V. N. KARAZIN KHARKIV NATIONAL UNIVERSITY

Educational and Research Institute “Karazin Business School”
Department of Management and Administration

MASTER’S THESIS

Title: **«Improvement of the working capital management strategies at the enterprise»**

Completed by 2nd year student,
group M-62,
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Educational and scientific program "Management"
Li LI

Supervisor: Inna NESKORODIEVA, PhD (Economics), Associate Professor

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MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

V. N. Karazin Kharkiv National University

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“30” june 2023 year

TASK

TO MASTER THESIS

Li Li

(last name, name of the student)

1. Title «Improvement of the working capital management strategies at the enterprise»

Supervisor: Neskorodieva Inna, PhD, Associate Professor

(last name, name, degree, academic rank)

approved by the order of the university from «06» November 2023 year №4501-3К/732

2. The term of the student's submission of thesis on November 15, 2023

3. List of issues that need to be developed

1. To determine the theoretical foundations of the working capital at an enterprise

2. To analyze the working capital management efficiency at the example of Private Enterprise «Concor» for 2020-2022

3. To determine the improvement directions for working capital management strategy for «Concor» Private Enterprise

4. Work plan

№	Stages of work
1	Approval of the thesis content
2	Preparation of the thesis' first section
3	Completion of the first section according to the supervisor recommendations. Writing the thesis' second section
4	Completing of the second section according to the supervisor recommendations. Preparation of the thesis' third section
5	Completing of the third section according to the supervisor recommendations. Preparation of a report for a scientific conference with a presentation of the main results of the thesis
6	Writing of the introduction, conclusions of the thesis. Making references list
7	Submission of the thesis to the Department of Management and Administration

5. Date of assignment issue " 30" june 2023 year

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CONTENT

INTRODUCION

Under the influence of a combination of external and internal factors of the financial crisis in Ukraine and ongoing russian aggression, the proportions of the financial stability of national enterprises are being violated. Property acquires an unproductive, illiquid, risky form, and industrial enterprises' working capital grows remarkably rapidly, tens of times higher than the revenue growth rate. Structural imbalances accompany extensive growth, the share of bad debts is growing, and working capital has a negative value. At the same time, sources of operating capital financing are becoming more expensive: equity capital, short-term loans, and accounts payable held by enterprises beyond the standard payment terms. Working capital is one of the components of an enterprise's property. Effective use of operating capital plays a significant role in ensuring the normalization of the enterprise's operation and increasing the profitability of production.

The condition and efficiency of their use are the primary conditions for the successful operation of the enterprise. The development of market relations determines new conditions for the organization. High inflation, non-payments, and other crisis phenomena force enterprises to change their policies regarding the management of working capital, search for new sources of their formation, and introduce organizational and economic measures to improve the efficiency of their use. In a market economy, its optimal structure indicates the organization of the production and marketing process. Therefore, rational management of an enterprise’s working capital is relevant today.

The issues related to the functioning of working capital have formed the basis for the fundamental research of economists such as A. Poddеregin, H. Raza, M. ul Haq, A. Akbar, X. Jiang, M. Akbar, N. Hameer, S. Ramakrishnan, S. Gillani, and others.

The goal of the master thesis was to theoretically summarize the essence and forms of functioning of a company's working capital, as well as to develop measures to improve the methods of its financing. To achieve this goal, the following tasks were formulated:

– study the essence and structure of a company's working capital;

– analyze and provide a comparative characteristic of the sources of financing for a company's working capital;

– investigate approaches to the regulation of a company's current assets.

– analyze the structure and turnover of the working capital of "Concor" PE for the years 2020-2022;

– determine the optimal strategy for financing the current assets of the enterprise;

– evaluate the risks associated with the functioning of the company's working capital and develop recommendations for optimizing the formation of its accounts receivable.

The object of this work is the financial and economic activities of the enterprise, while the subject of research includes theoretical and methodological approaches to assessing the effectiveness of forming and using the company's working capital in the conditions of a market economy.

The theoretical and methodological basis of the thesis consists of general economic theory, scientific works by scholars on the topics of modern theories and models for analyzing a company's working capital, and sources of its financing. The information base of the thesis includes the financial statements of "Concor" LLC: Form No. 1 and Form No. 2.

To solve the problems posed in the thesis, general scientific and unique research methods were used: a method of analysis, scientific abstraction, and generalization of scientific experience from modern theoretical research - to clarify the classification of current assets of an enterprise, analytical methods, a systematic approach - to justify methods for rationing existing assets enterprises and recommendations regarding their practical use.

Publications. Within the framework of the 9th international scientific and practical conference «The actual problems of social and economic systems management» some result of the study on “Approaches to understanding the essence of enterprise's working capital” have been published (Appendix A).

SECTION 1
THEORETICAL FOUNDATIONS OF THE WORKING CAPITAL AT AN ENTERPRISE

1.1 Economic basis and structure of the enterprise's working capital

Theoretical research of any economic processes and phenomena should serve as the basis for making managerial decisions in their practical implementation. Therefore, to enhance the efficiency of working capital utilization within an enterprise, it is essential to investigate the essence of this category. In economic literature, normative legal acts, and business practices, alongside the concept of "working capital," terms such as "current assets," "circulating funds," "working resources" are used interchangeably. Scholars have engaged in a prolonged debate regarding the economic essence of these categories, driven by disagreements and the absence of a unified approach to their interpretation. This has led to varying interpretations of the aforementioned economic categories and underscores the need for their systematic classification based on specific approaches.

An analysis of the scientific literature has allowed for the identification of several main approaches to understanding the essence and substantive characteristics of a company's working capital (Figure 1.1, Table 1.1). Based on the above, it can be argued that equating working capital with current assets or current assets is inappropriate since current assets have only a value form, while current assets have only a material form, whereas working capital possesses both a value and a material form.

At the microeconomic level, working capital includes current assets and short-term financial investments. Current assets are formed from funds invested in circulating assets and turnover funds.

