Kyiv National University of Trade and Economics
Department of Economics and Finance of Enterprise

FINAL QUALIFYING PAPER
on the topic:

Diagnosis of an enterprise financial state

by the material of the Public Joint Stock Company
'Obolon', Kyiv

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CONTENTS

ABSTRACT

Dashchenko L.O. ‘Diagnosis of an enterprise financial state’ (based on the materials of the Public Joint Stock Company ‘Obolon’, Kyiv) – Manuscript.

Final qualifyuing paper on the specialty 051 “Economics”, specialization “Financial Management”, - Kyiv National University of Trade and Ecomics. – Kyiv, 2018.

The the final qualifying paper is devoted to theoretical, methodological and practical aspects of diagnosis financial state of enterprise. It allows to investigate the basics principles, methods and means of determining needs to financial analysis conducting and develop ways to improve the financial management of in the conditions of market economy of Ukraine.

Key words: enterprise, financial activity, management, diagnostics, financial state, diagnosis, liquidity, solvency, profitability.

АНОТАЦІЯ

Дащенко Л.О. «Діагностика фінансового стану підприємства» (за матеріалами ПрАТ «Оболонь», м. Київ). – Рукопис.

Випускна кваліфікаційна робота за спеціальністю 051 «Економіка», спеціалізаціфя «Фінансовий менеджмент» - Київський національний торговельно-економічний університет – Київ, 2018.

Випускну кваліфікаційну роботу присвячено теоретичним, методичним та практичним аспектам діагностики фінансового стану підприємства. Представлена робота дозволяє дослідити основні засади, методи та підходи до проведення аналізу фінансового стану підприємства та розробки шляхів покращення фінансового менеджменту в умовах ринкової економіки України.

Ключові слова: підприємство, фінансова діяльність, управління, діагностика, фінансовий стан, оцінка, ліквідність, платоспроможність, рентабельність.

INTRODUCTION

Actuality of the theme. Assessment of the financial status of an enterprise is one of the important elements in managerialt system and the adoption of a variety of business decisions. It is of interest to investors, creditors, suppliers of inputs, public administration and manufacturing management. Therefore, one of the main tasks of each enterprise is the search for ways to improve the financial situation.

Analysis of indicators characterizing the financial position of their role in management of the enterprise caused by a number of factors: the high degree of uncertainty in the overall economic environment, imbalances in market mechanisms and tools of state regulation of economy, ambiguous orientation of different types of financial institutions that directly or indirectly affect the financial situation of the economy agents.

In view of the above and current operating conditions of enterprises, development of adequate performance parameter for "financial condition" and its theoretical aspects of adaptive assessment is an important task of economic research. There is a number of scientific approaches to the research of the components of company's financial condition diagnostic mechanism. This issue has been explored by a number of foreign and national scholars, namely: I. Blank [1], M. Kyzym, V. Zabrodsky, V. Zinchenko and Y. Kopchak [2], O. Shepelenko [3], O. Melnyk [4], A. Hradov [5], N. Danylochkina [6], V. Kovalov [7] and others. I. Blank has proposed the main stages of the implementation of rapid diagnosis of the company's financial crisis. A. Hradov and N. Danylochkina have studied management of develop financial condition of the company based on the «early warning signals». Row to M. Kyzym, V. Zabrodsky, V. Zinchenko, Y. Kopchak have investigated the methodological basis of the diagnosis and the sustainability of the enterprise, the mechanism of a diagnostic cycle of managing financial state of an enterprise functioning on the basis of detection the irregularities in capital turnover. V. Kovalov has proposed the two-level system of indicators for fundamental diagnosis that makes it possible to estimate the aggravetion of enterprises' financial disease. Despite the numerous publications on the researched topic, the issue of developing an effective mechanism of diagnosing the company’s financial condition still remains controversial and insufficiently investigated both in scientific and practical aspects in today’s Ukrainian and foreign economic literature.

Due to the scientific achievements of a large number of scientists, one should note the lack of a unified approach to grouping and the way in which indicators of financial state are assessed, with sufficient investigation of fundamentally important issues related to the formation of a unified methodology for assessing a financial situation.

The purpose of the work is to develop measures of improving financial state of enterprise and to develop it based on the analysis of the financial condition of the company.

To achieve this goal, **the following tasks** need to be addressed:

- to study the theoretical basis of the analysis of a financial state;
- to consider and analyze methods of diagnostics of a financial condition;
- to assess possible external and internal aspects of stabilizing a financial condition of an enterprise;
- to analyze the property status of an enterprise by performing an analysis of solvency and liquidity of the enterprise;
- to analyze the financial sustainability of the enterprise on the basis of the indexes of liquidity, financial stability, business activity and profitability;
- to assess the effectiveness of financial and economic activity, calculate and analyze indicators of profitability, business activity;
- to develop measures in order to achieve financial equilibrium, improve financial condition of an enterprise and increase financial stability;
- to explain the mediated level of indicators of the financial state of PJSC ‘Obolon’.

The object of the study is the processes of financial state diagnosis of an enterprise.

The subject of consideration of the submitted final qualifying paper is theoretical and methodological and practical basis of the analysis of a financial state of an enterprise.

The empirical basis of the research is the PJSC "OBOLON". PJSC "OBOLON" is a major Ukrainian producer of beverages: beer, low alcohol drinks (cocktails), soda drinks and locally extracted natural mineral water, as well as a major malt producer. Based in Kiev, Obolon JSC has affiliates across Ukraine and employs several thousand people.

Location of the Company: Ukraine, Kyiv, Bogatyrska Street, 30.

The mission of the enterprise is work to be the first and to leave no thirsty on the planet.

Net Sales from the sale of products (goods, works, services) of the PJSC "Obolon" in the reporting period amounted to 4 963 232 thousand UAH. Cost of sold products in the last reporting year are equal 3 565 168 thousand UAH. The net profit of the company in 2017 amounted to 176 580 thousand UAH.

In the final qualifying paper, the following research **methods** are used:

- methods based on the analysis of the balance of the enterprise (horizontal, vertical, method of financial indexes);
- heuristic methods based on informal, intuitive approaches and generalization of experience in solving similar problems and methods of expert assessments;
- methods of complex analysis;
- methods of factor analysis.

The information base for assessing financial state of an enterprise are the forms of financial statements of the PJSC "OBOLON", scientific and educational works, legislative acts of Ukraine, etc.

Aprobation of the final qualifying paper: the scientific article ‘Creating a value driver tree as an element of influence on the indicators of the financial state of the enterprise’ that was written to hold a more profound on the issue of the work was awarded 3rd place at the International competition of student's scientific works (Odesa, April, 2018).

The practical significance of the obtained results and conclusions is that the proposed developments will form the methodological basis of diagnosis of financial state of enterprises in conditions of development of a market environment. The implementation of the methodological recommendations outlined in the work will be useful in improving the choice of the strategy of further development of enterprises, planning their current economic activity.

The structure of the final qualifying paper. The work consists of an introduction, three sections, conclusions and proposals, references and appendices. The total volume of work is 94 pages and includes 11 figures, 25 tables, 25 formulas. The references contain 74 titles. The final qualifying paper has 2 appendices.

SECTION 1

THEORETICAL ASPECTS OF DIAGNOSIS OF AN ENTERPRISE FINANCIAL STATE

1.1 Financial state as an object of assessment and analysis in the enterprise managarial system

Financial state of an enterprise is a complex concept that requires science-based approaches and special methods of research, with the purpose of objective evaluation and the possibility of its further improvement.

Despite the simplicity and the prevalence of the term "financial analysis", its interpretation varies considerably:

- it is an explanation of this term to describe the direction of financial analysis;
- it is identification of the concepts of "financial analysis" and "financial diagnosis";
- in the structure of financial analysis and separated analysis of financial condition, and its separate areas: balance sheet liquidity, solvency of the organization, and the like.

The most economically viable and the objective is the determination of the financial condition as a result of interaction of all elements of the system of financial relations of the enterprise, determined by a combination of factors related to the ordinary activities of the enterprise. It is characterized by security the financial resources necessary for the normal functioning of enterprise, appropriate placement and effective use, financial relationships with other legal entities and individuals, solvency and financial stability.

From the standpoint of O.V. Derkach [30], the operation of the enterprise is accompanied by a continuous cycle of funds, which is carried out in the form of resource costs and income generation, distribution and use. It determines sources of funds, directions and forms of financing, optimizes the structure of capital and payments are made with suppliers, technical resources, purchasers of products, state authorities (payment of taxes), personnel of the enterprise, etc. All these funds relations constitute the essense of financial activity of enterprise.

The main tasks of financial activity are: the choice of optimal forms of financing, the structure of capital and the directions of its use in order to ensure a stable high profitability; balancing on time of receipts and expenses of means of payment; maintenance of proper liquidity and timely payments. The main essense of financial activity of an enterprise (organization) is the proper providing financial support.

It is advisable to focus more on the term "financial condition of enterprise". Analysis of the concept of "financial state" allows us to conclude that there are different theoretical approaches to its definition (Table 1.1).

Table 1.1.

Analysis of theoretical approaches to the definition of "financial state"

Author	Definition of the term
Averina M., Derkach O., Zayukova M. [1,16 ,18]	The financial condition is determined by the solvency of the enterprise as a result of the funds turnover. Stability of the financial state is a necessary requirement for an enterprise in the market conditions. In the concept of "financial condition" there is reflected the connection of production and financial activity of enterprise.
Pitinova A., Levchenko A.[46]	The financial condition of enterprise is an indicator of its financial competitiveness, i.e. solvency, creditworthiness, meeting of obligations to the state and other enterprises.
Prikhodko N., Chernysh S.[46]	Financial condition is a result of production and financial activity. It is characterized by the scope of the means of the enterprise, their targible and technical supply, production, sales and profit. The financial condition is an indicator of its creditworthiness, meeting of obligations to the state and other enterprises, organizations and institutions.
Basilinskaya O.[2]	The financial position of enterprise (Financial Position) is considered as a set of indicators that characterize the availability, allocation and use of financial resources of the enterprise.
Sheremet A.[67]	This is a complex concept, which is the result of the interaction of all elements of the system of financial relations of the enterprise, determined by a set of production and economic factors and is characterized by a system of indicators, reflecting the availability of allocation and use of financial resources.

The determination of financial state of an enterprise, which is directed by M. Chumachenko [66] etc., is rather ponderable, but somewhat controversial. In their opinion, financial condition of an enterprise is an indicator of its financial competitiveness, that is, creditworthiness, solvency, fulfillment of obligations to the state and other enterprises. However, it should be noted that the financial condition of the enterprise is not an indicator or a set of indicators; with their help it is only quantitatively measured.

After examining the essence of the financial state and analyzing different points of view regarding to its definition, it is proposed to outline the conceptual foundations of this concept:

a) financial condition is a result of financial and economic activity of enterprise;
b) financial condition is a concept, the essence of which manifests itself both in statics (at a certain point in time) and in dynamics (in a definite period);
c) financial condition is a concept characterized by various constituent elements, not only solvency and financial stability;
d) financial condition is a measure of the provision of the company with the necessary financial resources and the degree of rationality of their allocation.

Financial state of enterprise reflects, at some point, the level of efficiency of the use of resources in economic activity, or the effectiveness of the functioning of the mechanisms of the economic system.

From this point of view, the financial status - the economic category, the aggregate of indicators, the financial capacity of the enterprise, the complex concept, the characteristics of certain pages of financial and economic activity, etc.

It is noteworthy that the financial status of an enterprise is an objective economic category, which can be assessed with greater or lesser depth and probability of indicators. These indicators, being random variables, can give rise to the adoption of managerial decisions in conditions of incomplete certainty.

After analyzing the interpretation of the concept of "financial state of enterprise" in scientific economic research and the definition of the main points of this concept, we will try to give our own definition: financial status is a qualitative characteristic of the enterprise, is the object of financial management and is the result of financial and economic activity, reflects the government support of financial resources necessary for the normal functioning of the enterprise, whether the resources are allocated and effectively used, is measured by a set of indicators that characterize the overall performance of an enterprise at the present time and determine its prospects in the future.

Assessment of the financial condition of an enterprise in a market environment is particularly important for determining the competition and financial stability, reliability of the company as a partner. To a large extent, the control of plans implementation that regulate the activities of enterprises is losing importance, and the need for analysis of solvency and liquidity of an enterprise is growing.

Consequently, the financial condition of the enterprise is real (at a fixed time) and the potential financial ability of the enterprise to provide a certain level of financing of the current activity, self-development and repayment of obligations to enterprises and the state. Quantitatively, it is measured by a system of indicators, on the basis of which its evaluation is made. The financial condition of enterprise is a set of economic and financial indicators characterizing the ability of an enterprise for sustainable development, including the meeting of its financial obligations.

1.2. Methods of diagnosis of an enterprise financial state

The analysis of the financial state of the company is a necessary stage for development of plans and forecasts of financial rehabilitation of enterprises.

The mechanism of financial diagnostics of development and secure performance of modern enterprises must be constructed in such a way that the negative impact of different types of destructive factors could be identified at an early stage and swiftly eliminated due to the systematic verification based on purposefully introduced functional components.

The objects of the enterprise financial analysis are the company business performance results that are studied in their dynamics and in correlation with several measures of business performance results. The sources of the enterprise business performance results are the financial statements and the internal financial reports of an enterprise.

Complete information about the enterprise performance results is obtained while making the analysis of financial statements. The main statements used in financial analysis are the company balance sheet and income statement.

Diagnosis is a part of business management and consists of several stages. Scientists take different approaches to determining the diagnostic cycle, structure and number of stages.

I. Blank has proposed the following main stages of the implementation of express diagnosis of the company's financial crisis [9]:

1. Determination of the objects of observation of a «crisis area» that is the risk of the financial crisis of the company.
2. Formation the system of risk assessment indicators of enterprise financial crisis.
3. Analysis of certain aspects of the financial crisis of company, which is made using standard methods.
4. Preliminary assessment of the scale of crisis of financial condition of a company.

The research shows that the cycle of diagnosis of a financial condition of company consists of the following functional blocks: 1) monitoring; 2) rapid diagnosis; 3) fundamental diagnostics; 4) final diagnosis.

Monitoring of a financial condition is a permanent phase of tracking the financial health of the company. At this stage the collection of data required for express diagnosis of the financial condition is performed and the information got through the «early warning signals» coming from the internal and external environment is obtained.

Rapid diagnosis of the financial condition of the company is a preliminary stage of the detection of the company's financial disease, the assessment of the severity of the disease and its type (Figure 1.2).

The basic research of company's financial condition is the stage of deep analysis of the financial health of the company, of clarifying an aggravation and prosound, identifying its reasons.

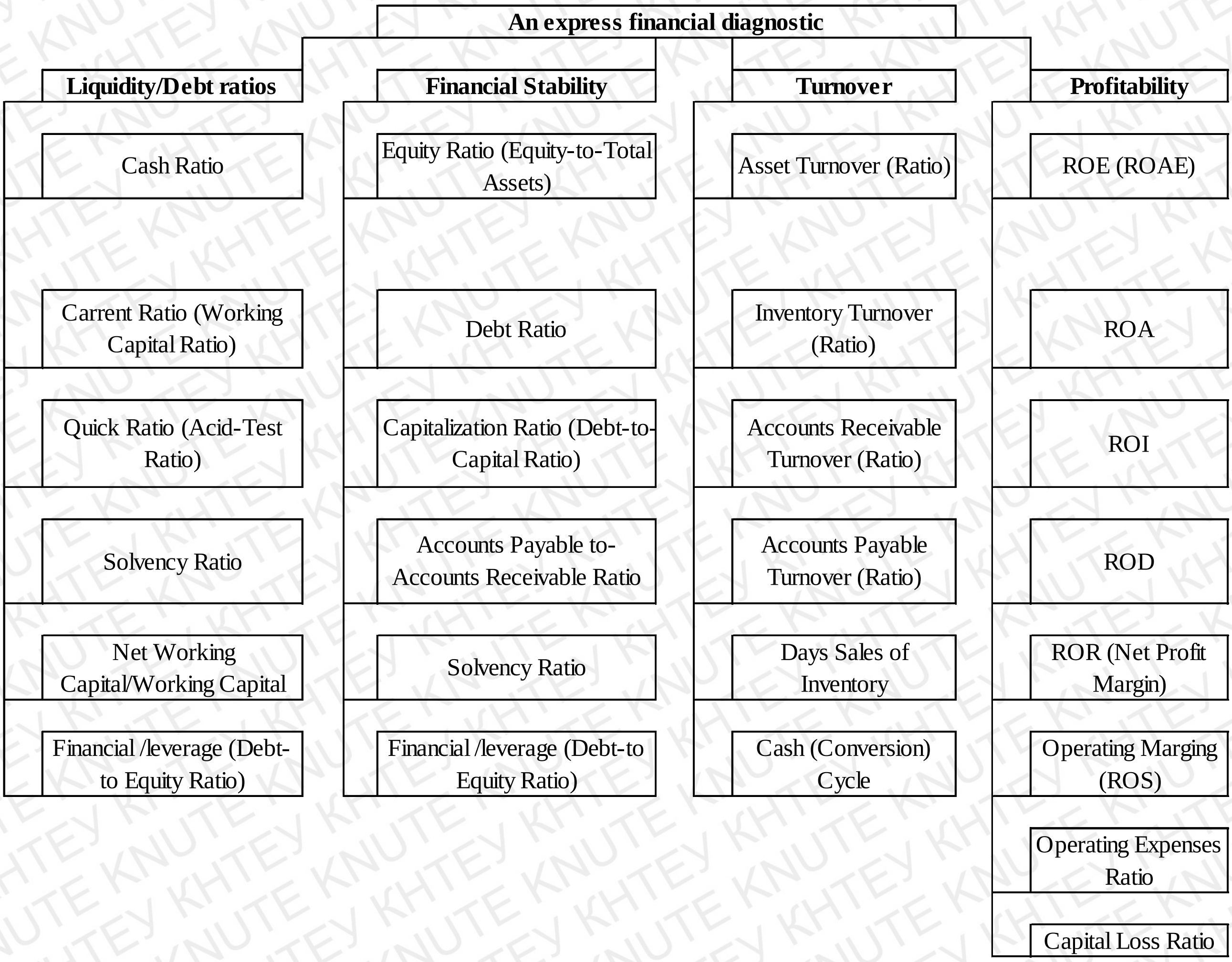


Fig. 1.2 The system of evaluative indexes-indicators of an enterprise in the case of an express financial diagnosis [33]

The final step in diagnosis is the stage that generalizes the previous two and provides the final diagnosis of financial disease and its reasons.

In the source [12] during an express diagnosis there is elaborated the system of interrelated parameters which characterize the performance of enterprise from the point of view of its tactical objectives of management. The structure of the parameters for an express diagnosis includes appraisals that are calculated only on the basis of the company's financial reports.

I.Blank offers the following main areas of rapid diagnosis of the company's financial state. The general analysis of company is the:

– analysis of the output and sales;

– analysis of the structure of fixed assets, depreciation and the efficiency of their use;

– analysis of the number and costs of personnel by different categories;
– analysis of the cost of production and sales;
– analysis of financial results, etc.

Analysis of financial performance:

– analysis of financial statements (analysis of assets, liabilities, the structure of income statement);
– analysis of liquidity and financial sustainability (on the basis of main and partial indicators);
– analysis of the effectiveness of the company's performance (the turnover of current assets and liabilities, return on sales, the duration of the operational and financial cycles).

At this stage of diagnosis the following objectives are achieved [53]:

1) a preliminary quantitative and qualitative assessment of capital turnover of an enterprise is carried out both at a fixed point of time (static) and for a certain period of time (dynamic) using the « early warning signals» available;
2) the change of direction of financial disease of the enterprise is assessed;
3) the final results of the evaluation of financial state (financial health) of company are summarized.

