

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

**FINAL QUALIFYING PAPER
on the topic:**

**«MANAGEMENT OF OPERATING CYCLE OF THE ENTERPRISE»
(based on the materials of PJSC “OBOLON”, Kyiv)**

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АНОТАЦІЯ

Лісакова К.А. «Управління операційним циклом підприємства» (за матеріалами ПрАТ «Оболонь», м. Київ). – Рукопис.

Випускна кваліфікаційна робота за спеціальністю 051 «Економіка», спеціалізація «Фінансовий менеджмент» – Київський національний торговельно-економічний університет – Київ, 2019.

Випускна кваліфікаційну роботу присвячено вивченню теоретичних основ і економічної сутності управління операційним циклом підприємств. Представлена робота дозволяє дослідити методи проведення аналізу управління операційним циклом на підприємствах, а також розробити шляхи скорочення тривалості операційного циклу ПрАТ «Оболонь».

Ключові слова: операційний цикл підприємства, оборотні активи підприємства, тривалість обороту запасів, тривалість обороту дебіторської заборгованості, операційна діяльність.

ABSTRACT

Lisakova K.A. "Management of operating cycle of the enterprise" (based on the materials of PJSC "OBOLON", Kyiv). – Manuscript.

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The final qualifying paper is devoted to study of theoretical foundations and economic essence of managing the operating cycle of enterprises. The presented research allows to investigate methods of conducting analysis of operating cycle management at enterprises, as well as to develop ways of reducing the operating cycle duration of OBOLON PJSC.

Key words: operating cycle of the enterprise, current assets of the enterprise, inventories turnover period, accounts receivables turnover period, operating activities.

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INTRODUCTION

Actuality of the theme. The activity of any company is daily associated with the transformation of assets from one form to another: materials are transformed into work in progress, which becomes a finished product; finished goods are shipped and converted into receivables, which are eventually returned in the form of cash from customers. Issues of the operating cycle and its components have become particularly relevant in recent times due to adverse changes in the capital market, falling existing markets and lack of growth prospects. The shortening of the operating cycle and its related components is considered in combination with the increase of rational functioning of the company in the conditions of lack of capital. Operating and financial cycle duration management is an effective mechanism for maximizing revenue from available resources. Given the above factors, the actuality of the topic is determined, because the length of the operating cycle largely depends on the company's need for current assets. A company with a short operating cycle can operate efficiently, with a limited amount of current assets and good values of liquidity indicators due to the greater speed of transformation of resources into cash.

The conceptual foundations of the essence and theory of management of operating cycle of the enterprise are considered in the scientific works of domestic and foreign economists: Blank I.O., Poddyerogin A.M., Bilyk M.D., Parhomenko O.P., Van Horn Dzh. K., Brigham Ye. F., Holt R. N. and others.

However, there are a number of theoretical and practical problems that remain unresolved both at the level of enterprises in general and at the level of individual branches. These should include the problem of determining the optimal duration of the operating cycle and ways to reduce the inventories turnover period and receivables turnover period as a whole and separately.

The purpose and tasks. The **purpose** of the final qualification work is investigation the theoretical foundations and practical aspects of the enterprise operating cycle management on base of OBOLON PJSC company.

The following **tasks** were set and solved in the final qualifying paper in order to achieve this goal:

- to determine the essence of the operating cycle of the enterprise;
- to analyze the factors that determine the effectiveness of managing the operating cycle of the enterprise;
- to analyze the dynamics of the key indicators that shape the operating cycle of the OBOLON PJSC enterprise;
- to analyze the dynamics of the duration of the operating cycle and its components;
- to characterize the efficiency of operating cycle management at the OBOLON PJSC;
- to develop ways to improve operating cycle management at OBOLON PJSC.

The object of the research is the process of managing the operational activity of an enterprise in the market of goods and services.

The subject of the research is mechanism of operating cycle management.

The research is done on the basis of materials of PJSC "OBOLON", which is engaged in the production of beer, soft and low alcohol drinks, mineral water. The OBOLON PJSC structure has been shaped for many years under the influence of a development strategy aimed at diversification of production, transition to raw materials of own production, innovative approach, absolute environmental safety and full social responsibility.

The OBOLON PJSC unites the main plant, two detached workshops, two subsidiaries and four corporations with corporate rights. In total, the corporation employs about 7,500 people. The OBOLON PJSC is one of the best employers in Ukraine. All salaries and bonuses are paid officially, meaning the corporation pays all mandatory taxes, contributions to the pension and other funds. The salary in PJSC "OBOLON" is paid on time and increases annually by not less than 10-15%.

Methods of the research. The methodology used for data collection includes document review combining case study method thesis. Research methods were based on

general scientific and empirical methodical techniques of economics. During the literature review economic-statistical and mathematical methods of analysis, abstraction techniques were used. Such general theoretical methods of scientific knowledge as synthesis, deduction, induction and other methods were also used. Concerning methodical approaches, according to specific scientific (empirical) research of selected topics was conducted, among them the most frequently used in the work were calculation and analytical methods of comparison, data grouping, summarizing.

The **information base** for research is articles, books and other scientific works of scientists regarding the importance and role of efficiency, performance or analysis of enterprise, methodical approaches to the implementation of a comprehensive economic analysis of the enterprise's activity. Secondary data was retrieved from statistical, annual reports of enterprises for the period 2015-2018.

The **scientific novelty** of the results obtained is in refining the definition of the operating cycle with the addition of such essential characteristics as ensuring the circulation of certain types of current assets and the interrelatedness and sequence of technological operations and stages of the operating activity of the enterprise in the overall cycle of capital turnover from supply to product sales which will improve the operating cycle management analysis and can be taken into account and used by the enterprise by the management of enterprise.

Practical meaning. The results of the conducted research and the suggested ways of optimization can be taken into account and used by the enterprise in the further decision-making concerning financial crisis diagnostics of an enterprise.

Approbation. The results of the study were presented at the enterprise for their further application and published in the collection of master's articles "Economics and Finance of Enterprise" in an article on the topic: "The impact of operating cycle on the profitability and liquidity of the enterprise".

Structure of the paper. The logic of the research resulted in the structure of the work: introduction, 3 chapters, conclusions and proposals, references, 3 appendixes. Total amount of pages in the work with appendixes is 52 pages.

CHAPTER 1

THEORETICAL BASES OF THE ENTERPRISE OPERATING CYCLE MANAGEMENT

Problems in managing the operating cycle require a preliminary consideration of the economic essence of the concept of "operating cycle", which, on the one hand, should determine the essence of such management in modern conditions of management, and on the other - its importance to ensure the effective functioning of domestic enterprises [1].

In order to reflect the essence of the operating cycle, we will open its structure. The structure of the operating cycle in different industries and at different enterprises is not the same. According to O.V. Mihajlovska "the operating cycle at manufacturing enterprises consists of the duration of production operations, as well as the duration of breaks caused by inventory creation, uneven production, between variables and other breaks". So she means that the effectiveness of the operating process depends on the time of implementation and the degree of continuity[2]. Structure of the operating cycle at a production enterprise taking into account the above features is shown in Figure 1.1.

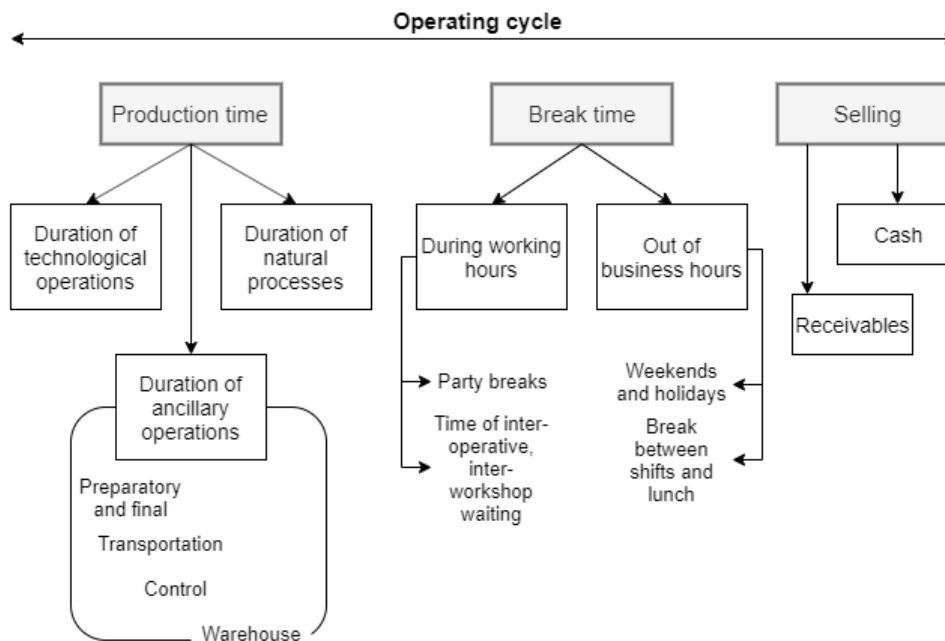


Figure 1.1. Structure of the production cycle at a production enterprise [2]

S.I. Kaminskyi and N.M. Huliaieva consider the operating cycle of a trading enterprise is a period of complete turnover of some current assets of the enterprise, in the course of which their types change, from resource to cash: the period of purchase of goods, the period of debt repayment for purchased resources, the period of sale of goods, and the period of collection of receivables [3]. This structure is shown in Figure 1.2.

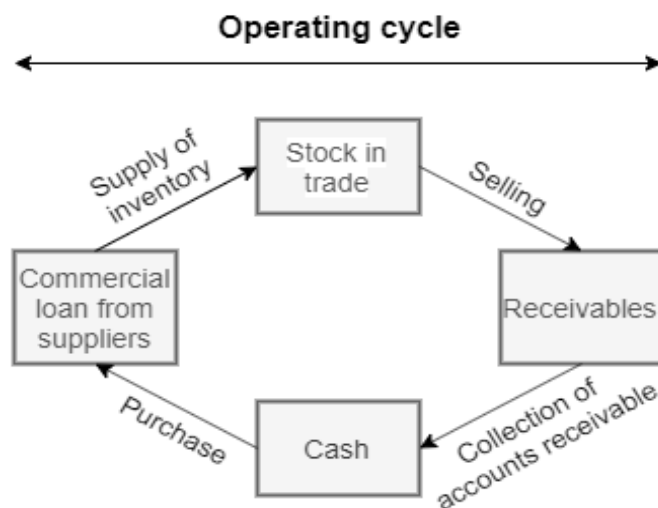


Figure 1.2. Structure of the production cycle at a trade enterprise [3]

As the operating cycle consists of the production cycle and the sale of the finished product to customers, we agree with the structure of the operating cycle of the production enterprise. But we believe that the structure of the operating cycle of a trade enterprise is not entirely appropriate, given that the commercial loan from suppliers (purchase of raw materials) is part of the structure of the financial cycle, not the operating one. In our view, the structure of the operating cycle can be simplified and summarized for all types of businesses. The generalized structure of the operating cycle is shown in Figure 1.3.

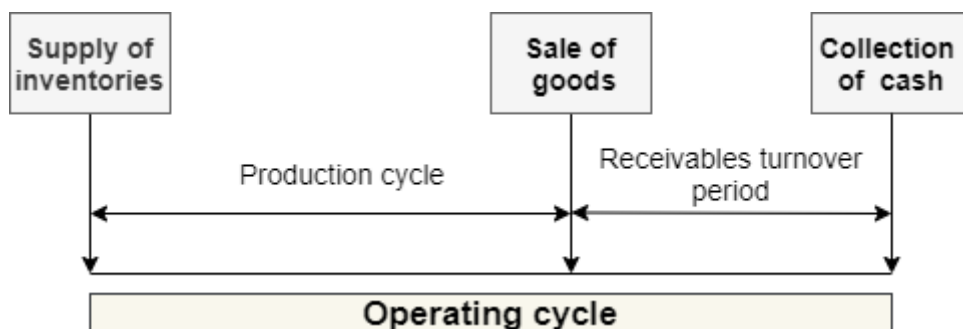


Figure 1.3. The simplified structure of operating cycle (developed by author)

Having revealed the structure of the operating cycle, we can identify its essence. According to Ukrainian Accounting standards 1 "General Requirements to Financial Statements" of February 28, 2013, "operating cycle - the period between the acquisition of inventory for the conduct of activities and the receipt of money and their equivalents from the sale of products or goods produced from them" [4].

