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### Methodological aspects of efficiency increasing of enterprise's working capital management in modern conditions

Aspectos metodológicos del aumento de la eficiencia en la gestión del capital de trabajo de la empresa en el contexto contemporáneo

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#### **ABSTRACT:**

The article is devoted to modern aspects of the movement and use of machine-building enterprises' working capital detailed analysis due to their importance in the process of economic activity. The main directions of such an analysis, as well as a system of indicators used in the process of its implementation, are considered. An interpretation of indicators' changes and the changes' effectiveness evaluation in dynamics are given. It is emphasized that the analysis of changes in the structure of working capital largely depends on the industry and specialization of the enterprise. The analysis of the individual components' growth rates correlation of the working capital, which are the most favorable for the enterprise. Based on the study's results, a conclusion is drawn on the importance of a comprehensive analysis of working capital for increasing profits and profitability of an enterprise.

Keywords: enterprise's working capital, regulated working capital, inventories, trends in working assets changes, the working capital usage efficiency.

#### **RESUMEN:**

El artículo está dedicado a los aspectos modernos del movimiento y el uso del análisis detallado del capital de trabajo de empresas de fabricación de máquinas debido a su importancia en el proceso de la actividad económica. Se consideran las principales direcciones de un sistema de indicadores utilizados en el proceso de su implementación. Se da una interpretación de los cambios de estos indicadores y la evaluación de la efectividad de los cambios dinámicos. Se enfatiza que el análisis de los cambios en la estructura del capital de trabajo depende en gran medida de la industria y la especialización de la empresa. El análisis de la correlación de las tasas de crecimiento de los componentes individuales del capital de trabajo, que son las más favorables para la empresa. Con base en los resultados del estudio, se llega a una conclusión sobre la importancia de un análisis exhaustivo del capital de trabajo para aumentar las ganancias y la rentabilidad de una empresa.

Palabras clave: capital de trabajo de la empresa, capital de trabajo regulado, inventarios, eficiencia en el uso del capital de trabajo, tendencias en los cambios en los activos de trabajo.

### **1. Introduction**

In the conditions of the innovative development of machine-building production and limited financial resources, enterprises require a particularly careful attitude to the resources used, an analysis of their prospective needs and an increase in the use efficiency.

The working capital of enterprises is extremely important in the economy of any enterprise, since it largely determines:

- the movement of inventories in the production (their sufficiency, redundancy and scarcity);
- enterprise's credit policy for ensuring economic turnover;
- business activity on the basis of increasing their turnover;
- the level of compliance of the current assets value changes to changes in the enterprises' economic activities and profits;
- the funds' use effectiveness in the economic activity process and other aspects.

The study of the methodological aspects of its comprehensive analysis can increase the enterprise's resource management efficiency as a whole and the most important element of working capital. Accelerating the working capital turnover allows it, along with the improvement of technological processes and a decrease in the production cycle duration for manufacturing industrial products, to reduce the need for credit and investment resources and thereby reduce enterprise's costs and production costs (Savitskaya, 2018).

# 2. The total composition of the enterprise's working capital elements and their economic importance

To ensure a continuous production process, the enterprise ought to have material and supplies in sufficient quantities that are necessary for products' manufacturing and maintenance of technological processes.

The working capital of the enterprise consists of revolving production assets and circulation funds (Figure 1).

Under working capital assets is comprehended the necessary material and supplies totality, expressed in value form, which:

- participate in only one production cycle;
- completely consumed in it;
- immediately transfer their value to the cost of finished products.

Under the circulation funds there is comprehended a part of the enterprise's funds necessary to service the sphere of circulation and sale of finished products.