Table 1.1 – Terminological analysis of the economic category “Enterprise's Working Capital”

Author	Concept formulation
1	2
Working capital as the amount of money invested to form working capital and circulation funds	
A. Podderegin [21]	working capital is funds advanced to circulating production assets and circulation funds to ensure continuity of the production process, sales of products and profit-making
Ya. Droba [19]	working capital is the monetary expression of investments in production operating capital and means of circulation intended for the production process and sales of products
I. Zyatkovsky [67]	operating capital (working capital) is money advanced into circulating production assets and circulation funds, which ensure the continuity of the production process and settlements
H. Raza, M. ul Haq [51]	working capital – value gone in cash for the systematic creation and use of working production assets and circulation funds in the minimum required amounts, which ensure the enterprise’s implementation of the production program and timely execution of payments
V. Buryakovsky, V. Karmazin, S. Clambett [14]	working capital is a set of funds advanced for the formation and use of circulating production assets and circulation funds, which ensure the continuity of the process of production and sale of products
T. Pryimak [49]	working capital is the totality of the enterprise’s funds necessary to form and provide the circulation of production working capital and circulation funds
A. Akbar, X. Jiang, M. Akbar [16]	operating capital is the totality of an enterprise’s funds that are advanced to create operating capital and circulation funds and ensure their continuous circulation
A. Azarenkova, T. Zhuravel, R. Mikhailenko [5]	operating capital is monetary resources that are invested in circulating production assets and circulation funds to ensure continuous production and sale of manufactured products, which take part in the production process once and fully transfer their value to the cost of production
Working capital as a set of mobile assets that are used throughout the operating cycle	
M. Volodkina [63]	working capital is part of the assets of an enterprise, which includes capital and short-term financial investments
J. Jędrzejczak-Gas [28]	working capital refers to the mobile assets of an enterprise that are cash or can be converted into cash within a year or one production cycle
N. Hameer, S. Ramakrishnan, S. Gillani [24]	operating capital - cash and mobile assets that will turn into money during one production cycle, which ensures the continuity of the production process of production and turnover and the profit of the enterprise
V. Sheludko [52]	current assets are assets that serve the economic process and ensure its continuity
Kh. Danylkiv, N. Hembarska [16]	working capital - assets that can be converted into cash within one year
I. Blank [10]	recent (existing) assets are a set of property assets of an enterprise that serve the current production and commercial activities of the enterprise and are entirely consumed (modified their form) during one operating cycle

Continuation of the table 1.1

1	2
M. Bilyk [9]	existing assets are a group of mobile assets with a period of use of up to one year, which directly serve the operating activities of the enterprise and, due to the high level of their liquidity, must ensure its solvency for current financial obligations
N. Vlasova, O. Kruglova, L. Bezginova [62]	current assets are a set of material and monetary assets that serve the current economic process of an enterprise, which are in constant circulation and fully transfer their value to goods (works, services) sold during one operating cycle to obtain economic benefits (arrived)
Working capital as advance cost	
B. Le [38]	working capital - the cost of the organization's operating capital in monetary terms, which ensures the purchase of raw materials, investments in continuous production (work in progress), investments in finished products, covering the difference between accounts receivable and accounts payable
V. Kulishov [35]	working capital (operating capital) - part of productive capital, the value of which, in the process of consumption, is entirely transferred to the product and returned in cash throughout each capital circulation
M. Singhania, P. Mehta [56]	working capital is part of the production capital, the cost of which is wholly transferred to the manufactured product and returned in cash after its sale
O. Parkhomenko [45]	working capital is the advanced cost of the elements of working production assets and circulation funds for a year or operating cycle to ensure a continuous process of production and sales of products to achieve a sufficient level of profitability for the enterprise
P. Laiko, M. Mnikh [37]	current assets are the value that is advanced into the circulation of production assets and circulation funds to ensure the continuity of the production and circulation process
A. Avramenko [4]	working capital is the total cost systematically went in cash, which is necessary to maintain the continuity of the circulation and is returned to its original form after its completion
Working capital as investments that are invested in current assets	
E. Brigham [13]	working capital is a firm's investment in short-term assets - cash, marketable securities, inventories, and accounts receivable.
R. Slavyuk [57]	working capital is part of the enterprise's capital invested in its current assets, the totality of circulating production assets, circulation funds advanced to ensure everyday activities."
A. Bhattacharyya, M.L. Rahman, S. Wright [8]	working capital is an investment in current assets, also called operating capital. A feature of working capital is that it is not spent or consumed but is advanced, which involves the return of funds after each production cycle or circuit, which includes the production of products, their sale, and receipt of revenue.
V. Aranchiy [3]	working capital is funds spent on the acquisition or production of current assets of an enterprise, which are necessary to ensure the continuity of the production process and sales of products at the enterprise and make a profit.