But in the economic literature, there are different approaches to the definition of the essence of the operating cycle.

The most approximate definition of the legislation is provided by authors such as I.O. Shkolnik, I.M. Boyarko and O.V. Dejneka, according to which "the operating cycle is the time interval during which the current assets of the enterprise carry out a full turnover: from the acquisition of stocks to carry out activities before receiving funds from the sale of products produced from them" [5, p.170]. In this definition, the operating cycle represents the investment of cash in working capital for the exercise of activities, as a result of which these current assets will be transformed into cash again. The disadvantage of the definition, we consider the lack of detail, which are the current assets take part in the formation of the operating cycle. Similar definition is provided by a group of authors from I.V. Nikitsushkina, S.G. Makarova and S.S. Stodnikov, who define the operating cycle as "the period of full turnover of money invested in the current assets of the company, in the course of which there is a change in their forms" [6, p.622]. In this definition, the operating cycle represents the investment of cash in working capital for the exercise of activities, as a result of which these current assets will be transformed into cash again. The disadvantage of the definition, we consider the lack of detail, which are the current assets take part in the formation of the operating cycle.

A similar definition is provided by I.V. Zholner, according to which "the operating cycle is the time between the acquisition of assets for processing and their sale in cash or cash equivalents" [7, p.325]. However, this definition cannot be called complete, as current assets by type are not highlighted.

On the other hand, J.M. Petrovich and L.M. Prokopyshin-Rashkevich call the operating cycle "the period of full turnover of the total amount of working capital, in the

process of which their species change" [8, p.158]. We do not agree with such an interpretation of the notion of "operating cycle", since the turnover of other current assets does not refer to the direct operational activity of the enterprise, as well as the turnover of cash and equivalents.

G.I. Kapinos and I.V. Babij define the operating cycle as "the total time for the operation of the batch of products" [9, p.82], that is, the time needed to spend in order to perform the necessary technological operations on the batch of production. B.A. Anikin, R.V. Serishev and V.A. Volochienko further narrow the definition of the operating cycle. According to them, the operating cycle "Duration of the completed part of the technological process, which is performed at one workplace" [10, p.273]. Such views on the definition of the operating cycle are one-sided, because they take into account only the production, or technological, essence of the concept under investigation. Although we can agree that the operating cycle involves directly technological operations.

T.D. Kosova, P.M. Suharev, L.O. Vashenko consider that "the operating cycle is an indicator that characterizes the duration of the period during which the average money is omitted in non-monetary working assets" [11, p.324]. They emphasize that the operating cycle is the period during which cash is converted into non-monetary working assets, which is equal to the time of technological operations on these non-monetary working assets as defined above. But there is another component of the operating cycle, which is detailed in the definition of V.Y. Leontyev, V.V. Bocharov and N.P. Radkovska, according to whom "the operating cycle is the total time during which working capital is immobilized in stocks and accounts receivable" [12, p.215]. That is, they indicate that cash is immobilized in such circulating assets as stocks and receivables.

Y.D. Plotkin and I.N. Pashenko do not mention the receivables, defining the operating cycle as "the calendar period of time during which the processed product or batch of products passes all operations of the production process or a certain part of it and turns into a finished product" [13, p.58]. In our opinion, the implementation of the finished product is the last component of the operating cycle, during which the working capital of the company, which is changed in the course of the company's activity,

namely, the stocks, are converted again into cash. However, it is important to emphasize the fact that the operating cycle is a calendar period of time.

According to V.P. Astahov, "the operating cycle is the reasonable use of funds and labor during a technological period of more than twelve months in the process of manufacturing products, works or services" [14, p.33]. It is a purely accounting view of the essence of the operating cycle. We believe that it is most expedient to take into account periods of turnover of two elements of current assets - stocks and receivables.

It is worth noting that it is transformation of two elements of current assets can lead to an increase in the mass of income and profit as the financial result of each operating cycle. Therefore, we propose to introduce such a characteristic of the operating cycle as ensuring the circulation of certain types of current assets, namely inventories and receivables.

At the same time, the sequence of the stages of the operating cycle for its rational analysis is very important, therefore we consider it necessary to introduce such an operating cycle characteristic as the interrelatedness and sequence of technological operations and stages of the operating activity of the enterprise in the overall cycle of capital turnover from supply to product sales.

The essential characteristics of the operating cycle are shown in Figure 1.4.

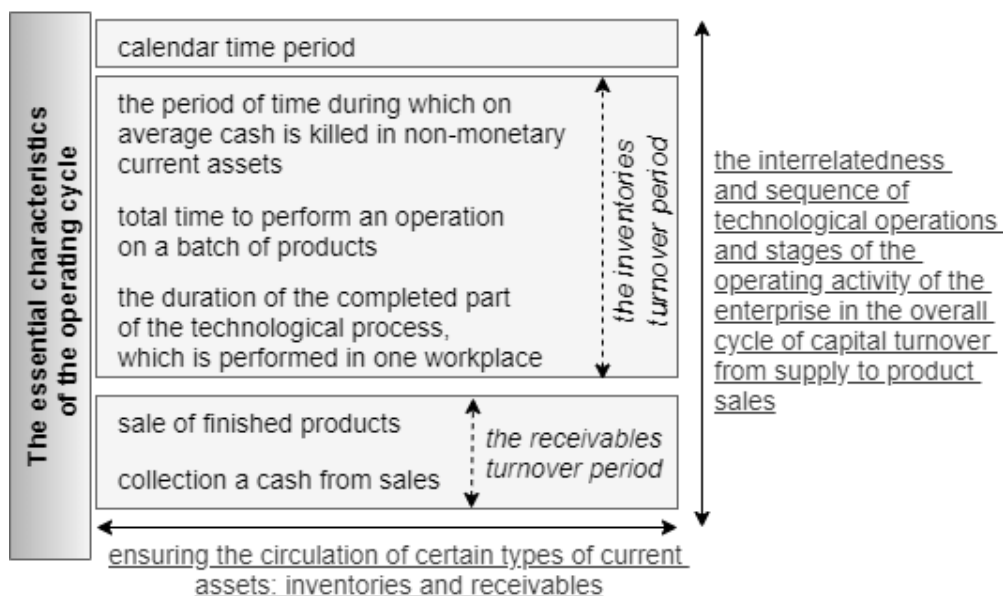


Figure 1.4. The essential characteristics of the operating cycle (developed by author)

Thus, in our opinion, the operating cycle is a calendar period of time during which there is an interconnected flow of stocks and receivables through a consistent change in their forms due to the operation of the technological operations and the implementation of the finished product.

Undeniably, the operating cycle plays a significant role in the enterprise. However, different authors evaluate the role of the operating cycle in different ways.

O.V. Borisova notes that "the role in that the operating cycle is an important factor affecting the need of the enterprise in current assets" [15, p.453]. In turn, Z.S. Pestovska notes: "The shorter the operating cycle, the lower the degree of security of the company's current assets and the riskier enterprise" [16, p.103]. In our opinion, it is meant that determining the optimal duration of the operating cycle should be in line with the effective decision on the balance between the need of the enterprise in the sources of funding and financing costs.

In the opinion of G.A. Semenov, "the role of operating cycle in the necessary for determining the cycle of cash turnover, or the time when the funds of the enterprise are withdrawn from the turnover" [17, p.253]. Continues this opinion T.A. Gorodnya, believing that this quantity, "the role of operating cycle in that multiplied by the average daily expenses, can serve as the basis for determining the average amount of money that must be constantly in circulation" [18, p.110]. According to O.V. Shvec, "the role of operating cycle in the optimal duration of the operating cycle which allows to ensure the expansion of production and achieve high competitiveness of the enterprise in the new market conditions, maximize the cost of business, increase the efficiency of the operating activities of the enterprise" [19]. The disadvantage of this statement is the uncertainty of the optimal duration of the operating cycle. Investigation of the operating cycle, according to T.I. Grigorieva, "provides an opportunity to consider the process of managing its own working capital company in the dynamics" [20, p.321]. We agree with this role of operating cycle.

V.Y. Olihovskij directly links the analysis of receivables of the enterprise with its operating cycle. Namely, according to him, "depending on the maturity and connection

with the normal operating cycle (from the course of the operating cycle), he proposes to divide the receivable into current and long-term" [21, p.141].

In our turn, we believe that since the operating cycle reflects the dynamic aspect of managing its own working capital, it can also serve as the basis for constructing a methodology for analyzing the reporting enterprise. Thus, specially developed indicators necessary for the analysis of the operating cycle, clearly reflect the current financial situation in the enterprise and the tendency to change it. The role of the operating cycle is grouped and displayed in Figure 1.5.

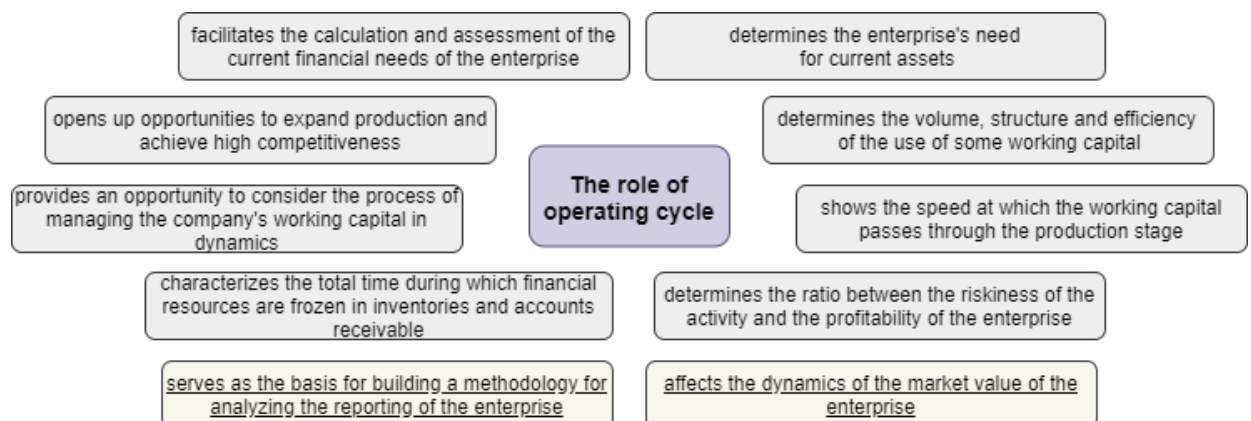


Figure 1.5. The role of operating cycle (developed by author)

Also, the role of the operating cycle can be supplemented by the fact that it affects not only indicators of business activity, profitability, solvency, as well as directly to market value, but also to the independent image of the enterprise. Despite the fact that the operating cycle is an absolute indicator, its dynamics reflects how effective the management of the management of the operations of the enterprise is and how competent the financial management of the company is.

One of the main areas of improving the efficiency of enterprises is to increase the efficiency of operating cycle management. According to O.O. Pavlenko, the management of the operating cycle is "the management of production processes, which are aimed at transforming resources into goods and services" [22, p.43]. On the other hand, I. Yekimovskih considers that "management of the operating cycle is the most important component of asset management of the enterprise" [23].

In our opinion, operating cycle management is an integral part of financial management, consisting of a complex of management actions aimed at achieving the maximum efficiency of operational processes occurring in the enterprise.

The duration of the operating cycle is calculated as the sum of the inventory turnover period and the accounts receivable turnover period, which is reflected in formula 1.1:

$$TP_{OC} = TP_I + TP_R, (1.1)$$

where TP_{OC} – the duration of operating cycle, days;

TP_I – the inventory turnover period, days;

TP_R – the accounts receivable turnover period, days.