Working capital assets include (Figure 1):

- inventories (I), which include: raw materials, basic and auxiliary materials, semi-finished products, purchased components, fuel, spare parts, low-value tools (tools and implements, etc.);
- work in process (WIP), i.e. products that are in production and gradually brought to readiness and delivery to the warehouse, they ensure the continuity of all technological processes. Due to the complexity of machine-building production, this component of working capital is very significant;
- deferred expenses (DE), that is, the o current period costs, which will be paid off at the cost of future
  production costs and are used to prepare the production of new types of products, master new
  technological processes, introduce any innovations). This part of the working capital is promising for
  the development of the enterprise.

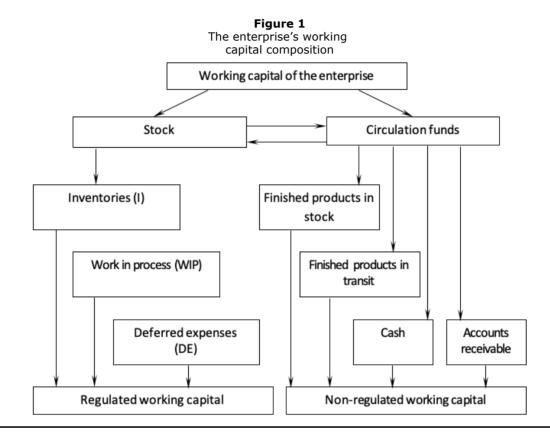
The circulation funds include:

- finished products in the warehouses of the enterprise, i.e. products ready for shipment;
- finished products on the way, which means, shipped by the enterprise, but not yet received by the consumer;
- funds of the enterprise, including cash at the cash desk and on settlement accounts. This part of the working capital has absolute liquidity and is an important indicator of the enterprise's financial condition.
- funds in the calculations (accounts receivable), which is, funds that the consumers owe to the company for the delivered products and rendered services, but has not yet been transferred to its current account. This component of working capital is of great importance in assessing the solvency of both products' consumers and the enterprise itself.

Revolving production assets and circulation funds are in direct relationship and dependence, as they serve the production process, cash flow and settlement relations.

The need for uninterrupted provision of the enterprise with material resources leads to the particular importance of planning and working capital management. For this, regulation of working capital is used, i.e. determination of the needs for the enterprise's planned operation (Petrova, 2016).

The following should be regulated: inventories, work in progress, deferred expenses, as well as the remnants of finished goods in the enterprise's warehouse. These elements relate to regulated working capital. All the other elements of working capital related to circulation funds, that is, finished goods in transit, cash and funds in the calculations relate to non-regulated working capital (Raheman, Nasr, 2007).



### 3. The general structure of the enterprise's working capital detailed analysis

In economic practice, the following types of working capital analysis are most often used (Figure 2):

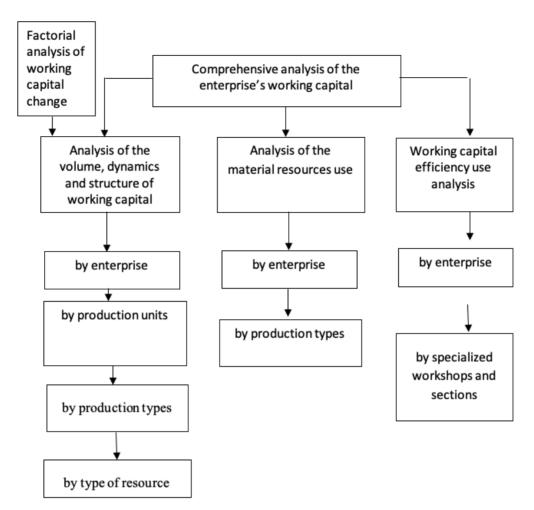
- Analysis of the working capital dynamics and structure, which allows to evaluate the production material sphere development level, the funds' distribution rationality between the individual components of the enterprise's working capital;

- Analysis of the material resources use reflects the level of their supply rhythm, the sufficiency of their provision, the regulation quality in the production process, waste reduction in the process of improving production processes and other aspects;

- The efficiency analysis of the working capital use, allowing to evaluate the acceleration or deceleration of its turnover, the impact of changes in performance indicators on the resulting performance indicators of the enterprise.