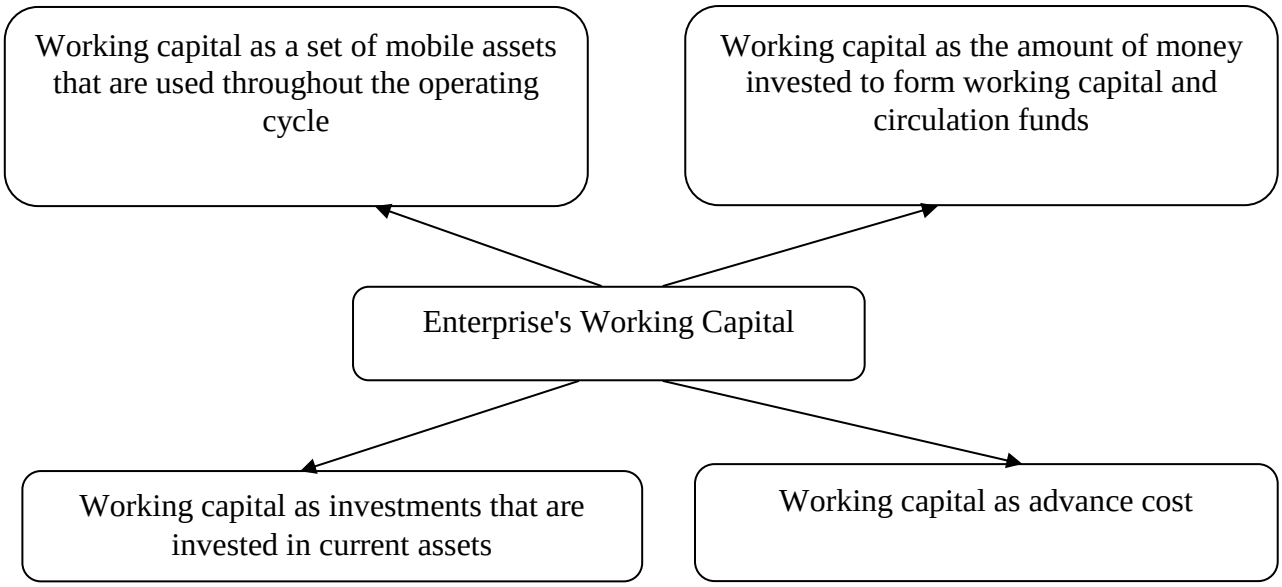

Figure 1.1 - Approaches to understanding the essence of enterprise's working capital

Thus, the working capital of an enterprise is a part of the capital of the enterprise, which, to make a profit, is advanced into current assets that serve current production and commercial activities and are entirely consumed in each operating cycle, changing their form or physical and chemical properties, and are converted from a means of labor into the product of labor, they transfer their value entirely to the product, being in constant circulation and thereby ensuring the continuity of the process of economic activity.

Regarding material content, working capital represents objects of labor and some means of labor (the service life of which is less than six months or the cost of which does not exceed the established standard). Circulation funds are working capital (current assets) that ensure the continuity of the production process. The circulation funds include finished products (on the train, shipped, on the road), funds in accounts at bank institutions, and cash [5].

An essential characteristic of working capital is its ability to circulate. The circulation of current assets of an enterprise, which are a tangible reflection of operating capital, is defined as a continuous circulation of assets (in particular

material resources) during production. The circulation of current assets arises from the totality of circulating funds and circulation funds.

Entrepreneurial activity is possible if the entrepreneur has a specific capital (which, in modern conditions, must be monetary). To organize production, it is necessary to have savings (usually in the form of cash or fixed assets). Through the investment mechanism, these assets are invested in production. But to start production, it is necessary to purchase objects of labor (materials, raw materials, etc.) and purchase labor. Working capital goes from monetary form to production form. The specified assets (resources) are transformed into a finished product (products, services, works) at the production stage. Working capital is transferred from the production form to the commodity form [36].

The manufactured product is sold at the implementation stage, resulting in the entrepreneur (enterprise) receiving funds. Working capital is transformed from a commodity form into money (Fig. 1.2).

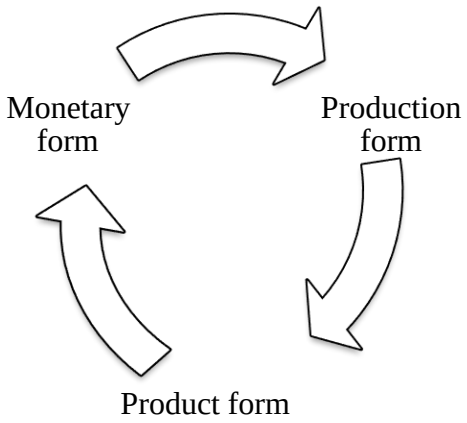

Figure 1.2 – Circulation of enterprise's working capital

So, working capital constantly changes its form during production. It takes the physical form of current assets but only upon completion of the operational cycle of manufacturing the final product. Working capital is not spent or worn out but is invested (advanced). The cost of operating capital can grow.

The purpose of capital functioning will be achieved when there is an increase

in money compared to the amount advanced.

The self-growth of capital occurs in the circulation of working capital, which goes through different stages and takes on various forms. The less time operating capital is in one form or another (cash, production, commodity), the higher the efficiency of its use, and vice versa. Managing capital creates new value not directly but through working capital.

In the production sector, working capital is advanced into circulating production assets and circulation funds (Fig. 1.3) [46].

