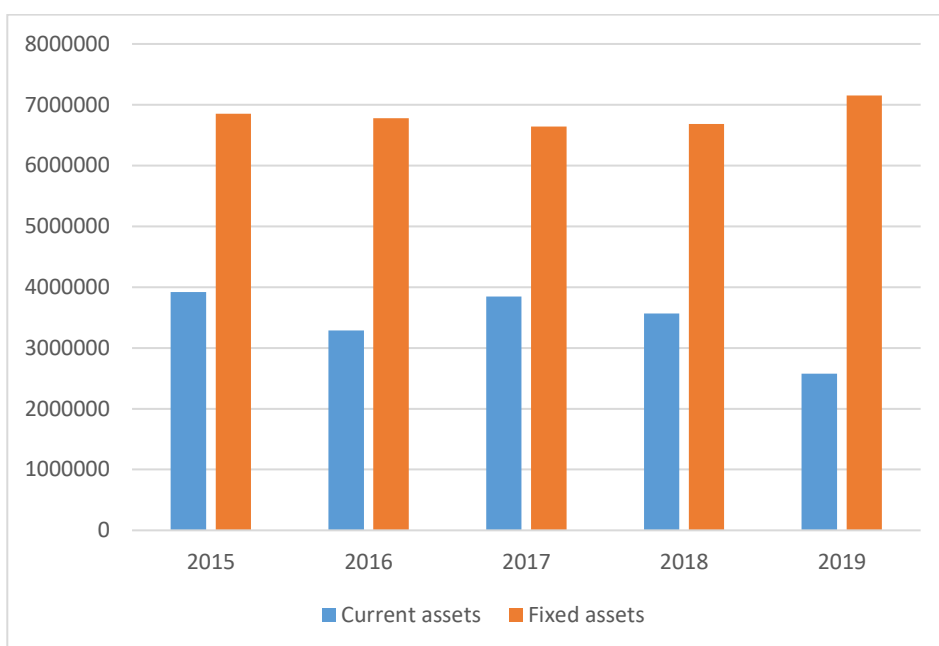


Figure 8 - Graph of changes in the assets of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2015 – 2019, thousand rubles

This graph shows that non-current assets make the main contribution to total assets, while current assets have a declining rate and did not significantly contribute to the growth of total assets due to lower cost. The total assets tended to decrease during the analyzed period. Current assets have a higher volatility than non-current assets, which have a CAGR of 1.1%, mainly due to an increase in inventories. This shows that in order to expand the company's business, it is necessary to use the external capital of the bank in combination with internal resources. Cash and short-term receivables decrease with decreasing revenue, but this depends on the company's phasing policy on collection of receivables. The balances on these

accounts reflect a temporary nature and directly affect the liquidity ratio, which will be analyzed later.

Non-current assets have a higher CAGR of 10% and are primarily other non-current assets, which are intangible assets, goodwill, debt receivables, non-current biological assets and investments in joint ventures and associates. In 2019, there was a reduction in fixed assets due to depreciation, while the company did not purchase new fixed assets.

Non-current assets have the largest share of total assets with 74% of total assets in 2019. The trend has been increasing the share of non-current assets over the years and, conversely, was to reduce the share of current assets. The shares of other current assets and intangible assets are insignificant.

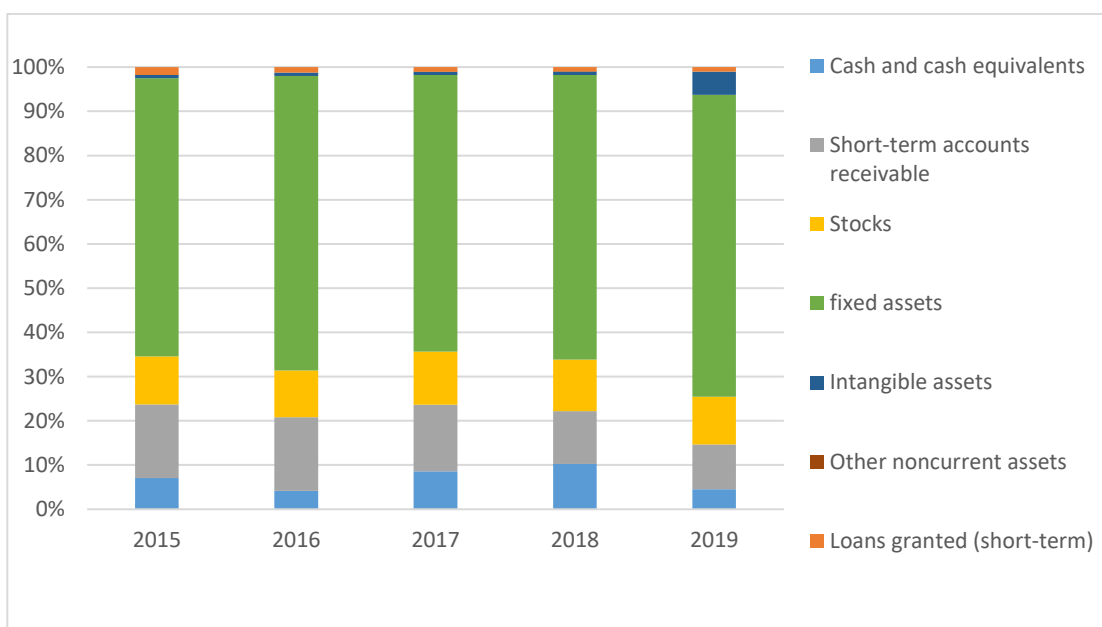


Figure 9 - Graph of the asset structure of CJSC «Mikoyanovsk Meat Processing Plant» for the period 2015 - 2019 (%)

The percentage changes in assets are graphically reflected in Figure 9, where the changes are more visible. The structural shift towards increasing long-term assets reflects the characteristics of the meat industry.

Liabilities tend to decrease throughout the analyzed period; by the end of 2019, the growth rate of long-term liabilities was 12.5%, and short-term liabilities - 19.4%. This is a favorable trend and indicates that this organization pays suppliers'



invoices on time, is consistently able to pay salaries to employees, and is also able to cover its expenses from its own funds without obtaining new loans and borrowings (Figure 10).

