

## ПРОБЛЕМИ УПРАВЛІННЯ

УДК 658.14

JEL Classification Code M10, M21

Kh. P. Danylkiv<sup>1</sup>, N. Ye. Hembarska<sup>2</sup>, E. Aydin<sup>3</sup>

<sup>1,2</sup> Lviv Polytechnic National University,

Department of Finance, Account and Analysis,

<sup>3</sup> Nort Anatolian Development Agency,

Kastamonu University,

ORCID: <sup>1</sup> 0000-0003-1283-6844, <sup>2</sup> 0000-0002-7839-4260, <sup>3</sup> 0000-0002-4303-2606

### COMPREHENSIVE ANALYSIS OF EFFICIENCY OF WORKING CAPITAL OF INDUSTRIAL ENTERPRISE

<http://doi.org/10.23939/semi2022.01.069>

© Danylkiv Kh. P., Hembarska N. Ye., Aydin E., 2022

**Purpose.** It consists in generalizing the system of financial monitoring of working capital, aimed at improving the efficiency of its use in industrial enterprises of Ukraine (on the example of PJSC Ukrnafta) and developing methodological approaches to forming a working capital management system in a market economy, the implementation of which will help ensure the competitiveness of economic entities.

**Design/methodology/approach.** In order to achieve the stated goal, the following methods are used in the article: to characterize the aggregate indicators of the state and dynamics of working capital – tabular and graphical; in order to assess the state of working capital – coefficient analysis; to identify the features of the formation and placement of working capital of the enterprise – a comparative analysis; to determine the close relationship of working capital with the balance sheet, statement of financial performance and external factors – correlation; to study domestic and foreign experience in conducting research and using various methods to assess the effectiveness of working capital management – monograph; to detail the object of study and study its structural and functional components – analysis and synthesis; to justify the need for new scientific concepts and approaches to determining the nature of working capital – logical; to formulate conclusions – abstract-logical method.

**Conclusions.** Based on the above, it can be stated that the formation and replenishment of working capital in the amount necessary for a smooth operating cycle, should be considered one of the main problems for the financial and economic activities of the enterprise. The stable functioning and dynamic development of the business entity depend on its solution. The activity of the enterprise can be considered effective only when it allows not only to rationally form but also to provide an active systematic search for sources of working capital replenishment for its further development.

**Practical implications.** The practical implementation of the proposed measures to improve the efficiency of formation and use of working capital will allow the most efficient use of own resources to ensure stable financial performance. The analysis carried out is the basis for the development of measures for the effective management of working capital, and ultimately for strengthening the financial condition of the organization.

**Originality/value.** The proposed method of assessing the functioning of working capital reflects the relationship between individual indicators and makes it possible to assess the functioning of working capital of industrial enterprises of Ukraine from the standpoint of its state, sources of formation, and use. The working capital analysis model can be applied to the management of working capital in other, smaller enterprises of the industrial sector to make full use of the economic potential of enterprises, maintaining their competitiveness and financial stability.

**Key words:** Working Capital; Profitability Indicators; Property Status Indicators; Return On Assets; Capital Intensity; Financial Stability Indicators; Profitability; Liquidity; Solvency.

**Paper type:** Research paper.

### **Formulation of hypotheses and goal setting**

The financial condition of the enterprise in modern conditions is an important indicator of its activities and reflects all the information about a company operating. Analysis of the formation and efficiency of use of equity today is one of the most important components of financial analysis and is the main source of funding for the enterprise. Based on the results of such analysis, the company's management can draw several conclusions about the company's activities and make decisions about the efficiency and profitability of certain economic activities, the correct choice of the vector of development, profitability. Thus, the need to study the methods of analysis and the relevance of the chosen topic is determined.

### **Research methods**

The concept and methodology of the study are based on the fundamental tenets of modern economic theories. To achieve the formulated goal and solve the set tasks, the following methods are used: tabular and graphical (to characterize the aggregate indicators of the state and dynamics of working capital); coefficient analysis (to assess the state of working capital); comparative analysis (to identify features of the formation and placement of working capital of the enterprise); correlation (to determine the close relationship of working capital with the balance sheet, statement of financial performance and external factors); monographic (to study domestic and foreign experience in conducting research and using a variety of methods to assess the effectiveness of working capital management); analysis and synthesis (to detail the object of study and study its structural and functional components); logical (to justify the need for new scientific concepts and approaches to determining the nature of working capital); abstract-logical method (for formulating conclusions).

### **Analysis of recent research and publications**

The problem of formation and effective use of current assets of the enterprise was and remain quite relevant for both domestic and foreign scientists. In the scientific works of Western authors V. H. Baranova, S. M. Hotsuliak [1], V. I. Borzenko [2], O. A. Borovyk [3], O. B. Vatchenko, I. B. Takhmazova [4], T. Yu. Hryhorieva [5], H. S. Dukal [6], V. V. Zianko, N. M. Filatova [7], I. Kaminska, N. Kovalchuk, A. Demydovych, V. Dubrovskyi [8], V. P. Kodatskyi [9], K. A. Kolodiazna [10], M. Ya. Korobov [11], T. D. Kosova, H. O. Rohanova [12], H. V. Koshelok [13], L. O. Kustrich [14], O. V. Lysa [15], N. P. Lutsiv [16], Ye. V. Mnykh [17], O. O. Nosyriev, I. Ye. Babich, V. O. Popova [18], L. V. Peltek, S. M. Pysarenko [19], H. O. Rohanova [20], T. A. Talakh, Kh. V. Bondaruk, O. V. Khylyko [21], N. M. Filatova [22], and others, special attention is focused on the consideration of certain theoretical aspects and practical experience of working capital management. However, several theoretical and practical problems remain unresolved both at the level of the economy as a whole and at the level of the enterprise in particular.