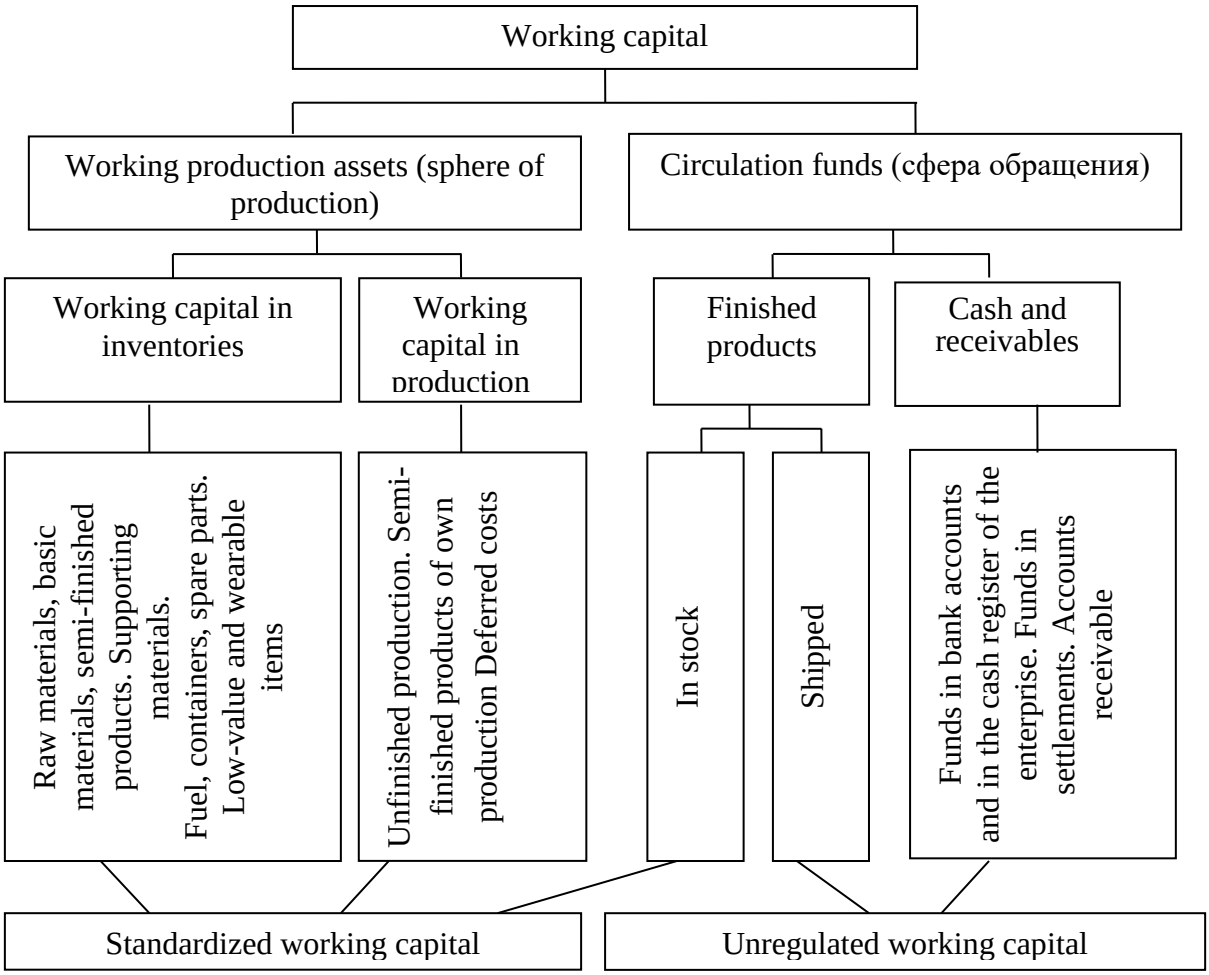

Figure 1.3 - Components of enterprise's working capital

Production assets include raw materials, main and auxiliary materials, semi-finished products, fuel, containers, spare parts for repairs, low-value and wearable items, work in progress, self-made semi-finished products, and deferred costs.

Circulation funds are the balances of finished products in the warehouse of enterprises, goods shipped but not paid for by buyers, the balances of enterprises' funds in a current bank account, cash register, settlements, accounts receivable, and invested in short-term securities.

Thus, working capital is funds advanced into circulating production assets and circulation funds to ensure the continuity of the production process, sales of products, and profit. The ratio of working capital in the sphere of production and circulation is not the same in different areas of the national economy. The peculiarities of the organization of production, supply, sales, and the payment system explain this. To ensure the continuity of the production process and product sales, achieving an optimal ratio of working capital in the sphere of production and circulation is necessary. At the same time, the enterprise is interested in reducing operating capital in the circulation sector by improving the supply system and more rational forms of payment.

The working capital structure combines individual elements of working production assets and circulation funds. The structure of operating capital in different areas of the economy may have specific characteristics. Thus, the main working capital items in the production sector are raw materials, basic materials, work in progress, and finished goods. In some industry regions, operating capital items are unique to them. For example, in the metallurgical industry, replacement equipment is considered in working capital, and in mining areas, costs for mining preparation work are included in future expenses [49].

The structure of working capital is the share of the cost of individual items of working production assets and circulation funds in the total operating capital. Working capital structure has significant fluctuations in some regions of the economy. It depends on the composition and structure of production costs, conditions for the supply of material assets, conditions for the sale of products (work performed, services provided), and settlements [49].

If we consider the structure of working capital in some industry regions, it should be noted that in the coal industry, deferred costs occupy a significant share.

This is explained by the relatively large preparatory costs that precede the extraction of minerals - planning future developments, developing mines, and others.

A characteristic feature in the light and food industries is the significant material consumption of products. So, the share of working capital in stocks of raw materials and basic materials is high.

Mechanical engineering and metalworking are characterized by significant labor intensity, complexity of production processes, and significant production times. In these areas, a high proportion of working capital is advanced to work in progress.

In the petrochemical industry, a high proportion of working capital is invested in shipped goods. This is explained by the fact that technological processes in this area are short, and a significant part of the manufactured product is on the way to the consumer [45].

The working capital at enterprises is classified according to three criteria (Table 1.2) [39].

Table 1.2 – Classification of enterprise's working capital

Classification criterion	Types of working capital
Participation in the circuit funds	advanced to working capital assets
	advanced to circulation funds
Planning methods, principles of organization, and regulation	normalized
	unstandardized
Source of formation	own and equivalent to own
	involved
	other

Classification of working capital of an enterprise:

– depending on their participation in the circulation of funds;

– on planning methods, principles of organization, and regulation;

– by sources of formation.

According to the first criterion, working capital is divided into operating capital advanced into circulating production assets and working capital advanced into circulation funds. This distribution of working capital is due to the circulation

of two independent spheres of funds in two independent production and the sphere of circulation. The more significant the proportion of working capital allocated in the production sector, the more efficiently working capital is used.

Working capital is divided into normalized and non-standardized depending on the planning methods. The need to distribute operating capital into normalized and non-standardized assets arises from the economic feasibility of achieving the best results at the lowest cost. The establishment of standards for individual items of working capital makes it possible to ensure the continuous operation of the enterprise, subject to optimal production reserves, the size of work in progress, and balances of finished products [16].

Normalized working capital includes working capital in inventories, work in progress, and deferred costs in the balances of finished products at enterprises.

Non-standardized working capital includes circulation funds, except for finished products in the warehouse.