The construction of an integrated operating cycle management system in enterprises needs to improve the methodological basis for evaluating the effectiveness of this management.

Obviously, we need to investigate the coefficients of turnover and periods of turnover for certain elements of current assets, namely inventories and receivables. Formulas 1.2 and 1.3 are used for assessing the turnover of inventories, and 1.4 and 1.5 are used to assess receivables.

$$TR_I = \frac{C}{\dot{I}} (1.2)$$

where TR_I – inventory turnover ratio;

C – cost, UAH;

\dot{I} – average volume of inventories for the period, UAH.

$$TP_I = \frac{\dot{I} * n}{C}, (1.3)$$

where n - number of days in the period, days.

$$TR_R = \frac{Net\ Sales}{\dot{R}}, (1.4)$$

where TR_R – accounts receivable turnover ratio;

\dot{R} – average volume of receivables for the period, UAH.

$$TP_R = \frac{\dot{R} * n}{Net\ Sales}, (1.5)$$

Y.O. Shvec, in turn, looks at the assessment of the efficiency of inventory management and suggests using in the process indicators such as those mentioned

above, such as the load factor of inventories, the absolute amount of profit per 1 UAH stock and the profitability of inventories [24]. The formula for calculating the profitability of inventories is as follows:

$$P_I = \frac{EBIT}{\dot{I}}, (1.6)$$

where EBIT – earnings before interest and taxes, UAN.

In our opinion, from the proposed indicators, we may use the profitability of inventories and, in our view, the profitability of receivables. Accordingly, we find the profitability of the receivables by the formula 1.7:

$$P_R = \frac{EBIT}{\dot{R}}, (1.7)$$

At the same time, the profitability of inventories and receivables can be broken down by coefficients or by factors that form it. Thus V.Y. Pavlockij proposes to use the DuPont Cascade model to evaluate the efficiency of management [25].

We can modify this model in such a way that the profitability of inventories or profitability of receivables was used as a result indicator, and the factors influencing the analysis were parameters that characterize the operating activity of the enterprise: the turnover rate of inventories or receivables and the profitability of production costs or profitability of turnover respectively. Consequently, the factor model of the profitability of inventories can be written as follows:

$$P_I = \frac{EBIT}{\dot{I}} = \frac{C}{\dot{I}} \cdot \frac{EBIT}{C} = TR_I \cdot P_{PC}, (1.8)$$

where P_{PC} – profitability of production costs, %.

$$P_R = \frac{EBIT}{\dot{R}} = \frac{Net\ Sales}{\dot{R}} \cdot \frac{EBIT}{Net\ Sales} = TR_R \cdot R_S, (1.9)$$

where R_S – return on sales, %.

O.O. Slobodnichenko begins an assessment of the efficiency of management of accounts receivable from the perspective of its impact on the operating cycle on indicators such as the average period of collection of accounts receivable and the ratio of distraction of current assets to accounts receivable [26].

We consider it expedient to calculate the diversion ratio of current assets receivables (formula 1.10) and in inventories (formula 1.11), since the dynamics of the

data of the coefficients of release or detention of working capital in the form of these elements of the operating cycle. Also, this coefficient reflects the extent to which the element of current assets directly affects the duration of the operating cycle.

$$DR_I = \frac{I}{CA}, (1.10)$$

where DR_I — the diversion ratio of current assets in inventories.

$$DR_R = \frac{R}{CA}, (1.11)$$

where DR_R — the diversion ratio of current assets in receivables.

On the other hand, O.S. Ivanilov believes that accelerating the use of working capital is one of the priorities of the enterprise in modern conditions by accelerating their turnover in all stages of the cycle. In his opinion, the assessment of the effectiveness of this measure is possible by analyzing the amount of funds released or delayed as a result of changes in the dynamics of turnover of working assets [27].

The released amount of working capital can be calculated according to the formula 1.12:

$$RA_{WC} = \frac{B_p \cdot (T_1 - T_0)}{n} (1.12)$$

where RA_{WC} — the released amount of working capital, UAH;

B_p — the volume of sales for the current period, UAH;

T_0 and T_1 — duration of sales turnover, under the previous and calculation period, days.

M.A. Limitovskij, in turn, in assessing the effectiveness of operating cycle management considers it necessary to analyze the dynamics of net working capital, which is calculated by the formula 1.13:

$$NWC = CA - CLP, (1.13)$$

where NWC — net working capital, UAH;

CLP — current liabilities and provisions, UAH.

Net working capital is, first and foremost, necessary to maintain liquidity. It realizes the ability of the company to fulfill its monetary obligations as they are received. The dynamics of net working capital makes it possible to assess whether an

enterprise finances itself through the operating cycle, whether it is experiencing a permanent shortage of funds, or, conversely, has an excess of insurance reserves [28].

In turn, we propose to explore and use in the evaluation of the efficiency of operating cycle management such an absolute indicator as the amount of net sales proceeds and the amount of gross profit generated in one day of the operating cycle, which is showed in formula 1.14:

$$NS(GP)_{oc} = \frac{NS(GP)}{OC}, (1.14)$$

where $NS(GP)_{oc}$ — the amount of the net sales or gross profit, respectively generated in one day operating cycle, UAH/day;

NS (GP) — net sales or gross profit respectively, UAH;

OC - duration of the operating cycle, days.

We believe that this indicator will clearly reflect the effectiveness of operating cycle management and the enterprise as a whole, since it will show how many hryvnas of revenue generates operating activities of the company on a daily basis, that is, it will reflect the performance of the operating activities of the enterprise as a whole.

Therefore, we have set up our own system for assessing the effectiveness of managing the operating cycle of an enterprise which is shown in Fig. 1.6.

Name of indicator	Name of indicator
1. Inventory turnover ratio and accounts receivable turnover ratio as a whole and by component.	5. The diversion ratio of current assets in inventories and the diversion ratio of current assets in receivables.
2. Inventory turnover period and accounts receivable turnover period as a whole and by component.	6. Amount of working capital released due to changes in inventory turnaround time, accounts receivable and operating cycle
3. Profitability of inventories and receivables.	7. Modified Dupont-cascade model.
4. Net sales revenue and gross profit generated in one day of the operating cycle	8. Comparison of the net working capital with the minimum need for working capital

Figure 1.6. Set of indicators for assessing the effectiveness of managing the operating cycle

In view of this, we propose the following division of the totality of the above indicators into main and secondary ones, which is presented in App. A. In addition, we believe it is important to point out the desired direction of change in the indicators being studied in order to complete the formation of a comprehensive system of performance evaluation indicators. The desirable direction for changes in indicators is given in App. B.

Implementation of an effective system of operating cycle management at the enterprise can provide optimal duration of the operating cycle, which will increase the efficiency of the production and economic activity of the enterprise and become one of the conditions for its economic recovery in the future.

CHAPTER 2

INVESTIGATION OF THE CURRENT STATE OBOLON JSC OPERATING CYCLE MANAGEMENT

2.1. Dynamics of the main indicators forming the operating cycle of the enterprise

The operating cycle describes the period between the acquisition of stocks for the enterprise's activities and the receipt of funds from the sale of products produced from them, or goods and services.

Consequently, the components of the operating cycle are the time spent working capital in inventories, goods, receivables for goods, work, services, cash and cash equivalents [30]. Therefore, it is necessary to analyze how the volumes of certain current assets of PJSC «OBOLON» for the period of 2015-2018 have changed. The dynamics of the inventories of PJSC «OBOLON» are shown in the Table 2.1.

Table 2.1

The dynamics of inventories PJSC «OBOLON» for 2015-2018

Position of current assets	On 31.12.2015	On 31.12.2016	On 31.12.2017	On 31.12.2018
Inventories, thous UAH	973297	881787	750563	719638
Chain Dynamic Range:				
absolute increase, thous UAH	-	-91510	-131224	-30925
growth rate, %	-	-9,40	-14,88	-4,12
Basic indicators of dynamics rows:				
absolute increase, thous UAH	-	-91510	-222734	-253659
growth rate, %	-	-9,40	-22,88	-26,06

Inventories during the investigated period decreased by more than a quarter. Since 2016, they show a steady decline, indicating a reduction in production volumes. This is due to a decrease in demand, which is due to a reduction in the purchasing

power of Ukrainians. Thus, management avoids the creation of surplus inventory and overpayment for surplus cost. The dynamics of the receivables of PJSC «OBOLON» is reflected in the Table 2.2.

Table 2.2

Dynamics receivables PJSC «OBOLON» for 2015-2018

Position of current assets	On 31.12.2015	On 31.12.2016	On 31.12.2017	On 31.12.2018
Accounts receivable, thousand UAH	303085	254237	851581	338771
Chain Dynamic Range:				
absolute increase, thous UAH	-	-48848	597344	-512810
growth rate, %	-	-16,12	234,96	-6m0,22
Basic indicators of dynamics rows:				
absolute increase, thous UAH	-	-48848	548496	35686
growth rate, %	-	-16,12	180,97	11,77

Accounts receivable increased during the period under study, but its volumes changed very unevenly in the time dimension. Therefore, it has grown more than 3 times in 2017 after a slight decrease in 2016. It is also worth considering that receivables include several different components, the dynamics of which are shown in more detail in Table 2.3.

Accounts receivable for goods and services showed a leap trend during the period under investigation. It can be assumed that in 2017 the management of the company softened credit policy for the sale of products, as well as the stimulation of commercial loans for buyers, the volume of which decreased significantly in 2016. It should be noted that after a significant increase in 2017, when accounts receivable increased more than twice, in 2018 it also decreased significantly. But compared to 2016, receivables increased by 33%.

However, accounts receivable in payments for advanced paid increased almost three times during the investigated period. At the same time, the receivables to budget decreased by half in the last year after steady growth.

Table 2.3

Dynamics components of receivables PJSC «OBOLON» for 2015-2018

Position of current assets	On 31.12.201 5	On 31.12.201 6	On 31.12.201 7	On 31.12.201 8	2018/2015
Accounts receivable for goods and services, thous UAH	222580	169695	297870	203818	-
absolute increase, thous UAH	-	-52885	128175	-94052	-18762
growth rate, %	-	-23,76	75,53	-31,57	-8,43
Accounts receivable in payments: the advances paid, thous UAH	23627	35477	51466	89746	-
absolute increase, thous UAH	-	11850	15989	38280	66119
growth rate, %	-	50,15	45,07	74,38	279,85
to budget, thous UAH	46810	39468	71280	35310	-
absolute increase, thous UAH	-	-7342	31812	-35970	-11500
growth rate, %	-	-15,68	80,60	-50,46	-24,57
including income tax, thous UAH	29241	10414	8047	5475	-
absolute increase, thous UAH	-	-18827	-2367	-2572	-23766
growth rate, %	-	-64,39	-22,73	-31,96	-81,28
Other current receivables, thous UAH	10068	9597	430965	9897	-
absolute increase, thous UAH	-	-471	421368	-421068	-171
growth rate, %	-	-4,68	4390,62	-97,70	-1,70
Total, thous UAH	303085	254237	851581	338771	-
absolute increase, thous UAH	-	-48848	597344	-512810	35686
growth rate, %	-	-16,12	234,96	-60,22	11,77

Interestingly, the other current receivables almost did not change over the period, but increased more than 40 times in 2017. The structure of accounts receivable in 2014-2017 is presented in Table 2.4.

Despite a decrease in absolute terms, the share of receivables for products and services increased in 2018. This is due to a sharp increase in other current receivables in 2017, when its volume amounted to half the volume of all receivables.

If we compare the specific weight of receivables for products and services at the beginning of the period, then it decreased by 13%. Accordingly, the share of accounts receivable in payments increased from 23,24% to 36,91%. The share of other current receivables for the period under review has changed slightly.

Interestingly, the proportion of accounts receivable to budget decreased by 5 percentage points, while the proportion of accounts receivable to budget including income tax decreased by as much as 8 percentage points.