- Factorial analysis of the enterprise's working capital change the allows to evaluate the positive and negative trends in the working capital change in general and its individual components.

Figure 2 The main directions of the enterprise's working capital detailed analysis



Depending on the objectives of the study, such an analysis can be carried out: by enterprise, by production units, by type of product, by type of material resources.

# 4. The system of indicators for analyzing the trends in the enterprise's working capital

If the analysis is implemented within the enterprise, then it begins with the volume and dynamics of working capital for the following indicators (Rodinov, Putyatina, 2006):

1) the enterprise's working capital annual average value (Cwav).

During the year, the enterprise's working capital value is constantly changing since the structure and quantity of manufactured goods are changing, experimental work is being carried out to introduce new products, financial calculations are being carried out with consumers and suppliers, etc. This indicator is calculated:

$$C_{w^{av}} = \frac{C_{w^{b,y.}} + C_{w^{e,y.}}}{2}$$

where  $C_w^{b.y.}$ ,  $C_w^{e.y}$  are the values of the enterprise's working capital, respectively, at the beginning and at the end of the year.

The increase in the average annual value of the enterprise's working capital in dynamics determines, on the whole, an increase in the production activity of the enterprise if the manufactured goods' volumes in kind and in value terms adequately increase.

Change in working capital in absolute terms ( $\Delta C_w$ ) determines the increase (decrease) in enterprise's current assets in the current year relative to the base. In this case, the values of this indicator for the compared periods are used. This indicator is determined:

$$\Delta C_w = C_w^{pl} - C_w^{b}$$
,

where C<sub>w</sub><sup>pl</sup>, C<sub>w</sub><sup>b</sup> are the average annual value of the enterprise's working capital, respectively, in the planned and base periods.

The increase in the enterprise's working capital should be compared with the increase in sales of the enterprise.

2) the enterprise's working capital growth rate (GR<sub>Cw</sub>) (or a change in working capital in relative terms) determines the level of their change in dynamics. This indicator is calculated:

$$GR_{Cw} = \frac{C_w^{\ pl}}{C_w^{\ b}} * 100\%.$$

The higher the growth rate of the enterprise's working capital, the more potentially an enterprise can produce more products and make more profit.

3) regulated working assets ratio in the overall enterprise's working capital (Rr.wa). This indicator is calculated:

$$\mathsf{R}_{\mathsf{r.wa}} = \frac{\mathsf{C}_{\mathsf{r.wa}}}{\mathsf{C}_{\mathsf{w}}},$$

where C<sub>r.wa</sub>, C<sub>w</sub> are relatively, the regulated and total working capital of the enterprise. The higher the value of this indicator, the more funds the company has in the manufacturing sector and the more effective the working capital structure is. The indicator's increase in dynamics means that the company reduces distribution costs and increases the efficiency of commodity circulation.

4) change in inventories in absolute terms ( $\Delta$  I<sub>m</sub>) characterizes the change in the needs of the enterprise in inventories to ensure the enterprise's planned operation. It is calculated:

 $\Delta I_m = I_m^{pl} - I_m^{b}$ ,

where  $I_m{}^{pl}$ ,  $I_m{}^{b}$  are the costs of the enterprise's material inventories, respectively, in the planning and base periods (rubles).

5) the enterprise's inventories growth rate (GR<sub>im</sub>) (or change in inventories in relative terms) determines the level of their dynamics. This indicator is determined

$$GR_{Im} = \frac{I_m^{pl}}{I_m^{b}} * 100\%.$$

6) the sold products' growth rate ratio ( $GR_{Csp}$ ) and working capital ( $GR_{Cw}$ ). With the rational use of working capital and financial settlement systems, this ratio should look like:

GRQsp >GRCw.