Based on the sources of formation, working capital is divided into: own and equivalent to own; involved; others [21].

Classifying working capital is important because it allows the enterprise to determine the optimal composition and structure, needs, and sources of operating capital. The financial condition of the enterprise largely depends on this. The working capital organization system is based on certain principles (Fig. 1.4) [21, 51].

Firstly, it provided enterprises with independence regarding the disposal and management of working capital. This means operational autonomy in the use of operating capital. Secondly, the planned need and allocation of working capital for individual elements and subsections are determined. This refers to calculating the optimal need for working capital, which would ensure the continuity of the production process and the implementation of planned tasks for rhythmic work (development of long-term and annual standards).

Thirdly, adjusting the calculated and current standards considers changing business requirements: production volumes, prices for raw materials, suppliers and consumers, and forms of calculations used.

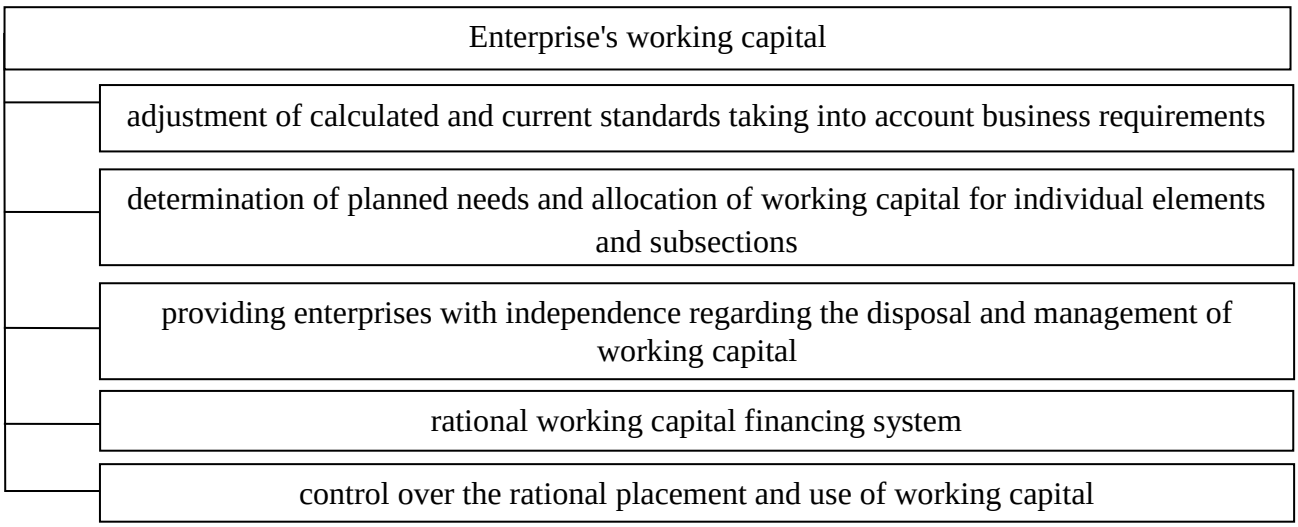

Figure 1.4 - Principles of organizing the functioning of enterprise’s working capital

Fourth, a rational system for financing working capital. This means the formation of working capital from its resources and borrowed funds in amounts that ensure the normal financial condition of the enterprise.

Fifthly, control over the rational placement and use of working capital. This means analyzing the efficiency of the circulation of funds used to speed up their circulation.

1.2 Sources and strategies for financing the enterprise's working capital

The sources of the formation of working capital and their size significantly impact the efficiency level of the enterprise's use of working capital. Excess working capital means that part of the company's capital is idle and does not generate income. Lack of operating capital slows the production process, slowing down the rate of economic turnover of the enterprise's assets.

Sources for the formation of working capital of an enterprise can be [15]: own funds; funds equivalent to one's own; borrowed funds; raised funds (Table 1.3).

Table 1.3 – Characteristics of Sources of Financing for the Enterprise's Working Capital

Types of financing	Evaluation criteria			
	Availability	Capacity	Efficiency	Risk level
Authorized capital	Maximum	Low	Low	Minimum
Leasing	Low (complexity of concluding a contract)	Low	Essential	High
Self-financing (internal growth)	Satisfactory	Low	Low	Minimum
Bond issue	High (if compliant with legislation)	Essential	High (high attractiveness with high discount)	High
Development funds	Maximum	Insignificant (proportions of profit distribution between consumption and accumulation)	Maximum (free resource)	Minimum
Issue of shares	Satisfactory (for profitable enterprises)	Significant (attractiveness of shares)	Essential (dividends on shares)	Satisfactory (share capital structure)
Consolidated funds	Adequate (enterprise integration capability)	Satisfactory (condition of contracts of consolidating structures)	Satisfactory	Satisfactory
Credits and advances	Quiet (for highly good and reliable enterprises)	Maximum	Low (credit rate level)	Low (terms of loan agreement)
Government loans	Minimum (enterprise priority)	Maximum	Maximum (cheap resource)	Minimum
Public investment	Minimum (special enterprise status)	Maximum	Maximum (free resource)	Minimum
Foreign investment	Minimal (difficult access to some industries)	Low	Maximum (attractive resource)	Low (terms of loan agreement)

As a rule, the minimum stable part of working capital is formed from its sources. The presence of its working capital allows the organization to maneuver freely, increasing the effectiveness and sustainability of its activities.

The authorized capital is a set of contributions (calculated in monetary terms) of shareholders to the property when creating an enterprise to ensure its activities in the amounts determined by the constituent documents.

Reserve capital is funds used to cover general balance sheet losses in the absence of other possibilities for their compensation. The amount of reserve capital and the amount of mandatory contributions to it from net profit are determined by current legislation and the charter of the company [21].

The formation of other funds at the enterprise may be provided for in the charter and the accounting policies of the enterprise.