Thus, despite the significant number of publications covering certain aspects of the formation and use of working capital, research on this process, its nature, features, factors influencing the efficiency of its use by enterprises require further development. Existing works of scientists do not fully take into account all the features of the current state of current assets of enterprises, several issues remain unresolved, namely: there is no single approach to managing the formation of current assets of enterprises, which would establish current assets and their elements, features of operating activities and criteria for the

formation of current assets of enterprises. Therefore, the study of the system of formation and use of working capital as an important factor in improving the efficiency of the industrial enterprise becomes particularly relevant.

### **The formulation of objectives**

The study aims to study the possibility of combining different methods of analyzing the efficiency of working capital of the enterprise to improve this process based on the systematization of existing proposals on this issue.

### **Main part**

At the current stage of economic development, when there is a decline in production, a reduction of economic and natural resources when the Ukrainian economy is weakened by war and absorbed by the financial crisis, and the entire business sector is in a “credit famine” and “liquidity crisis” one of the priority areas of stable economic development. The operation of enterprises in such harsh and unpredictable conditions requires the creation of an effective working capital management system as the most important element that ensures a continuous process of reproduction.

One of the main tasks of every enterprise, whether in a post-industrial economy or a transformational economy and especially in an economy absorbed by the financial crisis, is to ensure financial stability and long-term profitability.

Since ensuring financial stability depends on a sufficient level of solvency and liquidity of the enterprise, which in turn is characterized by the state of the most liquid working capital – the management of the working capital of the enterprise requires careful analysis. The efficiency of not only an individual enterprise but also the economy as a whole depends on how well-founded its size, composition, structure are, taking into account the sources of financing of current assets and the peculiarities of the enterprise.

The subject of the study is the working capital of PJSC Ukrnafta. The subject of activity of PJSC Ukrnafta is the development and operation of oil, gas, and gas condensate fields, preparation for the sale of oil, gas condensate, and gas; construction and overhaul of facilities for production, collection, preparation, transportation, and utilization of oil, gas, condensate, and water in fields [18]. To conclude the financial condition of PJSC Ukrnafta, we have calculated the main indicators of financial activity, the presentation of which is shown in Table 1.

The negative trend for the return on assets of PJSC Ukrnafta is zero from 2017 to 2020, as it characterizes the level of profit generated by all assets of the oil and gas industry. Therefore, the company's activities were not effective during this period. However, in 2020 we see an increase in this indicator to 11.21 %. The factors of such an increase are the optimization of the structure of current assets and an increase in net profit.

Return on assets before income tax and interest payments in 2021 increased compared to the previous year and amounted to 14.27 %, which characterizes the good performance of the company this year, as it shows the efficiency of property use, but decreased in 2019 and amounted to 12, 94 %, which is a negative trend.

The return on current assets in 2017–2019 was 0 %, which characterizes the negative efficiency of the use of assets of the analyzed industrial enterprise. However, in 2021 we see an increase of 0.43 %, which characterizes the positive efficiency of the use of assets of this enterprise.

Return on equity characterizes the efficiency of investing in this oil and gas industry in 2017–2019, this figure, like all previous ones, was also 0. Again, a positive trend is an increase (by 0.43), which was observed in 2021. In our opinion, the factor of increasing profitability is the reduction of equity (shareholders withdrew part of the funds in 2019–2020).

Profitability of production assets is used to assess the efficiency of use of production assets of the enterprise. In 2017–2019, we see an indicator of 0. In 2021, this figure increased to 2.98, which indicates the optimal structure of production assets.

Table 1

## The main analytical indicators of the financial condition of PJSC Ukrnafta for 2017–2020

№	Indicator	Values of indicators				The direction of positive change
		2017	2018	2019	2020	
1	2	3	4	5	6	7
<i>1. Profitability indicators</i>						
1.1	Return on capital (assets), %	0.00	0.00	0.00	11.21	Magnification
1.2	Return on assets before income tax and interest payments, %	14543.62	15882.46	12.94	14.27	Magnification
1.3	Return on current assets, %	0.00	0.00	0.00	35.14	Magnification
1.4	Return on equity	0.00	0.00	0.00	0.43	Magnification
1.5	Profitability of production assets	0.00	0.00	0.00	2.98	Magnification
1.6	Profitability of sales	0.00	0.00	0.00	0.12	Magnification
1.7	Profitability of the main activity	0.85	1.44	0.77	0.96	Magnification
<i>2. Indicators of property status</i>						
2.1	The depreciation rate of fixed assets	1.22	1.36	1.10	1.61	Reduction
2.2.	Coefficient of suitability of fixed assets	0.05	0.10	0.08	0.12	Magnification
2.3	Return on investment	37.29	29.89	21.74	24.83	Magnification
2.4	Capital intensity	0.03	0.03	0.05	0.04	Reduction
<i>3. Indicators of financial stability</i>						
3.1	Own working capital	737080.0	6643176.0	6189356.0	9855187.0	More than 0, increase
3.2	Providing stocks with the total amount of major sources	-29517420	-31540981	-33761831	-10673225	More than 0, increase
3.3	The ratio of current assets with own funds	0.2	0.1	0.2	1.4	More than 0.1
3.4	The ratio of own working capital of stocks	0.1	0.4	0.4	0.8	In the range of 0.5–0.8
3.5	Coefficient of autonomy	0.0	0.2	0.1	0.3	More than 0.5
3.6	Funding ratio	0.0	0.2	0.2	0.3	More than 1
<i>4. Indicators of business activity</i>						
4.1	Working capital turnover ratio	3.01	2.16	1.96	2.92	Magnification
4.2	Period of one turnover of working capital, days	119.58	166.88	183.67	123.28	Reduction
4.3	Fastening factor	0.33	0.46	0.51	0.34	Reduction
4.4	Inventory turnover ratio (turnover/year)	3.01	5.00	5.48	9.89	–
4.5	Period of one stock turnover, days	119.58	71.86	65.59	36.39	–
4.6	Receivables turnover ratio, vol.	4.11	5.33	4.06	5.78	–
4.7	Receivables repayment period, days	65.43	67.60	88.73	62.34	–
4.8	The share of receivables in total current assets	0.38	0.41	0.48	0.51	–
4.9	Current assets ratio (transformation)	0.79	0.89	0.66	0.93	Magnification