7) the sold products growth rate ratio (GR<sub>Qsp</sub>) and inventories of the enterprise (R<sub>Im</sub>). With an effective financial and economic policy, this ratio should look like:

GRQsp > GRIm.

Table 1 shows the main indicators of the studies taking into account the general positive trend in time.

Nº	Indicator	Symbol	Calculation formula	General trend
1.	Working capital annual average value	Cwav	$C_w^{av} = \frac{C_w^{b.y.} + C_w^{e.y.}}{2}$	↑⊕
2.	Working assets growth rate	(R <sub>Cw</sub> )	$GR_{Cw} = \frac{C_w^{pl}}{C_w^{b}} * 100\%$	↑⊕
3.	Regulated working assets ratio	(R <sub>r.wa</sub> )	$R_{r.wa} = \frac{C_{r.wa}}{C_w}$	↑⊕
4.	Inventories growth rate	GR <sub>Im</sub>	$GR_{im} = \frac{I_m^{pl}}{I_m^{b}} * 100\%$	₀↑⊕
5.	The growth rate ratio of sold products and working capital	GR <sub>Qsp</sub> GR <sub>Cw</sub>	$GR_{Q_{SP}} > GR_{Cw}$	execution
6.	The growth rate ratio of sold products and inventories	GR <sub>Qsp</sub> GR <sub>Im</sub>	GR <sub>Qsp</sub> > GR <sub>Im</sub>	execution

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 Table 2

 The source and estimated data for the working capital dynamics analysis

Indicatiors	base	first	second	Evaluation
Q <sub>sp</sub> (million rub)	12800	16300	19200	$\uparrow \oplus$
C <sub>w<sup>av</sup></sub> (million rub)	10300	14200	15100	$\uparrow \oplus$
I <sub>m</sub> (million rub)	7900	11300	12200	↑⊕
R <sub>r.wa</sub>	0,60	0,68	0,72	$\uparrow \oplus$
GR <sub>Qsp</sub> (%)		127,3	117,8	
GR <sub>cw</sub> (%)		137,9	106,3	
GR <sub>im</sub> (%)		143,0	108,0	
$GR_{Qsp} > GR_{Cw}$		Not	Not	↑⊕
		executed	executed	
$GR_{Qsp} > GR_{Im}$	Dsp > GR <sub>Im</sub>		Not Not	
		executed	executed	↑⊕

Based on the calculation results, the following conclusions can be drawn:

- The company is actively increasing sold products volumes, the growth rate of which in the first year amounted to 127.3% and in the second year was 117.8%.
- The enterprise's working capital is growing relatively proportionally, which is confirmed by its growth rates in the first year by 137.9% and in the second by 106.3%.
- In the first year, there is a certain redundancy of the inventories of the enterprise, which is largely leveled in the second year.
- By the end of the second year, the growth rates of sold products were brought in line with the growth rates of working capital and inventories.
- The ratio of the enterprise's regulated working capital is gradually increasing and amounts 0.72 by the end of the period under review, which obviously improves the structure of working capital and reduces distribution costs.

In general, by the end of the period under review, the changes dynamics in the enterprise's working capital ought to be recognized as proportional and effective.

# **5. Trends analysis of the working capital structure change**

With an in-depth analysis of working capital, its structure plays an important role, which is understood as the percentage ratio of each working capital group to its total amount.

The working capital structure largely depends on the industry sector of the enterprise and its specialization. It is based on many factors: the features of the production processes organization, contractual conditions for the supply of goods of the enterprise, the rhythm of obtaining raw materials and materials, suppliers' and consumers' location, and many others (Lazaridis, Tryfonidis, 2006).

In engineering, compared with other industries, the share of inventories may be slightly lower, however, usually a higher level of work in progress due to the long production cycle of goods (Rishar, 2016).

Table 3 shows the working capital dynamics structure of a machine-building enterprise, where the dynamics evaluation of its main elements is given.