Table 2.4

Change of structure in time of receivables PJSC «OBOLON» for 2015-2018

Position of current assets	On 31.12.2015	On 31.12.2016	On 31.12.2017	On 31.12.2018	2018/2015
The proportion of accounts receivable for goods and services, %	73,44	66,75	34,98	60,16	-
absolute growth, %	-	-6,69	-31,77	25,18	-13,28
The proportion of accounts receivable in payments: the advances paid, %	7,80	13,95	6,04	26,49	-
absolute growth, %	-	6,16	7,91	20,45	18,69
to budget, %	15,44	15,52	8,37	10,42	-
absolute growth, %	-	0,08	-7,15	2,05	-5,02
including income tax, %	9,65	4,10	0,95	1,62	-
absolute growth, %	-	-5,55	-3,15	0,67	-8,03
The proportion of other current receivables, %	3,32	3,78	50,61	2,93	-
absolute growth, %	-	0,45	46,84	-47,69	-0,39
Total, %	100,00	100,00	100,00	100,00	-

Changes in the structure of current assets in general for inventories and accounts receivable, which were investigated in Table 2.5, reflect the increase in the share of inventories and in the share of receivables.

The share of stocks fluctuated during the period under investigation, as opposed to the share of receivables for goods and services, which showed a steady upward trend.

As a whole, the weight of accounts receivable and inventories in the structure of current assets increased by 15% over the period under study and amounted to more than 95% of their total mass. This indicates a reduction in cash and other current assets. This means that in spite of decreasing the volumes of reserves in absolute terms, the quantity of sold products decreases, inventory stocks accumulate. And most sales are made through commercial loans.

Table 2.5

**Change of structure in time of some current assets of PJSC «OBOLON» for
2015-2018**

Article of current assets	Specific weight, %				Absolute change, %			
	On 31.12.20 15	On 31.12.20 16	On 31.12.20 17	On 31.12.20 18	201 6/ 201 5	201 7/ 201 6	201 8/ 201 7	201 8/ 201 5
Inventories	58,42	74,09	45,09	65,07	15,6 7	- 29,0 0	19,9 8	6,65
Accounts receivable for goods and services	10,35	14,26	17,89	18,43	3,91	3,63	0,54	8,08
Accounts receivable in payments: the advances paid	7,88	2,98	3,09	8,11	-4,9	0,11	5,02	0,23
to budget	4,08	3,32	4,28	3,19	- 0,76	0,96	- 1,09	- 0,89
including income tax	3,65	0,88	0,48	0,49	- 2,77	- 0,40	0,01	- 3,16
Other current receivables	0,85	0,81	25,89	0,89	- 0,04	25,0 8	- 25,0 0	0,04
Total	81,57	96,34	96,72	95,70	14,7 7	0,38	- 1,02	14,1 3

This may be due to fluctuations in demand, the economic crisis in the country and a decrease in the solvency of potential buyers of products of PJSC «OBOLON». In order to stabilize sales during investigated period, inventory volumes have been reduced and a new credit policy has been introduced, which has a positive impact on the number of commercial loans for buyers of products. This assumption can be checked by studying the dynamics of financial results of PJSC «OBOLON», as shown in Table 2.6.

During the period under review, net revenue decreased only in 2016, when the lowest increase in cost of production occurred. This means that the reduction in net revenue was caused by a significant decrease in production and sales volumes. However, due to the fact that the growth of prime cost of sold products was faster than the growth of net revenue, gross profit of the enterprise was almost constantly

decreasing. So, for comparison, during the period under study, net revenue increased by 30%, and the prime cost of sold products - by 75%.

Table 2.6

Dynamics of indicators of financial results of PJSC «OBOLON» in absolute change for 2015-2018

Item	Amount, thous UAH					
	2014	2015	2016	2017	2018	2018\2014
NetRevenue	3858794	4441246	4310214	4963232	5078764	-
absoluteincrease, thous UAH	-	582452	-131032	653018	115532	1219970
growthrate, %	-	15,09	-2,95	15,15	2,32	-68,38
Primecostofsoldproducts	2451112	3091702	3290800	3565168	4292370	-
absoluteincrease, thous UAH	-	640590	199098	274368	727202	1841258
growthrate, %	-	26,13	6,44	8,34	20,39	-24,88
Grossprofit	1407682	1349544	1019414	1398064	786393	-
absoluteincrease, thous UAH	-	-58138	-330130	378650	-611671	-621289
growthrate, %	-	-4,13	-24,46	37,14	-43,75	-144,14
Financialresultsofoperationalactivity	84353	159274	-234031	49482	-128200	-
absoluteincrease, thous UAH	-	74921	-393305	283513	-177682	-212553
growthrate, %	-	88,82	-	-	-	-
Financialresultsbeforetax	-755980	-811167	-910052	220797	-325802	-
absoluteincrease, thous UAH	-	-55187	-98885	1130849	-546599	430178
growthrate, %	-	-	-	-	-	-
Netfinancialresult	-626225	-711875	-885243	176580	-365420	-
absoluteincrease, thous UAH	-	-85650	-173368	1061823	-542000	260805
growthrate, %	-	-	-	-	-	-

During the last five years, the company only once had a net financial result in 2017. The worsening of the market situation for the company and the economic situation in the country as a whole has led to the need for revision of the company's top-management credit policy and inventory management policies.

2.2. Dynamics of the duration of the operating cycle of enterprise

Practical aspects of calculation of operating cycle often associated with additional specific formation of the working capital of the company. Its formation can participate not only money, accounts receivable and inventories, and also prepayment received from customers and prepaid expenses. In some cases, should also take into account the earned but unpaid wages.

In the case of PJSC “OBOLON” operating cycle is the sum of the periods of turnover of inventories and accounts receivable. Dynamics duration operating cycle PJSC «OBOLON» in the years 2015-2018 is shown in Table 2.7.

Table 2.7

Dynamics duration operating cycle of PJSC «OBOLON» 2015-2018

Item	Years			
	2015	2016	2017	2018
The duration of the operating cycle, days	128	125	123	104
Chain Dynamic Range:				
absolute increase, days	-	-3	-2	-19
growth rate, %	-	-2,34	-1,60	-15,45
Basic indicators of dynamics rows:				
absolute increase, days	-	-3	-5	-24
growth rate, %	-	-2,34	-3,91	-18,75

The operating cycle of the company demonstrates a steady decline. Overall, during the period under investigation, the operating cycle decreased almost by 20%, or by 24 days. This is evidently a positive change, since the reduction of the operating cycle indicates acceleration of production activity and sales.

Table 2.8

The dynamics of the operating cycle and the net revenue of PJSC «OBOLON» for 2015-2018

Item	Years			
	2015	2016	2017	2018
The duration of the operating cycle, days	128	125	123	104

absoluteincrease, days	-	-3	-2	-19
growthrate, %	-	-2,34	-1,60	-15,45
Netrevenue, thous UAH	4441246	4310214	4963232	5078764
absoluteincrease, thous UAH	-	-131032	653018	115532
growthrate, %	-	-2,95	15,15	2,33

However, on the other hand, such a reduction, given the financial situation of PJSC «OBOLON», may indicate a decrease in the volume of activity of the enterprise as a whole. Therefore, it is necessary to compare the dynamics of the duration of the operating cycle with other financial indicators of the activity of PJSC «OBOLON».

Comparison of the dynamics of the operating cycle and net revenues over 2015-2018 is presented in Table 2.8.

Obviously, the reduction of the operating cycle did not result in the same growth in net revenue. This is explained by the fact that the profits generated by the optimization of the turnover of inventories and receivables only partly overlapped the significant increase in the cost and cost of production and sales.

Comparison of the dynamics operating cycle and current assets during the years 2015-2018 are presented in Table 2.9.

Table 2.9

**The dynamics of the operating cycle and the current assets of PJSC
«OBOLON» for 2015-2018**

Item	Years			
	2015	2016	2017	2018
The duration of the operating cycle, days	128	125	123	104
absoluteincrease, days	-	-3	-2	-19
growthrate, %	-	-2,34	-1,60	-15,45
Current assets, thous UAH	1367535	1190125	1664771	1105944
absoluteincrease, thous UAH	-	-177410	474646	-558827
growthrate, %	-	-12,97	39,88	-33,57

Current assets show a jump-free trend and do not show any dependence on the reduction of the operating cycle. The increase in the number of receivables in almost all

the articles resulted in a significant increase in their volumes for 2017. At the same time, inventory volumes were reduced, volumes and production process were optimized, resulting in an increase in net revenue. Since the growth of net revenue was much faster than the growth of receivables, this, taking into account the reduction of inventories, led to a reduction in the operating cycle at the same time as an increase in the total volume of current assets.

So, if the net revenue due to the reduction in the duration of the operating cycle in general during the period under investigation increased by 30%, then current assets in 2018 reduced by almost 20%.

Obviously, the reduction of the operating cycle in 2016 was due to the simultaneous reduction of current assets and net revenue. Significant growth in current assets and net revenue also led to a reduction in the operating cycle in the next year, with the slowdown in the operating cycle was almost the same as the last year. However, the rapid reduction in the duration of the operating cycle by more than 15% was due to a simultaneous increase in net revenue and reductions in current assets compared to previous periods. Comparison of the dynamics of the operating cycle and assets of the company during 2015-2018 is presented in the Table 2.10.

Assets show a different trend. After rising with a declining pace, in 2018, the total assets declined. Moreover, the rate of decline in current assets is three times higher than the rate of decline in all assets, which means that the amount of non-current assets in 2018 increased by about 20%.

Table 2.10

The dynamics of the operating cycle and the assets of PJSC «OBOLON» for 2015-2018

Item	Years			
	2015	2016	2017	2018
The duration of the operating cycle, days	128	125	123	104
absolute increase, days	-	-3	-2	-19
growth rate, %	-	-2,34	-1,60	-15,45
Assets, thous UAH	5917730	6664804	6881460	6110149
absolute increase, thous UAH	-	747074	216656	-771311

growthrate, %	-	12,62	3,25	-11,21
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Therefore, this trend is due to changes in the volumes of non-current assets, namely fixed assets. So, possibly, with the reduction of the operating cycle in 2015, the company was able to reduce the required amount of fixed assets, after which the expansion of activity continued at a less rapid pace. In addition, there was a significant depreciation of fixed assets. In 2016, the volume of net sales declined, but the management updated the fixed assets by acquiring new ones, due to which the volume of non-current assets increased by 747,074 thousand UAH. Comparison of the dynamics of the operating cycle and equity of the company during 2015-2018 is presented in Table 2.11.

During the period under review, equity increased by a total of 7% after a significant decline in 2018 due to uncovered losses of more than a third of equity. The uncovered loss was maximum in 2016, which would have led to a decrease in equity, but at the expense of capital surplus it increased by 352,151 thousand UAH.

Perhaps, while maintaining the tendency of reducing the operating cycle and simultaneously increasing the volume of activity, an enterprise can get rid of uncovered losses at the expense of greater release of funds and re-gain profits from its own activities.

Table 2.11

The dynamics of the operating cycle and the equity of PJSC «OBOLON» for 2015-2018

Item	Years			
	2015	2016	2017	2018
The duration of the operating cycle, days	128	125	123	104
absolute increase, days	-	-3	-2	-19
growthrate, %	-	-2,34	-1,60	-15,45
Equity, thous UAH	1966089	2318240	2495482	2082548
absolute increase, thous UAH	-	352151	177242	-412934
growthrate, %	-	17,91	7,65	-16,55

Comparison of the dynamics of the operating cycle and the financial cycle of the enterprise during 2015-2018 years is presented in Table 2.12. Obviously, the financial cycle as a whole shows a positive trend during the period under study. After an increase of 8 days in 2016-2017, the financial cycle decreased more than twice compared with the beginning of the period, which is undoubtedly a beneficial factor for the company's operations.