Continuation of table 1

1	2	3	4	5	6	7
	5. Liquidity ratios					
5.1	The most liquid assets	380 996	174 037	203 432	210 178	–
5.2	Quickly realized assets	2 034 850	6 781 059	6 952 961	6 153 093	–
5.3	Slowly realized assets	6 536 789	9 800 464	7 281 146	5 800 719	–
5.4	Hard-to-sell assets	23 116 385	23 700 627	28 478 983	25 907 166	–
5.5	The most urgent commitments	13 578 726	12 606 176	12 064 493	1 671 552	–
5.6	Short-term liabilities	15 202 047	18 237 216	20 894 071	7 453 322	–
5.7	Long-term liabilities	1 814 520	2 272 030	2 965 335	17 542 744	–
5.8	Permanent liabilities	737 080	6 643 176	6 189 356	9 855 187	–
5.9	Absolute liquidity ratio	0.006	0.006	0.006	0.023	More than 0.1
5.10	Rapid liquidity ratio	0.231	0.225	0.217	0.697	In the range of 0.6–0.8
5.11	Current ratio	0.394	0.543	0.438	1.333	More than 1

Source: formed and calculated by the authors based on [23].

Profitability of sales characterizes the efficiency of the industrial enterprise. According to the data, this indicator in 2017–2019 was 0. In 2021, this ratio increased to 0.12, which means an improvement in the financial condition of the enterprise and indicates an increase in profitability of the main activity of the enterprise. The profitability of the main activity shows the success and efficiency of any of its main activities. During 2017–2021, this figure was: 0.85; 1.44; 0.77; 0.96 respectively. A negative value means that the company is profitable.

Indicators of property status (Fig. 1). The depreciation rate of fixed assets in 2021 increased by 0.51 compared to 2019. This trend is negative for PJSC Ukrnafta, as it characterizes the share of the value of fixed assets written off for production costs in previous periods. We observe a tendency to reduce the level of suitability of fixed assets of the enterprise, which characterizes the deterioration of the technical condition of machinery and equipment.

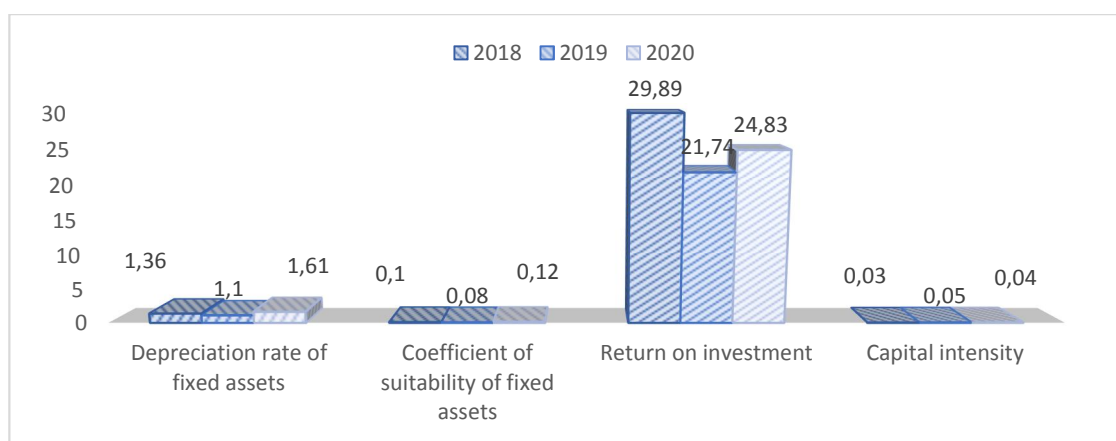


Fig. 1. Dynamics of property status indicators of PJSC Ukrnafta for 2018–2020

Source: formed and calculated by the authors based on [23].

The coefficient of the suitability of fixed assets reveals the share of their residual value of the original value and is directly dependent on the depreciation rate. As the coefficient of suitability increased by 0.04 in 2020, it can be concluded that the state of fixed assets at this enterprise deteriorated in 2020, compared to 2019, fixed assets were introduced at a slower rate than triggered.