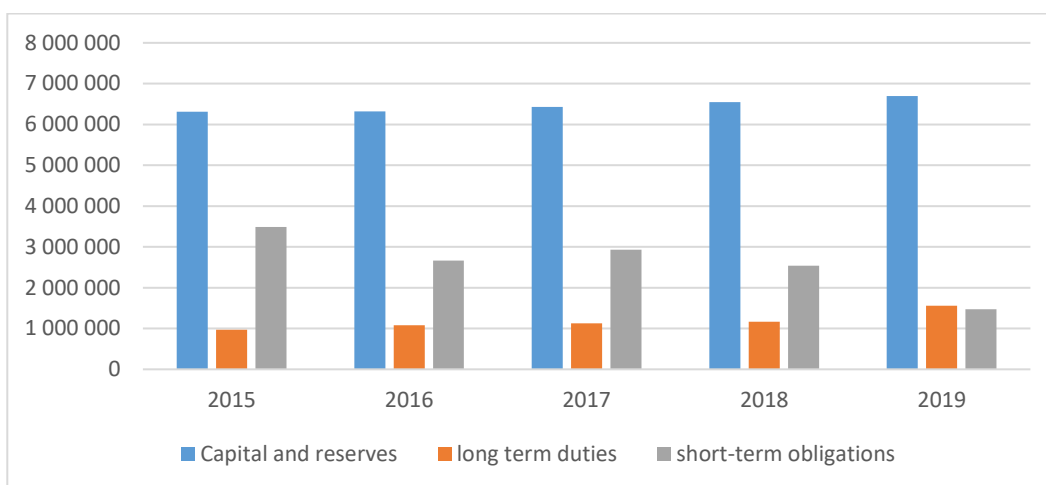


Figure 10 - Schedule of changes in liabilities of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2015 – 2019, thousand rubles

This chart shows that capital and reserves are the main contributor to total liabilities, while liabilities are declining.

In general, the overall structure of capital and liabilities has changed over the years, but there have been no significant changes. The structure of liabilities mainly consists of equity and reserves of the organization, on average, not less than 60% of the total amount. In the structure, the company's borrowed capital, both long-term and short-term, was less than 20% each throughout the entire period.

Short-term liabilities represent a negligible share between 2015 and 2019 and tend to decrease proportionally in 2019 due to the impact of debt collection policies and business scaling as described above.

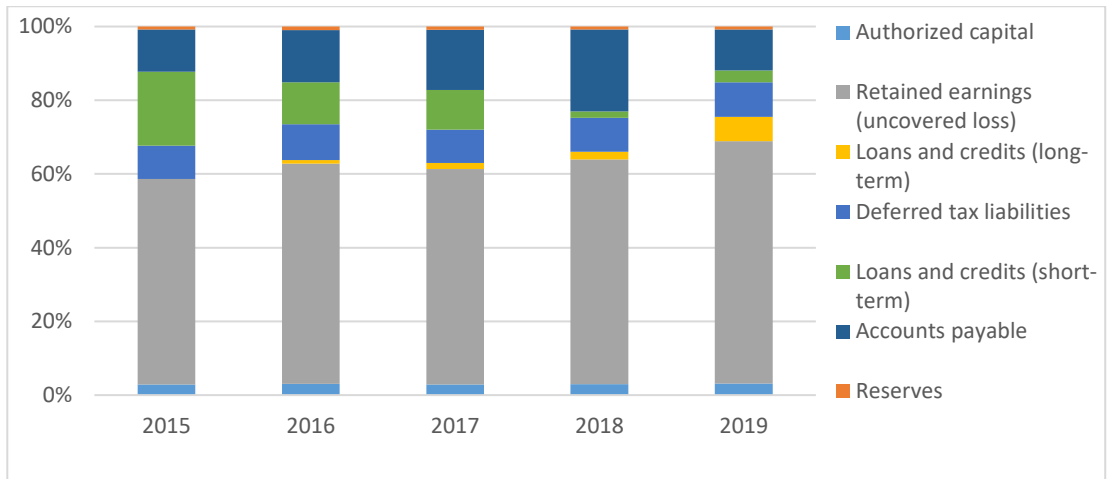


Figure 11 - Graph of the structure of liabilities of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2015 - 2019 (%)

Last year, the structure of liabilities was 71%, mainly the organization's own capital (Figure 11). At the same time, retained earnings amount to at least 40% of the total liabilities of the balance sheet. The company increased its charter capital by issuing additional shares.

## 5.2 Assessment and comparison of the financial performance of the companies

At the next stage of financial analysis, it is necessary to analyze the statement of financial results of PJSC Cherkizovo Group using vertical and horizontal methods. Horizontal analysis of the income statement is an integral part of the analysis of financial statements.

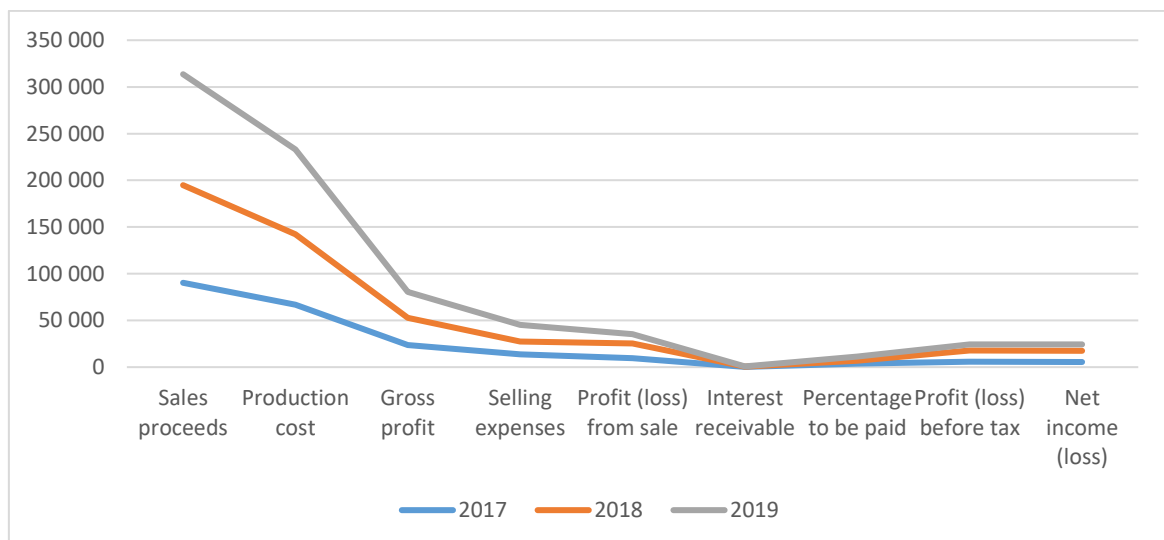


Figure 12 - Schedule of changes in the financial results of PJSC Cherkizovo Group for the period 2017 - 2019 (thousand rubles)

This graph allows us to see that the overall trend of revenue, expenses and net income towards the base year is increasing compared to previous years. In particular, revenue has a CAGR of 11.85%, which is above the industry average. Revenue has approximately doubled over the past 3 years, and «Cherkizovo Group» PJSC has always maintained high and stable revenue growth rates. General expenses in the period 2017-2019 had a CAGR of 12.51%, much higher than the change in revenue, and in contrast, general and administrative expenses had a lower CAGR of 11.36%. This suggests that the company has good control over general and administrative expenses.

The first component of the income statement is revenue. As can be seen from the results of Table 10, the organization saw a significant increase in revenue in 2019 by 14%, and the lowest growth in 2016 was only 8% due to the impact of swine flu reducing sales with a lower gross margin.

At the next stage of the scientific research, we will analyze in more detail the structure of income and expenses of the organization PJSC «Cherkizovo Group».