Table 2.12

**The dynamics of the operating cycle and the financial cycle of PJSC
«OBOLON» for 2015-2018**

Item	Years			
	2015	2016	2017	2018
The duration of the operating cycle, days	128	125	123	104
absolute increase, days	-	-3	-2	-19
growth rate, %	-	-2,34	-1,60	-15,45
The duration of the financial cycle, days	11	14	19	6
absolute increase, thous UAH	-	3	5	-13
growth rate, %	-	27,27	35,71	-68,42

The reduction of the financial cycle took place despite the reduction of the payables turnover period for 19 days as a whole for the period. That is, the reduction of the operating cycle at a faster pace than the reduction in the payables turnover period and led to a positive trend of shortening the duration of the financial cycle. So, if in 2014 the net revenue was received 11 days after the date when it was necessary to pay off the debt to the suppliers and other contractors, in 2018 this gap was already 6 days.

The reduction of the payables turnover period indicates that the contractors have introduced a tighter credit policy, respectively, PJSC «OBOLON» should repay the payables faster. Due to the fact that the operating cycle is longer than the payables turnover period, money from operating activities does not arrive on time, resulting in liquidity breaks, and the company should attract funds from other additional sources.

Therefore, OBOLON PJSC needs to improve the management of payables and optimize its volume.

The comparison of the dynamics of various performance indicators of PJSC «OBOLON» is clearly depicted in Figure 2.1. It is obvious that during the investigated period almost all indicators show a leap-like tendency. A similar trend is demonstrated by equity and company assets - growth for 2015-2017 and falling in 2018.

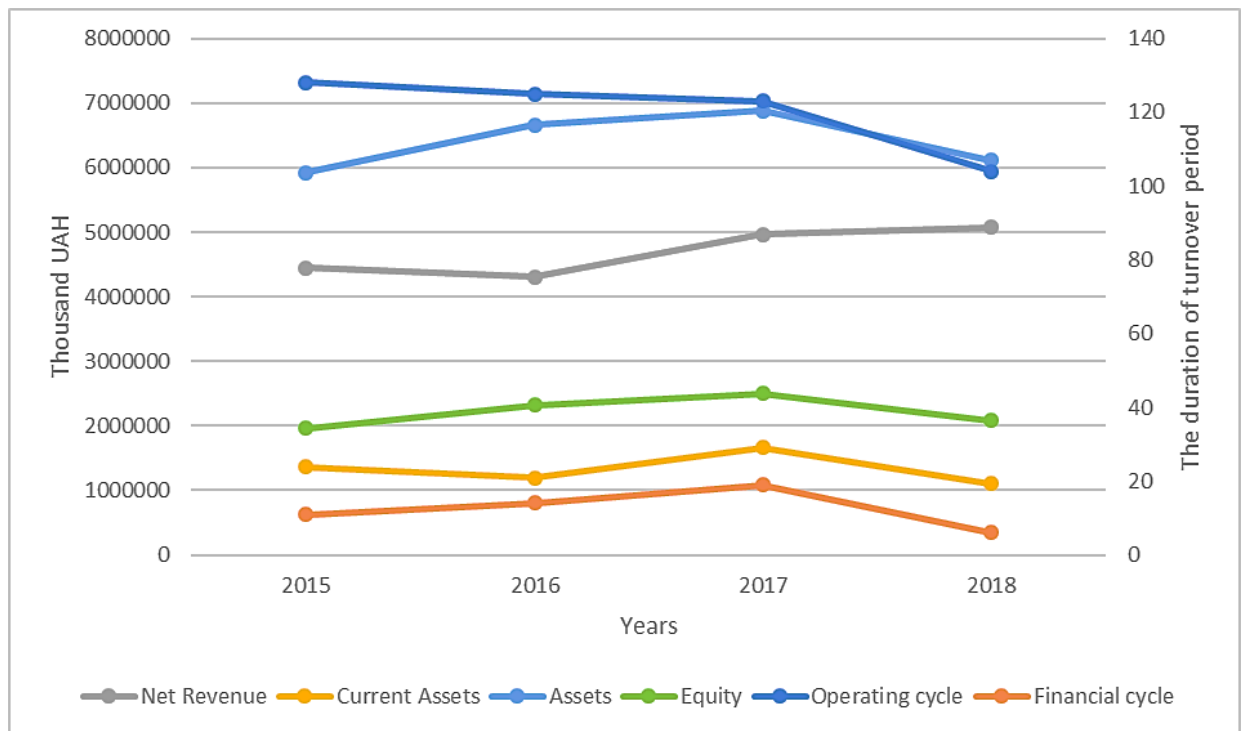


Figure 2.1. Dynamics of the main financial indicators of PJSC «OBOLON»

The similar trend is also shown by the financial cycle and current assets. But current assets fall in 2016, which indicates a reduction in the volume of activity of the enterprise.

The reduction of activities is accompanied by a reduction in net revenues, as well as a reduction in the duration of the operating cycle throughout the period. Net revenue is the only financial indicator that increased in 2018, despite lowering all other indicators.

Consequently, we can draw the following conclusion: the volume of enterprise activity is gradually decreasing in the last years of the investigated period. As a result of

the growth in net revenue, the decrease in volumes of non-current assets and the slowdown in the payables turnover period, the enterprise begins to receive uncovered losses that are partially overlapped by the release of funds from the acceleration of the operating cycle. But, because it was not enough, the company had to revalue its own capital, which increased to 2017. At the moment, the company has a positive tendency to reduce the operating cycle, and therefore, first of all, management needs to optimize the policy of management of accounts payable and, if possible, expand the scope of the enterprise by finding new markets.

2.3. Assessment of the efficiency enterprise operating cycle the management and influence the main factors on it

In order to evaluate the effectiveness of operating cycle management, it is necessary to examine the organization of management of its constituent elements - current assets, namely inventories and accounts receivable. After all, they reflect the specifics and features of the operating cycle, as well as determine its duration.

The assessment of the effectiveness of management should start with the indicators of business activity, namely - the inventory turnover ratio and accounts receivable ratio. The dynamics of these indicators is presented in the Table 2.13.

Table 2.13

Dynamics of inventory turnover ratio and accounts receivable ratio of PJSC «OBOLON» for 2015-2018

Item	Years			
	2015	2016	2017	2018
Inventoryturnoverratio	3,52	3,55	4,37	5,84
absolute growth	-	0,03	0,82	1,47
growth rate, %	-	0,91	23,12	33,68
Turnoverratioofaccountsreceivableforgoodsandservices	24,56	21,98	21,23	20,25
absolute growth	-	-2,58	-0,75	-0,58
growth rate, %	-	-10,50	-3,41	-4,62
Turnoverratioofreceivableinpaymentsfortheadvancespaid	68,56	145,85	114,17	71,93
absolute growth	-	77,29	-	-

			31,68	42,24
growthrate, %	-	112,73	-21,72	-36,40
Turnover ratio of receivable in payments to budget	87,43	99,91	89,63	95,30
absolute growth	-	12,48	-10,28	5,67
growthrate, %	-	14,27	-10,29	6,33
Turnover ratio of receivable in payments to budget including income tax	113,52	217,39	537,70	751,19
absolute growth	-	103,87	320,31	213,49
growthrate, %	-	91,50	147,34	39,70
Turnover ratio of other current accounts receivable	415,42	438,36	22,53	23,04
absolute growth	-	22,94	-415,83	0,51
growthrate, %	-	5,52	-94,86	2,26

As a positive change is the tendency to increase the indicator, the most favorable is the change in the turnover ratio of receivable in payments to budget including income tax, which has grown more than 7 times. Also, turnover ratio of receivable in payments to budget and turnover ratio of receivable in payments for the advances paid was accelerated. As for other components of receivables, their turnover ratios have been reduced. So, if the receivables for goods and services turned 24 times a year in 2014, already in 2018, the number of revolutions was reduced to 20. In general, almost all turnover rates for components of receivables showed a leap-like tendency.

Table 2.14

Dynamics inventory turnover periods and accounts receivable turnover periods of PJSC «OBOLON» for 2015-2018

Item	Years			
	2015	2016	2017	2018
The duration of inventory turnover, days	102	101	82	62
absolute increase, days	-	-1	-19	-21
growthrate, %	-	-0,90	-18,78	-25,19
The period of turnover of accounts receivable for goods and services, days	15	16	17	18
absolute increase, days	-	2	1	1

growthrate, %	-	11,75	3,51	4,86
Theperiodofturnoverofaccountsreceivablefor payments, days	5	2	3	5
absoluteincrease, days	-	-3	1	2
growthrate, %	-	-52,99	27,75	58,72
Theperiodofturnoverofaccountsreceivabletobudget, days	4	4	4	4
absoluteincrease, days	-	-	-	-
growthrate, %	-	-	-	-
Theperiodofturnoverofaccountsreceivabletobudgetincludingincometax, days	3	2	1	1
absoluteincrease, days	-	-2	-1	-
growthrate, %	-	-47,78	-50	-
Theperiodofturnoverofothercurrentaccountsreceivable, days	1	1	16	16
absoluteincrease, days	-	0	15	0
growthrate, %	-	-5,23	1845,57	-2,21

Regarding the turnover ratios of inventories, they show a steady upward trend, albeit insignificant. So, if in 2014 the stocks completely passed the production cycle 3.52 times a year, then in 2018 this value increased by 1.66 times.

The next indicator of evaluating the effectiveness of management is the inventory turnover period and accounts receivable turnover period. The dynamics of these indicators is presented in the Table 2.14.

Despite relatively insignificant changes in the rate of turnover of stocks, the period of stock turnover was reduced most - for 40 days in general from 2015 to 2018. At the same time, the period of turnover of receivables for goods and services increased for 3 days.

Despite relatively insignificant changes in the rate of turnover of stocks, the period of stock turnover was reduced most - for 40 days in general from 2015 to 2018. At the same time, the period of turnover of receivables for goods and services increased for 3 days.

The period of turnover of accounts receivable for payments has not changed for 4 years, but during the investigated period there were minor changes. The same is the situation with regard to the period of turnover of accounts receivable to budget. Significantly slowed down the turnover of other current receivables - the period of turnover increased 16 times. The only component of receivables, the period of which

has been reduced, is the accounts receivable to budget including income tax, which completely revolved in 3 days in 2015, and in 2018 already started to make full turns every day.

In terms of turnover ratios, there are indicators of profitability of inventories and receivables, calculated in the Table 2.15. Unfortunately, during the investigated period, the maximum profitability of stocks and receivables was observed in 2015.

Since the operating activities of the company were unprofitable in 2016 and 2018, the calculation of profitability is not possible in these periods. So, for comparison, we have only 2015 and 2017, the dynamics of which are negative. In general, the profitability of inventories has decreased threefold, and the profitability of receivables - more than 5 times. So, if in 2015 1 UAH of inventories generated 0.18 UAH of operating profit, and receivables of 0.33 UAH more - 0.51 UAH, then in 2017 operating profit was only 0.06 UAH and 0.08 UAH per 1 UAH of inventories and accounts receivable, respectively.

Table 2.15

**Dynamics profitability of inventories and accounts receivable of PJSC
«OBOLON» for 2015-2018**

Item	Years			
	2015	2016	2017	2018
Profitability of inventories, %	18,11	-	6,06	-
absolute increase to base period	-	-	-12,05	-
Profitability of accounts receivable, %	51,86	-	8,95	-
absolute increase to base period	-	-	-42,91	-

Via the DuPont Cascade model, it is possible to track the changes in the profitability of inventories and receivables in 2015-2018. Calculations based on the modified model DuPont Cascade are presented in Table 2.16.

Table 2.16

A modified DuPont Cascade model

Item	Years			
	2015	2016	2017	2018

Profitability of inventories, %	18,11	-	6,06	-
Change in inventories profitability by:				
profitability of production costs, %	-	-	-16,45	-
inventories turnover ratio, %	-	-	4,40	-
Profitability of accounts receivable, %	51,86	-	8,95	-
Change in receivables profitability by				
return on sales, %	-	-	-37,45	-
turnover of receivables, %	-	-	-5,46	-

Obviously, the profitability of inventories has changed to a greater extent due to changes in the profitability of production costs. So, if the change in the profitability of production costs in general provoked a change in profitability of inventories by almost 17%, then the change in the inventory's turnover ratio - by 4%. In the profitability of accounts receivable, the situation is similar, but the return on sales was twice as high as the profitability of production costs.