	Structure% by years		Positive	Real
Working capital elements	Base year	Planned year	evaluation	evaluation
Total stock including	70,0	50,0	<b>↑ (+)</b>	↓ (-)
- inventories;	40,0	35,0	<b>↑ (+)</b>	↓ (-)
- work in process;	20,0	15,0	Const (+)	↓ (-)
- future spending	10,0	—	<b>↑(+)</b>	↓ (-)
<b>Total circulation funds</b> including	30,0	50,0	↓ (+)	↑ (-)
- finished products in stock;	8,0	20,0	↓ (+)	↑ (-)
- finished products on the	10,0	8,0	↓ (+)	↓ (+)
way;	7,0	2,0	Const (+)	↓ (-)
- cash;	5,0	20,0	↓ (-)	↑ (-)
<ul> <li>funds in the calculations</li> </ul>				• ( )

Table 3				
The enterprise's working capital structure d	ynamics			

In this case, the change in the working capital structure occurred for the worse, since the share of working capital assets directly affecting the development of the enterprise's production activity decreased by 20% with a corresponding increase in the circulation funds share involved in servicing its business operations Gill et al., (2010). Herewith:

- inventories decreased by 5%;
- there are no deferred expenses that provide development prospects;
- the share of finished products in the enterprise's warehouse increased by 12%, slowing down the working capital turnover rate;
- the share of calculation funds increased by 15%, which complicates the financial condition of the enterprise for the future.

Analysis of the working capital structure is an important component of the enterprise's economic analysis, because it allows to evaluate: the degree of complexity of the products; the level of production organization; the market demand level for the company's products, the solvency of the main consumers and other aspects. The enterprise's working capital dynamics analysis reveals: a change in the enterprise's specialization, its financial condition, the degree of market conditions rational use by the enterprise, etc (Novikov, Dmitriev, 2018).

# 6. Factorial analysis of the enterprise's working capital changes

Let's turn to the factorial analysis of the enterprise's working capital changes, which is carried out with the aim of determining the main components, due to which there was a change in the enterprise's working capital in the current year relative to the previous one. In the process of factorial analysis, it is established the most accurately effective or ineffective growth of working capital realized at the enterprise (Mathuva, 2010).

Two cases are represented.

In the first case (Table 4), the increase in revenue (Qsp) in the current year relative to the base year occurred by 50%, and working capital by 40%.

Formally, in this case, an increase in working capital occurred in proportion to the volume of sold products.

Let's consider in more detail the change in the individual components of working capital. As a result of factorial analysis, it was revealed that the increase in working capital was due to:

- increase in accounts receivable (AR) by 55%;
- increase in cash (Cash) by 5%;
- decrease in inventories by 20%.

In the second case (Table 4), the increase in revenue (Qsp) in the current year relative to the base year occurred by 20%, and working capital by 40%. This ratio of the growth rates of enterprise indicators does not correspond to its development proportionality. In this case, the increase in working capital was due to:

- increase in accounts receivable (AR) by 10%;
- increase in cash (Cash) by 5%;
- increase in inventories by 25%.

For a more detailed factorial analysis, we consider the structure of changes in inventories (Im) for both cases (Table 5).

In the first case, factor analysis showed:

1) the working capital growth (Cw) occurred mainly due to the growth of accounts receivable (AR), which in itself complicates the financial and economic situation of the enterprise;

2) a 20% reduction in inventories (Im) was mainly due to favorable production trends:

- work in progress (WIP);
- finished products in stock;

• finished products in transit, which in itself in the future accelerates the turnover of working capital;

3) raw materials and materials at the same time increased by 20%, providing large volumes of production.

analysis of the working capital changes						
	Source data for the first case		Source data	for the second case		
Q <sub>sp</sub>	个for 50%		个 for 20%			
Cw	个 for 40%	(+)	↑ for 40%	(-)		
Including Im	↓ for 20%	(-)	个 for 25%	(+)		
AR	个 for 55%	(-)	↑ for 10%	(+)		
Cash	个 for 5%	(+)	个 for 5%	(+)		