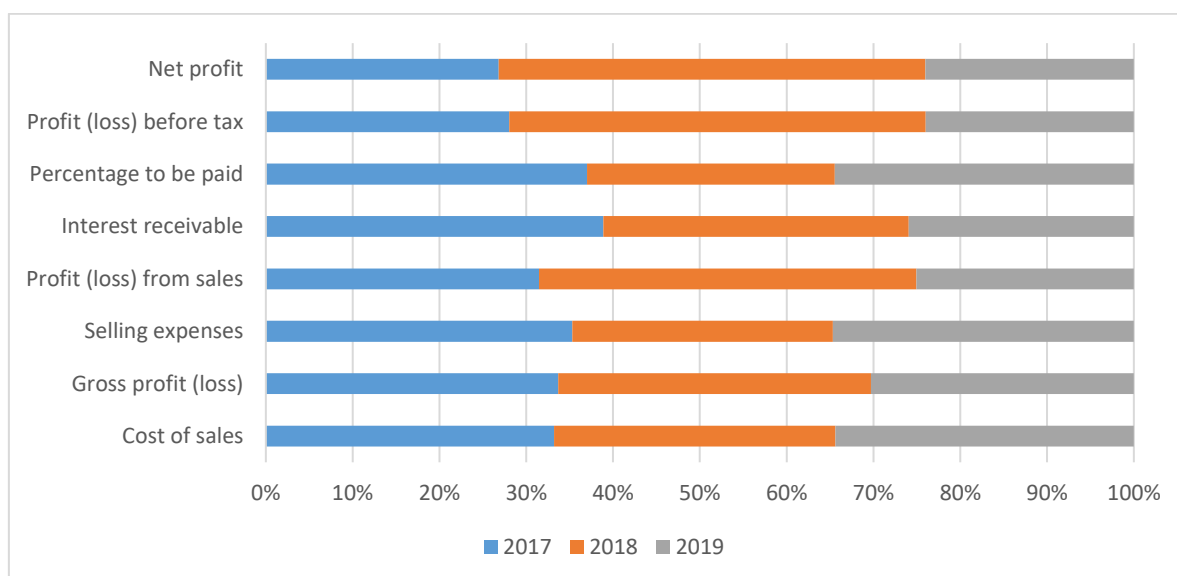


Figure 13 - Graph of the structure of the financial results of PJSC Cherkizovo Group for the period 2017 - 2019 (%)

Analyzing the structure of income and expenses of the organization, it is necessary, first of all, to note that income from ordinary activities occupy more than 99% of all income of the organization throughout the analyzed period. It is due to this type of income that the organization covers its current expenses and generates profit.

So in 2019, compared to the previous year, the company's revenue in the reporting year increased by 14,259 thousand rubles, which indicates an improvement in the financial condition. The company, among other income, does not have interest receivable, as well as income from participation in other organizations.

The table shows that the costs of ordinary activities increased by 19,814 thousand rubles. This is due, first of all, to an increase in the cost of sales of the enterprise in the reporting year (2019). The opposite is observed for other expenses.

An analysis of the structure of expenses shows that in 2019, the main share of expenses was expenses for ordinary activities - 96%, while the share of other expenses is only 4%. This is a positive point, since it means that PJSC «Cherkizovo Group» is engaged in its core business, that is, it sells goods to the side.

At the next stage of financial analysis, it is necessary to analyze the statement of financial results of CJSC «Mikoyanovsky Meat Processing Plant» using vertical and horizontal methods. Horizontal analysis of the income statement is an integral part of the analysis of financial statements. The results of a horizontal analysis of the statement of financial results of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017-2019 clearly shown in the graph.

It should be noted that for the entire analyzed period, the overall trend of revenue, expenses and net profit to the base year is decreasing compared to previous years.

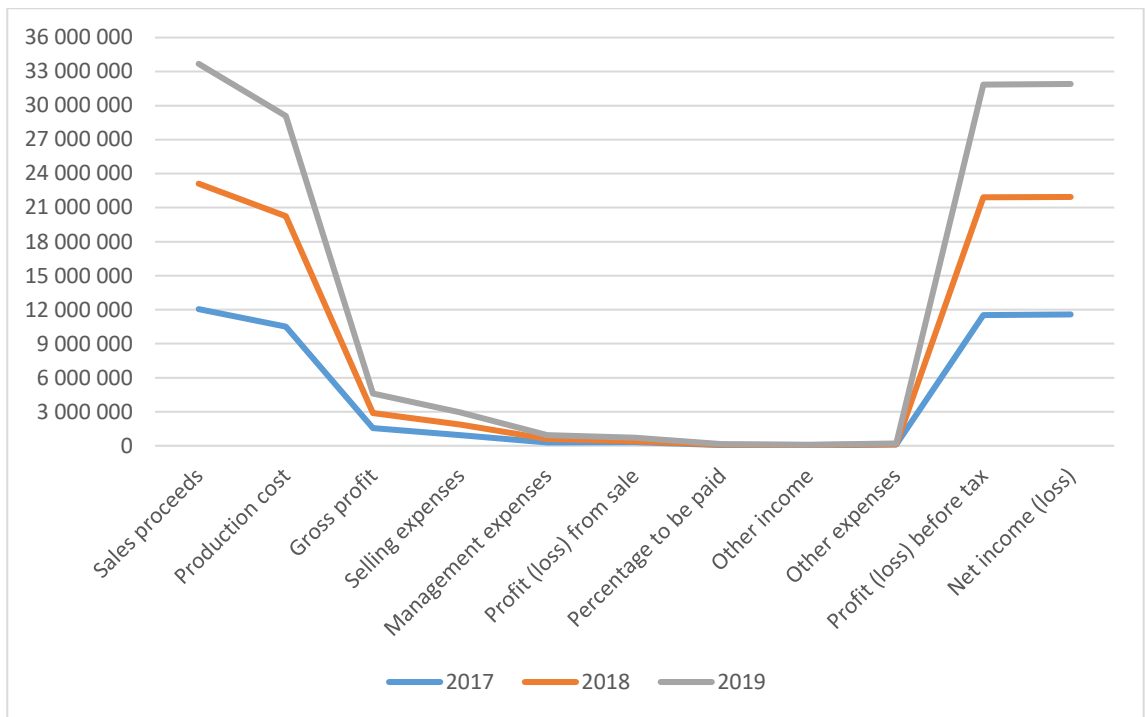


Figure 14 - Schedule of changes in the financial results of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017 – 2019, thousand rubles

In particular, revenue has a CAGR of 3.33%, above the industry average. General expenses in the period 2015-2019 had an CAGR of 8%, much higher than the change in revenue, and in contrast, general and administrative expenses had a lower CAGR of 2%. This suggests that the company has good control over general and administrative expenses.

The first component of the income statement is revenue. As can be seen from the results of Table 28, the organization had a significant increase in revenue in 2019 by 13.64%, and the lowest growth in 2017 was 1.88% due to the impact of swine flu reducing sales with a lower gross margin. Further, we will analyze in more detail the structure of income and expenses of the organization CJSC «Mikoyanovsky Meat Processing Plant».