At the same time, the change in the profitability of production costs and return on sales in both indicators led to a significant reduction in the profitability of these indicators, while the inventories turnover ratio led to a positive change.

The next step in the estimation is to calculate the extent to which inventories and receivables affect the duration of the operating cycle by determining the ratio of the diversion of current assets to the data forms of the elements of the operating cycle. The corresponding calculations are presented in Table 2.17.

Table 2.17

**Dynamics of diversion of current assets in inventories and accounts
receivable of PJSC «OBOLON» for 2015-2018**

Item	Years			
	2015	2016	2017	2018
The diversion ratio of current assets in inventories	0,71	0,74	0,45	0,65
absolute increase	-	0,03	-0,29	0,20
growth rate, %	-	4,10	-39,15	44,33
The diversion ratio of current assets in accounts receivable	0,22	0,21	0,51	0,31
absolute increase	-	-0,01	0,30	-0,21

growthrate, %	-	-3,61	139,46	-40,12
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According to the obtained values, the change in the forms of cash invested in inventories takes much of the duration of the operating cycle rather than the modification of funds invested in accounts receivable. At the same time, during 2015-2016 there was a tendency to increase the weight of inventories and decrease the significance of accounts receivable. This was a positive trend, as it showed that most of the manufactured products are sold without lending to customers. Nevertheless, in the next period, the weight of receivables significantly increased. At the end of the investigated period, most of the current assets were invested in inventories, and almost half of this volume - in receivables.

Reducing inventories, increasing their turnover ratio leads to a decrease in the duration of the operating cycle. And the reduction of the duration of the operating cycle - to release funds that are involved in financing production activities. The amounts of funds released due to the reduction of the duration of the operating cycle are presented in Table 2.18. The largest amount of funds released is observed in 2018, when the duration of the operating cycle as a whole was reduced by 19 days, and the inventories turnover period - by 20 days. The least amount of funds was released during 2017, when the duration of the operating cycle was reduced by only 2 days, due to the growth of the accounts receivable turnover period for 17 days, as compared with the reduction of the inventories turnover period for 19 days.

Table 2.18

The release of funds due to shortening operating cycle for 2015-2018

Item	Years			
	2016/2015	2017/2016	2018/2017	2018/2015
Freed funds due to changes in inventory turnover period, thous UAH	11972,82	261948,36	282153,56	564307,11
Freed funds turnover period due to changes in accounts receivable, thous UAH	23945,63	-234374,84	-42323,03	253938,20

Freed funds due to changes in the duration of the operating cycle, thousand UAH	37010,40	23945,63	261948,36	338584,27
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On the whole, there is a positive trend, as there was a significant reduction in funds during the period, especially given that in 2017-2018 part of the funds raised in the accounts receivable was increased in comparison with the previous periods. Therefore, in 2017, 35.30% less than in 2016, and in 2018 - almost 10 times more than in 2017 and 7 times more than in the beginning of the investigated period released funds. The fact of the reduction of the operating cycle and the release of funds is positive, since these funds can be invested either in a new operating cycle or in investment projects developed by the enterprise, which have a certain social or economic effect.

Given the importance of financing the operating cycle, it is necessary to assess the dynamics of net working capital of PJSC «OBOLON» as an integral part of assessing the effectiveness of operating cycle management. Necessary calculations performed and their results are presented in Table 2.19.

During the investigated period, net working capital of the enterprise was negative and demonstrated a leap-like trend of change. This means that the company is not able to pay its short-term financial obligations at the expense of current assets. However, during the period, net working capital of the company has increased by more than half, therefore the tendency of changes is positive. This indicates an increase in the liquidity of the entity and increase its creditworthiness. At the same time, the financial cycle of the company indicates the existence of liquidity breaks, which means that the company from different sources should first accumulate the above amounts, while later they will be released.

Table 2.19

Dynamics of net working capital for 2015-2018

Item	Years			
	2015	2016	2017	2018
Net working capital, thous UAH	-2326567	-2860145	-894850	-1591719
absolute increase, thous UAH	-	-533578	1965295	-696869

growthrate, %	-	22,93	-68,71	77,88
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The last indicator of evaluating the effectiveness of operating cycle management is the amount of net revenue and the amount of gross profit generated in one day of the operating cycle, which are presented in Table 2.20. From Table 2.20 it can be seen that the reduction of the operating cycle positively affects the amount of net revenues from 2016 to 2018. Thus, for the duration of the operating cycle in 159 days, each day of the operating cycle generated 34697,23 thousand UAH, and for a 104-day period – 48834,27 thousand UAH, which is 40.74% more. At the same time, a slight reduction in the operating cycle in 2016 did not lead to an increase in the generation of net revenues in 1 dy, and almost did not affect the indicator.

This tendency is because in 2017 there is a significant decline in production, which, probably, causes such a decrease in the duration of the operating cycle. The amount of gross profit generated on day 1 of the operating cycle demonstrates a completely different trend during the year under study and shows that the reduction of the operating cycle has a nonlinear effect on gross profit from 2015 to 2018. So, in the 128-day operating cycle, each day of the operating cycle cycle generated 10543,31 thousand UAH, and for a duration of 104 days – 7561,47 thousand UAH, which is 28.28% less. At the same time, the gross profit decreased by almost 42% over the relevant period.

Table 2.20

**Dynamics of net revenue and gross profit generated per day operating cycle
for 2015-2018**

Item	Years			
	2015	2016	2017	2018
Netrevenuegeneratedperdayoperatingcycle, thous UAH	34697,23	34481,71	40351,48	48834,27
absoluteincrease, thous UAH	-	-215,52	5869,77	8482,79
growthrate, %	-	-0,62	17,02	21,02
Grossprofitgeneratedperdayoperatingcycle, thous UAH	10543,31	8155,31	11366,37	7561,47
absoluteincrease, thous UAH	-	-2388,00	3211,06	-3804,90

growthrate, %	-	-22,65	39,37	-33,48
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Interestingly, in 2018, net revenue increased compared to the beginning of the period, while gross profit decreased. This explains the difference in the results obtained. Obviously, the length of the operating cycle has a greater impact on net revenue than on gross profit. To explain the tendency is that the rise in cost and production occurred at a faster pace than accelerating the duration of the operating cycle. A decline in production in 2018 reflected this trend most clearly.

As a whole, management of the operating cycle at PJSC «OBOLON» can be considered effective on most indicators. The duration of the operating cycle and the periods of its component turnover constantly show a decrease, which is a positive phenomenon. But the same decline is also demonstrated in recent years, which leads to a significant deterioration in financial performance, despite the fact that management is directly managed by production. In addition, the terms of lending to the enterprise from contractors deteriorated, which also requires intervention of management.

Therefore, PJSC «OBOLON» needs to revise its planned activities, continue to pursue an effective credit policy and a tendency to reduce the duration of the operating cycle, as well as optimize the policy of management of accounts payable in order to achieve positive financial results.

CHAPTER 3

THE WAYS OF THE CURRENT STATE OBOLON JSC OPERATING CYCLE MANAGEMENT IMPROVEMENT

In order to improve the operating cycle management process, the management of the enterprise should first of all deepen the analysis of the stages of the operating cycle management process.

In view of the process of operating cycle management, we also agree with the main functions of economic analysis: 1) evaluation - determining the conformity of the economic system with its target parameters of functioning and potential opportunities; 2) diagnostic - establishment of cause and effect changes in the economic system in quantitative and qualitative measurement, as well as the influence of factors on these changes and development; 3) search - identifying unused and potential reserves for improving the performance of economic entities.

We propose not to limit the analysis of the operating cycle by analyzing the duration of the operating cycle and its components. In our opinion, the analysis should be deepened in the following areas:

- 1) Determining ways to reduce the operating cycle.
- 2) Determining the optimal duration of the operating cycle.

Determining ways to reduce the operating cycle involves optimizing inventories and receivables. Optimization of production and inventory is the definition of the optimal quantity for each type, which will allow the company to quickly use or sell them and not create illiquid stocks in the warehouse of the enterprise.

At the stage of inventory creation, we suggest next ways for accelerating inventories turnover:

- to implement economically sound stock standards;
- to approach suppliers of raw materials, semi-finished products, completing products to consumers;
- to extensive use of long-lasting direct links;

- to expand warehouse systems of logistics, as well as wholesale trade in materials and equipment;
- to mechanize and automate loading and unloading works in warehouses.

At the stage of work in progress:

- to accelerate scientific and technological progress (introduction of progressive technology and technology, especially non-waste, rotor lines, chemicalisation of production);
- to develop standardization, unification, typing;
- to improve the forms of organization of industrial production, apply cheaper structural materials;
- to improve the systems of economic stimulation of economical use of raw materials and fuel and energy resources;
- to increase the proportion of products in high demand.

The main task of optimizing receivables in the context of operating cycle management is, first of all, to determine the amount and timing of commercial loans, in which a significant increase in the duration of receivables will not occur. It is necessary to separate accounts receivable into commodity and non-commodity. We propose the following recommendations that will enable the OBOLON PJSC to organize sound receivables management:

- constant monitoring of payments for overdue (or delayed) debt;
- monitoring of the ratio of receivables and payables to increase current liquidity;
- to apply discounts for early payment by the counterparty;
- to attract new buyers (customers) to reduce the risk of non-payment by the monopoly customer;
- to demand or extinguish amounts of debt in a timely manner;
- to apply bill forms of settlement and offsetting to reduce amounts of debt.

This will allow OBOLON PJSC to more efficiently make payments for products or services and make better use of financial resources.

The determination of the optimal duration of the operating cycle should be based on the found optimal indicators of the level of inventories and amounts of receivables.

Analysis is important in preparing information for planning, assessing the quality and validity of targets, and monitoring plans. Planning begins and ends with an analysis of the results of the enterprise. The analysis allows to increase the level of planning, to make it scientifically sound.

From the point of view of operating cycle management, the main task of planning is to reduce the duration of the operating cycle, to determine ways to achieve the best end results. Planning can be roughly divided into two types: short-term (operational) and long-term (strategic).

Strategic planning is an integral part of operating cycle management, because it is through planning it can be determined which areas and components need to be optimized in the first place to improve the financial performance of the enterprise in the future. Strategic planning is based on projected estimates, because only the forecast allows to carry out to a great extent such an important and necessary planning function as a prediction based on a scientific analysis of reality and predicted trends and processes in the future.

Forecasting is an organic part of the planning process and, as such, it should be seen as the totality of pre-planning research that aims to identify those tasks that need to be addressed in the next period, and the best ways and means to address them.

So, using the extrapolation method and the metric planning over the turnover period, we performed planning for 2019 and forecasting for of some financial performance of OBOLON PJSC, the results of which are presented in Table 3.1.

Net revenue has increased by an average of 7% per year over the last five years, so we are setting this target for 2019. Taking into account inflation, we increase the figure by 3% for the 2020 forecast. Thus, net revenue will increase by 17% over two years.

There are such ways to achieve planned profit: reducing fixed and variable costs, implementing a new marketing policy, attracting new investment projects from sponsors or owners, and more.

First of all, the cost should be adjusted to 70% of the net revenue, as it was in 2017, the last when the company had a positive financial result. Since the prime cost of

sold products is an independent value in terms of setting inventory prices, we further propose to encourage a cost reduction of approximately 3% of net revenue annually until the indicator returns to a baseline of 55-60%. As a result, gross profit will double as planned in 2019 and continue its gradual growth in 2020, showing a 21% increase.