When an express diagnosis of enterprise shows that it is «financially sound» the diagnostic process finishes, and when the diagnosis shows that it is «financially sick» the diagnostic process continues moving to the second stage – the fundamental study of the financial condition of company.

The fundamental diagnosis is a more detailed one and includes comprehensive description of the financial condition of company and its performance during the reporting period due to the diverse system of parameters, establishing the factors that led to the formation of company's financial condition and also forecasting the perspective parameters of company's development (Figure 1.2).

At the stage of a basic diagnosis we can get the most detailed picture of the crisis financial state of an enterprise and specify the forms and methods of the future of its financial rehabilitation.

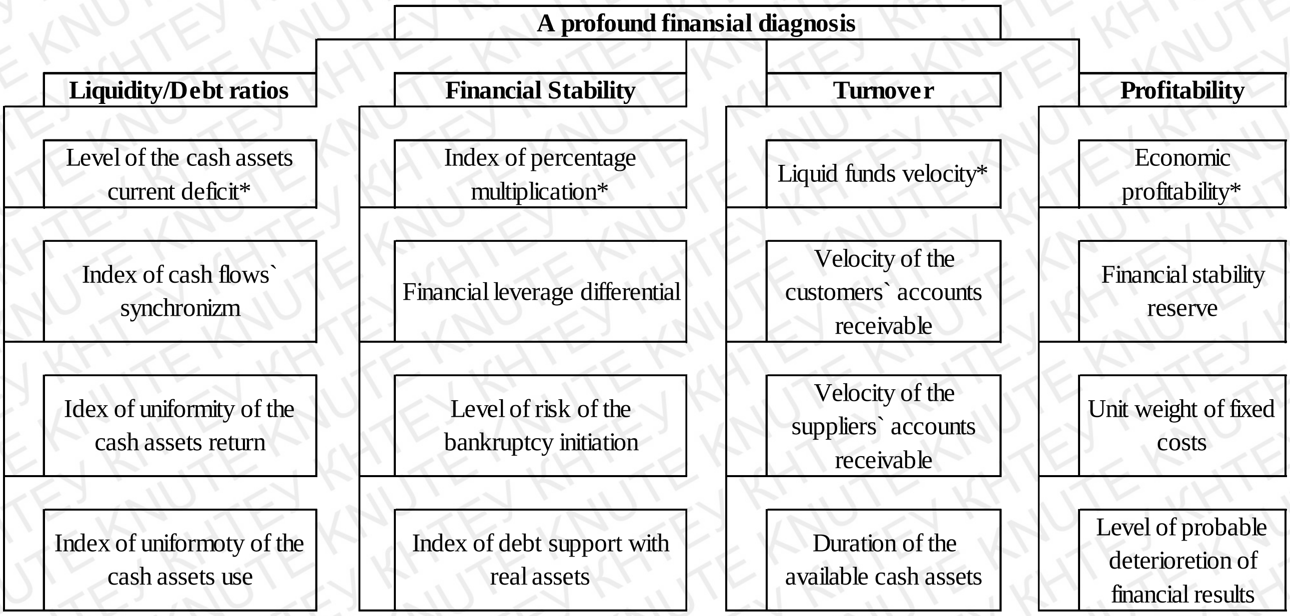


Fig. 1.2 The system of evaluative indexes-indicators of an enterprise in the case of rapid financial diagnosis [33]

*Can be used also for the express-diagnosis

The basis of the financial analysis is the analysis of financial statements in accordance with the National Accounting Standards "General Requirements for Financial Reporting"[4]. The purpose of preparing financial statements is to provide users with complete, truthful and unbiased information about the financial position, performance and cash flow of the company to make decisions. The financial statements consist of: the balance sheet (statement of financial position) (hereinafter - the balance sheet), the statement of financial results (statement of comprehensive income) (hereinafter - the statement of financial results), the statement of cash flows, statement of equity and notes to financial reporting [46]. Dozens of these indicators are known, so for convenience they are divided into several groups. Often, there are five groups of indicators for the following areas of financial analysis:

1. Analysis of liquidity. The indicators in this group allow us to describe and analyze the ability of an enterprise to meet its current obligations. The basis of the algorithm for calculating these indicators is the idea of comparing current assets (working capital) with short-term payables.

2. Analysis of current activity. The effectiveness of current financial and economic activity is estimated by the duration of an operating cycle, which depends on the turnover of funds in different types of assets.

3. Analysis of financial sustainability. With these indicators, the structure of the sources of funding and the dynamics of the relationship between them is evaluated. The analysis is based on the fact that sources of funds differ in terms of cost, degree of availability, level of reliability, degree of risk.

4. Analysis of profitability. The indicators of this group serve to assess the overall efficiency of investing in an enterprise.

5. Analysis of the situation and activities in the capital market. Within the framework of this analysis, spatially-temporal comparisons of indicators characterizing the company's position on the securities market are performed: dividend income, earnings per share, share value, etc. Predictive models are models of predictive nature, they are used to predict company revenue and future financial position. Normative models allow to compare the actual results of an enterprise with the expected ones and the calculated budget [35].

Horizontal analysis involves the study of absolute indicators of items of the organization's reporting for a certain period, the calculation of their rates of change and evaluation. But in terms of inflation, the value of horizontal analysis is slightly reduced, since the calculations made here do not reflect the objective change in the indicators associated with the inflation processes. The horizontal analysis is supplemented by a vertical analysis of the study of financial indicators.

Vertical analysis refers to the presentation of reporting data in the form of relative indicators due to the specific weight of each item in the overall summary of the reporting and assessment of their change in dynamics. Relative indicators smooth out the influence of inflation, which allows a fairly objective assessment of the changes occurring.

After analyzing the property situation, it is necessary to analyze financial statement using ratios in practice to determine enterprise financial status.

Financial analysis uses ratios in practice that can be subdivided into the following groups:

- liquidity ratios;
- solvency ratios;
- profitability ratios;
- asset use efficiency ratios;
- investment ratios.

Each ratio when calculated separately does not give any information about an enterprise. Only a set of ratios and their changes over time as well as the comparison with the industry average ratios provides valuable information about the financial status of an enterprise. The purpose of the ratio analysis is to calculate the most important ratios and to determine the dynamics of their changes during the period analysed.

Liquidity refers to the ability of an asset to transform into cash, and the degree of liquidity depends on the duration of the time period during which this transformation takes place. The shorter the period, the higher the liquidity of the asset [5].

Liquidity of company is a more general concept than the liquidity of a balance sheet. Balance liquidity involves finding the means of payment only by internal sources (sale of assets). Balance liquidity is the ability of a business entity to turn assets into cash and pay its obligations, to be exact – the coverage of debt of company by its assets, a term which in turn corresponds to the term of a cash redemption payment obligations It depends on the extent to which a company is able to pay for it`s short-term debt. [3].

Analysis of liquidity consists of comparing the balance of the asset, grouped according to their degree of liquidity and in a decreasing order of the liquidity, with the commitments, grouped by their maturity and arranged in ascending order of date.

Balance is completely liquid, if holds the following inequalities:

The analysis of liquidity of balance is begun from grouping of assets by the level of liquidity and liabilities by repayment period.

It is common, that the assets can be assigned into 4 groups by the level of their liquidity:

1. Highly liquid assets (A1) – cash and its equivalents, financial receivables.
2. Quick assets (A2) – finished goods, shipped goods and debts receivable. Liquidity of such kind of assets depends on several factors: shipping of products in time, processing of bank documents, demand on products and its competitive advantage, solvency of customers, terms of trade credits to them, forms of calculations, etc.
3. Slow assets (A3) – production supplies and incomplete production. Less liquidity of such supplies comparatively with other types of circulating assets is possible to explain their role of working capital turnover.
4. Fixed assets (A4) – permanent assets, intangible assets, long-term investments, construction-inprogress.

As within short-term liabilities it is possible to distinguish the liabilities of different period, then one of estimation methods of liquidity on the stage of previous analysis there is comparison of certain groups of assets with the corresponding groups of liabilities. All liabilities of enterprise can be divided into four groups by the level of their repayment period:

1. Short-term loan (L1) – accounts payable and credits of bank that were not repaid on time.

2. Medium-term liabilities (L2) – short-term bank credits.

3. Long-term liabilities (L3) – long-term bank credits and loans.

4. Fixed liabilities (L4) – equity.

Balance is considered absolutely liquid, if such requirements are executed:

$A1 \geq L1; A2 \geq L2; A3 \geq L3; A4 \leq L4$

In accordance with the equation shown above, it is possible to distinguish five conditional types of liquidity of the enterprise (Table 1.2)

Table 1.2

Types of liquidity of enterprise [29]

Absolutely liquid	**Liquid**	**Illiquid**	**Relatively illiquid**	**Absolutely illiquid**

A1 >L1	A1 < L1	A1 < L1	A1 < L1	A1 < L1
A2 > L2	A2 > L2	A2 < L2	A2 < L2	A2 < L2
A3 > L3	A3 >L3	A3 >L3	A3> L3	A3 < L3
A4 < L4	A4 >L4	A4 > L4	A4 > L4	A4> L4

The liquidity of the balance sheet is determined by the level of coverage of the obligations of enterprise with its assets, the term of transformation into cash corresponds to the maturity of obligations. To determine the liquidity of the balance, it is necessary to compare the results for each group of assets and liabilities of the balance.

Comparison of liquid assets and liabilities allows to determine liquidity ratios. Liquidity related ratios are one of the most widespread indicators of a company's solvency. There are subdivided next liquidity related ratios: Current ratio, Quick ratio, Cash ratio, Net working capital, Solvency Ratio. All these liquidity ratios are given in the table 1.3.

Table 1.3

Liquidity ratios [29]

Liquidity ratios	**Formula**	**The indicator description and its recommended value**
1	**2**	**3**
Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	The current ratio describes the capacity of an enterprise to repay its short-term debts. The higher this ratio is the higher the paying capacity (solvency) of an enterprise estimated. Changes in this ratio must be looked at in a dynamic perspective. Acceptable value: 2 or more
Quick ratio	$\frac{\text{Current assets} - -(\text{Stock} + \text{Prepaid expenses})}{\text{Current liabilities}}$	This ratio shows the asset capital involved in the enterprise operations which is estimated as the difference between the amounts of current assets and current liabilities (any increase in the capital shows the improvement of the company financial status, or just on the contrary – worsening of the situation). This ratio also describes the share of current liabilities that can be repaid not only in cash, but also from expected earnings from any works performed, goods dispatched and services provided. Acceptable value: 1 or more
	$\frac{\text{Cash} + \text{Short} - -\text{Term securities} + \text{Accounts receivable}}{\text{Current liabilities}}$	

Continuation of the table 1.3

Cash ratio	$\frac{\text{Absolute liquid assets (cash and cash equivalents)}}{\text{Current liabilities}}$	The metric calculates a company's ability to repay its short-term debt; this information is useful to creditors when deciding how much debt, if any, they would be willing to extend to the asking party. Normal value: no less than 0.2
Net working capital	$\text{Current assets} - \text{Current liabilities}$	Net working capital is a liquidity calculation that measures a company's ability to pay off its current liabilities with current assets. This measurement is important to management, vendors, and general creditors because it shows the firm's short-term liquidity as well as management's ability to use its assets efficiently. Acceptable value: at 20% to 100% of total current liabilities.
Solvency Ratio	$\frac{\text{Net Income} + \text{Depreciation}}{\text{Short} - \text{Term Liabilities} + \text{Long} - \text{term Liabilities}}$	Solvency ratio is a key metric used to measure an enterprise's ability to meet its debt and other obligations. The solvency ratio indicates whether a company's cash flow is sufficient to meet its short-term and long-term liabilities. The lower a company's solvency ratio, the greater the probability that it will default on its debt obligations.

Solvency and liquidity are both terms that refer to an enterprise's state of financial health, but with some notable differences. Solvency refers to an enterprise's capacity to meet its long-term financial commitments [12]. Liquidity refers to an enterprise's ability to pay short-term obligations; the term also refers to a company's capability to sell assets quickly to raise cash [13]. A solvent company is one that owns more than it owes; in other words, it has a positive net worth and a manageable debt load. On the other hand, a company with adequate liquidity may have enough cash available to pay its bills, but it may be heading for financial disaster down the road.

Solvency and liquidity are equally important, and healthy companies are both solvent and possess adequate liquidity. A number of liquidity ratios and solvency ratios are used to measure a company's financial health, the most common of which are discussed below (Table 1.4).

Table 1.4

Solvency ratios [6]

Solvency ratios	**Formula**	**The indicator description and its recommended value**

Debt to equity	$\frac{\text{Total debt}}{\text{Total equity}}$	This ratio indicates the degree of financial leverage being used by the business and includes both short-term and long-term debt. A rising debt-to-equity ratio implies higher interest expenses, and beyond a certain point, it may affect a company's credit rating, making it more expensive to raise more debt.
Debt to assets	$\frac{\text{Total debt}}{\text{Total assets}}$	Another leverage measure, this ratio quantifies the percentage of a company's assets that have been financed with debt (short-term and long-term). A higher ratio indicates a greater degree of leverage, and consequently, financial risk.
Debt to EBITDA	$\frac{\text{Debt}}{\text{EBITDA}}$	Debt/EBITDA is a measure of a company's ability to pay off its incurred debt. The ratio gives the investor the approximate amount of time that would be needed to pay off all debt, ignoring the factors of interest, taxes, depreciation and amortization.
Interest coverage	$\frac{\text{Operating income (or EBIT)}}{\text{Interest expense}}$	This ratio measures the company's ability to meet the interest expense on its debt with its operating income, which is equivalent to its earnings before interest and taxes (EBIT). The higher the ratio, the better the company's ability to cover its interest expense.
Fixed charge coverage ratio	$\frac{\text{EBIT + Fixed Charge}}{\text{Fixed Charge + + Interest}}$	The fixed-charge coverage ratio (FCCR) measures a firm's ability to satisfy fixed charges, such as interest expense and lease expense. Since leases are a fixed charge, the calculation for determining a company's ability to cover fixed charges includes earnings before interest and taxes (EBIT), interest expense, lease expense and other fixed charges.

The next step in financial sustainability analysis is the calculation of profitability ratios. Profitability ratios measure a company'sability to generate earnings relative to sales, assets and equity. They highlight how effectively the profitability of a company is being managed [6].

Common examples of profitability ratios include return on sales, return on investment, return on equity, return on capital employed (ROCE), cash return on capital invested (CROCI), gross profit margin and net profit margin. All of these ratios indicate how well a company is performing at generating profits or revenues relative to a certain metric.

Different profitability ratios (listed in the table 1.5) provide different useful insights into the financial health and performance of a company. For example, gross profit ratio tells, how well the company is managing its expenses. Return on capital employed (ROCE) tells, how well the company is using capital employed to generate returns.

Table 1.5

Profitability ratios [7]

Profitability ratios	Formula	The indicator description and its recommended value
Gross profit margin	$\frac{\text{Gross profit}}{\text{Net turnover}} * 100\%$	Gross profit rate, measures the percentage of gross revenues in relation to net sales. Gross profit is what remains of net sales after deducting the cost of merchandise sold (cost of sales).
Return on sales (operating margin)	$\frac{\text{Net income}}{\text{Net sales}} * 100\%$	The net profit margin (also known as "return on sales") is the percentage of net income to net sales. Net income the bottom line amount in the income statement. It represents the income left after all expenses and losses are deducted.
Interest coverage ratio (ICR).	$\frac{\text{EBIT}}{\text{Interest expence}} * 100\%$	The interest coverage ratio used to determine how easily a company can pay interest on its outstanding debt. Normal value: 1,5 or more
Return on equity (ROE)	$\frac{\text{Net income}}{\text{Average stockholders' equity}} * 100\%$	It is one of the most important financial ratios and profitability metrics. Normal value: 12% or more
Return on assets (ROA)	$\frac{\text{Net income}}{\text{Average total assets}} * 100\%$	Return on assets represents the measure of return on investment in financial statement analysis. It determines the rate of return in using company resources to generate income.Normal value: 6% or more
Return on capital employed (ROCE)	$\frac{\text{EBIT}}{\text{Equity + Non} - \text{current liabilities}} * 100\%$	It indicates the efficiency and profitability of a company's capital investments

For most of these ratios, a higher value is desirable. A higher value means that the company is doing well and it is good at generating profits, revenues and cash flows. Profitability ratios are of little value in isolation. They give meaningful information only when they are analyzed in comparison to competitors or compared to the ratios in previous periods. Therefore, trend analysis and industry analysis is required to draw meaningful conclusions about the profitability of a company [5].

Activity ratios (table 1.6) measure, how well companies utilize their assets to generate income. Efficiency ratios often look at the time it takes companies to collect cash from customer or the time it takes companies to convert inventory into cash—in other words, make sales. These ratios are used by management to help improve company as well as outside investors and creditors looking at the operations of profitability of company.

Table 1.6

Efficiency ratios [6]

Efficiency ratios	Formula	The indicator description and its recommended value
1	**2**	**3**
Accounts Receivable Turnover	$\frac{\text{Net Credit Sales}}{\text{Average Accounts Receivable}}$	The ratio measures how many times a business can collect its average accounts receivable during the year.This ratio shows how efficient a company is at collecting its credit sales from customers.
Accounts payable days	$\frac{\text{Total Purchases}}{\text{Average Accounts Payable}}$	The ratio shows a company's ability to pay off its accounts payable by comparing net credit purchases to the average accounts payable during a period. In other words, the accounts payable turnover ratio is how many times a company can pay off its average accounts payable balance during the course of a year.
Working Capital Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	The ratio measures a firm's ability to pay off its current liabilities with current assets. A ratio less than 1 is considered risky by creditors and investors because it shows the company isn't running efficiently and can't cover its current debt properly. A ratio above 1 shows outsiders that the company can pay all of its current liabilities and still have current assets left over or positive working capital.

Continuation of the table 1.7

1	2	3
Total Asset Turnover Ratio	$\frac{\text{Net Sales}}{\text{Average Total Assets}}$	This ratio measures how efficiently a firm uses its assets to generate sales, so a higher ratio is always more favorable. Higher turnover ratios mean the company is using its assets more efficiently. Lower ratios mean that the company isn't using its assets efficiently and most likely have management or production problems. For instance, a ratio of 1 means that the net sales of a company equals the average total assets for the year. In other words, the company is generating 1 dollar of sales for every dollar invested in assets.
Inventory Turnover	$\frac{\text{Cost of Goods Sold}}{\text{Average Total Assets}}$	Inventory turnover is a measure of how efficiently a company can control its merchandise, so it is important to have a high turn. This shows the company does not overspend by buying too much inventory and wastes resources by storing non-salable inventory. It also shows that the company can effectively sell the inventory it buys.
Cash Cycle, days	Days Inventory Outstanding+ Days Sales Outstanding- Days Payable Outstanding	The cash conversion cycle measure the time it takes a company to convert its investment in inventory and other resource inputs into cash. In other words, the cash conversion cycle calculation measures how long cash is tied up in inventory before the inventory is sold and cash is collected from customers.
Days Inventory Outstanding (DIO)	$\frac{\quad}{\quad} * 365$	The days sales in inventory (or DIO) is a key component in a company's inventory management. Inventory is a expensive for a company to keep, maintain, and store. Companies also have to be worried about protecting inventory from theft and obsolescence.
Days Sales Outstanding (DSO)	$\frac{\quad}{\quad} * 365$	The ratio shows how well a company can collect cash from its customers. The sooner cash can be collected, the sooner this cash can be used for other operations. Both liquidity and cash flows increase with a lower days sales outstanding measurement.
Days Payable Outstanding (DPO)	$\frac{\text{Accounts Payable}}{\left(\frac{\text{Cost of Sales}}{\text{Number of Days}}\right)}$	DPO means the average number of days a company takes to pay invoices from suppliers and vendors. Typically, this ratio is measured on a quarterly or annual basis to judge how well the company's cash flow balances are being managed.