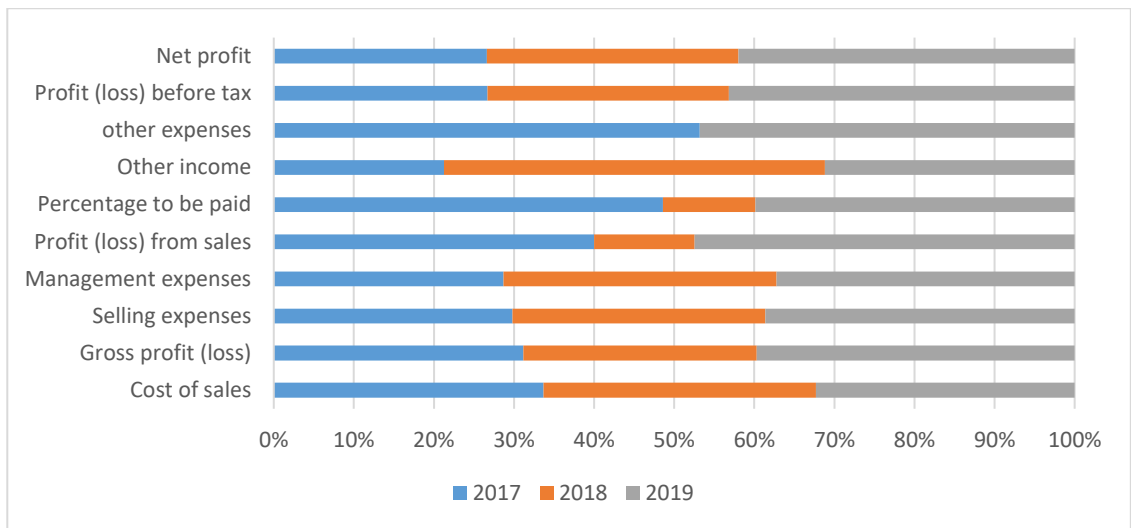


Figure 15 - Graph of the structure of the financial results of CJSC «Mikoyanovsky Meat Processing Plant» for the period 2017 - 2019 (%)

Analyzing the structure of income and expenses of the organization, it is necessary, first of all, to note that income from ordinary activities occupy more than 99% of all income of the organization throughout the analyzed period. It is due to this type of income that the organization covers its current expenses and generates profit.

So in 2019, compared with the previous year, the company's revenue in the reporting year decreased by 550,679 thousand rubles, which indicates a deterioration in the financial condition. The company, among other income, does not have interest receivable, as well as income from participation in other organizations.

The table shows that the expenses for ordinary activities also decreased by 607,895 thousand rubles. This is due, first of all, to an increase in the cost of sales of the enterprise in the reporting year (2019).

An analysis of the structure of expenses shows that in 2019, the main share of expenses was expenses for ordinary activities - 98%, while the share of other expenses is only 2%. This is a positive thing, since it means that CJSC Mikoyanovsky Meat Processing Plant is engaged in its main activity, that is, it sells goods to the side.

### 5.3 The most significant factors influencing the profit of the companies

Profit is formed under the influence of various factors that affect the performance of the enterprise. It is obvious that some factors will influence the profit positively and will lead to an increase in the profit of the enterprise. Other factors, on the contrary, will have a negative effect and lead to a decrease in the profit of the enterprise. At the same time, it is important to understand that the negative impact of some factors can reduce or even negate the positive impact of others.

There are groups of external factors that affect the formation of the profit of the enterprise:

- 1) socio-economic factors;
- 2) market environment factors;
- 3) other external factors.

In each specific situation, several new external factors may arise that affect the formation of the enterprise's profit. At the same time, it is obvious that factors in the aggregate always act on the formation of the profit of an enterprise.

Internal factors affecting the profit of the enterprise are the following groups of factors:

- 1) managerial factors;
- 2) production factors;
- 3) market factors.

**Tables 46 - Factors affecting the activities of the analyzed enterprises**

<b>Factors</b>	<b>PJSC «Cherkizovo Group»</b>	<b>CJSC «Mikoyanovsky Meat Processing Plant»</b>
Socio-economic factors	Changes in interest rates on loans, changes in the exchange rate.	Changes in legislation and normative legal documents in the field of pricing.
Market environment factors	An increase in the supply of substitute goods.	Strengthening monopoly in the market, an increase in the supply of substitute goods.
Other external factors	Political instability, changing transport conditions	Rising prices for inputs.

Managerial factors	Lack of flexibility in management	Poor production cost management
Production factors	Lack of unity of the enterprise as a property complex, high energy costs.	Obsolete and worn-out fixed assets, congestion with social facilities.
Market factors	Dependence on a limited circle of suppliers and consumers.	Low competitiveness of products.

Source: compiled by the author himself.

In general, economic and political instability in Russia, the instability of the Russian banking system, insufficient infrastructure development, as well as fluctuations in the global economy can adversely affect the activities of organizations.

Economic instability, the monopoly position of commodity producers distort the formation of profit as a net income, lead to the desire to receive income mainly as a result of price increases. The elimination of inflationary filling of profits is facilitated by the financial recovery of the economy, the development of market pricing mechanisms, and an optimal tax system. These tasks should be performed by the state in the course of implementing economic reforms.

#### **5.4 Potential financial problems**

Based on the potential financial problems identified in the previous section and most of the factors that negatively affect profits, the author of this paper would like to make a few suggestions that will help the selected companies develop further in the future.

The most important issue is that the cash flow for PJSC Cherkizovo Group can be expanded by issuing additional shares and listing to increase liquidity and reduce risk in the liability and equity structure. Let's take a closer look at these tools.

The additional issue of shares has a positive effect on the investment activity of the Russian Federation as a whole. Governments and public entities are seeking to encourage investment in equities in order to spread the culture of investing in



venture capital in countries where investors have historically preferred to invest in less risky assets.

Listing on an exchange is the addition of a company's securities to one of the lists of a specific exchange platform, which makes them available for trading. The listing recommendation is based on an analysis of foreign literature on the subject of the study [9].

First, the results show that listing on the stock market has a significant positive effect on the growth of manufacturing firms. Listed manufacturing firms become larger in the post-listing period relative to their private counterparts as their total assets, cash flows, sales volume and headcount increase significantly.

Secondly, the results obtained also indicate a significant increase in both gross and net tangible fixed assets. This suggests that listed manufacturing firms are investing more in expansion than their non-listed partners in the post-listing period.