Table 3.1

Plan and forecast of financial results of OBOLON PJSC in 2019-2022

Item, thous UAH	Years			Growth	
	2018	2019 (Plan)	2020 (Forecast)	2019/2018	2020/2019
Net Revenue	5078764	5454872	6000360	1,07	1,10
Prime cost of sold products	4292370	3818411	4020241	-0,89	1,05
Gross profit	786393	1636462	1980119	2,08	1,21
Other operating income	85301	71705	80415	0,95	1,15
Administrative expenses	296579	300018	330020	1,01	1,10
Selling expenses	1111347	1145523	1260076	1,03	1,10
Other operating expenses	29144	29144	20173	1,00	0,69
Financial results of operational activity	-128200	233481	450265	-	1,92
Other financial income	4259	86187	29353	20,24	0,34
Other income	-23505	0	0	-	-
Financial expenses	275269	295095	203500	1,07	0,69
Losses from participation in capital	90188	910	1001	0,01	1,10
Other expenses	6725	6725	6725	1,00	1,00
Financial results before tax	-325802	16938	268392	-	15,84
Income tax expense (revenue)	-39618	3388	53678	-	15,84
Net financial result	-365420	13551	214713	-	15,84

Administrative and selling expenses are accepted as fixed costs and are therefore planned and projected to average over the last years. Other operating income is calculated using the extrapolation method, taking into account the values over the last 5 years. Other operating expenses have a steep tendency, but for several years there were a constant value, so the planned indicator for 2019 is set as it was at 2018, and for 2020 it is projected by the extrapolation method.

According to the plan, the operating activity of the enterprise should become profitable already in 2019, and in 2020 the indicator should increase almost twice compared to the previous year.

Other financial income and financial expenses are planned and projected using the extrapolation method. We cannot forecast or plan other income as it has not been stable over the last five years and has not shown correlation with other financial indicators. With this in mind, we have taken into account our plan that there will be no other income for the company in 2019 and 2020. For other expenses, we see a steady downward trend in this indicator. As this figure has reached a minimum in 2018, we leave that value as a target for the 2019 plan and a 2020 forecast. Losses from participation in capital have shown an incredible jump in 2018. Therefore, for 2019, we forecast losses from participation in capital at the average level observed during 2014-2017. We expect a 10% increase in this value for 2020.

Thus, according to our plan already in 2019, the company will receive a small positive financial result. However, next year the financial result will be increased by 15 times. The net financial result is projected to exceed even 2017. This indicates a certain cyclicity, which has been reflected in the financial results of the enterprise in recent years. Thus, the company receives significant losses, management makes changes in the management of the enterprise, after which the financial results improve until the next crisis.

But in order to calculate the optimum operating cycle duration required to achieve such indicators, we need to plan for 2019 and forecast the balance of OBOLON PJSC for 2020. So, we plan the assets for 2019 and forecast the assets for 2020, results of which you can see in Table 3.2.

Intangible assets and fixed assets were calculated as the difference between the initial value and depreciation. Depreciation and amortization to the initial value remained unchanged for the forecast period and the initial value increased by the same amount as in the previous period. Other indicators of non-current assets were projected by extrapolation.

The planned values for current assets were calculated using the indicators of inventories turnover, accounts receivable turnover, cash and cash equivalents turnover and other current assets turnover. The calculation was based on the turnover figures for

2018 and the planned net revenue for all but the inventories. The prime cost of sold products for 2019 and 2020 was used to calculate planned inventories.

Table 3.2

Planned and forecasted assets of OBOLON PJSC for 2019-2020

Assets, thous UAH	On 31.12.2018	On 31.12.2019	On 31.12.2020
1. Fixed assets	4867736	4904991	4942531
initial value	11940760	12032148	12124236
depreciation	-7073024	-7127157	-7181705
2. Intangible assets	6857	6879	6901
initial value	43396	43533	43671
amortization	-36539	-36655	36771
3. Construction in Progress	20201	49686	39356
4. Others financial investments	109397	102286	152597
5. The others long term assets	14	14	15
I. Total part non-current assets	5004205	5063856	5141400
6. Inventories	719638	653838	688397
7. Accounts receivable for goods and services	203818	269376	296314
8. Accounts receivable in payments for the advances paid	89746	75836	83419
to budget	35310	57239	62963
9. Other current accounts receivable	9897	236757	260432
10. Cash and cash equivalents	16876	31524	37244
11. Other Current Assets	30659	25302	27832
II. Total Current Assets	1105944	1349872	1456601
Total Assets	6110149	6413728	6598001

As we can see, total assets will increase by 8%, and at a higher rate (5%) for 2019 compared to 2020. This trend is achieved due to a significant increase in current assets in 2019 (by 22%). Other current accounts receivable will increase the most, and the number of inventories will decrease. Even though inventories are growing in 2020, they will not reach inventories in 2018.

In our opinion, this indicates that there is an accumulation of inventories that the company will get rid of by increasing the number of commodity loans to buyers. With the constant increase in the cost of production, the decrease in the purchase of raw materials, an increase in all types of receivables is a rational way to optimize operating

activities. It can be assumed that such measures are being taken to expand the customer base and attract new customers by relaxing credit policies.

Planned liabilities for 2019 and forecasted liabilities for 2020 are shown in Table 3.3.

Table 3.3

Planned and forecasted liabilities of OBOLON PJSC for 2019-2020

Liabilities, thous UAH	On 31.12.2018	On 31.12.2019	On 31.12.2020
1. Registered capital	73144	73144	73144
2. Capital in surplus	2763289	3125512	3292610
3. Additional capital	8353	8353	8353
5. Reserve capital	-2356	-2356	0
6. Retained earnings	-746302	-746302	-737922
7. Called-up capital	-13580	-13580	-13580
I. Total part Owner's Equity	2082548	2444771	2622605
8. Deferred tax liabilities	542401	790917	759130
9. Long-term bank loans	487124	735640	703853
10. Others long-term liabilities	267953	516469	484682
II. Total part Long-term liabilities	1297478	2043026	1947666
11. Short term bank loans	1419600	817330	860532
12. Current payables for goods and services	1021281	823535	867065
In payments to budget	91167	107400	113076
In payment of insurance	5926	5022	5287
In payment of salary	44447	42645	44899
In receipt of advances	64560	49576	52197
In payments with participants	1876	1669	1757
13. Current reserves	11462	9682	10194
14. Other short-term liabilities	69804	69072	72723
III. Total part Short-term liabilities	2730123	1925931	2027730
Total Liabilities (and Equity)	6110149	6413728	6598001

Almost all equity indicators remained unchanged in the planned and forecasted periods. In 2019, the company should have a positive financial result, but in our opinion, it is not enough to fund reserve capital and retained earnings. However, in 2020, the financial result will be sufficient to allocate 5% to equity improvements. The one percent will be spent to cover negative reserve capital and the remainder will be

used as retained earnings. We calculated the capital in surplus for both periods by extrapolation.

Short-term liabilities were calculated on the basis of its turnover indicators. Thus, due to the decrease in absolute cost, short-term bank loans, current reserves and current payables of the enterprise will also decrease in the planned period. Thus, short-term bank loans will be reduced by almost half, and current payables for goods and services will be reduced by 20%. For all other articles, except in payments to the budget, the accounts payable will also be reduced by 10-15% in the planned period. In the forecasted 2020 period, there will be an increase in the number of accounts payable items, other current liabilities and short-term bank loans by 5%, but even through increasing values of 2018 will not be reached.

Such a significant reduction in short-term liabilities can be explained by a decrease in the number of inventories that will be purchased and, consequently, a decrease in the enterprise's current working capital requirements. Instead, sales will not be reduced due to the use of available inventory, optimized production, and the introduction of new technologies. We can clearly follow the tendency of the company management to reduce the cost level and increase sales in any way.

Moreover, even with a 30% reduction in 2019 in the number of short-term liabilities, they are quite sufficient to finance current assets of the enterprise. The non-current assets of the company, in turn, will be financed by about 40-45% at the expense of equity and 12% at the expense of net working capital. Therefore, since it is necessary to attract another 42-47% of their value to finance non-current assets, the company will have to increase the number of long-term liabilities.

We have evenly divided the increase in long-term liabilities across all articles, resulting in more than double in 2019. But in 2020, the enterprise will have a reduced need for amount of funds, so long-term commitments are projected to decrease by 5%.

According to the planning and forecast, we calculated the duration of the operating cycle, which should provide the necessary amount of revenue. So, the optimum duration of the operating cycle to achieve the planned results should be approximately 100 days. This is 4 days less than in 2018. This can be achieved by

optimizing the production process. According to the observed trends at the OBOLON PJSC, such an indicator will be achieved by accelerating the turnover of inventories. At present, inventories were the weakest place for business, since they were purchased in large quantities, long stored in warehouses. All this caused a lot of unjustified costs.

Instead, the duration of the operating cycle will allow us to generate 10% more net sales revenue per day on a yearly basis, which we calculated using our formula net sales revenue generated in one day of the operating cycle. In terms of gross profit, by reducing the operating cycle to 100 days, gross profit generated per day will double in 2019 and increased by 20% in 2020.

As the management of the OBOLON PJSC shows a tendency to increase the amount of cash, while reducing the operating cycle, we consider this measure inappropriate, since speeding up the turnover will provide the necessary amount of funds without accumulating them. After all, the acceleration of the turnover of circulating assets allows to release considerable sums and thus to increase the volume of production without additional financial resources, and to use the released assets according to the needs of the enterprise.

The minimum required amounts of funds should be kept in bank accounts, and all their free balances should be converted into early repayment of received loans and invested in securities. Expenditure on special-purpose funds and reserves will need to focus on the development of repayment and prevention measures.

The last step in the improvement of the operating cycle management process is the control over the achievement of the planned indicators - the process carried out by the enterprise to verify the implementation of all management decisions in the field of financial activities in order to organize a financial strategy and prevent crises that could lead to bankruptcy of this enterprise.

Considering the main task of internal control, we agree that the control function includes accounting and analysis of information on the actual results of activities of all divisions of the organization, comparing them with the planned indicators, identifying deviations and analyzing the causes, developing measures to achieve this goal.

In this case, the control of the planned indicators can be carried out to a greater extent due to the financial control - the process of checking the financial and economic activities of the control object, which makes it possible to examine its actual financial status and to assess its compliance with certain established indicators and standards. Control is a means of establishing feedback, whereby the governing body (entity) can track the progress of the decisions taken. The financial control system implements the following functions:

- methodological, which consists in developing a system of performance indicators and forms of internal management reporting, developing a planning and accounting methodology;
- analytical function performs the analysis of deviations, identifying the reasons for deviations, making recommendations for making effective management decisions;
- control ensures the credibility of the credentials, which is achieved by timely monitoring of the achieved indicators, goals, objectives.

An effective financial control system provides diverse information flows across the enterprise, including feedback from the entity to the management system. Adequate and timely information about the actual state of the managed object and actual implementation of management decisions is made. Through the operation of the financial control system, feedback gives an idea of the state of the entire entity as it views each element not as a separate part but as part of a whole. This is a new level of assessment of the enterprise.

In this way, an in-depth analysis of the operating cycle management process, including inventory management and accounts receivable processes, will allow us to find the optimum amounts of these components of current assets and to introduce a more efficient credit policy.

To summarize, we can offer the company the following measures that will help to achieve the optimum operating cycle duration of 100 days:

- to improve the movement of goods and to normalize the placement of working capital;
- to fully and rhythmically implement business plans;

- to improve the organization of trade, to introduce progressive forms and methods of sale;
- to improve payments with suppliers and buyers;
- to accelerate cash flow by improving the collection of trading proceeds, strict limitation of cash balances;
- to minimize stocks of household materials, low value and fast-wearing items, inventory, overalls in stock, reduce reporting amounts, expenses of future periods;
- to avoid overdue receivables.

Establishing targets and finding ways to achieve them are the basis for the introduction of an effective financial control system, which aims to ensure the management of OBOLON PJSC with confidence that all elements of operating activities are aimed at achieving the planned results.