 Table 4

 The source data for the enterprise's factorial analysis of the working capital changes

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 Table 5

 The source data for the enterprise's factorial analysis of the inventories changes

	Source data for the first case		Source data for the second	
			case	
Im	↓ for 20%		个 for 25%	
including	个 for 20%	(+)	↓ for 20%	(-)
- materials				
- WIP	↓ for 10%	(+)	个 for 10%	(-)
- finished products in stock	↓ for 20%	(+)	个 for 25%	(-)
<ul> <li>finished products in transit</li> </ul>	↓ for 5%	(+)	个 for 5%	(-)
<ul> <li>deferred expenses</li> </ul>	↓ for 5%	(-)	个 for 5%	(+)

In the second case:

1) C<sub>w</sub> growth occurred mainly due to an increase in the company's reserves with a moderate increase in accounts receivable (AR), which can be regarded positively;

2) an increase in inventories ( $I_m$ ) by 25% was mainly due to an increase in the work in process volume and especially finished products in stock, which indicates a temporary overstocking of the enterprise;

3) raw materials and materials at the same time decreased by 20%, complicating the prospective growth of products.

According to the factorial analysis results, it is necessary to recognize a greater number of positive trends in the first case. The final conclusion about the working capital growth efficiency in the cases being compared have to be made based on a comparison of the working capital growth rates, revenue and inventories.

In the first case, the following relations are satisfied:

GRQsp > GRCw, means 50% > 40% (+);

GR<sub>Qsp</sub> > GR<sub>Im</sub>, means 50% > 20% (+).

In the second case, the following relations are satisfied:

GR<sub>Qsp</sub> > GR<sub>Cw</sub>, means 20% < 40% (-);

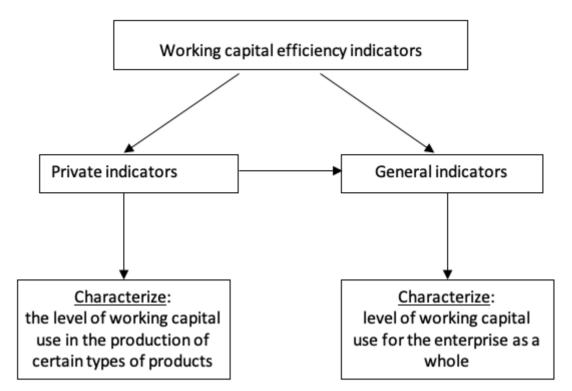
GR<sub>Qsp</sub> > GR<sub>im</sub>, means 20% < 25% (-).

The most effective and proportional should be recognized the working capital growth in the first case.

# 7. The enterprise's working capital use effectiveness analysis

Nowadays, with the active innovative products and technologies introduction, there is an acute problem of increasing enterprises' efficiency in general. All performance indicators of the enterprise's working capital use are divided into two groups (Figure 3).

Figure 3 The main groups of indicators for evaluating the working capital use effectiveness



I group is private indicators that evaluate the efficiency of material resources use in the production of certain types of products.

II group is general indicators that determine the efficiency of all regulated working assets use and the enterprise's working capital.

I group of indicators includes:

1. Materials output ratio (M<sub>or</sub>), which is determined by the material resources ratio per unit of output, which in value terms is calculated:

$$M_{or} = \frac{\sum_{i=1}^{k} E}{N} M_{or},$$

where

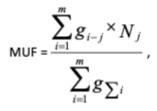
E is the expenses annual amount for the *i*-th material in the production

N is the annual production volume of the products in question (pcs.);

k is the number of types of materials included in the product.

In the process of constructive improvements, the use of new structural materials, new technologies and equipment, the material consumption of all major types of products should tend to decrease over time.