Return on assets – an indicator that characterizes the output of 1 UAH. fixed assets of the enterprise. In 2020, we can see an increase in this figure from 21.74 to 24.83, which is positive for the company, as it means that it began to produce more. However, in 2018–2019 we observe a decrease in the indicator from 37.29 to 29.89 (2018) and 21.74 (2019). Capital intensity shows the need for fixed assets to ensure the implementation of a unit of work. A positive trend for PJSC Ukrnafta is the decrease in this indicator, as the volume of production increases as demand decreases. But the calculations show a decrease in capital intensity from 0.05 to 0.04 in 2020 compared to the previous year, and an increase in 2019 to 0.05 from 0.03.

Indicators of financial stability (Fig. 2). Own working capital shows the availability of working capital for a certain analyzed period. In 2017, this figure was 73.7080.0 UAH, in 2018 –6.643.176.0 UAH, in 2019 –6.189.356.0 UAH, in 2020 –9.855.187.0 UAH. For PJSC Ukrnafta, this means that during the analyzed years the company had sufficient working capital to carry out business activities. The indicator of providing stocks with the total value of the main sources during the analyzed years had negative values and amounted to: in 2017 – –29517420.0 UAH, in 2018 – –31540981.0 UAH, in 2019 – –33761831, UAH 0, in 2020 – –10673225.0 UAH.

The ratio of current assets to own funds characterizes the absolute possibility of converting assets into liquid funds. This ratio in 2017 was – 0.2; in 2018 – 0.1; in 2019 – 0.2; in 2020 – 1.4. The upward trend in 2019 positively characterizes the activities of industrial enterprises.

The ratio of own working capital of stocks characterizes the extent to which stocks are provided with long-term stable sources of financing. Like the previous ratio, this ratio has gained a positive value, which is positive for this company: in 2017 it was – 0.1; in 2018 – 0.4; in 2019 – 0.4; in 2020 – 0.8.

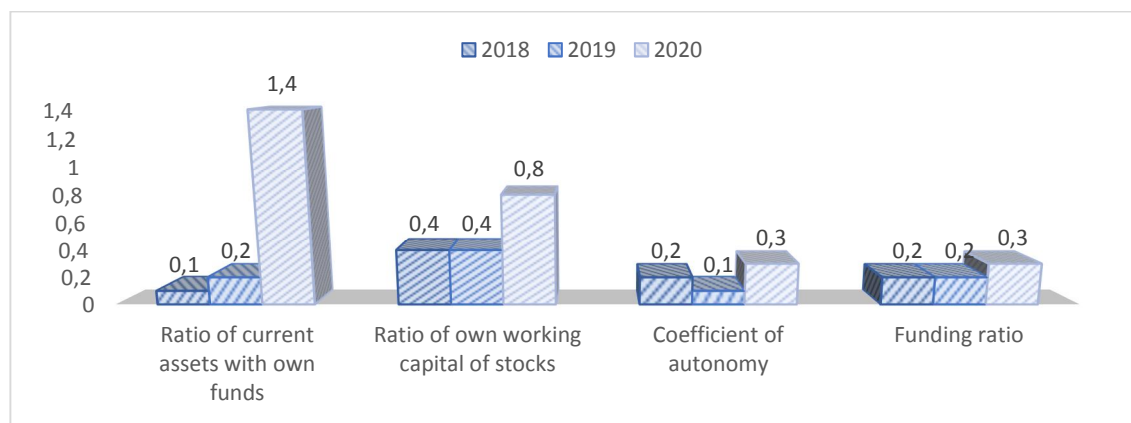


Fig. 2. Dynamics of financial stability indicators of PJSC Ukrnafta for 2018–2020

Source: formed and calculated by the authors based on [23].

The coefficient of autonomy shows what part of the total investment of the enterprise is equity. In 2017–2019, this indicator was less than its normative value of 0.5 and was 0.0 – in 2017, 0.2 – in 2018, 0.1 – in 2019, and 0.3 – in 2020, respectively.

The financing ratio characterizes the ratio between own and borrowed funds. During 2017–2020, it was 0.0; 0.2; 0.2; 0.3, which is not close to the normative value, which must be greater than 1.

Performance indicators of the analyzed enterprise have exceptionally good values:

- positive dynamics of profitability of sales (+0.12 percentage points of profitability 3.9 % for the same period preceding the reporting year);

- for the last year (2020) the profit from sales of 2,6 % was received. Moreover, there was a positive trend compared to the same period last year (from UAH 7.3 billion to UAH 35.5 billion);

Consider Table 2, which shows the main liquidity ratios of PJSC Ukrnafta.

Table 2

**Analysis of the main liquidity ratios of PJSC Ukrnafta for 2018–2020**

Liquidity ratio	Indicator value			The calculation recommended value
	2018	2019	2020	
Current ratio	0.543	0.438	1.333	The ratio of current assets to current liabilities, above 1
Rapid liquidity ratio	0.225	0.217	0.697	Ratio of liquid assets to short-term liabilities, 0.6–0.8
Absolute liquidity ratio	0.006	0.006	0.023	The ratio of highly liquid assets to short-term liabilities, 0.1

Source: formed and calculated by the authors based on [23].

Table 2 shows that the absolute liquidity of the surveyed enterprise does not meet the norm of 0.1 in all years. During the analyzed period in 2020, the absolute liquidity ratio increased by 0.017. This means that the company can pay current (short-term) liabilities with cash, current accounts, and short-term investments.