Additional capital shows the increase in the value of the property as a result of revaluations of fixed assets and unfinished construction of an organization, carried out by the decision of the government: cash and property received in the amount of excess of their value over the value of the shares transferred for them. Additional capital can be used to increase the authorized capital, repay the balance sheet loss for the reporting year, and be distributed among the founders of the enterprise, etc. In this case, the owners, as a rule, determine the procedure for using additional capital by the constituent documents when considering the reporting year results.

Retained earnings are net profits (or part thereof) not distributed as dividends among shareholders (founders) and not used for other purposes. Typically, these funds are used to accumulate the property of a business entity or replenish its working capital in the form of available cash, i.e., ready for a new turn at any moment [19].

Some resources, although not permanently owned by the enterprise, are, due to settlement conditions, in its circulation and are stable liabilities. Such funds serve as a source for forming working capital in the amount of their minimum balance.

These include, in particular [25]:

– arrears of wages to employees of the organization;

– arrears of contributions for social needs;

– debt on taxes and fees;

– the balance of the reserve for future expenses, debt on advances to customers.

Borrowed funds are mainly bank credits and loans, with the help of which temporary additional needs for working capital are satisfied. Bank loans are provided as investment (long-term) or short-term loans. The purpose of bank loans is to finance expenses associated with acquiring fixed and current assets, finance the organization's seasonal needs, temporarily replenish the lack of working capital, and make settlements and tax payments.

Along with bank loans, sources of financing working capital are commercial loans from other organizations issued through loans, bills, trade credit, and advance payments.

An investment tax credit is provided to an organization by government authorities and represents a temporary moratorium on the organization's tax payments.

Deferred tax liability is part of deferred income tax that should lead to an increase in income tax payable to the budget in the next or subsequent reporting period.

An investment contribution of employees is a monetary contribution from an employee to develop an economic entity at a certain percentage.

Raised funds in accounts payable are provided to the enterprise for temporary use by suppliers and contractors [15].

When analyzing the sources of working capital formation, it is necessary to consider methods of financing current assets, mainly self-financing, investing through capital market mechanisms, bank lending, budget lending, and mutual financing of business entities.

Self-financing is the financing of activities from the funds available to the organization. However, financing activities from one’s sources is not always

possible or advisable. Therefore, to develop a business and direct funds for the formation and efficient use of working capital, it is necessary to attract additional sources of financing. This source is the capital market. In this case, options for resource mobilization are:

– equity financing (the organization carries out additional sales of shares and thereby increases the number of owners or existing owners make other contributions);

– debt financing (an organization sells fixed-term securities (bonds), which provide their holders with the right to long-term receipt of current income and return of the provided capital by the terms of this bond loan) [17].

An organization can receive funds from budgets at various levels with budget financing. Budget financing includes funds received by an organization for specific purposes. Budget funding can be used to implement current activities and investment projects.

In the process of functioning, organizations have numerous economic connections; they supply each other with raw materials, supplies, and products on deferred payment terms, thereby, as it were, financing each other. Mutual financing allows for short-term funding of current activities.

In addition to providing all current assets with their sources, great attention should be paid to assessing the sufficiency of own funds for forming reserves. The reserves must be supplied with our funds as the most reliable source because the possibility of uninterrupted and rhythmic operation of the enterprise depends on this.

An enterprise's most important financial and economic characteristic is its liquidity, i.e., the ability to repay short-term accounts payable on time. For any enterprise, an adequate level of liquidity is one of the most essential characteristics of the stability of economic activity. Loss of liquidity is fraught with additional costs and periodic stoppages of the production process. Making financial decisions regarding working capital is based on finding the optimal combination of risk and return on investment. Risk, in this case, refers to the risk of loss of liquidity due to the inability to repay obligations due to a lack of funds. In this regard, when making

decisions, it is necessary to calculate all alternatives for investing in working capital and select the most acceptable ones in a given organization.

If cash, accounts receivable, and inventories are maintained relatively low, then the likelihood of insolvency and insufficient funds to carry out profitable activities is high [35].

From this point of view, we can formulate the most straightforward option for working capital management, minimizing the risk of loss of liquidity: the more significant the excess of current assets over current liabilities, the lower the risk. Thus, we must increase net working capital (Fig. 1.5) [65].

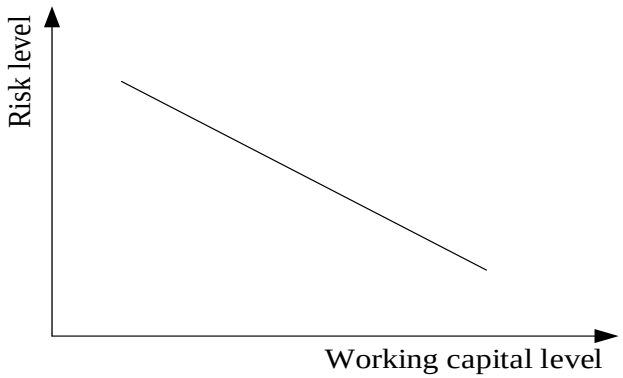

Figure 1.5 - The Relationship Between Risk and the Level of Working Capital of an Enterprise

The relationship between profit and the level of working capital has an entirely different form (Fig. 1.6.). With a low level of operating capital, production activities are not adequately supported, hence the possible loss of liquidity, periodic disruptions, and low profitability [35].

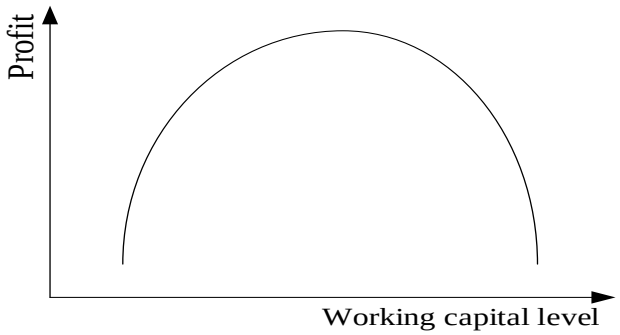

Figure 1.6 - The Relationship Between Profit and the Level of Working Capital of an Enterprise

At the optimal level of working capital, profit becomes maximum. A further increase in the amount of operating capital will lead to the enterprise having unrestricted, idle current assets at its disposal and unnecessary financing costs, which will lead to a decrease in profits. In this regard, the above-formulated option for managing working capital, associated with reducing liquidity risk, is not entirely correct.