2. Metal utilization factor (MUF), which is determined by the ratio of the pure metal that makes up the physical basis of the goods in relation to the total amount of metal used in the production process. This indicator is calculated:



where

 $g_{i-i}$  is the net weight of *i*-th metal in finished *j*-th product (kg);

 $g_{\sum i}$  is the total consumption of the *i*-th metal in the production of the *j*-th product per year (kg);

N<sub>j</sub> is annual production volume of *j*-th product (pcs);

m is the number of types of metal used in the product.

With the introduction of new, more advanced technologies, MUF should increase in the main types of products.

3. The waste level of material resources (L<sub>W</sub>), which can be determined by the type of i-th material resource in kind (L<sub>Wi</sub>) is calculated:

$$L_{Wi} = \frac{\sum_{j=1}^{\kappa} g_{\sum_{i=j}^{i-j}} - \sum_{j=1}^{\kappa} g_{i-j} \times N_j}{\sum_{j=1}^{\kappa} g_{\sum_{i=j}^{i-j}} \times 100\%},$$

where

gi-j is net weight (consumption) of the i-th resource per unit of the j-th product (kg and other natural units);

 $N_{i}$  is annual production volume of the j-th product (pcs);

 $g_{\sum_{i=j} i}$  is the total consumption of the i-th material for the production of the annual volume of the j-th product (kg);

k is the range of products.

With the introduction of new technologies and equipment, the waste level of material resources should tend to decrease.

Il group of indicators include:

1. The enterprise's working capital turnover ratio (C<sub>w</sub><sup>tr</sup>), which characterizes the number of rubles of products sold per 1 rub of the average annual amount of the enterprise's working capital, means:

$$C_{w} = \frac{Q_{sp}}{C_{w}^{tr}} (rub/rub),$$

where

 $Q_{sp}$  is the annual volume (revenue) of the enterprise's sold products at current market prices;  $C_w^{tr}$  is the average annual value of the total working assets, which is calculated:

$$C_w^{av} = \frac{C_w^{b.y.} + C_w^{e.y.}}{2},$$

where

Cw<sup>b.y.</sup>, Cw<sup>e.y.</sup> the total amount of the enterprise's working capital, respectively, at the beginning and end of the year.

The increasing dynamics of C<sub>w</sub><sup>tr</sup> indicator over time shows an increase in the efficiency of the enterprise's working capital use.

2. The enterprise's regulated working assets turnover ratio (TR<sub>wa</sub>r), which characterizes the number of rubles of products sold, per 1 rub of the average annual (estimated) amount of regulated working assets, i.e.:

$$TR_{wa}' = \frac{Q_{sp}}{S_{wa}'}$$

where

Swa<sup>g</sup> is the general standard of working capital, which is determined by calculation or from the financial statements, as the average annual value is similar to working capital.

The growth of the indicator over time indicates the rational use of standardized working assets.

3. The working assets turnover period (P<sub>wa</sub>) and the of turnover period of regulated working capital (P<sub>rwa</sub>), means:

$$P_{wa} = \frac{360}{C_w}$$
 (days);  $P_{rwa} = \frac{360}{C_{rw}}$  (days),

where 360 is a conventional number of days in a year (days).

The downward trend  $P_{wa}$  indicates the acceleration of the enterprise's working assets turnover and their relative reduction in turnover.

The working assets turnover period means the time during which working assets make one complete full circle.

The acceleration (deceleration) of the working assets turnover of the enterprise (ΔPto) is calculated

$$\Delta P_{to} = P_{to}^{pl} - P_{to}^{b}$$
 (days),

where  $P_{to}^{pl}$  and  $P_{to}^{b}$  is the period of working capital turnover, respectively, in the planned and base periods (days).

For example, at the enterprise in the planned year  $P_{to}^{pl}$  = 82 days, and in the base year  $P_{to}^{b}$  = 92 days, therefore, in the planning period there was an acceleration in the turnover of working capital by 10 days.