The quick liquidity ratio in 2018–2019 is less than the normative value (0.6–0.8), ie PJSC Ukrnafta does not cover current liabilities with highly liquid and quickly sold assets. However, in 2020 it meets the norm and is 0.697. This indicates that PJSC Ukrnafta has liquid assets that can be used to repay the most urgent liabilities.

In the reporting period, the current (total) liquidity ratio in 2020 is invested in the norm (1.33 at the normative value of 1). At the same time, we need to pay attention to the negative change – the coefficient in 2018–2019 does not meet the norm. A value below 1 indicates a high financial risk because Ukrnafta PJSC was not able to stably pay current bills in 2018–2019.

The graph below (Fig. 3) clearly shows the change in liquidity ratios of PJSC Ukrnafta during the analyzed period.

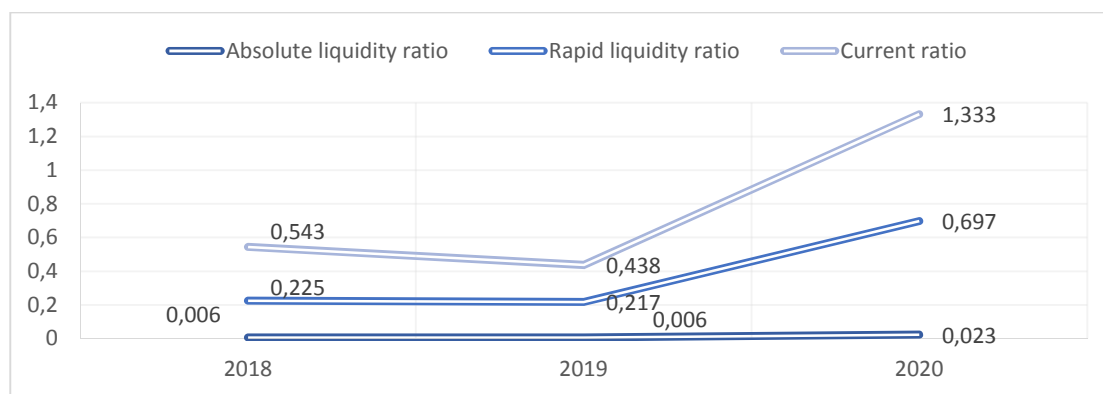


Fig. 3. Dynamics of liquidity ratios of PJSC Ukrnafta for 2018–2020

Source: formed and calculated by the authors based on [23].

From the analysis, we obtain an estimate of the main liquidity ratios. Balance sheet liquidity is defined as the degree to which an enterprise's liabilities are covered by its assets, the maturity of which corresponds to the maturity of the liabilities, which is determined by comparing the results of the above groups of assets and liabilities. The balance is considered liquid if there are relations:  $A1 \geq L1$ ;  $A2 \geq L2$ ;  $A3 \geq L3$ ;  $A4 \leq L4$ .

Analysis of liquidity and solvency of the enterprise is the basis of effective management of resources and the enterprise as a whole. To calculate the solvency and liquidity ratios in Table 3, we will analyze the ratio of assets by liquidity level and liabilities by maturity throughout the reporting period.

Table 3

**The ratio of assets and liabilities of PJSC Ukrnafta for 2018–2020**

Years	Liquidity assets	Value	Correlation	Liabilities on maturity	Value
2018	A1	174 037	$A1 < L1$	L1	12 606 176
	A2	6 781 059	$A2 < L2$	L2	18 237 216
	A3	9 800 464	$A3 > L3$	L3	2 272 030
	A4	23 700 627	$A4 > L4$	L4	6 643 176
2019	A1	203 432	$A1 < L1$	L1	12 064 493
	A2	6 952 961	$A2 < L2$	L2	20 894 071
	A3	7 281 146	$A3 > L3$	L3	2 965 335
	A4	28 478 983	$A4 > L4$	L4	6 189 356
2020	A1	210 178	$A1 < L1$	L1	1 671 552
	A2	6 153 093	$A2 < L2$	L2	7 453 322
	A3	5 800 719	$A3 < L3$	L3	17 542 744
	A4	25 907 166	$A4 > L4$	L4	9 855 187

Source: formed and calculated by the authors based on [23].

Based on Table 3, we can say that the implementation of the first three inequalities necessarily entails the implementation of the fourth inequality, so it is almost essential to compare the results of the



first three groups of assets and liabilities. The fourth inequality has a “balancing” character and at the same time has a deep economic meaning. As you can see, from 2018-to 2020 the fourth inequality in the analyzed enterprise is not met, respectively, its implementation indicates non-compliance with the minimum condition of financial stability – the presence of the company's working capital.

During 2018–2020, one or more inequalities of the system have a sign opposite to the fixed, in the optimal case, the liquidity of the balance sheet is more or less different from the absolute. In this case, the lack of funds for one group of assets is compensated by their surplus for another group, although compensation takes place only in value because in the real payment situation less liquid assets can not replace more liquid.

In the field of working capital management of PJSC Ukrnafta, it is necessary to introduce the following goals: to create conditions for sustainable development and growth of capitalization and to increase the efficiency of working capital management.

### **Conclusions**

Working capital is a significant part of all property (assets) of the enterprise. It is an integral part of the continuous flow of business operations and its task is to ensure the continuity of the production process. The mechanism for determining the needs, composition, structure, sources of formation, regulation, management, and use of working capital has an active influence on the course of production, implementation of current production, and financial plans, and is an important criterion in determining profits.