Cash flow statement is also a basic information source for economic and financial analysis. The purpose of cash flow statement analysis is to attain details of cash inflows and outflows.

The purpose of the cash flow statement is to show where an entities cash is being generated (cash inflows), and where its cash is being spent (cash outflows), over a specific period of time (usually quarterly and annually). It is important for analyzing the liquidity and long term solvency of a company.

The cash flow statement uses cash basis accounting instead of accrual basis accounting which is used for the balance sheet and income statement by most companies. This is important because a company may accrue accounting revenues but may not actually receive the cash. This could produce profits and taxes payable but not provide the resources to stay solvent.

The cash flow statement components (table 1.7) provide a detailed view of cash flow from operations, investing, and financing.

Table 1.7

The cash flow statement components [6]

The cash flow statement components	**Formula**	**The indicator description**
1	**2**	**3**
Operating Activities	Net Income + Depreciation and Amortization +/- One Time Adjustments (i.e. investment gains or losses not related to operations, deferred taxes, stock compensation) +/- Changes in Working Capital = Cash Flow From Operations	Cash flow from operations is an important measurement because it tells an analyst about the viability of an entities current business plan and operations. In the long run, cash flow from operations must be cash inflows in order for an entity to be solvent and provide for the normal outflows from investing and finance activities.

Continuation of the table 1.7

1	**2**	**3**

Investing Activities	+/- Net Capital Expenditures +/- Net Investments = Cash Flow from Investing Activities	Cash flow from investing activities would include the outflow of cash for long term assets such as land, buildings, equipment, etc., and the inflows from the sale of assets, businesses, securities, etc. Most cash flow investing activities are cash out flows because most entities make long term investments for operations and future growth.
Financing Activities	– dividends +/- sale or purchase of company stock +/- net borrowings = Cash Flow from Financing Activities	Cash flow from finance activities is the cash out flow to the entities investors (i.e. interest to bondholders) and shareholders (i.e. dividends and stock buybacks) and cash inflows from sales of bond1s or issuance of stock equity. Most cash flow finance activities are cash outflows since most entities only issue bonds and stocks occasionally.
Summary of Cash Flow Activities	+/- Cash Flow From Operating Activities +/- Cash Flow From Investing Activities +/- Cash Flow From Financing Activities = Net Change in Cash + Beginning Cash Balance = Ending Cash Balance	Savvy investors are attracted to companies that produce plenty of free cash flow (FCF). Free cash flow signals a company's ability to pay debt, pay dividends, buy back stock and facilitate the growth of business. Free cash flow, which is essentially the excess cash produced by the company, can be returned to shareholders or invested in new growth opportunities without hurting the existing operations.

Thus, financial and economic analysis in a market economy is one of the most important functions of effective management necessary for enterprise development. An analysis of the financial condition of an enterprise is based on the use of reporting, which is the information base of enterprise analysis.

Thus, we can conclude that today there is no single one

One can identify main principles that must be followed during financial analysis of an enterprise, namely:

1) the essense of the financial diagnosis is the diagnosis of the results of activity and an enterprise state as well as analysis of enterprise management;
2) financial indicators should be analyzed in combination with others "Non-financial" indicators;
3) the diagnostics should only use the indicators that are available for making managerial decisions;

4) the diagnosis should be resumed with the conclusions presented in a form that the main users of this information understand its essence.

1.3. External and internal aspects of stabilizing the financial state of the enterprise

Each stage of stabilization corresponds to certain internal and external mechanisms.

The internal ones are divided into operational, tactical and strategic ones that are "protective" or "offensive". The operational mechanism, based on the principle of "cutting off the unnecessary", represents a protective reaction of the enterprise. The tactical mechanism of financial stabilization uses tactics, aimed at the fracture of unfavorable trends and the emergence of a balance or equilibrium [20].

The main role in the system of crisis management is given to the widespread use of internal and external stabilization mechanisms, which allow to eliminate the risk of bankruptcy, deprive the company of using borrowed capital and accelerate the rate of economic growth.

Stages of Financial Stabilization under Crisis Conditions [43]:

• Elimination of insolvency. What matter the scale of the company's crisis situation is the most important task is to restore the ability to make payments for urgent financial obligations in order to prevent a bankruptcy procedure.

• Restoration of financial stability. Insolvency can be eliminated in the short term due to special financial transactions, however, it may arise again if the financial stability of enterprise is not restored to a safe level.

• Ensuring long-term financial equilibrium. Complete financial stabilization is achieved when company has provided conditions for long-term financial equilibrium and acceleration of economic development - an adjusted crisis strategy or a new, more effective one.

Each stage of the stabilization corresponds to certain internal mechanisms, which are generally divided into operational, tactical and strategic ones, which are "protective" or "offensive" (table 1.8).

Table 1.8

Stages of Financial Stabilization [29]

Stages of Financial Stabilization	Mechanism		
	Operational	Tactical	Strategic
1.Elimination of insolvency	A system of measures based on the principle of "cutting off the excess"	—	—
2.Restoration of financial stability	—	A system of measures, based on the principle of "compression" of enterprise	—
3.Ensuring long-term financial equilibrium	—	—	A system of measures based on the use of "sustainable economic growth model"

The operational mechanism of financial stabilization is a system of measures directed, on the one hand, to increase the size of current external and internal financial obligations of enterprise in the short-term, and on the other hand - to increase the amount of cash assets, which provide urgent repayment of these obligations .

The principle of "cutting off the excess" underlying this mechanism determines the need to reduce both the current requirements (causing financial liabilities) and certain types of liquid assets (for the purpose of their urgent conversion into monetary form).

The choice of the most effective direction of the operational mechanism of financial stabilization is dictated by the nature of real insolvency, indicator of which is the ratio of net current solvency:

$$\mathbf{NCS = (CA — CA_{iliquid}) / (CFL — CFL_{unpaid})} \qquad \mathbf{(1.1)}$$

where NCS- coefficient of net current solvency of enterprise in the conditions of its crisis development;

CA - the sum of all current assets of the enterprise;

$CA_{illiquid}$ is the sum of illiquid (in the short run) of the current assets of the enterprise;

CFL is the sum of all short-term (current) financial liabilities of the enterprise;

CFL_{unpaid} is the sum of internal short-term (current) financial liabilities of an enterprise, repayment of which can be postponed until its financial stabilization is completed [16].

The main essence of the operational mechanism of financial stabilization is to ensure the balance of cash assets and short-term financial obligations, achievable by different methods, depending on the conditions of the actual state of enterprise. Accelerated liquidity of current assets, which ensures positive cash flow growth in the short-term, is achieved through the following main measures:

• liquidation of short-term financial investments portfolio;

• acceleration of collection of accounts receivable;

• reduction of the period of extension of commodity (commercial) credit;

• increase of price discounts when making cash payments for products realized;

• reduction of size of insurance stocks inventory;

• reduction of the price of hard-liquid types of stocks or inventories to the level of demand price with the provision of further realization, etc.

The following illiquid (in the short run) portion of the current assets is excluded:

• bad debts (receivables);

• illiquid stocks of tangible assets and commodities;

• deffered expenses.

From the structure of current assets, the following part (which can be transferred to the period of completing financial stabilization) is excluded:

• settlements for accrued dividends and interest payable;

• settlements with subsidiaries (branches).

The main essence of the operational mechanism of financial stabilization is to ensure the balance of monetary assets and short-term financial obligations, achieved by various methods, depending on the conditions of the real state of the enterprise.

Accelerated liquidity of current assets, ensuring the growth of positive cash flow in the short term, is achieved through the following activities:

• liquidation of the portfolio of short-term financial investments;

• accelerated collection of accounts receivable;

• decrease in the period of extension of commodity (commercial) credit;

• increase in the price discount price for cash settlements for the products sold;

• decrease of insurance stocks intangible assets;

• reduction of illiquid inventories of commodity and material values to the level of demand prices, ensuring their implementation, etc.

Accelerated partial disinvestment of long-term assets, ensuring the growth of positive cash flow in the short term, is achieved through the following activities:

- selling a highly liquid part of long-term financial instruments of the investment portfolio;
- making a return lease in which previously acquired fixed assets are sold back with simultaneous registration of a contract for their financial leasing;
- accelerated sale of unused equipment at demand prices in the relevant market;
- leasing of equipment previously planned for acquisition in the process of updating fixed assets, etc;

Accelerated reduction in the amount of short-term financial liabilities, leading to a decrease in negative cash flow in a short term, is achieved as follows [5]:

• Prolongation of short-term financial loans.

• Restructuring of the portfolio of short-term financial loans with their long-term transfer.

• Increase of a period provided by suppliers of a commodity (commercial) credit.

• Deferred payments for individual forms of internal accounts payable of enterprise, etc.

The purpose of this stage of financial stabilization is considered achieved if the current solvency of the enterprise is restored, that is, the amount of money received exceeds the amount of urgent financial obligations in the short term. This means that the threat of bankruptcy of the enterprise in the current period of time is eliminated, although it, as a rule, is deferred.

The tactical mechanism of financial stabilization is a system of measures aimed at achieving the financial equilibrium point of the enterprise in the future period. The model of financial equilibrium of an enterprise has the following form:

$$\mathbf{NP_o + DD + \Delta SC + \Delta\ OFR_{others} = \Delta I_{os} + DF + PP + SP + \Delta RF} \qquad \mathbf{(1.2)}$$

where:

NP_o is the net operating profit of the enterprise;

DD - the amount of depreciation deductions;

ΔSC - amount of share capital increase with additional issue of shares (increase of the share contribution in the authorized capital);

ΔOFR_{others} - increase of own financial resources at the expense of other sources;

ΔI_{os} - increase in the volume of investments financed by own sources;

DF - the amount of the dividend fund (interest payment fund to the owners of the enterprise for the invested capital);

PEP - the extent, to which employees participate in profit (profit from payments);

SP - social, ecological and other programs of enterprise financed by profit;

ΔRF - increase of the sum of the reserve (insurance) fund of the enterprise.

In a simplified form, the model of financial equilibrium of an enterprise, to which it seeks to achieve in a crisis situation, can be represented in the following form:

$$\mathbf{PV_{ofr} = NV_{ofr}} \qquad \mathbf{(1.3)}$$

where: PV_{ofr} - possible volume of generating own financial resources of the enterprise;

NV_{ofr} - necessary amount of consumption of own financial resources of enterprise.

In practice, however, the possibility of a significant increase in own financial resources in conditions of crisis development is limited. Therefore, the main direction of ensuring financial equilibrium is the reduction of consumption of financial resources by reducing the volume of operational and investment activities and therefore characterized by the term "compression of the enterprise". "Compression" should be accompanied by measures to ensure the growth of its own financial resources.

An increase in the amount of generating own funds is achieved through the following measures: [1]

• Optimization of the pricing policy of an enterprise providing additional operating income.

• Reductions in constant costs (including reduced management costs, maintenance costs, etc.)

• Decrease of variable costs (including reduction of production staff of the main and auxiliary units, increase of labor productivity, etc.).

• Implementation of an effective tax policy that minimizes tax payments in relation to the amount of income and profit (increasing the amount of net profit) of enterprise.

• Conduct accelerated depreciation of the active part of fixed assets.

• Timely implementation of the retirement due to high wear and tear or unused property.

• Implementation of an effective emission policy through additional issue of shares (or attraction of additional equity capital), etc.

The reduction in the volume of consumption of financial resources is achieved through the following measures:

• Reduction of investment activity in all its forms.

• Provision of renewal of operating assets mainly due to their leasing (leasing).

• Implementation of a dividend policy that is adequate to the crisis situation.

• Reduction of employee participation programs in profits.

• Going out of external social programs financed from profits.

• Reduction of deductions to reserve and other insurance funds, carried out from profit, etc.

Strategic mechanism of financial stabilization. [4]

The essence of this mechanism of financial stabilization is to ensure the financial equilibrium of the managing organization in a long period (usually half a year or more). In order to ensure a long-term financial equilibrium, it is necessary to monitor the growth rates of sales regularly, expressed through performance indicators, capitalization efficiency, and the efficiency of the assets turnover.

For these purposes, special models are used. One of them is the model of sustainable economic growth of the enterprise:

$$\mathbf{\Delta VS=(NP/OP)*\ NPC\ *(A/EC)*AT} \quad \mathbf{(1.4)}$$

where:

ΔVS - possible rate of increase of sales of products, which does not violate the financial equilibrium of the enterprise expressed in decimal fraction;

NP - net profit of the enterprise;

VS – sales;

NPC - the ratio of capitalization of net profit, expressed in decimal fraction;

A - the value of the assets of enterprise;

EC - equity capital of enterprise;

AT - asset turnover ratio.

The essence of this model is that for a certain financial strategy there is a proper optimum value of the growth rate of sales. Any deviation from it requires additional internal generation of resources or additional attraction of external financial resources.

The deviation of the growth rate of implementation from the optimal one leads to a disturbance of financial equilibrium, that is, to financial destabilization.

The purpose of this phase is considered to be achieved if, in the long term, there is obserwed a proportional correspondence of the growth of the maximum possible rates of sales volume with the growth of the market value of the enterprise is observed.

The above-mentioned methods of counter-crisis management indicate a wide range of opportunities for financial stabilization of an enterprise through the use of its internal mechanisms.

Thus, the financial stabilization mechanisms used are closely interconnected and aim at ensuring a sustainable financial equilibrium of the enterprise in the short and long term, assuming the rational use of its own financial resources, increasing cash and reducing financial obligations.

Studies [13] show that, in addition to own financial resources, borrowed funds, as well as budgetary provision and funds provided on an irrevocable basis, are used for sanitation (counter-crisis) measures.

According to Matviyenko [56], the priority source of financing national enterprises are own funds (on average, recently amounted to 65.2% of the total funding). Bank loans and other loans - only 6%, reflecting the low ability of the Ukrainian credit system to provide livelihoods and development of enterprises with low-cost financial resources. Very low remain the rate of involvement of foreign investors - (approximately 3%). Obviously, such a situation can be interpreted as certain reserves for financing national enterprises in the future, as they all have a positive basis in development of the national economy.

The financing of counter-crisis measures by the owners can be achieved in the form of contributions due to the additional issue of equity securities - shares to increase the authorized capital; providing loans or in the form of targeted contributions on an irrevocable basis. Such a procedure is possible if the previous issues of the shares are fully paid at a price not lower than the nominal value. The main source of increase in the authorized capital, which is issued by an additional issue of shares, is the additional contributions of shareholders.

Taking into account different criteria, it is worth noting that the most effective method of raising funds for sanitation needs (counter-crisis measures) is additional emission due to additional shareholder contributions, since both goals are achieved - attractionof "real money" and increase of authorized capital (improvement of the structure of liabilities). Other methods make it possible only to increase the authorized capital. Although its increase may be beneficial for enterprises, given the creation of conditions for attracting loans, initiating foreign economic activity, and counteracting unwanted stock purchases.

In another plan, in practice, the effective component of sanation income is irretrievable financial assistance to a company that is in crisis condition. The fact of the matter is the corresponding amount of funds transferred to the enterprise on terms that do not provide for compensation (return). Such financial assistance can be mostly carried out by: owners of corporate rights to cover losses and carry out remediation; creditors of company in the event of a debt write-off; other persons interested in the recovery of the debtor company.

Effective financial and economic activity of the company is impossible without borrowing funds (loans). The loan expresses the economic relationship between the creditor and the borrower, which arises when receiving a loan, using it and returning it. Credit as a form of the loan capital flow combines two processes: the accumulation of temporarily free cash; attachment or placement of these funds. The need for a company in a loan arises due to the difference in the amount and timing of the return on capital advanced to production; implementation of simultaneous investments to expand the production process, and most importantly - the participation of creditors in the financial rehabilitation of enterprise by the results of the assessment of its sanation ability.

On the one hand, loan operations represent one of the most effective, i.e., profitable ways of allocating resources of the lender, while, on the other hand, it is the most risked type of lender's operations. The nature of the decision of creditors depends on numerous factors (the amount of expected losses in the event of liquidation of the debtor and in case of his rehabilitation).

The form of participation of creditors on the basis of rehabilitation depends to a large extent on the nature of their financial and economic relations with the debtor. Depending on this, the following main groups of creditors can be identified.

Among the possible forms of borrowing in the financial recovery of the debtor are the following: debt restructuring; reduction or cancellation of debt (debt transformation into non-repayable financial assistance); providing sanation (counter-crisis) loans; provision of guarantees (guarantees) as a loan security. The active participation of creditors in financial rehabilitation can be expected only if they will benefit more than when it is eliminated as a result of the rehabilitation and preservation of the debtor.

The peculiarity of companies in crisis and in need of healing is low credibility from existing and potential lenders as information on the availability of financial problems is rapidly spreading. This is especially true for banking institutions where loans are provided on the basis of formalized procedures. However, nowadays in the domestic and world practice there are alternative lending options, which can be used by economic entities in case of complication of the transaction (refusal) the bank - commercial and leasing loans. Commercial loan is a commodity form of a loan, which is provided to the borrower in the form of delayed payment for goods (work, services) [43].

One of the external mechanisms for stabilizing the financial situation is cooperation in the banking and finance sectors of the European Union countries, as banks are the main subjects of international monetary, financial and credit relations that mediate the international capital flow. It is commonly known that today in Ukraine, in accordance with the current domestic legislation, there are several international financial and credit institutions that have opened credit lines to finance domestic enterprises. The peculiarity of the functioning of these institutions in Ukraine is that they, at their own discretion, seek customers in accordance with established strategic priorities. This approach facilitates, accelerates and greatly simplifies the provision, development and repayment of funds, which contributes to the growth of the economic effect of the implementation of funded projects. However, international credit has both advantages and disadvantages (table 1.8).

Table 1.9

Positive and negative aspects of international loans [32]

Negative aspects	**Positive aspects**

1. Make a disproportion in the economy more intense and more profound.	1. Stimulate foreign trade, creating additional demand on the market.
2. Facilitate the overproduction of goods, redistribute loan capital between countries and contribute to spin-off development of production during the rise and periodic recessions.	2. Create favorable conditions for foreign private investment, as there are related to the need to provide benefits to firms in a creditor country.
3. Strengthen the disproportion of social reproduction, facilitate development of the most profitable industries and retard development of industries that do not attract foreign capital.	3. Are used to create the infrastructure necessary for the operations of enterprises, in particular - foreign and mixed.
4. Serve as a lever of speculation and a factor of aggravation of economic currency crises.	4. Used to seize profits from borrowing countries, increasing the role of financial capital.
5. Promote a policy of credit discrimination and credit blockade.	5. Facilitate creation and consolidation in the debtor countries of favorable economic and political regimes for foreign monopolies.

According to the mechanism of financial stabilization of an enterprise, it is possible to make conclusions:

1. The maximum period of non-crisis development in the achieved equilibrium financial condition of enterprise is determined by the period of compliance with the growth rates of sales of their products, calculated using the model of sustainable economic growth. Any deviation from the calculated values of this indicator leads to the loss of a state of financial equilibrium.

2. Sustainable economic growth of the enterprise is ensured by the following basic parameters of its financial development:

• the return on sales (ROS) ratio;

• profit distribution policy (reflected by the net profit capitalization ratio);

• the policy of capital formation (reflected by the financial leverage) or, accordingly, the policy of asset financing (reflecting the leverage ratio of assets);

• policy of the assets formation (reflecting the assets turnover ratio).

Changing the listed parameters of the financial strategy of an enterprise can achieve acceptable rates of its economic development in the conditions of financial equilibrium.