The shorter the working capital turnover period, the less the amount of working assets is required by the enterprise to ensure a given volume of production Novikov et al. (2018).

The calculation formulas for the determination of private and general indicators of the working capital efficiency use while taking into account their positive trends are shown in Table 6.

	Key indicators of the enterprise's working assets use					
N≌	Name of group and indicators		Indicator	Calculation formula	General trend	
		ſ	Private ind	licators:		
1.	Materials output ra	itio (rub/pcs)	Mor	$M_{or} = \frac{\sum_{i=1}^{k} E}{N}$	↓⊕	
2.	Metal utilization factor		MUF	$M_{or} = \frac{\sum_{i=1}^{k} E}{N}$ $MUF = \frac{\sum_{i=1}^{m} g_{i-j} \times N_{j}}{\sum_{i=1}^{m} g_{\sum i}}$	↑⊕	
3.	Waste level (in %) of material resources:	– in kind evaluation by type of product	Lwi	$L_{Wi} = \frac{\sum_{i=1}^{m} g_{\sum_{i=j} - j} - \sum_{i=1}^{m} g_{i-j} \times N_{j}}{\sum_{i=1}^{m} g_{\sum_{i=j} - j}} \times 100\%$ $L_{Wj} = \frac{\sum_{i=1}^{m} g_{\sum_{i=j} - j} \times \mathcal{U}_{i} - \sum_{i=1}^{m} g_{i-j} \times N_{j} \times \mathcal{U}_{i}}{\sum_{i=1}^{m} g_{\sum_{i=j} - j} \times \mathcal{U}_{i}} \times 100\%$	↓⊕	
		<ul> <li>in valuation</li> <li>by type of</li> <li>product</li> </ul>	L*wj	$L^*wj = \frac{\sum_{i=1}^{n} g_{\sum_{i=j}^{i}} \times \mathcal{U}_i - \sum_{i=1}^{n} g_{i-j} \times N_j \times \mathcal{U}_i}{\sum_{i=1}^{n} g_{\sum_{i=j}^{i-j}} \times \mathcal{U}_i} \times 100\%$	↓⊕	
		G	General ind	dicators:		
1.	Working capital (rub/rub)	turnover ratio	Cw	$C_w = \frac{Q_{sp}}{C_w^{tr}}$	↑⊕	
2.	The turnover rati working capital (ru		TR <sub>wa</sub> r	$TR_{wa}^{r} = \frac{Q_{sp}}{S_{wa}^{5}}$	↑⊕	
3.	Working capital turnover period (days)		P <sub>to</sub>	$P_{wa} = \frac{360}{C_w}$	$\downarrow \oplus$	
4.	Acceleration (deceleration) of working assets turnover (days)		ΔP <sub>to</sub>	$\Delta P_{to} = P_{to}^{pl} - P_{to}^{b}$	⊕ negative values = →	

 Table 6

 Key indicators of the enterprise's working assets use

#### 8. Conclusions

An in-depth and comprehensive analysis of the enterprise's working assets determines their movement in the process of economic activity, allows to see bottlenecks that reduce the their use efficiency and determines the reserves for carrying out planned work to increase profit and profitability of the enterprise.

The novelty of the study consists in an integrated approach to the enterprise's working capital management for current and future planned activities. This allows identifying imbalances in the production activities development, bottlenecks, adjusting credit policy and optimizing production and non-production costs.

In this case, analysis is subject not only to the dynamics of the enterprise's working capital, its compliance or non-compliance with the change in the company's revenue, but also the dynamics of individual components that have certain causes of non-compliance, which are also subject to analysis and adjustment.

The division of working capital into working capital assets and circulation funds in dynamics allows to evaluate the effectiveness of production activities, financial policies and economic relations not only by the enterprise's suppliers of material resources, but also with its consumers. It is in increasing the efficiency of working capital management that the huge reserves of increasing the rhythm and efficiency of the enterprise's business operations lie.

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