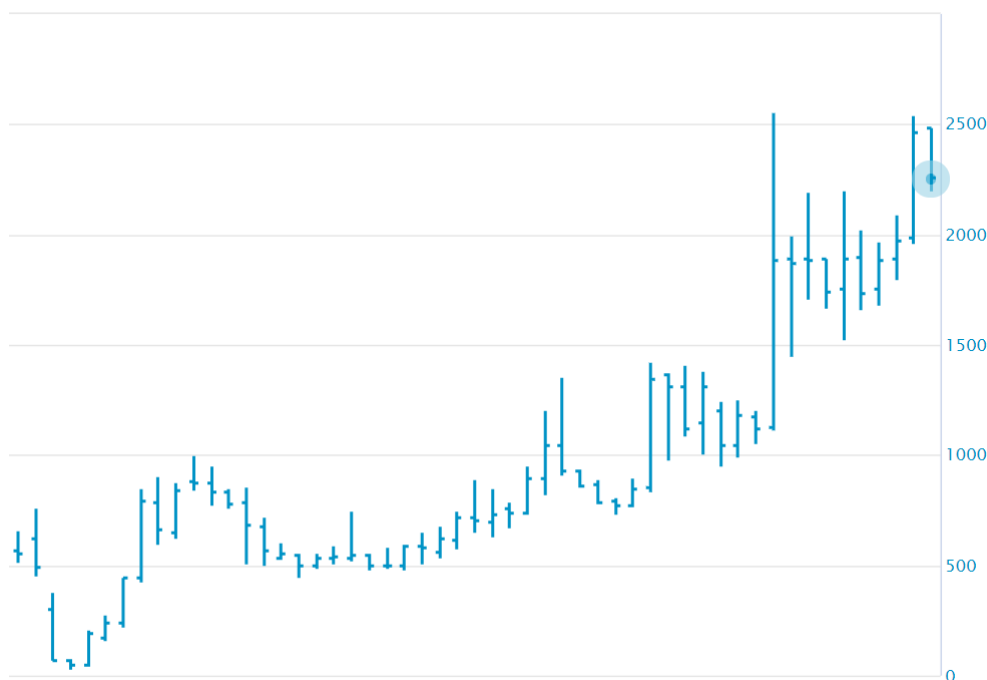
Third, listed manufacturing firms not only invest more than their unlisted counterparts, but their investment decisions are significantly more sensitive to changes in investment opportunities and they react more aggressively in the post-listing period.

It is important to note that an even more promising direction for Cherkizovo is cross-listing, in which the company's shares will be listed simultaneously on the Russian and foreign stock exchanges.

Cross-listing (cross-listing) is the main means for corporations to overcome market segmentation and expand their shareholder base. An increasing number of firms are choosing to cross-list their shares on the foreign market. In particular, the largest US exchanges represent the most important overseas listing destinations in the world. And it is now almost accepted in the literature that cross-listing in the United States provides the most significant advantages over other foreign destinations. Higher liquidity and an expanded shareholder base after cross-listing largely explain the firms' cross-listing performance.

Figure 16 below shows the dynamics of the share price of Cherkizovo Group for the period from 2008 to 2021.

As Figure 16 shows, the value of the company's shares is growing; under the current conditions, cross-listing of shares will allow achieving a geometric increase in their value and attracting a significant amount of investment.



Source: self-compiled by the author based on data from the Moscow Stock Exchange.

Figure 16 - Dynamics of the share price of Cherkizovo Group on the Moscow Exchange for the last 2008-2021, rub.

It is important to note that in practice, one of the sources of expansion of cash flows is lending. However, listing in this aspect has a number of important advantages [3]. Bank lending is highly cyclical and vulnerable to financial and economic conditions. By disseminating information to different classes of investors, a firm can expand its funding options beyond bank loans, and this can help broaden its use of bond markets and other alternative funding vehicles. There is one more important advantage of using this kind of investment funds - this is the low solvency of Cherkizovo, as a result of which it is not possible to recommend the expansion of credit sources of financing.

In addition, to meet the high demand for capital for business expansion, company managers may consider partnering with large foreign investment funds to take advantage of investments in capital, technology, and management practices. For large corporations, financialization through investment funds has an impact on:

- 1) redistribution of production and financial activities;
- 2) concentration of capital through mergers and acquisitions;
- 3) creation of international production networks.

Therefore, financialization is a phenomenon that changes a number of production practices, priorities and expectations, since the profit from capital investments is greater than from production activities.

It is important to note that interaction with foreign investment funds and cross-listing have a mutual multiplier effect. According to data from American studies [10], there is an increase in demand for shares of firms using cross-listing in the United States on foreign investment funds, which is due to the redistribution of funds by investors within the country that signed the MIOU, from firms that are not issuers of American depository receipts to firms that which are issuers of American receipts [3]. Following the signing of an IMMO, the level of investment by foreign mutual funds in a signatory country remains relatively constant (i.e., the funds do not significantly redistribute investment between countries).

In addition, when net cash flows in the investor country are positive (negative), the funds allocate more (give away less) assets to US cross-listed firms in IMAS signatories than to non-cross-listed firms. One interpretation of these results is that while the benefits of the additional regulatory oversight provided by IMOUs are large enough for funds to significantly increase investment in U.S. cross-listed firms in signatory countries, they are not so large that funds change the allocation of their portfolios at the country level. Taken together, the above allows us to determine that the use of foreign investment funds in conjunction with cross-listing will attract investment in the country, in particular in the Cherkizovo Group.

It is important to note that the analyzed company does not fully use its financial reserves, primarily due to not fully optimized tax policy. In particular, the following sources of additional funds have been identified:

- 1) application of VAT tax deductions for all advertising expenses, including those not included in the established Art. 264 of the Tax Code of the Russian Federation to standards;

2) the absence of the formation of a reserve for the repair of fixed assets in tax accounting.

Let's consider these directions in more detail.

Cherkizovo Group, in order to promote its own products, incurs a significant amount of advertising expenses, which are specially accounted for in accordance with the tax legislation of the Russian Federation. So, according to paragraph 4 of Art. 264 of the Tax Code of the Russian Federation expenses in the form of advertising for the media, information and telecommunication networks, for film and video services; for illuminated and other outdoor advertising; for participation in exhibitions, fairs, etc. are not subject to rationing for income tax and are taken into account in full. In this case, the entire value added tax on such expenses is deductible and reduces the amount of VAT payable to the budget. However, advertising expenses in the form of prizes given out and placement of information about the company's products in tickers on the scoreboard are normalized by the company for corporate income tax purposes and accounted for only within 1% of revenue for the tax period. In parallel with this, VAT is also deductible only within the limits of the standard. At the same time, the wording of paragraph 7 of Article 171 of the Tax Code of the Russian Federation was changed in 2014 and from 2015 the condition for accepting VAT for deduction only within the part of expenses recognized for income tax is valid only for entertainment expenses and travel expenses. Thus, in relation to normalized advertising expenses, VAT can be deductible in full, which will free up part of the available financial resources.

The second area of improvement of the company's tax policy is to apply a provision for the repair of fixed assets, since Cherkizovo repairs existing non-current assets on a periodic basis. It is important to note that the reserves themselves are an item that does not have a monetary essence (as noted in section 3.1 of this final qualification work), but they allow you to save on corporate income tax during the period of advance payments.