Thus, working capital management is a search for a compromise between the risk of loss of liquidity and operational efficiency, which comes down to solving two main tasks:

– Ensuring solvency. An enterprise that does not have sufficient levels of working capital may face the risk of insolvency.

– They are ensuring an acceptable volume, structure, and profitability of assets. Every decision related to determining the level of cash, accounts receivable, and inventory must be considered both from the point of view of the profitability of this type of asset and from the point of view of the optimal structure of working capital [53].

Any organization establishes the most optimal strategy for itself about working capital management and adheres to it throughout its existence. In practice, three strategies are often used in forming the volume and structure of operating capital (Fig. 1.7) [65].

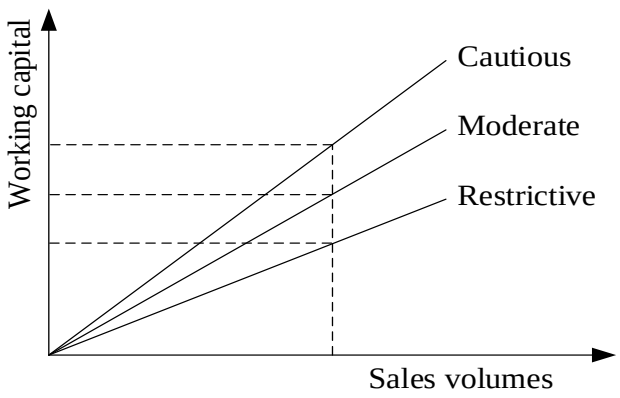

Figure 1.7 - Strategies for Forming the Volume and Structure of an Enterprise's Working Capital

A cautious strategy characterizes organizations that maintain relatively high cash, inventories, and marketable securities. At the same time, sales volume is stimulated by the policy of loans provided to customers, which also leads to a high level of receivables.

With a restrictive strategy, cash, inventory, and debt are kept to a minimum. A moderate strategy is an average between the two described.

It would be optimal for any organization to maintain a minimum required level of working capital since exceeding this level leads to an increase in financing needs without a corresponding increase in profits.

With a restrictive policy, an unjustified reduction in working capital leads to decreased sales volumes and production inefficiency due to a lack of inventory.

In conditions of uncertainty, a cautious strategy cannot be effective since, in this case, the company, in addition to the minimum required amount of cash and reserves (depending on expected payments and sales volume), will need an additional amount - safety stock for randomly foreseen deviations from expected values.

A restrictive working capital strategy involves benefiting from fewer financial resources in circulation, but at the same time, it also carries the most significant risk. The opposite is valid for a cautious strategy. Thus, the condition for the optimal relationship between profitability and risk is not met for these two strategies.

In addition, a restrictive strategy leads to faster inventory and accounts receivable turnover. Consequently, its result is a relatively short period of circulation of funds.

A prudent strategy allows for higher inventory and receivable levels and longer inventory, debt, and cash cycles.

As a result of a moderate strategy, the duration of circulation of funds is at an intermediate level between those described [65].

In the field of working capital financing, several main strategies can also be distinguished:

Conservative strategy is a strategy of minimizing short-term liabilities and

maximizing the amount of net working capital. It guarantees constant liquidity but is expensive since long-term liabilities are highly valued and require regular maintenance. In this regard, high costs of attracting financing give rise to the risk of a decrease in the return on equity. This strategy is optimal in cases of inflation, which increases the cost of short-term sources of financing, job instability, and lack of reliable cash flows under preferential terms of long-term debt financing.

An aggressive strategy covers current assets primarily with current liabilities and minimizes net working capital. The risk of loss of liquidity with such a strategy is maximum since if the need arises to pay off all short-term obligations, the company will be forced to sell fixed assets [20].

The choice of one or another model of financing strategy comes down to establishing the value of long-term liabilities and calculating the amount of net working capital as the difference between long-term liabilities and non-current capital. Consequently, each behavioral strategy has its basic balance equation.

The financial manager must consider various possibilities for financing working capital and choose the most appropriate option, considering the enterprise's specifics and external economic conditions.

In the policy of financing working capital, specific approaches are used:

– approach 1 - the entire need for operating capital is funded through short-term debt, i.e., “working capital” is equal to zero;

– approach 2 – part of the minimum required amount of funds in reserves is financed from own sources of funds and long-term borrowed funds;

– approach 3 – the minimum necessary amount of funds in reserves is financed from own sources of funds and long-term borrowed sources;

– approach 4 – almost the entire constant need for working capital is financed from own sources of funds and long-term borrowed sources. This means that the amount of “working capital” is maintained at the level of the minimum required amount of funds in inventories and almost the entire average amount of funds in settlements with debtors;

– approach 5 – the whole of constant need for working capital and half of the variable (seasonal) need are financed from own sources of funds and long-term borrowed sources, “working capital” increases significantly compared to the previous approach;

– approach 6 – all the need for working capital is financed from own sources of funds and long-term borrowed funds [36].

Approach 1 is risky for liquidity, so it is practically not used. In essence, it means the absence of own working capital; it can be used periodically by enterprises with virtually no technological cycle, for example, trade. They equate accounts payable for purchased inventories with their sources of financing. Approach 2 is also hazardous in terms of the possibility of loss of liquidity; it assumes that financial managers can continually raise short-term debt to finance working capital. If this is not possible, this approach cannot be used. With approach 3, there is no surplus of own operating capital since financial managers achieve a balance between receivables and payables that is favorable for the enterprise, the average repayment period of accounts payable is equal to the average repayment period of receivables (in other words, the duration of the financial cycle is reduced to the duration of the production cycle), but the threat the loss of liquidity is significant [21].