Improving the working capital management system of the organization is a particularly important task of the financial management system, the solution of which is an important condition for the effective operation of the enterprise in the future. In today's competitive market, the company must improve its activities and realize its economic potential, which will increase profits.

According to the results of the analysis of the financial condition of the enterprise PJSC Ukrnafta for 2017–2020, the calculation and evaluation of analytical ratios showed that the financial condition of the enterprise is stable. The performance indicators of the analyzed enterprise are of exceptionally good value:

- positive dynamics of profitability of sales (+0.12 percentage points of profitability 3.9 % for the same period preceding the reporting year);
- for the last year (2020) the profit from sales of 2,6 % was received. Moreover, there was a positive trend compared to the same period last year (from UAH 7.3 billion to UAH 35.5 billion).

The result of the project to increase the efficiency of formation and use of working capital should be:

- ensuring the smooth operation of the enterprise;
- reduction of free current assets, and, as a consequence, reduction of costs for their financing;
- accelerating the turnover of current assets;
- maximizing the company's profit while maintaining liquidity.

### **Prospects for further research**

Given the above, the prospects for further research can be considered a further search for combinations of different methods of studying the efficiency of working capital to develop an optimal integrated approach.

1. Баранова В. Г., Гоцуляк С. М. (2008). Теоретичні засади управління оборотним капіталом. *Вісник соціально-економічних досліджень*, № 30, С. 32–36.
2. Борзенко В. І. (2020). Комплексний підхід до оптимізації оборотного капіталу підприємства. *Вісник Національного технічного університету “ХПІ”. Економічні науки*, № 1(3), С. 59–63. <https://doi.org/10.20998/2519-4461.2020.1.59>
3. Боровик О. А. (2011). Аналіз динаміки оборотних коштів за видами економічної діяльності. *Формування ринкових відносин в Україні*, № 2, С. 95–99.
4. Ватченко О. Б., Тахмазова І. Б. (2011). Управління оборотним капіталом підприємства. *Економічний простір*, № 50, С. 193–200.

5. Григор'єва Т. Ю. (2010). Управління оборотними засобами підприємств. Київ: Либідь, 383 с.
6. Дукаль Г. С. (2009). Управління обіговим капіталом та його вплив на фінансовий стан підприємств. *Науковий вісник НЛТУ України*, № 19(1), С. 181–184.
7. Зянько В. В., Філатова Н. М. (2012). Шляхи підвищення ефективності управління оборотними коштами підприємств. *Економічний простір*, № 62, С. 186–193.
8. Камінська І., Ковальчук Н., Демидович А., Дубровський В. (2020). Науково-методичні підходи до аналізу ефективності використання виробничого потенціалу підприємства. *Галицький економічний вісник*, Том 6, № 67, С. 193–201. [https://doi.org/10.33108/galicianvisnyk\\_tntu2020.06.193](https://doi.org/10.33108/galicianvisnyk_tntu2020.06.193)
9. Кодацький В. П. (2010). Шляхи ефективного управління оборотними активами промислових підприємств. *Актуальні проблеми економіки*, № 4, С. 271–274.
10. Колодяжна К. А. (2009). Управління оборотними активами і їхня роль в діяльності підприємств. *Торгівля і ринок України*, Т. 2, С. 76–82.
11. Коробов М. Я. (2010). Фінанси промислового підприємства. Київ: Либідь, 160 с.
12. Косова Т. Д., Роганова Г. О. (2008). Оцінка впливу розміщення оборотних коштів на ліквідність підприємств. *Економіка: проблеми теорії та практики*: зб. наук. пр. Вип. 240: В 5 т. Т. II. Дніпропетровськ : ДНУ, С. 493–502.
13. Кошельок Г. В. (2020). Аналіз грошових потоків у системі управління підприємством. *Галицький економічний вісник*, Том 63, № 2, С. 231–242. [https://doi.org/10.33108/galicianvisnyk\\_tntu2020.02.231](https://doi.org/10.33108/galicianvisnyk_tntu2020.02.231)
14. Кустріч Л. О. (2010). Підвищення рівня управління оборотним капіталом. *Вісник Хмельницького національного університету*, № 3, С. 103–106.
15. Лиса О. В. (2006). Особливості визначення потреби підприємства в оборотному капіталі. Д.: ДНУ, 603 с.
16. Луців Н. П. (2007). Теоретичні основи формування оборотного капіталу підприємств. *Економічні проблеми та перспективи стабілізації економіки України. Актуальні проблеми реформування економіки в регіоні*: зб. наук. тр. Інститут економіки промисловості. Донецьк, С. 98–103.
17. Мних Є. В. (2005). Економічний аналіз. Київ: Центр навчальної літератури, 472 с.
18. Носирєв О. О., Бабіч І. Є., Попова В. О. (2020). Формування механізму управління оборотним капіталом промислового підприємства у кризових умовах господарювання. *Вісник Національного технічного університету "ХПІ". Економічні науки*, № 2 (4), С. 93–97. <https://doi.org/10.20998/2519-4461.2020.2.93>
19. Пельтек Л. В., Писаренко С. М. (2013). Методологічні аспекти формування системи управління оборотними активами підприємства. *Вісник Запорізького національного університету*, № 1(5), С. 43–49.
20. Роганова Г. О. (2013). Стратегія фінансування оборотних активів: позиція персоналістів. *Економічний часопис ХХІ*, № 3–4 (1), С. 82–85.
21. Талах Т. А., Бондарук Х. В., Хилько О. В. (2020). Напрями удосконалення методики аналізу ефективності використання активів підприємства. *Економічні науки: зб. наук. праць Луцького нац. технічного університету. Серія "Регіональна економіка"*, Вип. 17 (67), С. 213–224.
22. Філатова Н. М. (2012). Особливості управління оборотними коштами підприємства в сучасних умовах господарювання. Регіональна наук.-техн. конференція професорсько-викладацького складу, співробітників та студентів університету. Вінниця, С. 43–45.
23. Офіційний сайт компанії ПАТ "Укрнафта". URL: <https://www.ukrnafta.com/>
1. Baranova V. H., Hotsuliak S. M. (2008). Teoretychni zasady upravlinnia oborotnym kapitalom [Theoretical principles of working capital management]. *Visnyk sotsialno-ekonomichnykh doslidzhen [Bulletin of socio-economic research]*. No. 30, pp. 32–36.
2. Borzenko V. I. (2020). Kompleksnyi pidkhid do optymizatsii oborotnoho kapitalu pidpriemstva [An integrated approach to the optimization of working capital of the enterprise]. *Visnyk Natsionalnoho tekhnichnoho universytetu "KhPI". Ekonomichni nauky [Bulletin of the National Technical University "KhPI". Economic sciences]*, No. 1(3), С. 59–63. <https://doi.org/10.20998/2519-4461.2020.1.59>
3. Borovyk O. A. (2011). Analiz dynamiky oborotnykh koshtiv za vydamy ekonomichnoi diialnosti [Analysis of the dynamics of working capital by type of economic activity]. *Formuvannia rynkovykh vidnosyn v Ukraini [Formation of market relations in Ukraine]*, No. 2, pp. 95–99.
4. Vatchenko O. B., Takhmazova I. B. (2011) Upravlinnia oborotnym kapitalom pidpriemstva [Management of working capital of the enterprise]. *Ekonomichniy prostir [Economic space]*, No. 50, pp. 193–200.
5. Hryhorieva T. Yu. (2010). Upravlinnia oborotnymy zasobamy pidpriemstv [Management of working capital of enterprises], 383 p.