3. If the use of internal financial stabilization mechanisms did not achieve its goals or if, based on the results of the diagnosis, a conclusion was made that the attempt to

break the crisis was futile by the mobilization of only internal reserves, the enterprise could resort to external assistance that takes the form of its rehabilitation. Sanation is a system of measures to prevent the declaration of the debtor company bankrupt and its elimination.

Consequently, the parameters of the financial strategy of enterprise in the process of crisis management and in the course of its further development make necessary adjustments, specified by the possible rate of increase in sales. The purpose of this phase of financial stabilization is considered to be achieved if, as a result of the acceleration of the rate of sustainable economic growth of enterprise, the corresponding growth of its market value in the long-term period.

SECTION 2

DIAGNOSIS OF THE FINANCIAL STATE OF THE PJSC 'OBOLON'

2.1. Analysis of solvency and liquidity of the PJSC 'Obolon'

The financial condition of the enterprise in the short-term perspective is estimated by the indicators of liquidity and solvency, which characterize the possibility of well-timed and complete meeting of short-term obligations to contractors.

The information base for assessing the financial condition of an enterprise are the balance sheet data (Form 1) and its appendixes (Form 2), statistical and operational reporting. In order to reflect the financial condition of the investigated enterprise, an analytical balance is compiled according to the annual balance sheets of the enterprise for 2015, 2016 and 2017 (Appendix A).

To characterize the PJSC "Obolon", it is necessary to analyze the liquidity of the balance by grouping assets and liabilities according to the degree of their liquidity (Table 2.1).

A1 minus L1 is the first inequality of solvency. It characterizes the operational (urgent, instant) solvency of the enterprise. It responds to the question whether there are enough assets with instant A1 liquidity to pay off the most urgent P1 liabilities. It shows whether there are enough cash and short-term financial investments to pay off debts to creditors. Comparison of the first group of indicators A1 <L1 shows the low solvency of the organization at the time of drawing up the balance. The company does not have enough funds to cover the most urgent obligations of absolutely and most liquid assets.

A2 minus L2 - this is the second inequality of solvency. Characterizes the rapid solvency of the enterprise. Responds to the question whether the assets with high liquidity A2 are enough to be sold quickly enough to pay off L2 short-term liabilities. In other words, if there are enough receivables to make payments on short-term loans, reserves of forthcoming expenses and payments and other short-term obligations.

Table 2.1.

Analysis of the liquidity of the balance sheet of the PJSC 'Obolon' for 2014 - 2017, ths UAH

	2014	**2015**	**2016**	**2017**
Assets				
A1	237 703,00	85 236,00	48 394,00	46 172,00
A2	370 170,00	338 243,00	270 358,00	876 083,00
A3	785 367,00	973 297,00	881 787,00	750 563,00
A4	4 812 504,00	4 550 195,00	5 474 679,00	5 216 689,00
Liabilities				
L1	940 878,00	1 061 768,00	959 373,00	1 086 378,00
L2	1 294 064,00	2 187 798,00	2 150 631,00	513 755,00
L3	1 242 237,00	702 894,00	1 236 900,00	2 786 127,00
L4	2 679 558,00	1 966 089,00	2 318 240,00	2 495 482,00
A-L				
A1-L1	A1 < L1	A1 < L1	A1 < L1	A1 < L1
A2-L2	A2 < L2	A2 < L2	A2 < L2	A2 < L2
A3-L3	A3 < L3	A3 > L3	A3 < L3	A3 < L3
A4-L4	A4 > L4	A4 > L4	A4 > L4	A4 > L4

The economic meaning of this inequality is to understand how quickly the assets sold exceed the short-term liabilities and the organization can remain solvent in the nearest future.

A2 is lower than L2, that is, A2 minus L2 is less than zero, which means that the company will not be able to use liabilities with quick liquidity in the near future to make payments on liabilities in time.

A3 minus L3 - this is the third inequality of solvency (all disparities in solvency).

Characterizes the current solvency of the enterprise. Responds to the question whether the assets with an average liquidity of A3 are sufficiently slow to sell to repay long-term liabilities L3. In other words, is there enough inventory, VAT and other current assets to recover long-term liabilities and deferred income.

The economic meaning of this inequality is to understand how far the assets with medium liquidity that pass through the production cycle exceed the value of long-term liabilities.

Based on the balance of PJSC "Obolon" A3 is less than L3, it means that the enterprise can not reimburse liabilities with low urgency in the short term (up to a year) with the help of assets with low liquidity.

A4 minus L4 is the fourth inequality of solvency, which is balancing and is automatically executed when the remaining inequalities are met. That is, its failure indicates that at least one of the remaining inequalities is not met.

It is curious that the fulfillment of this inequality means the lack of net working capital from the enterprise, which reduces the financial stability of the enterprise.

The results of the calculations show that at the enterprise when comparing the results of the groups of assets and liabilities, the investigated enterprise 2015 according to the theoretical approach is relatively illiquid, and in 2014, 2016, 2017, it is completely illiquid.

In order to better elaborate on the above analysis it is feasible to make a liquidity analysis using financial ratios. They are used to assess the ability of an enterprise to meet its short-term obligations. The indicators of liquidity give an idea not only about the solvency of the company on a specific date, but also in cases of emergency situations.

It is feasible to analize the initial indicators of liquidity of the investigated enterprise (Table 2.2.).

Table 2.2.

Initial indicators for calculation of Liquidity Indicators of the PJSC 'Obolon' for 2014-2017, ths UAH

Indicators	**31.12.2014**	**31.12.2015**	**31.12.2016**	**31.12.2017**	**Absolute Growth (2014-2017)**	**Growth rate, % (2014-2017)**
1	**2**	**3**	**4**	**5**	**6**	**7**
Net income	3 858 794	4 441 246	4 310 214	4 963 232	1 104 438	29%
Current assets	1 344 233	1 367 535	1 190 125	1 664 771	320 538	24%
Current liabilities	2 234 942	3 248 747	3 109 664	1 599 851	- 635 091	-28%
Cash	237 703	85 236	48 394	46 172	- 191 531	-81%

End of the table 2.3

1	2	3	4	5	6	7
Accounts receivables (cash+equivalents)	360 135	332 326	264 651	859 628	499 493	139%
Absolute liquid assets	597 838	417 562	313 045	905 800	307 962	52%
Non-current liabilities	1 242 237	702 894	1 236 900	2 786 127	1 543 890	124%

According to initial indicators data for liquidity analysis we can see the moderate sustainable growing of net income, current assets and absolute liquid assets of the enterprise (increase by 29%, 24% and 52% appropriately) that indicates positive dynamics of financial state development. The value of current liabilities tends to significant decreasing simultaneously with non-current liabilities substantive reduction that can testify about financial restructuring of the enterprise.

For deeper analizing the liquidity state of the PJSC ‘Obolon’ we calculated the indicators of liquidity (tabl 2.3.).

Table 2.3.

Liquidity Indicators of PJSC "Obolon" for 2014-2017

Liquidity ratios	**Formula**	**31.12.2014**	**31.12.2015**	**31.12.2016**	**31.12.2017**	**Absolute Growth (2014-**	**Recommended value**
Current ratio		0,60	0,42	0,38	1,04	0,44	2 or more
Quick ratio	h + h – +	0,27	0,13	0,10	0,57	0,30	1 or more
Cash ratio	(h)	0,11	0,03	0,02	0,03	-0,08	not less than 0.2
Solvency Ratio	+ + –	-	-0,22	-0,22	0,05	0,27	0,2 or more
Net working capital, thousands	–	-890	-1 881	-1 919	64	955	20% - 100% of total current liabilities.

As can be seen from the above calculation, the values of liquidity ratios are ambiguous in comparison with the recommended values. Let's dwell on each of them in more detail.

The current ratio indicates a company's ability to meet short-term debt obligations. The current ratio measures, whether or not a firm has enough resources to pay its debts over the next 12 months. Potential creditors use this ratio in determining, whether or not to make short-term loans. The current ratio can also give a sense of the efficiency of a company's operating cycle or its ability to turn its product into cash. The current ratio is also known as the working capital ratio.

The higher the ratio, the more liquid the company is. Commonly acceptable current ratio is 2; it's a comfortable financial position for most enterprises. Acceptable current ratios vary from industry to industry. For most industrial companies, 1.5 may be an acceptable current ratio.

During the reporting period, the current rate varies within the normative value, the growth of the factor is explained by an increase in cash on the company's accounts. But in 2017 it increases by 2.15 times, which testify that the company may not be using its current assets or its short-term financing facilities efficiently. This may also indicate problems in working capital management.

All other things being equal, creditors consider a high current ratio to be better than a low current ratio, because a high current ratio means that the company is more likely to meet its liabilities which are due over the next 12 months.

The quick ratio is a measure of a company's ability to meet its short-term obligations using its most liquid assets (cash or quick assets). Quick ratio is viewed as a sign of a company's financial strength or weakness; it gives information about a company’s short term liquidity. The ratio tells creditors how much of the company's short term debt can be met by selling all the company's liquid assets at very short notice.

The higher the quick ratio, the better is the position of the company. The commonly acceptable current ratio is 1, but may vary from industry to industry. Businesses selling goods or services primarily for cash with no involvement of accounts receivable can still be at a good level of liquidity even with quick ratio moderately below 1. The analyzed company has an active policy of providing buyers with consumer loans, and the accounts receivable turnover is slow, creating big amount of bad quality receivables, company can demonstrate unsatisfactory liquidity even with quick ratio values much greater than 1.

In a particular case, the quick ratio is much less than 1: in 2014, it is 3.7 times lower than the normative estimate, in 2015 - by 7.8 times, in 2016 it received a critical position (0,1) and became 9, 9 times less than acceptable. Only in 2017 the ratio became closer to 1 with a value of 0,57 and with a gap of only 1,8 times.

Cash ratio is the most stringent and conservative of these three liquidity ratios (current, quick and cash ratio). The ratio indicates to creditors, analysts, and investors the percentage of a company’s current liabilities that cash and cash equivalents will cover. The score is below the normative value (0,11 in 2014; 0,03 in 2015; 0,02 in 2016 and 0,03 in 2017) it means that there are more current liabilities than cash and cash equivalents. In this situation, there is insufficient cash on hand to pay off short-term debt (Fig 2.1.).

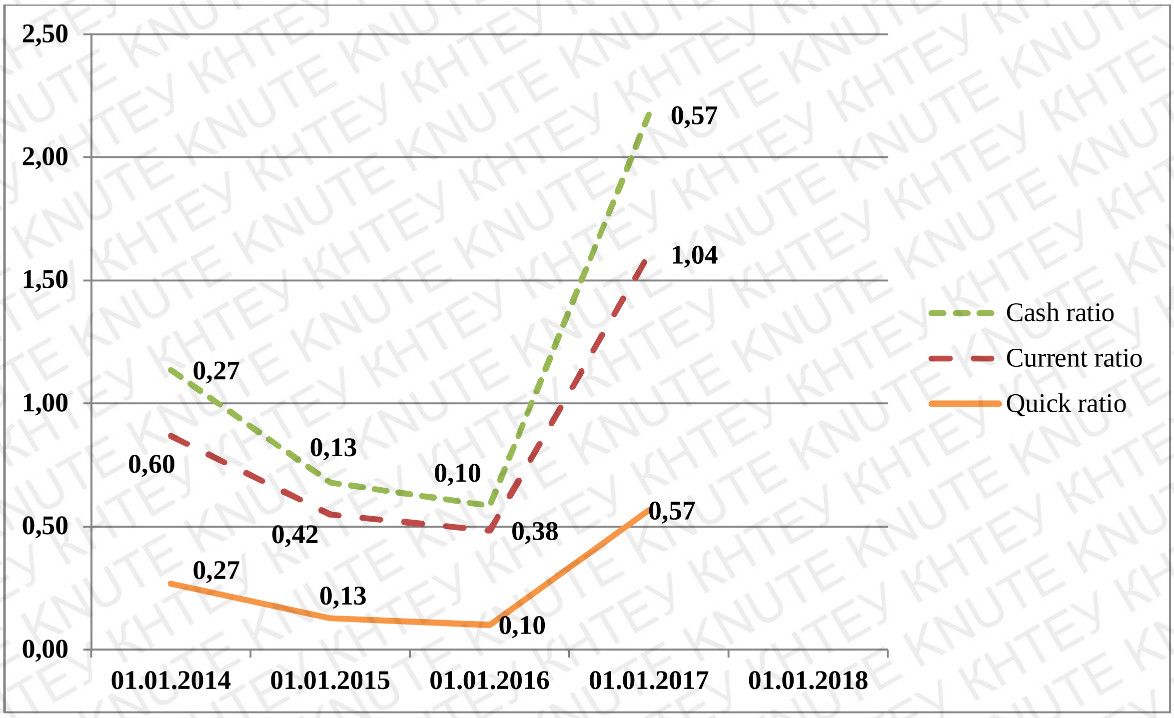


Fig. 2.1. Dynamics of Liquidity ratios of the PJSC "Obolon" as on 01.01.2015-01.01.2018

Working capital can affect a company's long-term investment effectiveness and its financial strength in meeting short-term liabilities. Working capital represents what a company currently has to finance its immediate operational needs, such as obligations to its vendors for extending credit on purchases of various goods and services to be used in the production process, inventory, cash balance and accounts receivable.

Working capital can affect the long-term effectiveness of the company and its financial ability to provide short-term obligations. Working capital is that now the company has to finance its operational needs, for example, an obligation to its suppliers to distribute loans for the purchase of various goods and services used in the production process, inventory, cash balances and receivables.

Obolon's working capital for the period 2014-2016 has a negative rating (-890 709 UAH in 2014, -1 881 212.00 UAH in 2015 and -1 919 539.00 UAH in 2016) and increase by 338,25% to 64 920 UAH in 2018 what means positive fluctuations in the liquidity of the enterprise.

If the current ratio is less than 1, then current liabilities exceed current assets and working capital is negative.

The working capital is temporarily negative, which means that the company has incurred large cash expenses from non-operational currency differences.

However, working capital has become positive in 2017 (UAH 64 920.00), and the absolute growth during the 2014-2017 period is UAH 955 629,00.

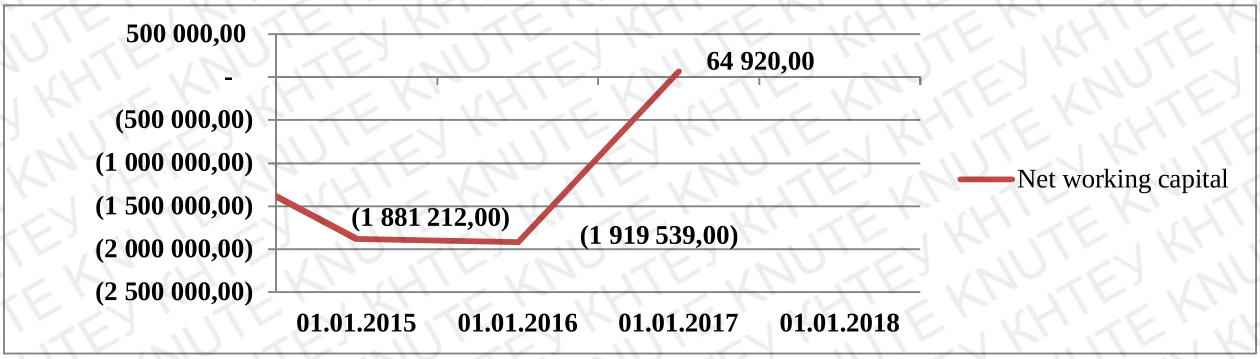


Fig. 2.2. Dynamics of Net working capitalof the PJSC "Obolon" as on 01.01.2015-01.01.2018

A significant shortage of liquidity indicates that the company can not pay its current debts and liabilities. This can lead to the intensive sale of long-term investments and assets, and in the worst case - to insolvency and bankruptcy. The main indicators that are needed for solvency ratios calculation are represented in the table 2.4.

Table 2.4.

Initial indicators for calculation of Solvency Indicators of the PJSC "Obolon" for 2014-2017, ths UAH

Indicator	Formula	31.12.2014	31.12.2015	31.12.2016	31.12.2017	Absolute Growth (2014-2017)	Growth rate, % (2014-2017)
Total debt	Non – current liabilities + current liabilities	3 477179	3 951641	4 346564	4 385978	908 799	26%
Total assets	Current asset + non – current assets	6 156737	5 917730	6 664804	6 881460	724 723	12%
Total equity	Total assets – Total debts	2 679558	1 966089	2 318240	2 495482	-184076	-7%
EBITDA	EBIT + Depreciation + Amortization	- 416 896	- 443075	- 207 939	451 790	868 686	208%

Looking through the data in the table 2.4. we can say about beneficial fluctuations of solvency of the company as such the indicators that influence on it have positive trend.

Calculation of solvency indicators is presented in the table 2.5.

The debt to equity ratio shows the percentage of company financing that comes from creditors and investors. A higher debt to equity ratio indicates that more creditor financing (bank loans) is used than investor financing (shareholders).

Each industry has different debt to equity ratios, as some industries tend to use more debt financing than others. A debt ratio of .5 means that there are half as many liabilities as there is equity. In other words, the assets of the company are funded by 2-to-1 investors by creditors. This means that investors own 66.6 cents of each dollar of company assets while creditors only own 33.3 cents on the dollar.

Table 2.5

Solvency Indicators of the PJSC "Obolon" for 2014-2017

Solvency ratios	**Formula**	**31.12.2014**	**31.12.2015**	**31.12.2016**	**31.12.2017**	**Absolute Growth (2014-2017)**	**Recommended value**
Debt to equity	$\frac{\text{Total debt}}{\text{Total equity}}$	1,30	2,01	1,87	1,76	0,46	1.5-2 and less
Debt to asset	$\frac{\text{Total debt}}{\text{Total assets}}$	0,56	0,67	0,65	0,64	0,07	0,5 and less
Debt to EBITDA	$\frac{\text{Total debt}}{\text{EBITDA}}$	-10,52	- 8,38	- 19,95	6,49	14,88	up to 3 is acceptable; a ratio of 4 to 5 indicates elevated risk

A debt to equity ratio of 1 would mean that investors and creditors have the same stake in business assets.

The debt and equity ratios, calculated on the basis of the ‘Obolon`s balance sheet, are within acceptable limits with slight fluctuations during the period under review. The only deviation from the normative value appears in 2016 (value = 2.01), but is so low and decreases to the regulatory level in 2016 and is 1.87.

A lower debt to equity ratio usually implies a more financially stable business. Companies with a higher debt to equity ratio are considered more risky to creditors and investors than companies with lower ratios.

Unlike equity financing, debt must be repaid to the borrower. Since debt financing also requires debt servicing or regular interest payments, debt can be a much more expensive form of financing than equity financing. Companies leveraging large amounts of debt may not be able to make payments.

Debt to asset is a leverage ratio that defines the total amount of debt relative to assets. This metric enables comparisons of leverage to be made across different companies. The higher the ratio, the higher the degree of leverage (DoL) and, consequently, financial risk. The total debt to total assets is a broad ratio that includes long-term and short-term debt (borrowings maturing within one year), as well as all assets – tangible and intangible.

Total debt to total assets is a measure of the company's assets that are financed by debt, rather than equity. This leverage ratio shows how a company has grown and acquired its assets over time. Investors use the ratio to not only evaluate whether the company has enough funds to meet its current debt obligations, but to also assess whether the company can pay a return on their investment. Creditors use the ratio to see how much debt the company already has and if the company has the ability to repay its debt, which will determine whether additional loans will be extended to the firm.

The ratios calculated on the base of "Obolon" are less than 1 and higher then 0,5 it`s indicates that a company may be putting itself at a risk of default on its loans if interest rates were to rise suddenly. If the ratio below 1 translates the greater portion of a company's assets will funded by equity.

The dynamics of ‘Obolon’ solvency indicators changing is presented on the figure 2.3.