CONCLUSIONS AND PROPOSALS

No enterprise in a market economy can fully carry on business without constant control over the operating cycle. Therefore, the operating cycle management system is one of the important components of the overall financial management system of the enterprise, and is closely linked to other management systems in the enterprise.

Analyzing the different approaches to defining the essence of the term "operating cycle", the following definition was proposed: the operating cycle is a calendar period of time during which there is an interconnected flow of stocks and receivables through a consistent change in their forms due to the operation of the technological operations and the implementation of the finished product. It was also determined that the most important characteristic of the operating cycle is its duration, which is the time from the time the enterprise spends funds on the purchase of input stocks of tangible current assets to the receipt of money from debtors for their products.

Also, essential characteristics of the operating cycle were analyzed and proposed new ones such as ensuring the circulation of certain types of current assets, namely inventories and receivables, and the interrelatedness and sequence of technological operations and stages of the operating activity of the enterprise in the overall cycle of capital turnover from supply to product sales. Having analyzed the role of the operating cycle, we determined that most authors identify the roles of the operating cycle as one of the most important indicators of the efficiency of the use of current assets of the enterprise, namely stocks and receivables. In our turn, we suggested that since the operating cycle reflects the dynamic aspect of managing its own working capital, it can also serve as the basis for constructing a methodology for analyzing the reporting enterprise.

Analyzing the different views of scientists, was offered its own list of tasks of managing the operating cycle of the enterprise, and also proposed the distribution of management processes by stages of the operational cycle.

A new definition of the enterprise operating cycle management process was proposed: operating cycle management is an integral part of financial management, which consists in a set of management actions aimed at maximizing the efficiency of operating processes occurring at the enterprise.

In addition, the main and secondary indicators for assessing the effectiveness of the management of the operating cycle of the enterprise were determined and an available table was compiled with the division into main and secondary and partial.

Having analyzed the activities of OBOLON PJSC, we can conclude that there is a sufficient level of operating cycle management at the enterprise. Both negative and positive factors of influence on the activity of the enterprise were identified.

During the studied period, the duration of the operating cycle of the enterprise tended to decrease and reached its minimum value in 2017. OBOLON PJSC's operating cycle is affected by factors such as reduced accounts receivable, accelerated turnover, and reduced inventory turnover. At the same time, it was found that positive management of the operating cycle does not save the company from losses and reduction of its activities. Therefore, OBOLON PJSC should pay special attention to the policy of debt management, possible investment projects to intensify the production process, strengthen marketing policy etc.

The necessary financial indicators for 2019 have been planned, which will provide the company with a positive financial result. Financial indicators were also projected for 2020 to help the company grow and escape from the crisis. It has been determined that to achieve the above performance, the optimal operating cycle duration is 100 days.

To achieve the targets, practical measures were proposed to reduce the duration of inventories turnover period and accounts receivable turnover period. Types of planning were analyzed and a specific plan developed for the main financial indicators. We have considered and proposed ways to improve the analysis of the functioning of the financial control system. In sum, we have proposed specific actions that will reduce the operating cycle and allow it to achieve operating cycle optimum duration.

Therefore, managing the operating cycle of an enterprise is a complex process that always requires extensive study and continuous improvement.

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APPENDIXES

Main and secondary indicators for evaluating the effectiveness of operating cycle management

Main indicators	Secondary indicators
1. Inventory turnover ratio and accounts receivable turnover ratio as a whole and by component.	1. Modified Dupont-cascade model.
2. Inventory turnover period and accounts receivable turnover period as a whole and by component.	2. The diversion ratio of current assets in inventories and the diversion ratio of current assets in receivables.
3. Profitability of inventories and receivables.	3. Amount of working capital released due to changes in inventory turnaround time, accounts receivable and operating cycle
4. Net sales revenue and gross profit generated in one day of the operating cycle	4. Comparison of the net working capital with the minimum need for working capital

Desired direction for changes in indicators

Indicator	Desired direction for changes
Inventory turnover ratio and accounts receivable turnover ratio as a whole and by component.	↑
Inventory turnover period and accounts receivable turnover period as a whole and by component.	↓
Profitability of inventories and receivables.	↑
Modified Dupont-cascade model.	-
The diversion ratio of current assets in inventories and the diversion ratio of current assets in receivables.	↓
Amount of working capital released due to changes in inventory turnaround time, accounts receivable and operating cycle.	↑
Comparison of the net working capital with the minimum need for working capital.	→ 0
Net sales revenue and gross profit generated in one day of the operating cycle.	↑

Appendix C

Консолідований баланс (Звіт про фінансовий стан)						
Актив	Код рядка	На 31.12.2014	На 31.12.2015	На 31.12.2016	На 31.12.2017	На 31.12.2018
1	2	3	4	5	6	7
I. Необоротні активи						
Нематеріальні активи:	1000	13213	11434	9810	8337	6857
первісна вартість	1001	42632	43016	43114	43259	43396
накопичена амортизація	1002	29419	31582	33304	34922	36539
Незавершені капітальні інвестиції	1005	25007	11161	24363	48455	20201
Основні засоби:	1010	4755353	4508651	5421561	5141361	4867736
первісна вартість	1011	8895435	8976907	11765383	11850066	11940760
знос	1012	4140082	4468256	6343822	6708705	7073024
інші фінансові інвестиції	1035	18931	18931	18931	18522	109397
Інші необоротні активи	1090	0	18	14	14	14
Усього за розділом I	1095	4812504	4550195	5474679	5216689	5004205
II. Оборотні активи						
Запаси	1100	785367	973297	881787	750563	719638
Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	139106	222580	169695	297870	203818
Дебіторська заборгованість за розрахунками:	1130	105928	23627	35477	51466	89746
завиданими авансами						
з бюджетом	1135	54780	46810	39468	71280	35310
у тому числі з податку на прибуток	1136	49007	29241	10414	8047	5475
Інша поточна дебіторська заборгованість	1155	11314	10068	9597	430965	9897
Гроші та їх еквіваленти	1165	237703	85236	48394	46172	16876
Інші оборотні активи	1190	10035	5917	5707	16455	30659
Усього за розділом II	1195	1344233	1367535	1190125	1664771	1105944
III. Необоротні активи, утримувані для продажу, та групи вибуття	1200	0	0	0	0	0
Баланс	1300	6156737	5917730	6156737	5917730	5917730

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Пасив	Код рядка	На 31.12.201 4	На 31.12.2015	На 31.12.201 6	На 31.12.2017	На 31.12.201 8
1	2	3	4	5	6	7
I. Власний капітал						
Зареєстрований (пайовий) капітал	1400	73144	73144	73144	73144	73144
Капітал у дооцінках	1405	1903465	1900888	3129549	2945067	2763289
Додатковий капітал	1410	8353	8353	8353	8353	8353
Резервний капітал	1415	0	-1594	-116	546	-2356
Нерозподілений прибуток (непокритий збиток)	1420	708176	-1122	-879110	-518048	-746302
Вилучений капітал	1430	-13580	-13580	-13580	-13580	-13580
Усього за розділом I	1495	2679558	1966089	2318240	2495482	2082548
II. Довгострокові зобов'язання і забезпечення						
Відстрочені податкові зобов'язання	1500	354588	245516	474967	511172	542401
Довгострокові кредити банків	1510	831775	224978	432673	2037873	487124
Інші довгострокові зобов'язання	1515	46702	232400	329260	237082	267953
Довгострокові забезпечення	1520	9172	0	0	0	0
Усього за розділом II	1595	1242237	702894	1236900	2786127	1297478
III. Поточні зобов'язання і забезпечення						
Короткострокові кредити банків	1600	1258472	2144519	1993283	417962	1419600
затовари, роботи, послуги	1615	595360	724197	703976	830232	1021281
зарозрахунками з бюджетом	1620	82460	108228	119504	150294	91167
за у тому числі з податку на прибуток	1621	0	819	340	282	-858
зарозрахунками зі страхування	1625	7835	4174	4992	5364	5926
за розрахунками з оплати праці	1630	125353	51061	46415	51430	44447
за одержаними авансами	1635	103405	171413	82270	46900	64560
зарозрахунками з учасниками	1640	26465	1876	1876	1876	1876
Поточні забезпечення	1660	0	8647	9023	10306	11462
Інші поточні зобов'язання	1690	35592	34632	148325	85487	69804
Усього за розділом III	1695	2234942	3248747	3109664	1599851	2730123
IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття	1700	0	0	0	0	0
V. Чиста вартість активів недержавного пенсійного фонду	1800	0	0	0	0	0
Баланс	1900	6156737	5917730	6664804	6881460	6110149

Консолідований звіт про фінансові результати (Звіт про сукупний дохід)						
I. ФІНАНСОВІ РЕЗУЛЬТАТИ						
Стаття	Код рядка	На 31.12.2014	На 31.12.2015	На 31.12.2016	На 31.12.2017	На 31.12.2018
Чистий дохід від реалізації продукції (товарів, робіт, послуг)	2000	3858794	4441246	4310214	4963232	5078764
Собівартість реалізованої продукції (товарів, робіт, послуг)	2050	-2451112	-3091702	-3290800	-3565168	-4292370
Валовий: прибуток	2090	1407682	1349544	1019414	1398064	786393
Інші операційні доходи	2120	92983	64966	62589	88488	85 301
Адміністративні витрати	2130	-240709	-251839	-296579	-303955	-296579
Витрати на збут	2150	-1078952	-961504	-1111347	-675489	-1111347
Інші операційні витрати	2180	-96651	-41893	-29144	-20451	-29144
Фінансовий результат від операційної діяльності: прибуток	2190	84353	159274	0	49482	0
Фінансовий результат від операційної діяльності: збиток	2195	0	0	-234031	0	-128200
Інші фінансові доходи	2220	29361	27117	8604	97691	4259
Інші доходи	2240	0	0	0	430848	-23505
Фінансові витрати	2250	-249075	-410470	-463655	-314744	275269
Втрати від участі в капіталі	2255	(-1314)	(-884)	(-1060)	(- 381)	(-90188)
Інші витрати	2270	-621933	-587972	-222030	-42861	-6725
Фінансовий результат до оподаткування: прибуток	2290	0	0	0	220797	0
Фінансовий результат до оподаткування: збиток	2295	-755980	-811167	-910052	0	-325802
Витрати (дохід) з податку на прибуток	2300	129755	99292	24809	-44217	-39618
Чистий фінансовий результат: прибуток	2350	0	0	0	176580	0
Чистий фінансовий результат: збиток	2355	-626225	-711875	-885243	0	-365420

Continuation of App.C

II. СУКУПНИЙ ДОХІД						
Стаття	Код рядка	На 31.12.2014	На 31.12.2015	На 31.12.2016	На 31.12.2017	На 31.12.2018
Дооцінка (уцінка) необоротних активів	2400	1322685	0	1507214	0	0
Дооцінка (уцінка) фінансових інструментів	2405	0	0	0	0	0
Накопичені курсові різниці	2410	0	-1594	1478	662	-2 902
Інший сукупний дохід	2445	587	0	0	0	0
Інший сукупний дохід до оподаткування	2450	1323272	-1594	1508692	0	0
Податок на прибуток, пов'язаний з іншим сукупним доходом	2455	-238189	0	-271298	662	-2 902
Інший сукупний дохід після оподаткування	2460	1085083	-1594	1237394	0	0
Сукупний дохід (сума рядків 2350, 2355 та 2460)	2465	458858	-713469	352151	662	-2 902
III. ЕЛЕМЕНТИ ОПЕРАЦІЙНИХ ВИТРАТ						
Матеріальні затрати	2500	2292423	3218796	2807074	2960495	3 267 238
Витрати на оплату праці	2505	381633	375232	419131	448146	529 153
Відрахування на соціальні заходи	2510	135466	129591	89353	95052	113 058
Амортизація	2515	339084	368092	702113	451790	457 032
Інші операційні витрати	2520	645765	311403	709162	1107101	1 296 562
Разом	2550	3794371	4403114	4726833	5062584	5 663 043