6. Dukal H. S. (2009). Upravlinnia obihovym kapitalom ta yoho vplyv na finansovi stan pidpriemstv [Working capital management and its impact on the financial condition of enterprises]. *Naukovi visnyk NLTU Ukrainy [Scientific Bulletin of NLTU of Ukraine]*, No. 19(1), pp. 181–184.
7. Zianko V. V., Filatova N. M. (2021). Shliakhy pidvyshchennia efektyvnosti upravlinnia oborotnymi koshtamy pidpriemstv [Ways to improve the management of working capital of enterprises]. *Ekonomichnyy prostir [Economic space]*, No. 62, pp. 186–193.
8. Kaminska I., Kovalchuk N., Demydovych A., Dubrovskiy V. (2020). Naukovo-metodychni pidkhody do analizu efektyvnosti vykorystannia vyrobnychoho potentsialu pidpriemstva [Scientific and methodological approaches to the analysis of the efficiency of using the production potential of the enterprise]. *Halytskyi ekonomichnyi visnyk [Galician Economic Bulletin]*, Tom 6, No. 67, pp. 193–201. [https://doi.org/10.33108/galicianvisnyk\\_tntu2020.06.193](https://doi.org/10.33108/galicianvisnyk_tntu2020.06.193)
9. Kodatskyi V. P. (2010). Shliakhy efektyvnoho upravlinnia oborotnymi aktyvamy promyslovykh pidpriemstv [Ways of effective management of current assets of industrial enterprises]. *Aktualni problemy ekonomiky [Actual problems of economy]*, No. 4, pp. 271–274.
10. Kolodiazna K. A. (2009). Upravlinnia oborotnymi aktyvamy i yikhnia rol v diialnosti pidpriemstv [Management of current assets and their role in the activities of enterprises]. *Torhivlia i rynek Ukrainy [Trade and Market of Ukraine]*, T. 2, pp. 76–82.
11. Korobov M. Ya. (2010). Finansy promysloвого pidpriemstva [Industrial finance], 160 p.
12. Kosova T. D., Rohanova H. O. (2008). Otsinka vplyvu rozmishchennia oborotnykh koshtiv na likvidnist pidpriemstv [Estimation of the impact of working capital placement on the liquidity of enterprises]. *Ekonomika: problemy teorii ta praktyky: zb. nauk. pr. [Economics: problems of theory and practice: Coll. Science. etc.]* Vyp. 240: V 5 t. T. II. Dnipropetrovsk: DNU, pp. 493–502.
13. Koshelok H. V. (2020). Analiz hroshovykh potokiv u systemi upravlinnia pidpriemstvom [Analysis of cash flows in the enterprise management system]. *Halytskyi ekonomichnyi visnyk [Galician Economic Bulletin]*, Vol. 63, No. 2, pp. 231–242. [https://doi.org/10.33108/galicianvisnyk\\_tntu2020.02.231](https://doi.org/10.33108/galicianvisnyk_tntu2020.02.231)
14. Kustrich L. O. (2010). Pidvyshchennia rinvia upravlinnia oborotnym kapitalom [Improving the level of working capital management]. *Visnyk Khmelnytskoho natsionalnoho universytetu [Bulletin of the Khmelnytsky National University]*, No. 3, pp. 103–106.
15. Lysa O. V. (2006). Osoblyvosti vyznachennia potreby pidpriemstva v oborotnomu kapitali [Features of determining the needs of the enterprise in working capital], 603 p.
16. Lutsiv N. P. (2007). Teoretychni osnovy formuvannia oborotnoho kapitalu pidpriemstv [Theoretical bases of formation of the working capital of the enterprises]. *Ekonomichni problemy ta perspektyvy stabilizatsii ekonomiky Ukrainy. Aktualni problemy reformuvannia ekonomiky v rehioni: zb. nauk. tr. [Institute of economics problems and prospects of stabilization of Ukraine's economy. Current issues of economic reform in the region: Coll. Science. tr. Institute of Industrial Economics]*. Donetsk, pp. 98–103.
17. Mnykh Ye. V. (2005). Ekonomichnyi analiz [Economic analysis], 472 p.
18. Nosyriev O. O., Babich I. Ye., Popova V. O. (2020). Formuvannia mekhanizmu upravlinnia oborotnym kapitalom promysloвого pidpriemstva u kryzovykh umovakh hospodariuvannia [Formation of the mechanism of working capital management of the industrial enterprise in crisis conditions of managing]. *Visnyk Natsionalnoho tekhnichnoho universytetu "KhPI". Ekonomichni nauky [Bulletin of the National Technical University "KhP". Economic sciences]*, No. 2 (4), pp. 93–97. <https://doi.org/10.20998/2519-4461.2020.2.93>
19. Peltek L. V., Pysarenko S. M. (2013). Metodolohichni aspekty formuvannia systemy upravlinnia oborotnymi aktyvamy pidpriemstva [Methodological aspects of forming the current assets management system of the enterprise]. *Visnyk Zaporizkoho natsionalnoho universytetu [Visnyk of Zaporizhzhya National University]*, No. 1(5), pp. 43–49.
20. Rohanova H. O. (2013). Stratehiia finansuvannia oborotnykh aktyviv: pozytsiia personalistiv [Strategy for financing current assets: the position of personalists]. *Ekonomichnyi chasopys XXI [Economic Journal XXI]*, No. 3–4 (1), pp. 82–85.
21. Talakh T. A., Bondaruk Kh. V., Khylo O. V. (2020). Napriamy udoskonalennia metodyky analizu efektyvnosti vykorystannia aktyviv pidpriemstva [Directions for improving the methodology for analyzing the efficiency of enterprise assets]. *Ekonomichni nauky: zbirnyk nauk. prats Lutskeho natsionalnoho tekhnichnoho universytetu. Serii "Rehionalna ekonomika" [Economic sciences: collection of scientific works of Lutsk National Technical University. Series "Regional Economy"]*, Vyp. 17 (67), pp. 213–224.
22. Filatova N. M. (2012). Osoblyvosti upravlinnia oborotnymi koshtamy pidpriemstva v suchasnykh umovakh hospodariuvannia [Features of working capital management of the enterprise in modern business conditions]. *Rehionalna nauko-tekhnichna konferentsiia profesorsko-vykladatskoho skladu, spivrobotnykiv ta*