Thus, within the framework of this paragraph, the following areas for improving the financial policy for PJSC Cherkizovo Group have been developed:

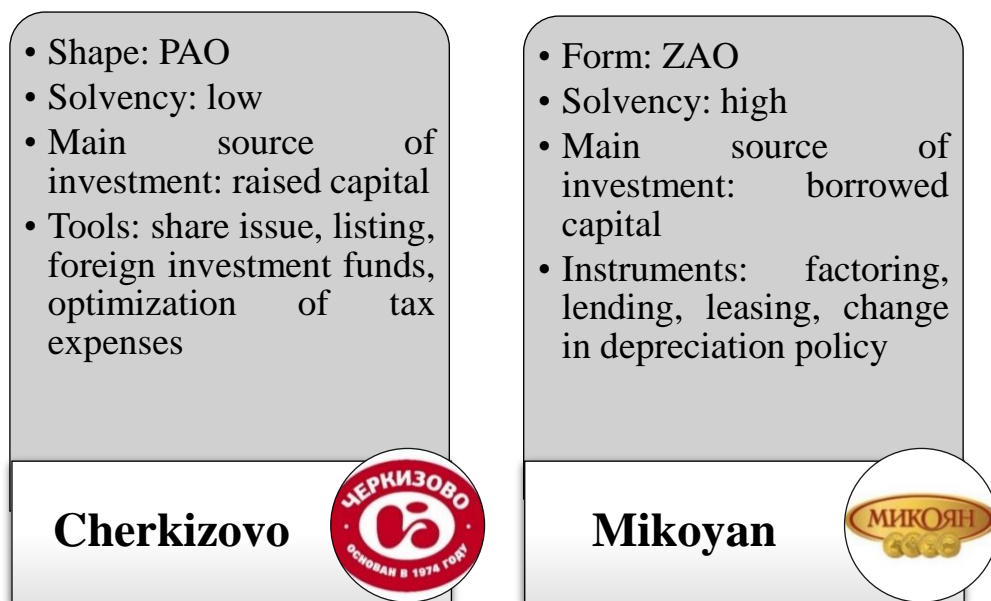
- 1) issue of additional shares;
- 2) application of listing and cross-listing of shares;
- 3) cooperation with foreign investment funds;
- 4) application of tax deductions for VAT on all advertising expenses, including those not included in the established Art. 264 of the Tax Code of the Russian Federation to standards;
- 5) formation of a reserve for the repair of fixed assets in tax accounting.

An analysis of the economic activities of CJSC Mikoyanovsky Meat Processing Plant made it possible to identify a number of problems that require effective development of decision-making.

It should be noted that the proposals that we present as effective for the Cherkizovo Group cannot be equally effectively applied for the Mikoyanovsky Combine, in particular, we are talking about an additional issue of shares, listing and interaction with foreign investment funds. The fact is that the form of activity of the plant is a closed joint-stock company, in this regard, according to the legislation of the Russian Federation, the expansion of the company's shareholders is limited. So, the shareholders of a CJSC can be either the current founders, or a predetermined circle of persons. The issue of transition from CJSC to PJSC is not considered by us, since there are a significant number of non-financial reasons for using this form of business organization. Therefore, to develop mechanisms for improving the company's financial policy, it is necessary to use other sources of expanding cash flows and investments.

It is also important to note that the analysis carried out in Chapter 2 of this study showed Mikoyan's high solvency. According to the company's annual report, one of the priority areas for the development of activities is the expansion of investment, the renewal of fixed assets. Due to the combination of the above circumstances, we consider it expedient for the Mikoyanovsky Combine to use borrowed capital as sources of investment, and not borrowed capital (as in the case of Cherkizovo). Thus, the strategies for increasing the financial attractiveness of the analyzed companies are diversified, as shown in Figure 17.

One of the promising areas for improvement for the Mikoyanovsky Combine is the use of a factoring agreement, which allows you to find financial resources to attract current assets and expand the scale of production. A factoring contract is concluded between one party, whose main activity is the supplier of goods, and the other party, which is a factor. Factoring offers the seller a number of services: it provides him with the immediate liquidation of his commercial claims, the effective management and satisfaction of his needs, the assessment of the creditworthiness of his current and future customers, the coverage of the supplier's credit risk.



Source: compiled by the author himself.

Figure 17 - Development strategies of Cherkizovo Group and Mikoyanovsk Meat Processing Plant

The factoring agreement, in particular, contains the following:

- a. concession to the factor by the supplier of the latter's requirements for its customers;
- b. permission of the factor to the supplier to receive payment for the claims of the latter;
- c. factor financing of the supplier through the payment of advance payments to him;

d. consideration of the factor (from an accounting and legal point of view) of the supplier's claims against the latter's customers;

e. coverage, in part or in full, by the credit risk factor to which the supplier is exposed.

Another promising option for optimizing and searching for sources of investment is the transformation of the depreciation policy in tax accounting. As noted earlier, depreciation itself is not an item that has a monetary value, however, the use of various preferential depreciation mechanisms makes it possible to redistribute companies' expenses for paying corporate income tax.

Taking into account that the company intends to expand its production facilities in the future and periodically update them, we consider it appropriate to make the following changes to the organization's accounting policy for tax accounting purposes:

1) introduce a rule for applying the depreciation bonus mechanism, which makes it possible to write off from 10 to 30% of the initial cost of a fixed asset object at a time to the expenses of the organization (according to Article 258, paragraph 9 of the Tax Code of the Russian Federation);

2) use a non-linear method of calculating depreciation of fixed assets, which allows you to write off the main cost of the object in the first years of its operation (according to Article 259, paragraph 5 of the Tax Code of the Russian Federation), according to formula 12.

$$A = B (k/100) \quad (12)$$

where A - the amount of depreciation accrued for one month for the corresponding depreciation group (subgroup);

B - the total balance of the corresponding depreciation group (subgroup);

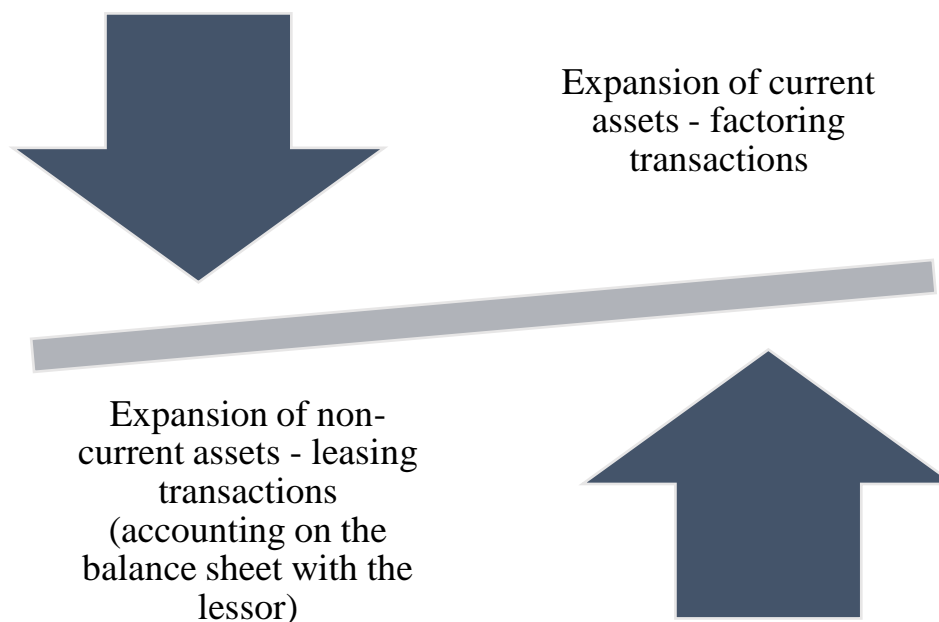
k - depreciation rate for the corresponding depreciation group (subgroup).