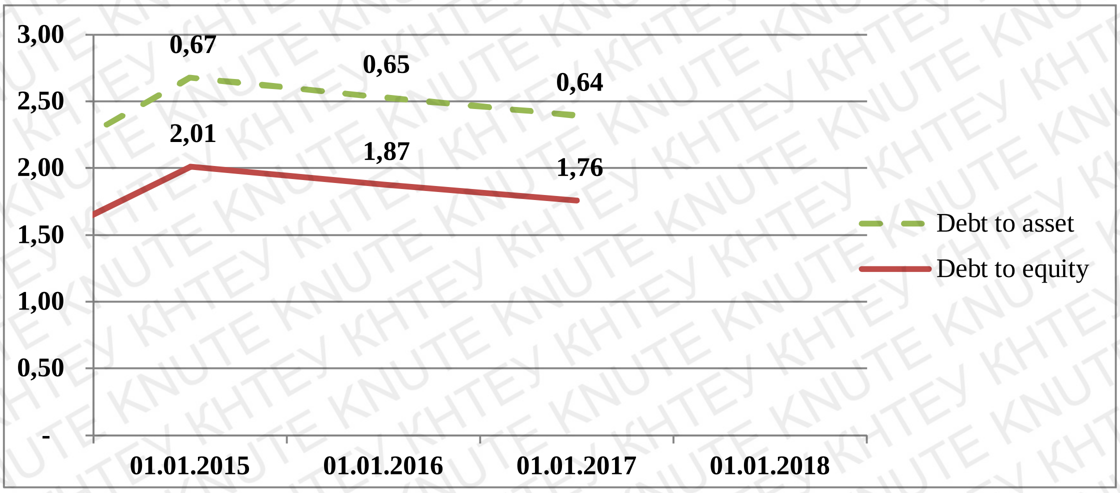


Fig. 2.3. Dynamics of solvency indicators of PJSC "Obolon" on 01.01.2015 - 01.01.2018

Debt / EBITDA is one of the common indicators used by creditors and rating agencies to assess the probability of debt repayment. Of course, this is a method used to quantify and analyze the company's ability to repay its debts. This ratio facilitates the investor's approximate time required by firms or businesses to repay all debts, excluding factors such as interest, depreciation, taxes, and amortization.

The ratio of high debt and EBITDA can lead to a lower credit rating for businesses. On the contrary, a lower rate implies the firm's desire to take on additional debts, if necessary, thereby preventing a relatively high credit rating.

Debt and EBITDA ratios are popular among financial analysts, because it combines debts of a company with cash flows, ignoring non-monetary expenses. In the end, these are cash flows (unlike profits) that will be used to repay debts. Business entities in their usual financial state show a debt/EBITDA ratio of less than 3.

The calculations of the indicators when EBITDA has negative meaning is sensless, so we should not take into account the figures for 2015, 2016. But in 2017 the ratio growth to the highest point 6,49 what is as a set off alarms because they indicate that a company is likely to face difficulties in handling its debt burden, and thus is less likely to be able to raise additional loans required to grow and expand the business. The Debt to EBITDA ratio changing during analized period is pictured on figure 2.4.

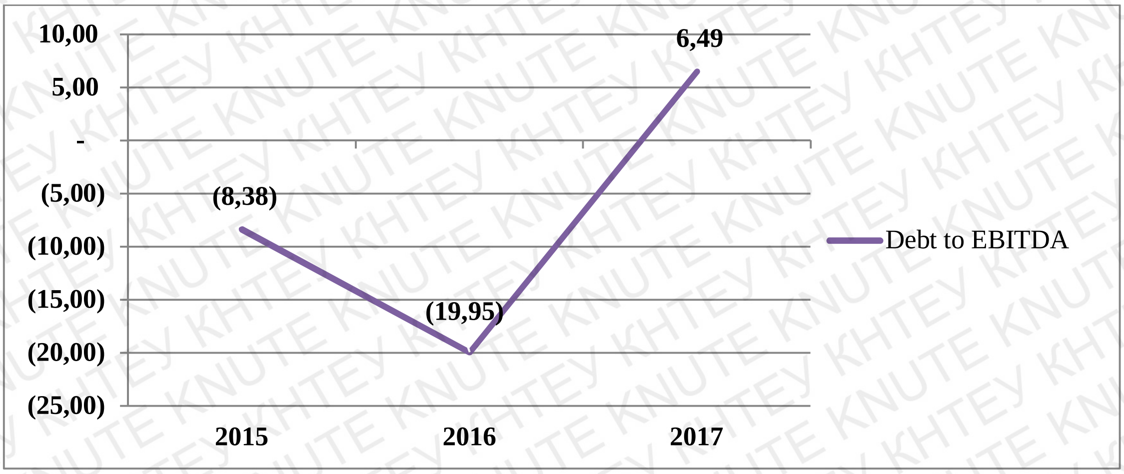


Fig. 2.4. Dynamics of Debt to EBITDA ratio of PJSC "Obolon" in 2015-2017

Thus, we see that the company has significant solvency problems, namely: the company lacks cash to calculate current liabilities and it uses a commercial loan that is able to pay with creditors at the expense of debtors only during the year. Also, because of the low level of solvency, creditors, suppliers, investors and partners are losing credibility to the company. And in addition to all of the above factors, the financial results of the company operations are negative.

2.2. Characteristics of profitability of the PJSC 'Obolon'

Profitability determines whether a business stays in business.
Profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities.

Profitability is the primary goal of all business ventures. Without profitability, the business will not survive in the long run. So measuring current and past profitability and projecting future profitability is very important.

Whether you are recording profitability for the past period or projecting profitability for the coming period, measuring profitability is the most important measure of the success of the business. A business that is not profitable cannot survive. Conversely, a business that is highly profitable has the ability to reward its owners with a large return on their investment.

Increasing profitability is one of the most important tasks of the business managers. Managers constantly look for ways to change the business to improve profitability. These potential changes can be analyzed with a pro forma income statement or a Partial Budget. Partial budgeting allows us to assess the impact on profitability of a small or incremental change in the business before it is implemented.

A variety of Profitability Ratios can be used to assess the financial health of a business. These ratios, created from the income statement, can be compared with industry benchmarks. Also, Profitability Ratios are recommendet to track over a period of years to identify emerging problems. Before the direct analizing the ratios we run through the main points of the financial report that influence the profitability (tabl. 2.8).

Table 2.8

Initial indicators for calculation of profitability of PJSC "Obolon" for 2015 – 2017, ths UAH

Indicators	2015	2016	2017	Absolute Growth (2015-2017)	Growth rate, % (2014-2017)
Net sales	4 441 246	4 310 214	4 963 232	521 986	12%
Gross profit:	1 349 544	1 019 414	1 398 064	48 520	4%
EBIT	-811 167,00	-910 052,00	220 797	1 031 964	-127%
Interest expences	410 470	463 655	314 744	-95 726	-23%
Net income	-711 875	-885 243	176 580	888 455	-125%
Non-current liabilities	972 566	969 897	2 011 514	1 038 948	107%
Average total assets	6 037 234	6 291 267	6 773 132	735 899	12%
Average stockholder`s equity	2 322 824	2 142 165	2 406 861	84 038	4%

The preliminary review gives optimistic results because of steady growth of all the indicators and finaly getting profit in2017. Using the method of calculation of financial stability and on the basis of income statement give an assessment of profitability of the PJSC "Obolon" (Tab. 2.9).

Gross profit margin is a profitability ratio that calculates the percentage of sales that exceed the cost of goods sold. The gross profit ratio is important because it shows management and investors how profitable the core business activities are without taking into consideration the indirect costs. In other words, it shows how efficiently a company can produce and sell its products. This gives investors a key insight into how healthy the company actually is. For instance, a company with a seemingly healthy net income on the bottom line could actually be dying. The gross profit percentage could be negative, and the net income could be coming from other one-time operations. The company could be losing money on every product they produce, but staying a float because of a one-time insurance payout.

Table 2.9

Dynamics of indicators of profitability of PJSC "Obolon" for 2015 – 2017

Profitability ratios	**Formula**	**2015**	**2016**	**2017**	**Absolute Growth (2014-2017)**	**Recommended value**
Gross profit margin	$\frac{\text{Gross profit}}{\text{Net sales}}$	30%	24%	28%	-2 pp	25-30%
Return on sales (operating margin)	$\frac{\text{Net income}}{\text{Net sales}}$	-16%	-21%	4%	20 pp	20% and more
Interest coverage ratio (ICR).	$\frac{\text{EBIT}}{\text{Interest expence}}$	- 1,98	- 1,96	0,70	2,68	1,5 or more
Return on equity (ROE)	$\frac{\text{Net income}}{\text{Average stockholder`s equity}}$	-31%	-41%	7%	38 pp	12% or more
Return on assets (ROA)	$\frac{\text{Net income}}{\text{Average total assets}}$	-12%	-14%	3%	14 pp	6% or more
Return on capital employed (ROCE)	$\frac{\text{EBIT}}{\text{Equity + Non – current liabilities}}$	5%	-8%	1%	-4 pp	-

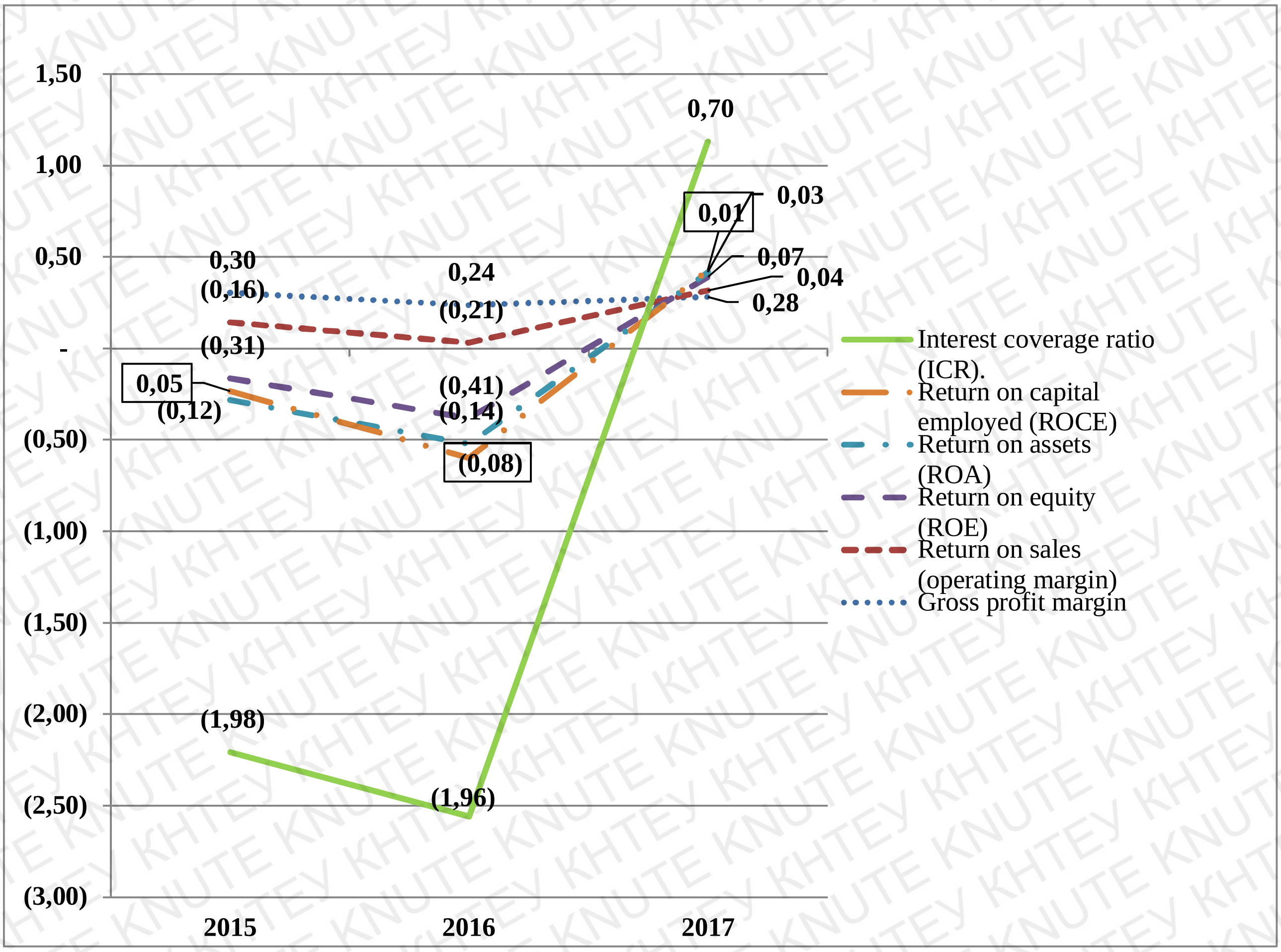
Investors are typically interested in gross profit as a percentage because this allows them to compare margins between companies no matter their size or sales volume. The coefficients of the gross margin of Obolon are on acceptable magnitude for 2015-2017 with slight fluctuations: 30% gross profit in 2015, 24% in 2016 and 28% in 2017.

Return on sales (ROS), often called the operating profit margin, is a financial ratio that calculates, how efficiently a company is at generating profits from its revenue. In other words, it measures a company’s performance by analyzing what percentage of total company revenues are actually converted into company profits.

Investors and creditors are interested in this efficiency ratio because it shows the percentage of money that the company actually makes on its revenues during a period. They can use this calculation to compare company performance from one period to the next or compare two different sized companies’ performance for a given period.

The dynamics of change of profitability ratios PJSC "Obolon" in 2015-2017 presented in the figure 2.5.

Fig. 2.5. Dynamics of change of Profitability ratios PJSC "Obolon" in 2015-2017



Since the return on sales equation measures the percentage of sales that are converted to income, it shows, how well the company is producing its core products or services and how well the management teams is running it.

The enterprise is considered to be low-profit if ROS is in the range of 1% to 5%, medium-to-low in ROS from 5% to 20%, highly profitable at ROS from 20% to 30%.

The value of ROS over 30% is characterized as super profitability (that is, as an exceptionally high-yield enterprise, where for every 100 hryvnias of conditional investments there are 30 hryvnias of profit).

Having losses (ROS less than 0) "non-profitability" is not analyzed so that we can`t take into account the ratio of 2015 (ROS = -16%) and 2016 (ROS = -18%). According to the distribution of the indicators listed above "Obolon" is low-profit (ROS = 4%) that indicates a low margin of safety there is a higher risk that a decline in sales will erase profits and result in a net loss, or a negative margin.

The interest coverage ratio (ICR) is a measure of a company's ability to meet its interest payments. Interest coverage ratio is equal to earnings before interest and taxes (EBIT) for a time period, often one year, divided by interest expenses for the same time period. The interest coverage ratio is a measure of the number of times a company could make the interest payments on its debt with its EBIT. It determines, how easily a company can pay interest expenses on outstanding debt.

The lower the interest coverage ratio, the higher the company's debt burden and the greater the possibility of bankruptcy or default. A lower ICR means less earnings are available to meet interest payments and that the business is more vulnerable to the increases in interest rates. When a company's interest coverage ratio is only 1.5 or lower, its ability to meet interest expenses may be questionable. An interest coverage ratio below 1.0 indicates the business is having difficulties generating the cash necessary to pay its interest obligations (i.e. interest payments exceed its earnings (EBIT)).

The scores of ‘Oboblon`s’ ICR are lower than 1 (0,70 in 2017) and even below 0 in 2015 (-1,98) and 2016, as these mean the company's current earnings being insufficient to service the company's currently outstanding debt. The chances of a company being able to continue to meet its interest expenses are doubtful even with an interest coverage ratio below 1.5, especially if the company is vulnerable to seasonal or cyclical dips in income.

Although a company with difficulties servicing its debt may manage to stay financially afloat for a significant period of time, it is vital for analysts and investors to stay abreast of the company’s ability to pay off interest obligations. A low interest coverage ratio is a definite red flag for investors, as it can be an early warning signal of impending bankruptcy.

The return on equity ratio, or ROE, is a profitability ratio that measures the ability of a firm to generate profits from its shareholders investments in the company. In other words, the return on equity ratio shows how much profit each dollar of common stockholders' equity generates.

So a return on 1 point means that every dollar of common stockholders' equity generates 1 dollar of net income. This is an important measurement for potential investors because they want to see, how efficiently a company will use their money to generate net income.

Return on equity measures, how efficiently a firm can use the money from shareholders to generate profits and grow the company. Unlike other return on investment ratios, ROE is a profitability ratio from the investor's point of view—not the company. In other words, this ratio calculates, how much money is made based on the investors' investment in the company, not the company's investment in assets or something else.

During the period under review, the return on equity will change to lesser in 2015-2016. In 2015, each hryvnia of its own funds formed 31 cents of net losses, in 2016 - 41 cents. However, in 2017 shareholders saw 7 kopecks per 1 hryvna return on their investment.

The ROA formula is an important ratio in analyzing a company's profitability. The ratio can be used when comparing a company's performance between periods, or between two different companies of similar size and industry.

The coefficient of return on assets characterizes - the level of profit generated by all assets of the enterprise, which are in its use according to the balance sheet. This coefficient is characterized by a negative value in 2015 and 2016, which is a sign of the company's loss-making, and has a tendency for a positive fluctuation in 2017, like all the previous figures: -12% in 2015, -13% - in 2016, and 3% in 2017.

ROCE is a useful metric for comparing profitability across companies based on the amount of capital they use.

The return on capital characterizes the level of return on equity capital invested in this enterprise, therefore the most interest is represented by existing and potential owners. During the period under review, the return on equity also fluctuates. If in 2015, each borrowed money unit of its own funds formed 5 cents of profit, then in 2016, 8 cents of net loss, and in 2017 again earns a profit of 1 cents per 1 attracted hryvnia. In general, the efficiency of capital use is not sufficient, but not critical.

Consequently, the current state of profitability of an enterprise negatively affects relations with buyers (customers) and suppliers of goods and services. Such changes lead to the company's failure to comply with contract terms and to losing ties with individual suppliers.

However, all of the profitability indicators of the company are significantly improved in 2017, and this gives rise to the expectation that it will be able to pay off its current obligations as the maturity of their payment comes.

To find out more detailed information about financial state of an enterprise let`s evaluate the business activity of the enterpreise.

2.3. Evaluating the business activity of the PJSC ‘Obolon’

The effectiveness of the company's activity is a complex characteristic that embodies various aspects of the company's activity, and therefore it is determined by the system of such criteria as the place of the company in the market of specific goods, the geography of business relations, the reputation of the company as a partner, the activity of innovation and investment activity, competitiveness. Thus, business activity can be characterized by the dynamics of performance indicators of production and economic activity in general. The positive dynamics of these indicators will help strengthen the financial position of the enterprise.

An assessment of business activity allows us to analyze the effectiveness of the main activities of the enterprise, characterized by the speed of rotation of financial resources of the enterprise. The assessment is carried out using the coefficients of reversibility.

Reversal ratios - a system of indicators of financial activity of an enterprise, which characterizes, how rapidly capital is rotated in the process of its economic activity.

In order to assess the business activity of PJSC "Obolon", we will make calculations of business activity indicators for 2014-2017, using the data of annual financial reports for this purpose.

Before the Business Activity Ratios assessment let`s view the initial figures that make influence on business activity of the PJSC ‘Obolon’ the most (Tabl 2.10).