*studentiv universytetu [Regional scientific and technical conference of faculty, staff and students of the university]. Vinnytsia, pp. 43–45.*

23. Ofitsiynyi sait kompanii PAT “Ukrnafta” [Official site of PJSC Ukrnafta]. URL: <https://www.ukrnafta.com/>

**Х. П. Данилків, Н. Є. Гембарська, Е. Айдин<sup>1</sup>**

Національний університет “Львівська політехніка”,

<sup>1</sup>Агентство розвитку північної Анатолії,

Університет Кастамону (Турецька республіка)

## **КОМПЛЕКСНИЙ АНАЛІЗ ЕФЕКТИВНОСТІ ВИКОРИСТАННЯ ОБОРОТНОГО КАПІТАЛУ ПРОМИСЛОВОГО ПІДПРИЄМСТВА**

© Данилків Х. П., Гембарська Н. Є., Айдин Е., 2022

Однією із важливих проблем фінансового менеджменту на підприємстві є управління оборотними активами. Політика управління оборотним капіталом підприємства спрямована на забезпечення довгострокової виробничої та ефективної фінансової діяльності підприємства, що досягається через пошук компромісу між ризиком втрати ліквідності та ефективністю роботи. Реалізація такої політики передбачає визначення необхідного рівня оборотних активів та оптимізацію структури джерел їх фінансування.

Розраховано показники, що характеризують оборотність засобів або їх джерел, оскільки саме вони насамперед відображають ділову активність підприємства у фінансовій сфері. Розрахунки виконано за 2018–2020 рр. на матеріалах ПАТ “Укрнафта” і в абсолютному вираженні доповнено розрахунками відхилень, що дає змогу простежити зміну показників у динаміці. Запропоновано розрахунок інших показників, котрі допомагають оцінити ефективність використання оборотного капіталу досліджуваного підприємства.

Запропоновано трактування отриманих результатів. Показано, що на тривалість перебування засобів в обороті впливають зовнішні та внутрішні фактори. До зовнішніх факторів зараховано: сферу діяльності підприємства, галузеву належність, масштаби виробництва, економічну ситуацію у країні.

Практичне впровадження запропонованих у статті заходів для підвищення ефективності формування та використання оборотного капіталу дасть змогу максимально ефективно використовувати власні ресурси для забезпечення стабільної фінансової діяльності підприємства.

Ключові слова: оборотний капітал; показники прибутковості; показники майнового стану; фондоддача; фондосмність; показники фінансової стійкості; рентабельність; ліквідність; платоспроможність.