Another promising option for changing the company's monetary policy is the transition to leasing transactions from classical lending.

Currently, the company is already using leasing deals, but a significant part of the equipment is still purchased as part of bank lending. The use of leasing

transactions will make it possible to quickly recoup the cost of the fixed asset, due to the fact that in tax accounting for leased assets from the lessee, an increasing coefficient to the depreciation rate of no more than 3 is applied, in accordance with Article 259.3 of the Tax Code of the Russian Federation.

Thus, it is advisable to finance the acquisition of assets for the Mikoyan Meat Processing Plant according to the following scheme (Figure 18).



Source: compiled by the author himself.

Figure 18 – Development strategies of «Cherkizovo Group» and «Mikoyanovsk Meat Processing Plant»

Another of the company's strategic goals is to expand new sales markets, thus, it seems appropriate to consider the possibility of expanding the practice of using trade credits.

Like any financial decision, the decision to grant a trade loan should be aimed at increasing the value of the company, increasing its profitability and efficiency while minimizing risk. In particular, the provision of trade credit will be attractive if the profit generated by the acquisition of customers is greater than the costs associated with the increased probability of non-payment that it entails.

Trade credit, as a financial subsidy instrument, is usually offered to buyers, allowing them to make deferred payments without any interest.



The literature argues for several ways in which expanding trade credit can lead to financial benefits for the seller [5]. First of all, it is an increase in sales or market share. Trade credit provided to insolvent customers can stimulate demand in commodity markets. By separating the supply of goods or services from payment, the selling firm can generate additional revenue. In addition, sellers can act as a source of increasing the company's liquidity. Firms with high levels of liquidity were lending more to their clients before the recent financial crisis and fared much better since the financial crisis. In addition to providing immediate liquidity, trade credit sends a positive signal as to the buyer's creditworthiness. In turn, this can increase the buyer's future access to capital and lead to an increase in the seller's income.

In addition, trade credit can improve sales by reducing information asymmetries regarding product quality. This is because trade credit periods allow buyers to evaluate product quality before payment is made. The role of trade credit as a way to signal product quality is fundamental. Late payment is important because the seller loses negotiating leverage after payment. However, if the buyer discovers that the product is defective before making payment, the seller is forced to provide a replacement product. In short, by alleviating the financial and informational frictions of buyers, trade credit can help build profitable customer relationships. Such relationships may be long-term due to the various transaction costs associated with switching suppliers.

Using trade credit can also reduce operating costs. Sellers can soften credit terms to deal with uncertain demand. In particular, more favorable credit terms can be used to transfer inventory to receivables on the balance sheet, resulting in lower inventory transfer costs and avoiding costs associated with changing the production capacity of the enterprise. This would be optimal if the latter (capacity cost) exceeded the cost of financing receivables.

Along with the aforementioned benefits of providing trade credit, managers must also consider the marginal costs associated with doing so. Growth in trade credits may lead to an increase in the cost of borrowing that accompanies an increase in receivables. However, this condition is most important for small companies,

which does not apply to the Mikoyan Meat Processing Plant. Moreover, foreign scientists have shown that, in general, larger companies that increased trade credit mitigated the negative impact of the economic crisis on profitability. Investments in intangible assets of companies with lower market share that increase trade credit can increase profitability during a crisis; and offering payment deferrals to increase awareness of quality products leads to better bottom line results, regardless of the age of firms [7].

Another danger of providing trade credit is the potential loss of bad debts. However, this concern is mitigated given several unique aspects of trade credit. In particular, selling firms have unique information about their clients' prospects and can stop future supplies of resources needed for the client's business. In addition, in the event of default, the seller has the advantage of liquidating the returned goods.

Thus, within the framework of this paragraph, the following areas for improving the financial policy for «Mikoyanovsky Meat Processing Plant» CJSC have been developed:

- 1) the use of factoring transactions to expand the volume of acquired current assets;
- 2) the use of leasing transactions (with mandatory accounting on the balance sheet of the lessee) to expand the volume of acquired current assets;
- 3) optimization of the policy of granting trade credits;
- 4) transformation of the tax depreciation policy, consisting in the application of a depreciation premium for newly acquired fixed assets and a non-linear depreciation method.

## 6 Conclusion

In the current turbulent competitive environment, financial and performance appraisal is an important part of monitoring a business entity and an important tool for decision support and management of various stakeholder groups. In addition, it provides an overall picture or feedback on the overall financial position and performance of the firm, as well as developments in areas of business. Particularly in the context of the rapidly growing market for the production of meat products, meat processing plants should seize opportunities to develop their business in line with market trends.

This analysis allows you to determine the financial position and performance of PJSC «Cherkizovo Group» and CJSC «Mikoyanovsky Meat Processing Plant» using vertical and horizontal analysis and analysis of ratios based on the public annual reports of the two companies. By analyzing each company individually and then comparing the results of the two companies, the author identifies potential financial problems and most of the factors affecting profits. At the same time, the most important factors identified on the basis of the analysis are the volatility of the cost price due to changes in the structure of the business and the use of assets. As for the industry, the impact of Covid 19, oil price volatility, digital transformation, labor productivity is expected to greatly affect the profits of companies in the meat industry.

PJSC «Cherkizovo Group» is considered a company with the highest growth rates in the industry, high profitability and attractiveness for investors. However, the analysis shows that the company is facing negative net cash flow and growth rates are showing signs of slowing down in 2019, as well as fixed assets that have not been invested in proportion to the size of their business.

CJSC «Mikoyanovsky Meat Processing Plant» is currently the leading company in the industry. However, the company has not fully developed its assets, so the return on assets and equity is lower than in the industry. In addition, slow growth in revenue, revenue, and a high proportion of general and administrative expenses must be addressed.

The analysis carried out in the practical part of this study showed Mikoyan's high solvency. According to the company's annual report, one of the priority areas for the development of activities is the expansion of investment, the renewal of fixed assets. Due to the combination of the above circumstances, we consider it expedient for the Mikoyanovsky Combine to use borrowed capital as sources of investment, and not borrowed capital (as in the case of Cherkizovo). Thus, the strategies for increasing the financial attractiveness of the analyzed companies are diversified depending on the legal form and solvency of the companies.

In order to put the company on a path to sustainable development in the future, managers need to effectively use the results of the assessment of financial position and performance in combination with other analyzes to build long-term business strategies.

Thus, the goal set in this study has been achieved, and the tasks have been completed.