Table 2.10

Initial indicators for calculations of Business Activity Ratios of PJSC "Obolon" for 2015-2017, ths UAH

Indicators	2015	2016	2017	Absolute Growth (2015-2017)
Net Credit Sales	4 441 246	4 310 214	4 963 232	521 986
Average Accounts Receivables	1 000 914	1 009 991	1 022 565	21 651
Cost of Goods Sold	3 091 702	3 290 800	3 565 168	473 466
Average Accounts Payable	1 000 914	1 009 991	1 022 565	21 651
Current Assets	1 355 884	1 278 830	1 427 448	71 564
Current Liabilities	2 741 845	3 179 206	2 354 758	-387 087
Average Total Assets	6 037 234	6 291 267	6 773 132	735 899
Inventory	973 297	881 787	750 563	-222 734
Accounts Receivable	1 001 323	1 010 571	1 022 876	21 553

According to preliminary review we can see that such indicators as net credit sales, average accounts receivables, cost of goods sold, average accounts payable, current assets and average total assets have risen during analized period and inventory and current liabilities decreased.

The business activity indicators are evaluated at the table 2.11.

Table 2.11.

Business Activity Ratios of PJSC "Obolon" for 2015-2017

Efficiency ratios	Formulas	2015	2016	2017	Absolute Growth (2014-2017)	Recommended value
Accounts Receivable Turnover	$\frac{\text{Net Credit Sales}}{\text{Average Accounts Receivables}}$	12,83	14,44	8,83	- 4,00	8
Accounts Payable Turnover	$\frac{\text{Cost of Goods Sold}}{\text{Average Accounts Payable}}$	3,09	3,26	3,49	0,40	8
Working Capital Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	0,49	0,40	0,61	0,11	1 and more
Total Asset Turnover Ratio	$\frac{\text{Net Credit Sales}}{\text{Average Total Assets}}$	0,74	0,69	0,73	- 0,00	1 and more
Inventory Turnover	$\frac{\text{Cost of Goods Sold}}{\text{Average Total Assets}}$	0,51	0,52	0,53	0,01	
Cash Cycle, days	Days Inventory Outstanding + Days Sales Outstanding − Days Payable Outstanding	21,93	9,31	12,78	- 9,15	
Days Inventory Outstanding, days	$\frac{\text{Inventory}}{\text{Cost of Goods Sold}} * 365$	114,91	97,80	76,84	- 38,06	
Days Sales Outstanding, days	$\frac{\text{Accounts Receivable}}{\text{Net Credit Sales}} * 365$	25,24	23,60	40,66	15,42	
Days Payable Outstanding, days	$\frac{\text{Accounts Payable}}{\frac{\text{Cost of Sales}}{\text{Number of Days}}}$	118,21	112,09	104,72	- 13,49	

Since the receivables turnover ratio measures a business' ability to collect its receivables efficiently, it only makes sense that a higher ratio would be more favorable. Higher ratios mean that companies are collecting their receivables more frequently throughout the year. For instance, a ratio of 2 points means that the company collected its average receivables twice during the year. In other words, this company is collecting is money from customers every six months.

Higher efficiency is favorable from a cash flow standpoint as well. If a company can collect cash from customers sooner, it will be able to use that cash to pay bills and other obligations sooner.

The ratio tend to decrease during analysing period, but still in the limits of desireble value. So, during 2015 the ratio has increased by 1,6, for 2016 decreased by 5.61 and in 2017 was equal to 8,83.

Accounts payable turnover ratio indicates the creditworthiness of the company. A high ratio means prompt payment to suppliers for the goods purchased on credit and a low ratio may be a sign of delayed payment.

The current ratio increases from 3,09 in 2015 to 3,49 in 2017 and it means that the company is paying off suppliers at a faster rate than in previous periods. The rate at which a company pays its debts could indicate it`s financial condition of the firm.

The working capital ratio is the relative proportion of an entity's current assets to its current liabilities, and is intended to show the ability of a business to pay for its current liabilities with its current assets. The rate are decreasing in 2015-2017 from 0.49 to 0.11 and this is a strong indicator that there will be liquidity problems in the future, while a ratio in the vicinity of 2.0 is considered to represent good short-term liquidity.

The asset turnover ratio is an efficiency ratio that measures, how efficiently a firm uses its assets to generate sales, so a higher ratio is always more favorable. Higher turnover ratios mean, a company is using its assets more efficiently. Lower ratios mean that a company isn't using its assets efficiently and most likely have management or production problems.

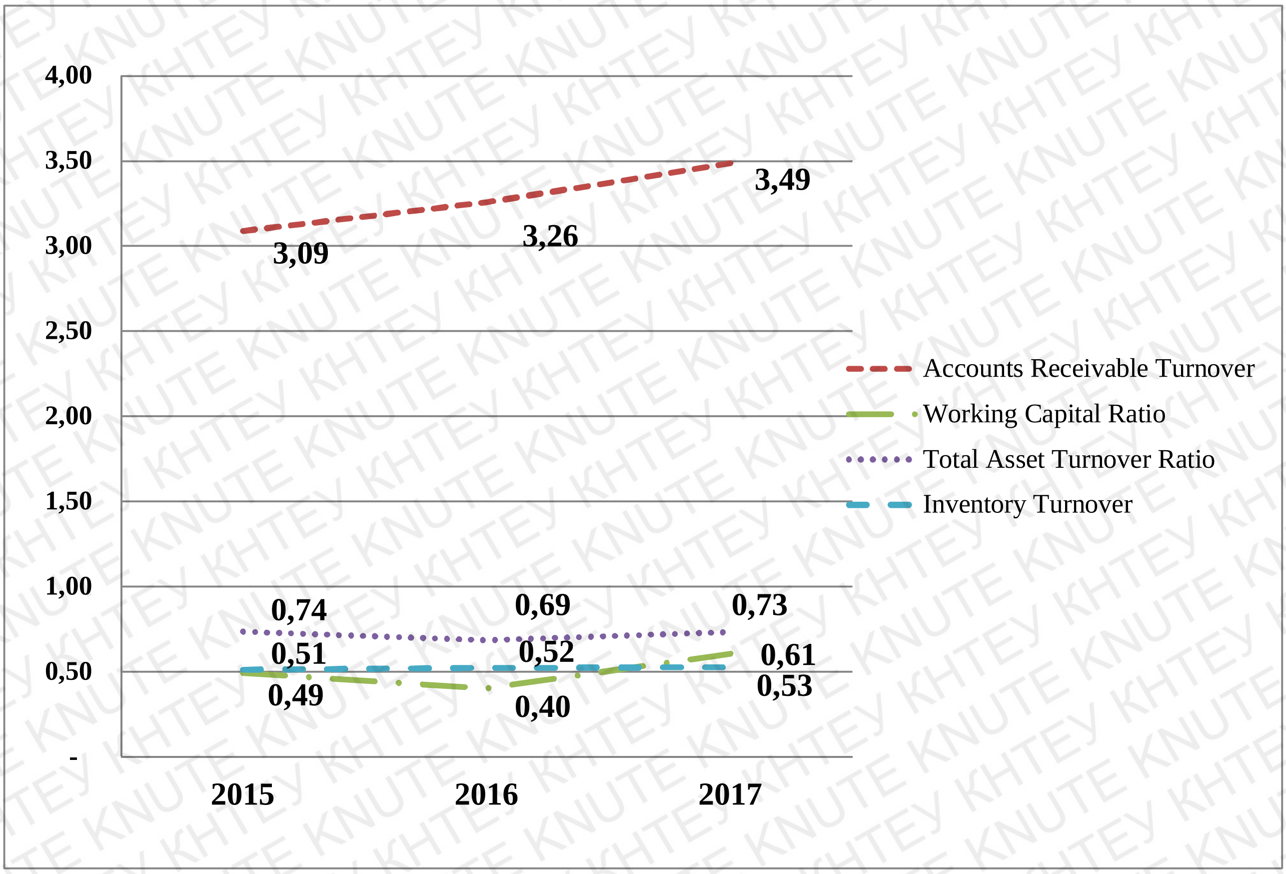
The ratio of "Obolon's" ranges from 0.74 in 2015 to 0.69 in 2016 and to 0.73 in 2017 and it means that the net sales of this company are less than the average total assets for the year. In other words, the company is generating 0.73 cent of sales for every dollar invested in assets in 2017 (0.74 cents per 1 dollar in 2015 and 0.69 in 2016).

Inventory turnover is a ratio showing, how many times a company has sold and replaced inventory during a period. Inventory turnover measures, how fast a company sells inventory and analysts compare it to industry averages. The turnover ratio in 2015 is 0,51 and increase by 0,01 every year and becomes 0,53. Low turnover implies weak sales and, excess inventory.

The dynamics of change of efficiency ratios PJSC "Obolon" in 2015-2017 presented in the figure 2.6.

Fig. 2.6. Dynamics of change of Business Activity ratios of the PJSC "Obolon" in 2015-2017

Days inventory outstanding (DIO), defined also as days sales of inventory,



indicates, how many days on average a company turns its inventory into sales.

Value of DIO varies from year to year and equals 114,91 days in 2015, 97,80 in 2016 and 76,84 in 2017. In general, a lower DIO is better, so the decreasing coefficient is a positive factor.

The days sales outstanding calculation, also called the average collection period or days' sales in receivables, measures the number of days it takes a company to collect cash from its credit sales. In other words, it shows, how well a company can collect cash from its customers. The sooner cash can be collected, the sooner this cash can be used for other operations. Both liquidity and cash flows increase with a lower days sales outstanding measurement.

An increase of the ratio from 25, 24 in 2015 to 40,66 in 2017 indicates a company with poor collection procedures and customers who are unable or unwilling to pay for their purchases. Companies with high days sales ratios are unable to convert sales into cash as quickly as firms with lower ratios.

DPO means the average number of days a company takes to pay invoices from suppliers and vendors. Typically, this ratio is measured on a quarterly or annual basis to judge, how well a company's cash flow balances are being managed. For instance, a company that takes longer to pay its bills has access to its cash for a longer period and is able to do more things with it during that period.

DPO is an important financial ratio that investors look at to gauge the operational efficiency of a company. Decreasing DPO on 13,49 for 2017 means that the company is taking less time to pay its vendors and suppliers than need in 2015. The 104,72 DPO is relatively high. Companies with high DPOs have advantages because they are more liquid than companies with smaller DPOs and can use their cash for short-term investments.

A high ratio also has disadvantages. Vendors and suppliers might get mad that they aren't being paid early and refuse to do business with the company or refuse to give discounts.

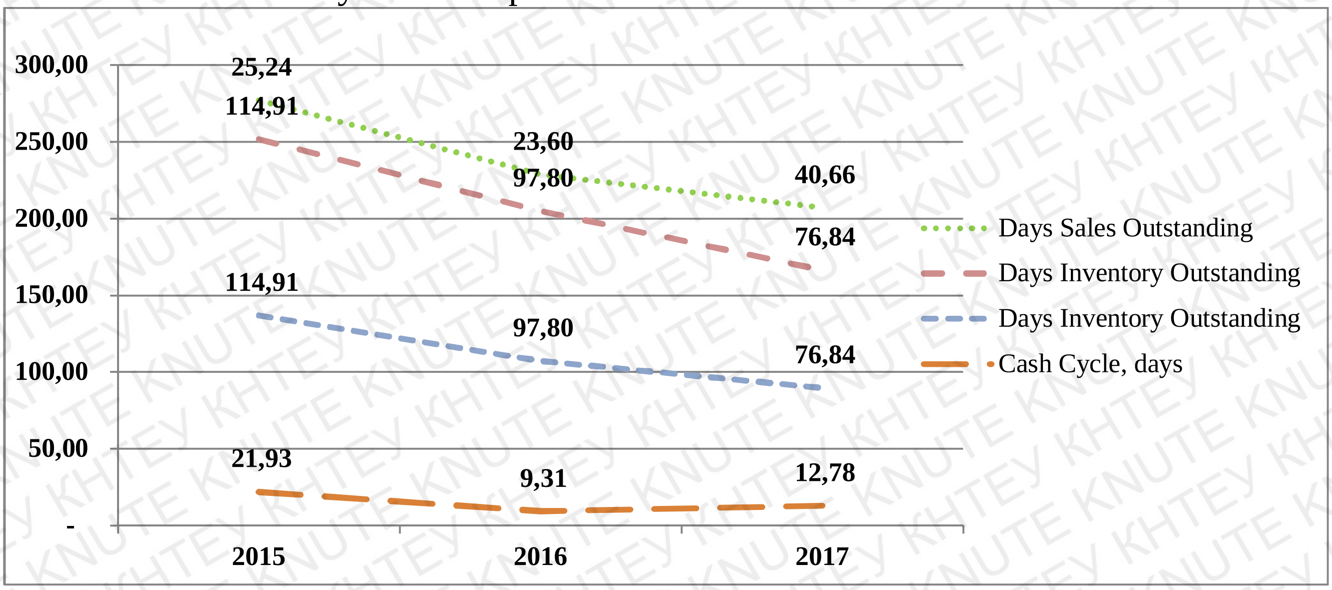
The cash conversion cycle measures, how many days it takes a company to receive cash from a customer from its initial cash outlay for inventory. For example, a typical retailer buys inventory on credit from its vendors. When the inventory is purchased, a payable is established, but cash isn't actually paid for some time.

The cash cycle measures the amount of days between paying the vendor for the inventory and when the retailer actually receives the cash from the customer.

As with most cash flow calculations, smaller or shorter calculations are almost always good. A small conversion cycle means that a company's money is tied up in inventory for less time. In other words, a company with a small conversion cycle can buy inventory, sell it, and receive cash from customers in less time.

In this way, the decreasing of cash conversion cycle on 9,15 days from 2015 to 2017 can be viewed as an increasing efficiency. It shows that the company become buy, sell, and collect on its inventory more quickly and efficiently. The dynamics of change of efficiency ratios PJSC "Obolon" in 2015-2017 presented in the figure 2.7.

Fig. 2.7. Dynamics of change of Cash Cycle (in days) of the PJSC "Obolon" in 2015- 2017



Business activity is an important indicator of the financial condition of an enterprise, which characterizes various aspects of its activities, such as market place, competitiveness, level of resource efficiency (negotiable, non-negotiable and capital), and growth efficiency. An analysis of business activity made it possible to assess the efficiency of utilization of the company's circulating, core resources and capital, which in turn affect the level of profit that the enterprise can obtain in the course of its activities. On the basis of the analysis of business activity and efficiency of PJSC ‘Obolon’, it can be concluded that the company had problems with profitability and liquidity and efficiency, but in 2017, the volatility in the positive side is starting to emerge. The level of business activity of this enterprise is growing.

Having analyzed the solvency and liquidity indicators of the enterprise, having calculated the profitability ratios and having outlined the main parameters of business activity of the PJSC ‘Obolon’, we can say that financial state of the enterpreise is still insufficial, but characterized with positive dynamics of developing.

So that, our diagnosis has shown that completely positive fluctuations of the liquidity and solvency ratios happened during the analized period. It was causing mainly by restructurisation the company`s debts. Also, the same situation we can observe with the profotability ratios that are provided by significant increasing of net financial result from operational activity, at 2017 the company at first during the analized period gained profit.

SECTION 3

DIRECTIONS FOR IMPROVING FINANCIAL STATE OF THE PJSC 'OBOLON'

3.1. Directions for improving liquidity and solvency of the PJSC 'Obolon'

The financial state of the company mainly depends on the solvency of an enterprise, its ability to meet the payment requirements of suppliers in time, make payments on bank loans, pay staff expenses, pay taxes. That is, availability of cash at an enterprise to fulfill its financial obligations indicates its liquidity. An enterprise is considered to be liquid if its current assets exceed short-term liabilities [4].

After analyzing liquidity and solvency of the PJSC 'Obolon' we can see the critical level of these ratios in 2014-2016 and some improvement in 2017 year.

The main reasons that have negative influence on the analyzed company`s liquidity and solvency are:

- economic crisis, loss of control over part of the territory in the East, loss of traditional markets for products;
- devaluation of the national currency, large exchange differences, growth of rates of foreign currencies (purchase of equipment, raw materials, materials abroad, payments on loans);
- an unstable situation in the raw materials market; a significant increase in the cost of basic raw materials, auxiliary materials and energy;
- a significant decrease in the purchasing power of population;
- lack of preferential lending, liquidation of more than 70 banking institutions and a large number of troubled banks;
- instability of the regulatory legal field;
- constant increase of fiscal pressure, increase of tax burden, increase of administrative pressure, classification of beer to alcoholic beverages; a significant increase in the rates of excise duty on beer and low-alcohol

beverages, raising of the standards for charging for subsoil and the use of underground and surface water for enterprises, raising the rent for land and land tax;

- high competition in the industry.

And the main precondition of difficulties with liqidity state is the credit history of the enterprise. In 2009 the company received credit funds in the currency from European Bank for Reconstruction and Development and Ukrsotsbank for new equipment purchasing. Also, the company took currency loans from the ING Bank, Porsche Mobilite Ltd (some more detailed information about credit history of PJSC Obolon in the Appendix B). After inflation boost in 2014 and there was a sharp drop in purchasing power that it was so hard to pay for the debts, so the company started to attract short-term loans to meet the current needs of the enterprise.

In the table 3.1.1 there are factors that influence the increase or decrease of liquidity of enterprises the most.

Table 3.1

Factors that affect the change in the company's liquidity

Factors influencing liquidity increase	**Factors that affect liquidity reductions**
1. Obtaining a long-term loan	1. Repayment of long-term loans
2. Investing in capital	2. Cash payments
3. Profits	3. Losses
4. Depreciation deductions	4. Income taxes from asset valuation
5. Reduction of accounts receivable	5. Investments in fixed assets
6. Return of granted loans	6. Redemption of short-term loans
7. Sale of non-current assets	7. Use of contingency funds

According to the factors that most affect the level of liquidity and solvency of the enterprise, general proposals for improving liquidity and solvency management are as follows:

1) increase in revenues and significant reduction of expenses, which will lead to an increase in the profit of the enterprise;

2) a reduction in the cost of production and costs that are reimbursed at the expense of profit;

3) sale of certain low-profitable structural units and fixed assets. Due to this operation, the enterprise can receive investment resources for more profitable activities and re-profile the production;

4) lease fixed assets that are not used in the production process to the fullest extent;

5) to restructure the assets of the enterprise, this is one of the important directions for strengthening the financial state

6) ensuring the uninterrupted operation of the enterprise.

Within the framework of this chapter, we propose to consider the possibilities and prospects of business restructuring more detail. According to the current status the management of the company is holding negotiations to attract additional investments into the company, has already changed the president of the company, conducted a financial restructuring, which resulted in the company's assets increased by 7.5% in 2017 (to UAH 5.737 billion).

Retained earnings by the end of 2017 amounted to about UAH 381.1 million, which is 3.5 times more than in the previous year. The company's long-term liabilities for the year increased 4.9 times - to UAH 2.058 billion, while the current ones decreased by 1.9 times - to UAH 1,737 billion.

The company's receivables still remain a weak chain - it grew in 2017 1,8 times - to UAH 1,246 billion.

The amount of accounts receivable is vital factor for the enterprise as such as except the liquidity and solvency it affects the following parameters:

- the bulk and structure of current assets;
- the bulk and structure of net proceeds from sales;
- duration of the cash cycle of the enterprise;
- turnover of current assets and assets in general;

- sources of funds of the enterprise.

If the period of turnover is reduced, for example, to the level of 2016, on other equal terms (calculations are given in the table 3.2), the enterprise will be able to release UAH 325,336.13 to increase the cash outflow or repayment of current debt, which in its turn will lead to improved solvency of the enterprises

Table 3.2

The estimations accounts receivable of the PJSC 'Obolon' for 2015-2018

Item	2015	2016	2017	2018*
Net income from sales of goods (goods, works, services)	4 441 246	4 310 214	4 963 232	4 963 232
Accounts Receivable	307 107	278 661	552 909	344 669
Accounts Receivable Turnover	14	9	8	14
Days Sales Outstanding	25	24	41	25

*****- amount of accounts receivables and an accounts receivable turnover ratio estamations in relation to the other parameters stay the same as in 2017 and the days sales outstanding at the desired level.

So that for improving the financial state it will be useful:

- to reduce the share of the overdue receivables;
- to monitor the status of settlements;
- to focus on higher quantity of consumers in order to reduce the risk of not paying one or more of them;
- to monitor the ratio of receivables and payables: a significant excess of receivables poses a threat to financial sustainability and makes it necessary to attract additional sources of funding;
- in the developed countries to use sometimes a discount system in case of early payment;
- to determine the term of overdue balances on accounts of debtors and compare this term with the norms in the industry, indicators of competitors and data of the previous years;

- to review the amount of the commercial loan periodically, according to the financial condition of the clients;
- to receive a mortgage from a debtor in the amount not less than the amount in the account;
- to involve institutions that charge debts in the presence of documentary evidence;
- to sell accounts of debtors to a factoring company, a bank;
- in case of selling a large quantity of goods to invoice buyers immediately;
- to use the billing cycle to maintain uniformity of operations;
- to insure loans to protect against large losses from bad debts;
- to avoid high risk borrowers.

Among problems of management of receivables of PJSC "Obolon", the following can be distinguished:

- there is no reliable information on specific maturities of obligations by debtor companies;
- the work with overdue accounts receivable is not regulated;
- there is no data on the increase in costs associated with an increase in receivables and their turnover;
- there is no assessment of the creditworthiness of buyers and the efficiency of commercial lending.

An important point in managing receivables is improving its quality. To achieve this purpose of management it is possible to introduce the following measures:

- a comprehensive assessment of the financial condition of potential loans, their solvency, reputation, duration, and market environment in the area where the partners carry out their activities;
- diversification of clientele;
- determination of the maximum amount of debt as a whole and per client (limitation of accounts receivable);
- the usage of various forms of debt recovery (mortgages, insurance, guarantees: banks or third parties, registration with secured bill of exchange);
- increasing the effectiveness of penalties in relation to debtors.

The above-mentioned measures, which would form the basis of the management policy of accounts receivable in the property of PJSC "Obolon", will allow the company to avoid losses associated with the write-off of bad debts receivable, increase the efficiency of settlements with buyers.

Consequently, the consequences of the financial crisis, which in one way or another affect practically all business entities in Ukraine, require the search for fundamentally new approaches to accounts receivable management of enterprises. A comprehensive solution to the problem of optimizing its structure, as well as acceleration of its maturity, is possible through diversification of product buyers, strict debt planning, continuous monitoring and application of modern forms of its refinancing. Reducing debt by reducing its repayment period, rather than reducing sales, positively characterizes accounts receivable management.

3.2. Directions of achievement of financial equilibrium of the PJSC ‘Obolon’

Sustainable financial status of a company is demonstrated by its ability to pay off current debts on a timely basis, maintain solvency in adverse circumstances, increase sales and make profit. Financial stability provides a stable solvency perspective, based on balance of assets and liabilities, income and expenses and cash flows. Financial stability is the ability of an entity to function and develop, to maintain the balance of its assets and liabilities in the changing external and internal environment; which guarantees its constant solvency and investment attractiveness within the permissible level of risk [43].

Estimation of financial stability of an enterprise involves an objective analysis of the size and structure of assets and liabilities of an enterprise and determination of its financial stability and independence on this basis, as well as the analysis of compliance of financial and economic activities of an enterprise with the objectives of its statutory activities. Financial stability of an enterprise is influenced by the following factors: state of an enterprise in the commodity market; competitiveness of products (works, services); business reputation of enterprise; dependence of enterprise on external investors and creditors; availability of insolvent debtors; efficiency of economic and financial transactions. External factors significantly affect the company in general and financial sustainability in particular such as: economic conditions of management; political stability; development of science and technology; solvent demand of consumers; economic and financial-credit legislative base; social and ecological situation in society; tax policy; level of competition; development of the financial and insurance market [28].

Financial stability is a reflection of stable excess of income over costs, provides positive cash flow of a company and through its efficient usage contributes the continuous process of production and sales.

The main condition for ensuring financial stability of an enterprise is the formation of sufficient amounts of funds that enable them to fully discharge their obligations to the budget, pay off with employees, creditors, and suppliers. In other words, an enterprise will be financially sustainable if the amount of its cash flows from operating activities exceeds the outflows.

Based on the above, one can conclude that one of the important components of financial sustainability is the availability of the necessary amount of financial resources, which can be formed only if a company operates efficiently and receives profits, which is impossible without the making of managerial decisions.

The PJSC ‘Obolon’ has lack of profitability during all the analized period except the year of 2017. So, to determine the factors that influenced financial improvement the most we proposed to hold factor analysis of net profit.

Factor analysis is a method of complex system study and measurement of the factors influence on the magnitude of performance indicators.

One of the methods of conducting factor analysis is a method of elimination. The metod means eliminating the influence of all factors on the value of the results of the one indicator, except for one.

Using this technique, it is necessary to determine the effect of each factor on net profit.

According to the "Profit Statement" (table 3.3) the influence of the factors can be represented as an additive model:

$$NP = NS\text{-}COGS + OOI - OE + II - IP \pm IR - TP, \qquad (3.1)$$

where *OE* (operating expenses) is the sum of items: marketing, sales, etc .; research and development costs; administrative expenses;

NS – net sales of a company;

COGS – cost price of the products sold;

II - interest income;

IP - costs of payment of interest;

IR - investment result;

TP – tax profit.

Table 3.3

Factor analysis of net profits of the PJSC 'Obolon' for 2016-2017 , ths UAH

Indicators	Preliminary (base) period (2016)	Reporting period (2017)	Deviation (+, -)
Net Sales (NS)	**4 310 214**	**4 963 232**	**653 018**
Cost of Goods Sold (COGS)	-3 290 800	-3 565 168	-274 368
Gross profit:	**1 019 414**	**1 398 064**	**378 650**
Marketing and other expenses. (ME)	- 968 802,00	-1 111 347,00	-142 545,00
Administrative costs (AC)	-285569	-296579	-11010
Other operating income (OOI)	62589	88488	25899
Other operating expenses (OOE)	-61663	-29144	32519
Operating profit	**- 234 031,00**	**49 482,00**	**283 513,00**
Interest income (II)	8604	97691	89087
Costs of payment of interest (IP)	-463655	**-314744**	**148911**
Investment Result (IR)	-220970	388368	609338
Profit before tax	**-910 052**	**220 797**	**1 130 849**
Profit tax (PT)	24809	-44217	-69026
Net profit (NP)	**-885 243**	**176 580**	**1 061 823**

As widely spread, the sales proceeds (NS) depends on such factors as the price of sales (PS), the proportion of each product type in total of sales (PP) and the amount of sales (N). This dependence can be written in the form of a multiplicative model:

$$NS = N \times PP \times P \tag{3.2}$$

The factor model of the cost price of products sold can be represented in the form of the following expression:

$$COGS = N \times PP \times C_{var.}, \tag{3.3}$$

where N – volume of products produced;

PP – indicator of the proportion of each product type;

$C_{var.}$ – variable cost per unit of production (cost per unit).

Using the data of the Profit Statement, it is impossible to determine the impact of all these factors on the financial result because we do not know the specifics of the realized and manufactured products, the bulk of production and sales, neither the price nor the cost per unit. At the same time, knowing the average price index, we can determine the impact on the net profit level by changes in prices, volume of sales and volume of output.

Suppose that the prices of products in the reported year increased by 13.7% (inflation rate in 2017), i.e. the price index (Pi) was 1,137. Then we will be able to determine the influence of factors on the change in sales revenue. The general change in revenue from sales is based on the formula:

$$. = \quad - \quad , \tag{3.4}$$

where $\Delta NS_{gen.}$ – total change in revenue from sales in the reporting period;

NS_1 – proceeds from sales in the reported year

NS_0 – proceeds from sales in the base period.

The total change in revenue from sales in 2017 will be:

$$\Delta NS_{gen.} = 653\ 018 \text{ ths UAH}$$

Revenues from sales increased in 2017 by UAH 653,018 thousand.

The overall change in sales proceeds is the result of two factors: the selling price and the volume of sales (taking into account the proportion). Calculation of the influence of these factors can be made as follows:

a) change in revenue from sales as a result of changes in prices for products (ΔNSp) is calculated by the formula:

$$= \quad - \quad : \tag{3.5}$$

As follows = 4 963 232 – 4 963 232/1.137 = 598 032.35 ths UAH.

b) change in revenue from sales as a result of changes in volumes of products sold, taking into account the structure ($\Delta NSN*PP$):

$$= \quad : \quad - \tag{3.6}$$

In accordance: NS . = 54 985,65 ths UAH

As a result of the calculations, it turned out that the increase in sales proceeds from realization by UAH 653,018 was due to:

- an increase in prices for products by 13.7%, which contributed to an increase in revenues from realization by UAH 598,032.35 thousand;
- increase of sales volume of sales increased by 54 985.65 thousand UAH;

Similarly, the influence of factors on the change in the cost of goods sold is calculated:

$$. = \quad - \; C \tag{3.7}$$

where $\Delta\ COGS_{gen.}$ – change in the absolute value of the cost;

$COGS_1$; $COGS_0$ – cost of relevant periods.

Thus: C . = 274 368 ths UAH

Assume that the unit cost of production has changed only due to external factors, namely, due to the general change in prices, then:

a) the change in the cost price due to the change in prices ($\Delta COGS_{P(Cvar.)}$) is determined by the formula:

C ( ) = 429 576,09 ths UAH

b) Changing the same cost of production due to an increase in output (taking into account the change in structure) ($\Delta COGS_{N*PP}$) is determined by the formula:

$$ * = : – \tag{3.8}$$

* = -155 208,09 ths UAH

The calculations show that an increase in the cost price of 274,368 thousand UAH was caused by a change in prices - by 429,576,09 thousand UAH. The increase in the volumes of production reduced the cost of production by -155 208,09 thousand UAH.

Changes in prices affect net profit in the two indicators: revenue and cost of manufactured products. Moreover, the effect of changes in prices on the amount of net profit in terms of revenue and cost is multi-directional: the growth of sales revenue contributes to the increase in net profit, and the increase in cost - reduces profits. In view of this, the effect of price changes on net profit can be determined as follows:

$$ = – ( ), \tag{3.9}$$

where ∆NPp – change in net profit under the influence of price changes

= 598 032,35 - 429 576,09 = 168 456,26 ths UAH

Consequently, as a result of the increase in prices, net profit "Obolon" increased by 168 456.26 thousand UAH.

The next step is to calculate the impact of other factors on the change of net profit.

The effect of changing the other operating income (OOI). To calculate the influence of this factor, we use the formula:

$$ = – \tag{3.10}$$

де ΔNP – change in net profit due to changes in other operating income.

ΔNP = 88488 – 62589 = 25899 ths UAH

In determining the impact of changes in operating expenses (OE) (marketing costs, sales, etc., the cost of research and development, administrative costs, other operating costs) it should be taken into account that this is a factor of reverse effect on profit. In this connection, the "-" sign is added to the calculation formula. =

– [(+ *A* +) – (+ *A* +)], **(3.11)**

where ΔNP_O - change in net profit due to changes in operating expenses.

= – [(1 111 347 + 296 579 + 29 144) – (968 802 + 285 569 + 61 663)] =

= - 121 036 ths UAH

As a rule, an increase in operating costs indicates the over-consumption of indirect costs, which leads to a decrease in net profit.

The effect of change in income on interest (II) to change of net profit is calculated by the formula:

= – **(3.12)**

where ΔNP - change in net income due to interest income changes.

Ч = 97691 – 8604 = 89087

The effect of changing the expenses to pay interest (IP) to change the amount of net profit is determined by the formula:

= –(–) **(3.13)**

where ΔNP - change in net profit due to changes in interest expense

= – (314744 - 463655) = 148911 ths UAH

For determing the influence of investment result (IR) changing use the formula:

= – , **(3.14)**

where ΔNP - change in net profit at the expense of the investment result.

$= 388368 – (-220970) = 609338$

Influence of the amount of paid profit tax (PT). In this case, the formula is valid:

$$= -(\quad - \quad) \tag{3.15}$$

where ΔNP - change in net profit due to changes in the value of the paid income tax.

$= - (44217-(-24809)) = -69026$ ths UAH

Thus, the formation of a company's net profit is influenced by the financial results obtained after the implementation of operating, investment, financial activities. Such a classification of financial performance of the corporation plays an important role in the calculation of profitability of a company. Results of factor analysis are presented in summarized tab. 3.4.

According to the analysis presented in the summary table 3.4, it is evident that the changing in investment result have influenced the net profit the most.

Table 3.4

Summary table of influence factors on net profit of the PJSC ‘Obolon’ in 2017

Indicators	Amount, thousand UAH
Changes in prices (ΔNPp)	168 456,26
Change in sales volume (ΔNS_{N+PP})	54 985,65
Change in production volume ($\Delta COGS_{N+PP}$) *	155 208,09
Other operating income (OOI)	25 899,00
Changing the size of operating expenses (OE)	- 121 036,00
Change in interest income (II).	89 087,00
Changing the cost of paying for interest (IP)	- 148 911,00
Change in investment result (IR)	609 338,00
Profit tax (TP)	- 69 026,00
Total	**1 061 823,00**

To maintain the company continuous operation it was used the tactic of "compression of the company" – “Obolon” gained additional proceeds from the sale of non-current assets and the revaluation of the book value of fixed assets in the 2017 year.

Therefore, in order to increase the profit of the enterprise, it is worthwhile:

- to increase volumes of profuction and sales of goods, works, services;
- to take measures to increase productivity of their workers;
- to reduce expences for production (sale) of profucts, i.e. to refuce its cost;
- to build contractual relations with suppliers, intermediaries, buyers competently;
- to be able to deploy (invest) the profit previously obtained in terms of achieving the optimal effect.

Solving the problem of increasing financial stability and liquidity of the enterprise and increasing availability of own funds is real and possible, first of all, due to the further increase in sales, profit margins and increase of profitability. The main ways to increase the financial sustainability of the enterprise at which there should be paid special attention, can be attributed:

- to the rational use of inventories to introduce a clear system od planning these stocks;
- to reduce the risk of non-repayment of funds dor sold products to perform the analysis of solvency and financial stability of customers;
- to develop a policy of collecting payments for products sold to the counterparties in order to improve the work with debtors;
- to introduce monitoring of the status od receivables and implement measures to reduce the share od receivables in the working capital structure;
- to increase liquidity of an enterprise by using such kind of banking services as factoring .

Summing up, it can be argued that the financial sustainability of the enterprise involves such a state of financial resources, rational management which guarantees availability of own funds, stable performance and provides the process of expanded reproduction. Insufficient financial stability of the company often causes insolvency, excessive financial stability causes the creation of surplus stocks and reserves, which increases the cost of their maintance, constrains the place of development of the enterprise. Therefore, the correctness of the approaches to quantifying the financial sustainability of an enterprise is extremely important for it, as it enables us to identify the causes of financial destabilization, to sevelop and implement specific measures to eliminate the root causes.

3.3 Proposals to increase profitability of PJSC "Obolon"

Profitability is one of the main cost indicators of production efficiency, which characterizes the level of return on assets and the degree of capital use in the production process. It is the profitability that characterizes the degree of profitability. If the amount of profit shows the absolute effect of the activity, then the profitability characterizes the measure of this efficiency, that is, the relative level of profitability of the enterprise or production. Profitability as an indicator gives an idea of the adequacy of profit compared with other individual values that affect the financial and economic activities of enterprises [1, p. 191].

For today, one of the most common methods of profitability analysis is the factor model of the company DuPont (DuPont). The main task of this model is to determine the factors affecting the efficiency of the company and assessing the identified factors. Analyzing the fact that there are a large number of profitability indicators, analysts of this company chose one, according to their calculations, the most significant indicator - the return on equity. The basis of this method of analysis is the following deterministic model (figure 3.1):

RETURN OF EQUITY

NP

—

$$\frac{NP}{A} \times \frac{A}{OE}$$

$$=$$

$$\frac{NP}{NS} \times \frac{NS}{A} \times \frac{A}{OE}$$

$$=$$

$$\frac{NP}{EBT} \times \frac{EBT}{EBIT} \times \frac{EBIT}{NS} \times \frac{NS}{A} \times \frac{A}{OE}$$

Fig. 3.1 Factor model of return on equity of DuPont

where NP – net profit;

A – assets;

OE – equity;

NS – proceeds from sale (net sales);

EBIT - earnings before interest and taxes;

EBT - earnings before taxes.

We analyze the influence of factors on the return on equity using a three-factor model. The basis of the resulted scheme of analysis is laid down the following deterministic model:

= — = ? ? = — ? — ? — **(3.16)**

where R_{NS} - net profitability of sales;

R_{AT} – assets turnover ratio;

R_{FL} – financial leverage ratio.

From the model presented, it can be seen that the return on equity of a corporation depends on three factors of the first order: net profitability of sales, asset turnover ratio and funding sources structure. The significance of these indicators is confirmed by the fact that they in a sense summarize all aspects of the financial and economic activities of the corporation: the first factor summarizes the profit and loss statement, the second - the asset balance, the third - the liabilities balance.

For the convenience of calculating the influence of factors on the coefficient of return on equity, it is necessary to construct an auxiliary table 3.5.

Table 3.5

Auxiliary table for changes in the return on equity and factor indicators

Indicators	Beginning of the reporting period	End of the reporting period
Return on equity (*ROE*)	ROE_0	ROE_1
Return of net profitability of sales *(R_{NS})*	R_{NS0}	R_{NS1}
Asset turnover rate *(AT)*	AT_0	AT_1
The coefficient of financial leverage *(C_{FL})*	C_{FL0}	C_{FL1}

In the table 3.6 there are shown the changes in of return on equity and the dynamics factors.

Table 3.6

Change in the return on equity ratio and factor indicators in dynamics for 2016-2017

Indicators	2016	2017	Change (+, –)
Return on equity (*ROE*)	- 0,38	0,07	0,45
Return of net profitability of sales (ROS)	- 0,21	0,04	0,24
Asset turnover ratio*(AT)*	0,65	0,72	0,07
Financial leverage ratio *(FL)*	2,87	2,76	-0,12

The general change in the return on equity is determined by:

$$\Delta ROE = ROE_1 - ROE_0 \quad (3.17)$$

ΔROE =0,07 – (-0,38)=0,45

1. Impact of changes in the net profitability of sales versus return on equity:

$$\Delta \quad (\quad) = \quad ? \quad ? \quad - \quad ? \quad ? \qquad \textbf{(3.18)}$$

Δ (ROS) = 0,04 x 2,87 x 0,65 – (-0,21) x 2,87 x 0,65 = 0,448

2. The effect of changes in the ratio of assets turnover to change the return on equity:

$$\Delta \quad (\quad) = \quad ? \quad ? \quad - \quad ? \quad ? \qquad \textbf{(3.19)}$$

ROE(AT) =0.007312374

3. Influence of change of coefficient of financial leverage on change of return on equity:

$$\Delta \quad (\quad) = \quad ? \quad ? \quad - \quad ? \quad ? \qquad \textbf{(3.20)}$$

Δ (FL) = - 0.002700597

Having made changes in the indicator of return on equity for each factor, we obtain the total value of the change in the value of the ratio:

$$\Delta \quad = \Delta \quad (\quad) + \Delta \quad (\quad) + \Delta \quad (\quad) \qquad \textbf{(3.21)}$$

Δ = 0,448 + 0,007312374 – 0,002700597 = 0,453

The influence of factors on the return on equity is presents in the table 3.5.