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### **8.3 List of abbreviations**

ROE: Return on Equity

ROA: Return on Assets

IFRS: International Financial Reporting Standards

RAS: Russian accounting standards

VAT: Value Added Tax

## Appendix

### Appendix 1 – Balance sheet of PJSC «Cherkizovo Group», thousand rubles.

The name of the indicator	Code	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
ASSET						
I. NON-CURRENT ASSETS						
Non-current biological assets	1110	2 335	2 673	2 289	1927	1 618
Fixed assets	1150	83 286	83 361	75 908	64889	60 869
Long-term financial investments	1170	6 437	4 268	3 877	3213	2 243
Other noncurrent assets	1180	10 333	9 835	4 827	3495	2 923
Total for section I	1100	102 391	100 137	86 902	73523	67 653
II. CURRENT ASSETS						
Stocks	1210	15 619	14 338	12 236	12507	15095
Biological assets	1220	16 287	15 395	11 566	10712	9830
Receivables	1230	6 519	8 131	6 700	8058	8961
Short-term financial investments	1240	0	0	0	0	0
Cash	1250	3 304	9 613	705	1002	5561
Other current assets	1260	328	563	535	535	613
Total for section II	1200	42 057	48 040	31 743	32814	40058
<b>Balance</b>	<b>1600</b>	<b>144 448</b>	<b>148 177</b>	<b>118 644</b>	<b>106338</b>	<b>107711</b>
LIABILITY						
III. CAPITAL AND RESERVES						
Authorized capital (share capital, authorized capital, contributions of partners)	1310	0	0	0	0	0
Own shares repurchased from shareholders	1350	2 777	2 877	2 930	6537	6566
Retained earnings (uncovered loss)	1370	58 507	57 932	49 850	47503	46583
Total for section III	1300	61 284	60 809	52 780	54040	53149
IV. LONG-TERM LIABILITIES						
Loans and credits (long-term)	1410	43 182	44 643	30 603	24470	16119
Other long-term liabilities	1420	1 782	996	1 126	493	568
Total for section IV	1400	44 964	45 639	31 729	24963	16687
V. SHORT-TERM LIABILITIES						
Loans and credits (short-term)	1510	21 210	24 170	19 412	14123	25093
Accounts payable	1520	16 990	17 560	14 723	13212	12782
Revenue of the future periods	1550	0	0	0	0	0
Total for section V	1500	38 200	41 729	34 135	27335	37875
<b>Balance</b>	<b>1700</b>	<b>144 448</b>	<b>148 177</b>	<b>118 644</b>	<b>106338</b>	<b>107711</b>

**Appendix 2 – Report on the financial results of PJSC «Cherkizovo Group»,  
thousand rubles.**

The name of the indicator	Code	2019	2018	2017	2016	2015
Sales proceeds (net of VAT, excises...)	2110	118 759	104 500	90 317	82077	75869
Cost of sold goods, products, works, services	2120	90 896	75 318	66 758	64222	56720
Gross profit	2100	27 863	29 182	23 559	17855	19149
Selling expenses	2210	17 863	13 627	13 833	12798	11615
Management expenses	2220	0	0	0	0	0
Profit (loss) from sale	2200	10 189	15 555	9 726	5056	7534
Interest receivable	2320	243	290	277	344	286
Percentage to be paid	2330	4 484	3 267	3 663	3738	1365
Income from participation in other organizations	2340	0	0	0	0	0
Other income	2350	749	0	0	298	0
Other expenses	2300	0	785	384	0	583
Profit (loss) before tax	2410	6 697	11 793	5 956	1960	5872
Current income tax	2411	46	0	308	73	0
Deferred tax liabilities	2460	0	187	0	0	149
Net income (loss)	2400	6 651	11 980	5 648	1888	6021

**Appendix 3 - Balance sheet of ZAO «Mikoyanovsky Meat Processing Plant»,  
thousand rubles.**

The name of the indicator	Code	31.12.19	31.12.18	31.12.17	31.12.16	31.12.15
ASSET						
I. NON-CURRENT ASSETS						
Non-current biological assets	1150	0	0	0	0	0
Fixed assets	1160	6 637 625	6 597 081	6 563 092	6702219	6779517
Intangible assets	1170	512 448	84 519	76 999	72717	73590
Other noncurrent assets	1180	1 408	207	238	3502	986
Total for section I	1100	7 151 481	6 681 807	6 640 329	6778438	6854093
II. CURRENT ASSETS						
Stocks	1210	1 053 186	1 193 741	1 259 387	1064092	1172285
Biological assets	1220	0	0	0	0	0
Receivables	1230	981 702	1 223 235	1 580 194	1680574	1790875
Short-term financial investments	1240	99 000	101 000	109 200	125300	194484
Cash	1250	442 406	1 049 304	898 709	418268	762359
Other current assets	1260	0	0	0	0	0
Total for section II	1200	2 576 294	3 567 280	3 847 490	3288234	3920003
<b>Balance</b>	<b>1600</b>	<b>9 727 775</b>	<b>10 249 087</b>	<b>10 487 819</b>	<b>10066672</b>	<b>10774096</b>
LIABILITY						
III. CAPITAL AND RESERVES						
Authorized capital	1310	306 751	306 751	306 751	306751	306751
Own shares repurchased from shareholders	1350	0	0	0	0	0
Retained earnings (uncovered loss)	1360	6 393 253	6 242 601	6 124 534	6015691	6008701
Total for section III	1300	6 700 004	6 549 352	6 431 285	6322442	6315452
IV. LONG-TERM LIABILITIES						
Loans and credits (long-term)	1410	643 076	215 348	174 004	98504	0
Other long-term liabilities	1420	913 862	947 532	950 232	979049	972004
Total for section IV	1400	1 556 938	1 162 880	1 124 236	1077553	972004
V. SHORT-TERM LIABILITIES						
Loans and credits (short-term)	1510	315 877	174 664	1 130 428	1147359	2163857
Accounts payable	1520	1 077 735	2 282 321	1 713 023	1419573	1232866
Revenue of the future periods	1530	77 221	79 870	88 847	99745	89917
Total for section V	1500	1 470 833	2 536 855	2 932 298	2666677	3486640
<b>Balance</b>	<b>1700</b>	<b>9 727 775</b>	<b>10 249 087</b>	<b>10 487 819</b>	<b>10066672</b>	<b>10774096</b>

## Appendix 4 - Report on financial results of ZAO «Mikoyanovsky Meat Processing Plant», thousand rubles.

The name of the indicator	Code	2019	2018	2017	2016	2015
Sales proceeds (net of VAT, excises...)	2110	10 570 139	11 065 804	12 051 747	12283223	12101778
Cost of sold goods, products, works, services	2120	8 842 346	9 739 251	10 506 019	10357243	9833880
Gross profit	2100	1727793	1326553	1545728	1925980	2267898
Selling expenses	2210	1 078 237	921 640	948 621	1352098	1541430
Management expenses	2220	330 079	316 430	289 968	269007	276482
Profit (loss) from sale	2200	319477	88483	307139	304875	449986
Interest receivable	2320	0	38 697	0	0	0
Percentage to be paid	2330	50 517	15 306	70 252	134431	335141
Income from participation in other organizations	2340	0	0	0	0	0
Other income	2350	27 369	43 686	21 273	18526	66117
Other expenses	2300	83 553	0	108 254	39455	118454
Profit (loss) before tax	2410	212776	155560	149906	149515	62508
Current income tax	2411	62 124	37 493	41 063	47489	0
Deferred tax liabilities	2460	0	0	0	0	11007
Net income (loss)	2400	150652	118067	108843	102026	73515