Table 3.5

Influence of factors on return on equity of the PJSC ‘Obolon’ for 2016-2017

Indicators	**Influence**	
	Absolute value	**%**
Return on sales (*ROS*)	0,4480	98,98
Asset turnover ratio (AT)	0,0073	1,62
Financial Leverage*(FL)*	-0,0027	-0,60
Total (Influence of factors on return on equity)	**0,4526**	**-**

The return on equity of the corporation is one of the most important indicators that characterizes the efficiency of its operations. The low value of this indicator compared with similar companies in the relevant industry can negatively affect the choice of the investor as an investment object to the analyzed company. Therefore, in order to increase the return on equity, it is necessary to develop an effective income and expense management policy in the company, optimize the capital structure and process of managing tax payments.

As can be seen from the table 3.5, the most significant impact on the increase in the return on equity was due to change in the net profit. Accorfing to the previous analysis, we know that in the previous year the company increased it`s profit mainly by proceeds from the sale of non-current assets and the revaluation of the book value of fixed assets. So that the next step of financial state improvement may be expanction of production within secreasing the level of expenditures. Using the decomposition of the DuPont model, we can estimate the change in the return on equity by predicting an increase in company profits, for example, by 33%, which will also increase profitability by 35% (figure 3.2).

In practice, an increase in the company`s profit can be ensured throught the following measures:

1. Increase profit at constant variable expenses. In this case, there are two ways. First, increase in profits due to improved organization of economy, in particular throught the introduction of new organizational forms of management, marketing improvement, the implementation of scientific and technological progress, etc. Second, profit growth can be achieved through the restructuring of production, for instance, by increasing profitable industries and types of products with corresponding ones.
2. Increase profit for increasing constant expense of profitable industries and types of products, introduction of new technologies, improving product quality, etc.
3. Enhance of the level of profitability of management for reduction of constant expenses and the constant sum of profit. Based on the formula for etermining the level of profitability, where the numerator represents the profit, and the denominator – the production costs, a certain decrease in the denominator for a constant

numerator, respectively, will increase the result. Achieve a ment of reduction in fixed costs for an anchanging profit can be due to thei regrouping by the type of product, respectively, reducing and expanding production of certain types of products.

	2014	2015	2016	2017	2018*
Net profit	- 626	- 712	- 885	177	238
Net Sales	4	4 441	4 310	4 963	6 204
Current assets	1 344	1 368	1 190	1 665	1 665
Non-current assets	4 813	4 550	5 475	5 217	5 217

	2014	2015	2016	2017	2018*
ROS	-162,29	- 0,16	- 0,21	0,04	0,04
Asset turnover	0,00	0,75	0,65	0,72	0,90
Assets	6 157	5 918	6 665	6 881	6 881
Own capital	2 680	1 966	2 318	2 495	2 495

	2014	2015	2016	2017	2018*
ROA	-0,10	-0,12	-0,13	0,03	0,03
Financial leverage	2,30	3,01	2,87	2,76	2,76

	2014	2015	2016	2017	2018
ROE	- 0,2	- 0,4	- 0,4	0,1	0,1

Fig. 3.3 Decomposition of the DuPont model with Net Profit 2018 estimation

4. Increase the level of profitability of management for the reduction of fixed costs exceeds the rate of reduction of profit.

Therefore, in order to make an enterprise raise its level of profit, it should use the resources at its disposal to the fullest extent. Increase in production reduces costs per unit of production, that is the cost is reduced which ultimately leads to an increase in profits from sales of products. Resuming the above mentioned additional production of profitable products already gives additional profit itself.

CONCLUSIONS AND PROPOSALS

According to the results of the study, the following conclusions can be drawn:

1.Financial state of the enterprise is the result of the interaction of all elements of the system of financial relations of an enterprise, and is characterized by a system of indicators: the availability of financial resources that are necessary for normal functioning of an enterprise, the feasibility of their placement and effective use, financial relationships with other legal entities and individuals, solvency and financial stability . That is, the financial condition of the enterprise is affected by the level of balance between the individual structural elements of assets and capital of the enterprise, as well as the level of efficiency of their use. Optimization of the financial state is one of the main conditions for its successful development in the future period. At the same time, the crisis financial state of the company indicates a serious threat of its bankruptcy.

2. Throughout the analysis of financial condition the ability of an enterprise to finance its activities, the availability of financial resources necessary for its normal functioning, the feasibility of their placement and degree of use, is being studied. Currently, there are many methods for analyzing and assessing the financial condition of the enterprise.

The main tasks of the analysis of the financial state are:

• investigation of the efficiency of the use of property (capital) of an enterprise,

• providing the company with its working capital;

• research of profitability and financial stability of the enterprise;

• an objective assessment of the dynamics and state of liquidity, solvency and financial sustainability of the enterprise;

• assessment of the position of the entity in the financial market and quantitative assessment of its competitiveness;

• analysis of business activity of the enterprise;

• determining the effectiveness of using financial resources.

3. The main role in the system of crisis management is given to the widespread

use of internal and external stabilization mechanisms, which help to eliminate the threat of bankruptcy, deprive the company of borrowing capital and accelerate the rate of economic growth.

The priority source of financing domestic enterprises is own funds (on average, recently amounted to 65.2% of the total funding). Bank loans and other loans - only 6%, reflecting the low ability of the Ukrainian credit system to provide livelihoods and the development of enterprises with low-cost financial resources. Very low rate of attraction of foreign investors - (approximately 3%). Obviously, such a state can be interpreted as certain reserves for the financing of domestic enterprises in the future, since they all have a positive basis in the development of the domestic economy.

Internal stabilization mechanisms include the use of available resources, optimization of current costs, and management of existing debt.

Internal stages of financial stabilization under crisis conditions:

• Elimination of insolvency.

• Restoration of financial stability.

• Ensuring long-term financial equilibrium.

Each stage of the stabilization corresponds to certain internal mechanisms, which are generally divided into operational, tactical and strategic ones, which are "protective" or "offensive".

Studies show that, in addition to own financial resources and borrowed funds, as well as budget allocations and funds provided on an irrevocable basis, are used sanitation (counter -crisis) measures.

Thus, using internal and external levers, in the process of crisis management and in the course of its further development, the necessary adjustments are made, specified by the possible rates of growth of the volume of sales. The purpose of this phase of financial stabilization is considered to be achieved if, as a result of the acceleration of the rate of sustainable economic growth of the enterprise, the corresponding growth of its market value in the long-term perspective is ensured.

4. Having analyzed the solvency and liquidity, it was found that the solvency of the company is low, there is a financial risk, both for the enterprise itself and for its

partners.

Also, the company lacks cash to settle current liabilities and it uses a short-term credits. The calculation of the working capital ratio showed that the company has significant shortage of liquidity and couldn`t pay its current debts and liabilities till 2017. But the restructuring of the assets of the company helped to improve the situation somewhat.

The current state of liquidity and profitability of an enterprise are getting better at the last year of analized period but we cant say about it sufficiently that can negatively affects relations with buyers (customers) and suppliers of goods and services.

5. The financial position of an enterprise can be characterized as unstable, since the debt of an enterprise exceeds the amount of its assets. He needs immediate recovery, as the company is not provided with own funds and attracts a large amount of borrowed funds for the implementation of its activities.

Consequently, the financial stability of the trading company is very low, and even in the reporting period it is even negative, which indicates the crisis situation of the PJSC ‘Obolon’.

6. Business activity is an important indicator of the financial condition of an enterprise that characterizes various aspects of its activities, such as market place, competitiveness, level of resource efficiency (negotiable, non-negotiable and capital), and growth efficiency. An analysis of business activity made it possible to assess the efficiency of utilization of the company's circulating, core resources and capital, which in turn affect the level of profit that the enterprise can obtain in the course of its activities. On the basis of the analysis of business activity and efficiency of the management of PJSC ‘Obolon’ it can be concluded that the company has problems with profitability and liquidity, is unprofitable, has low financial stability. The level of business activity of this enterprise is increasing.

7. Successful implementation of counter-crisis measures is possible only with the use of an integrated approach to the definition of a crisis situation at the enterprise, which involves the use of special methods and techniques for managing the processes

of prevention, overcoming and elimination of the crisis, and will enable to form an effective system of crisis management at the enterprise, adequate to modern conditions management.

8. The implementation of the mechanisms of the crisis mechanism will make it possible to significantly improve the financial position of the analyzed company, but the accumulated uncovered loss of previous years is so significant that the increase in the efficiency of the activity in 2017-2018 is not able to solve all the existing problems.

Thus, as a result of the planned operational activities of 2018, PJSC ‘Obolon’ still have insufficient level of liquidity and solvency of the enterprise, however, the implementation of counter-crisis measures is a good impetus to stabilize the financial condition of the enterprise, as well as the access to the level of accumulation and reinvestment of profits in subsequent periods.

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APPENDICES

Appendix A

Balance sheet (statement of the financial state) of the PJSC 'Obolon' 31.12.2014-31.12.2017

Актив	**Код рядка**	**31.12.2014**	**31.12.2015**	**31.12.2016**	**31.12.2017**
I. Необоротні активи					
Нематеріальні активи:	1000	13 213	11 434	9 810	8 337
первісна вартість	1001	42 632	43 016	43 114	43 259
накопичена амортизація	1002	29 419	31 582	33 304	34 922
Незавершені капітальні інвестиції	1005	25 007	11 161	24 363	48 455
Основні засоби:	1010	4 755 353	4 508 651	5 421 561	5 141 361
первісна вартість	1011	8 895 435	8 976 907	11 765 383	11 850 066
знос	1012	4 140 082	4 468 256	- 6 343 822	- 6 708 705
інші фінансові інвестиції	1035	18 931	18 931	18 931	18 522
Усього за розділом I	**1095**	**4 812 504**	**4 550 195**	**5 474 679**	**5 216 689**
II. Оборотні активи					
Запаси	1100	785 367	973 297	881 787	750 563
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	139 106	222 580	169 695	297 870
Дебіторська заборгованість за розрахунками: за виданими авансами	1130	105 928	23 627	35 477	51 466
з бюджетом	1135	54 780	46 810	39 468	71 280
у тому числі з податку на прибуток	1136	49 007	29 241	10 414	8 047
Інша поточна дебіторська заборгованість	1155	11 314	10 068	9 597	430 965
Поточні фінансові інвестиції	1160	-	-	-	-
Гроші та їх еквіваленти	1165	237 703	85 236	48 394	46 172
Інші оборотні активи	1190	10 035	5 917	5 707	16 455
Усього за розділом II	**1195**	**1 344 233**	**1 367 535**	**1 190 125**	**1 664 771**
Баланс	**1300**	**6 156 737**	**5 917 730**	**6 664 804**	**6 881 460**

Пасив	Код рядка	31.12.2014	31.12.2015	31.12.2016	31.12.2017
І. Власний капітал					
Зареєстрований капітал	1400	73 144	73 144	73 144	73 144
Капітал у дооцінках	1405	1 903 465	1 900 888	3 129 549	2 945 067
Додатковий капітал	1410	8 353	8 353	8 353	8 353
Резервний капітал	1415	-	- 1 594	- 116	546
Нерозподілений прибуток (непокритий збиток)	1420	708 176	- 1 122	- 879 110	- 518 048
Вилучений капітал	1430	- 13 580	- 13 580	- 13 580	- 13 580
Усього за розділом І	**1495**	**2 679 558**	**1 966 089**	**2 318 240**	**2 495 482**
ІІ. Довгострокові зобов'язання і забезпечення	**Код рядка**	**31.12.2014**	**31.12.2015**	**31.12.2016**	**31.12.2017**
Відстрочені податкові зобов'язання	1500	354 588	245 516	474 967	511 172
Довгострокові кредити банків	1510	831 775	224 978	432 673	2 037 873
Інші довгострокові зобов'язання	1515	46 702	232 400	329 260	237 082
Довгострокові забезпечення	1520	9 172	-	-	-
Усього за розділом ІІ	**1595**	**1 242 237**	**702 894**	**1 236 900**	**2 786 127**
ІІІ. Поточні зобов'язання і забезпечення	**Код рядка**	**31.12.2014**	**31.12.2015**	**31.12.2016**	**31.12.2017**
Короткострокові кредити банків	1600	1 258 472	2 144 519	1 993 283	417 962
Поточна кредиторська заборгованість: за довгостроковими зобов'язаннями	1610		-		
за товари, роботи, послуги	1615	595 360	724 197	703 976	830 232
за розрахунками з бюджетом	1620	82 460	108 228	119 504	150 294
за у тому числі з податку на прибуток	1621	-	819	340	282
за розрахунками зі страхування	1625	7 835	4 174	4 992	5 364
за розрахунками з оплати праці	1630	125 353	51 061	46 415	51 430
за одержаними авансами	1635	103 405	171 413	82 270	46 900
за розрахунками з учасниками	1640	26 465	1 876	1 876	1 876
Поточні забезпечення	1660	-	8 647	9 023	10 306
Доходи майбутніх періодів	1665	-	-	-	-
Інші поточні зобов'язання	1690	35 592	34 632	148 325	85 487
Усього за розділом ІІІ	**1695**	**2 234 942**	**3 248 747**	**3 109 664**	**1 599 851**
Баланс	**1900**	**6 156 737**	**5 917 730**	**6 664 804**	**6 881 460**

ФІНАНСОВІ РЕЗУЛЬТАТИ					
Стаття	**Код рядка**	**2 014**	**2 015**	**2 016**	**2 017**
Чистий дохід від реалізації продукції (товарів, робіт, послуг)	**2000**	**3 858 794**	**4 441 246**	**4 310 214**	**4 963 232**
Собівартість реалізованої продукції (товарів, робіт, послуг)	2050	2 451 112	3 091 702	3 290 800	3 565 168
Валовий:					
прибуток	**2090**	**1 407 682**	**1 349 544**	**1 019 414**	**1 398 064**
збиток	**2095**	**-**	**-**	**-**	**-**
Інші операційні доходи	2120	92 983	64 966	62 589	88 488
Адміністративні витрати	2130	240 709	251 839	285 569	296 579
Витрати на збут	2150	1 078 952	961 504	968 802	1 111 347
Інші операційні витрати	2180	96 651	41 893	61 663	29 144
Фінансовий результат від операційної діяльності:		**84 353**	**159 274**	**- 234 031**	**49 482**
прибуток	**2190**	**84 353**	**159 274**	**-**	**49 482**
збиток	**2195**	**-**	**-**	**- 234 031**	**-**
Інші фінансові доходи	2220	29 361	27 117	8 604	97 691
Інші доходи	2240	-	-	-	430 848
Фінансові витрати	2250	249 075	410 470	463 655	314 744
Втрати від участі в капіталі	2255	- 1 314	- 884	- 1 060	- 381
Інші витрати	2270	- 621 933	- 587 972	- 222 030	- 42 861
Фінансовий результат до оподаткування:					
прибуток	**2290**	**-**	**-**	**-**	**220 797**
збиток	**2295**	**- 755 980**	**- 811 167**	**- 910 052**	**-**
Витрати (дохід) з податку на прибуток	2300	129 755	99 292	24 809	- 44 217
Чистий фінансовий результат:					
прибуток	**2350**	**-**	**-**	**-**	**176 580**
збиток	**2355**	**- 626 225**	**- 711 875**	**- 885 243**	**-**

СУКУПНИЙ ДОХІД					
Стаття	**Код рядка**	**2014**	**2015**	**2016**	**2017**
Дооцінка (уцінка) необоротних активів	2400	1 322 685	-	1 507 214	-
Накопичені курсові різниці	2410	-	- 1 594	1 478	662
Інший сукупний дохід	2445	587	-	-	-
Інший сукупний дохід до оподаткування	2450	1 323 272	- 1 594	1 508 692	662
Податок на прибуток, пов'язаний з іншим сукупним доходом	2455	- 238 189	-	- 271 298	-
Інший сукупний дохід після оподаткування	2460	1 085 083	- 1 594	1 237 394	662
Сукупний дохід (сума рядків 2350, 2355 та 2460)	2465	458 858	- 713 469	352 151	177 242
III. ЕЛЕМЕНТИ ОПЕРАЦІЙНИХ ВИТРАТ					
Матеріальні затрати	2500	2 292 423	3 218 796	2 807 074	2 960 495
Витрати на оплату праці	2505	381 633	375 232	419 131	448 146
Відрахування на соціальні заходи	2510	135 466	129 591	89 353	95 052
Амортизація	2515	339 084	368 092	702 113	451 790
Інші операційні витрати	2520	645 765	311 403	709 162	1 107 101
Разом	2550	3 794 371	4 403 114	4 726 833	5 062 584
IV. РОЗРАХУНОК ПОКАЗНИКІВ ПРИБУТКОВОСТІ АКЦІЙ					
Середньорічна кількість простих акцій	2600	325 127	325 127	325 127	325 127
Скоригована середньорічна кількість простих акцій	2605	325 127	325 127	325 127	325 127
Чистий прибуток (збиток) на одну просту акцію	2610	-1926.09	- 2 190	- 3	1
Скоригований чистий прибуток (збиток) на одну просту акцію	2615	-1926.09	- 2 190	- 3	1
Дивіденди на одну просту акцію	2650	100.94	-	-	-

Appendix B

Information about the obligations and securing of the PJSC ‘Obolon’

Види зобовязань	**Дата виникнення**	**Непогашена частина боргу (тис. грн.)**	**Відсоток користування коштами (відсоток річних)**	**Дата погашення**
Кредити банку	X	2 442 193,00	X	X
у тому числі:				
ТОВ "Порше Мобіліті" (в $)	19.12.2012	1 502,00	-	15.05.2018
ПАТ Укрінбанк, угода № 01/12	26.02.2013	40 000,00	-	10.08.2016
ПАТ Петрокомерц, угода № 036-10-12	25.06.2014	9 093,00	-	01.02.2016
ПАТ Петрокомерц, угода № 051-11-13	14.11.2013	30 000,00	-	01.10.2016
ПАТ Ексімбанк, угода № 7113К12/SL-46-EXI (в $)	27.06.2013	96 653,00	-	31.07.2021
Credit Agricole, угода № N/A (в $)	29.01.2014	201 500,00	-	30.09.2021
ВАТ РБА Київ, угода № 010/42/601	25.11.2011	73 958,00	-	31.07.2021
ВАТ РБА Київ, угода № 010/08/4116	16.10.2008	29 252,00	-	31.07.2021
Філія ВАТ Укрсоц, угода № 037-СВ (в $)	17.12.2009	35 730,00	-	31.07.2021
Філія ВАТ Укрсоц, угода № 160-СВ (в $)	17.12.2009	46 027,00	-	31.07.2021
ІНГ Банк, угода №_10/018 (в $)	19.07.2010	282 662,00	-	31.07.2021
ІНГ Банк, угода № 02/73 (в $)	24.01.2013	309 209,00	-	31.07.2021
ЄБРР, угода б/н (в $)	18.09.2019	1 082 991,00	-	31.07.2021
АТ "Ощадбанк", угода №33	03.04.2014	8 275,00	-	31.10.2019
АТ "Ощадбанк", угода №989	28.11.2014	30 000,00	-	31.10.2019
ПАТ "ВТБ БАНК", угода №18	13.08.2008	6 248,00	-	27.12.2019
Credit Agricole, угода № N/A	25.03.2014	13 500,00	-	30.09.2021
ПАТ Укрінбанк, угода №08-10	30.07.2013	10 487,00	-	01.09.2016
ПАТ Укрінбанк, угода № 14/07	24.01.2013	1 900,00	-	10.07.2016
ПАТ Укрінбанк, угода №_10/11	18.11.2011	4 093,00	-	17.11.2015
ПАТ Укрінбанк, угода № 14/07 (в $)	24.01.2013	129 113,00	-	10.07.2016
Зобов'язання за цінними паперами у тому числі:	**X**		**X**	**X**
Податкові зобов'язання	X	340 000,00	X	X
Фінансова допомога на зворотній основі	X	-	X	X
Інші зобов’язання та забезпечення	X	5 459 171,00	X	X
Усього зобов’язань та забезпечень	X	7 901 704,00	X	X