With approach 4, the ratio of receivables and payables is acceptable (the financial cycle is shorter than the operating cycle), but sometimes a tiny surplus of own working capital may arise. The risk of loss of liquidity with this approach is lower than with approach 3. The most acceptable approaches to working capital management should be considered approaches 3 and 4. Approach 5 means that the risk of loss of liquidity is even lower, but periodically during the year, a significant surplus of own working capital may appear. Therefore, it is necessary to promptly manage and control it so funds are not diverted to purchase unnecessary supplies. Approach 6 is only possible theoretically since the company always has some short-term debt.

1.3 Approaches to norms for enterprise working capital

The successful implementation of this policy is associated with the solution of the following main tasks:

– ensuring maximization of the enterprise's profit generation, taking into account the acceptable level of financial risk;

– formation of an effective profit distribution policy (dividend policy) for the enterprise;

– formation of an effective depreciation policy at the enterprise;

– formation and effective implementation of a policy of additional issues of shares (emission policy) or attraction of additional share capital [40].

In market conditions, the problem of rationally combining own and involved sources of the formation of current assets arises. The standard of existing assets is the boundary between own sources and sources of active funds. The effective use of working capital largely depends on correctly determining their needs. Before receiving proceeds from the sale of products, operating capital is a source of financing the current production costs of the enterprise. The revenue received from sold products often does not coincide with the time of consumption of material resources, which determines the need to form working capital in a certain amount.

It is essential to correctly determine the optimal need for working capital, making it possible to obtain the profit planned for a given production volume with minimal costs. An understatement of the amount of operating capital entails an unstable financial condition, disruptions in the production process, and a decrease in volume and, accordingly, profit. Overestimation of working capital reduces the enterprise's ability to incur costs for production expansion, modernization, reconstruction, etc. Freezing funds (both own and, especially, borrowed funds in any form) is costly for an enterprise because an increase in the turnover of working capital leads to a rise in the profit of the enterprise.

Determining the need for working capital must be related to the production cost estimate and the enterprise plan (quantity of products, prices, supply times, sales markets, etc.) [21].

Providing an enterprise with working capital depends on the following:

Timeliness of drawing up contracts (determination of supply conditions, prices for inventory items, batch sizes, frequency of supplies of inventory items, terms and forms of payment, etc.);

A complete list of all types of raw materials, main and auxiliary materials, fuel, spare parts, use of containers (purchased and own), packaging, design, etc. Any production costs for the production of products that determine the production cost of products [61].

The size of production costs underlies the determination of the need for working capital.

These elements are planned for the first year and for the future, for 2-3 years, since it is necessary to assess the possible dynamics of production costs and changes in working capital to form production reserves and work in progress.

Industrial reserves must be minimal relative to specific supply conditions and sufficient to ensure the continuous functioning of the enterprise, that is, optimal. However, it is necessary to consider the factors of price changes and inflation.

The amount of funds invested in work in progress largely depends on the duration of the production cycle, which is determined by the production technology of the product.

Determining the size of working capital necessary for forming stocks of finished products in the warehouse must be closely linked with forecasting the sales volumes of manufactured products. The issue of sales largely determines the accumulation of finished products in the warehouse.

In a functioning enterprise, the most significant portion is working capital that serves the production and sales process. Therefore, when planning, it is advisable to pay attention to:

– industrial stocks;

– work in progress;

– finished products in the warehouse [6].

This part of the material current assets should be subject to constant control by the financial services of the enterprise. The other part of working capital is quite diverse and requires different approaches.

Limiting or minimizing the size of goods shipped is not practical because this is the result of production and economic activities. The more products are shipped, subject to timely payment, the more revenue goes to the bank account. For a specific time, funds fall out of the production process, so to replenish them, you can use a loan in the amount of the production cost of goods shipped, the payment period for which has not yet arrived.

Diversion of working capital into goods shipped but not paid for is undesirable, but in practice, it does occur.

Thus, when planning the optimal need for working capital, it is necessary to take into account:

– funds that are advanced to create inventories;

– backlog of work in progress;

– accumulation of finished products in the warehouse [5].

Three methods can be used to plan the optimal need for working capital: analytical, coefficient, and direct calculation.

An enterprise may use any of three methods, taking into account:

– enterprise size;

– the volume of the production program;

– the nature of economic relations;

– accounting and qualifications of an economist [46].

The direct calculation method can also be called the standardization method. Rationing calculates part of the current assets (inventories and costs) an enterprise needs to ensure a regular, continuous production process, product sales, and settlements. Rationing of existing assets includes the development and establishment at each enterprise of exceptional standards for certain types of material assets,

production costs, etc., and calculation of the standard of own current assets in monetary terms at the end of the year [25].

The norm is a calculation of its relative or minimum value for each current asset type', which is necessary for calculating the norm. In turn, the standard is the minimum amount of its existing assets in monetary terms, which the enterprise needs to ensure a regular, continuous process of production, sales of products, and settlements [25].

Comparing working capital's availability with the standard makes it possible to determine the shortage or surplus of one's operating capital.

Lack of own working capital means an excess of the working capital standard over their actual availability. It can arise through the fault of the enterprise itself or other enterprises as a result of changes in business conditions that were not taken into account promptly (such as untimely financing of the increase in the norm of own working capital) through a natural disaster and other reasons.

The main reasons for the lack of own working capital may be the poor performance of the marketing service, failure to meet profit plans, weak responsibility of enterprises for the formation and preservation of their working capital and their misuse; untimely financing of the increase in the operating capital standard; the presence of accounts receivable (late payments), etc.

A lack of working capital may arise due to a significant price increase due to inflationary processes. Enterprises create a surplus of their working capital if the operating capital exceeds the specific standards necessary to satisfy the constant minimum production needs for resources. It may arise due to exceeding the profit plan, incomplete payment to the budget, free receipt (receipt) of inventory items from other organizations, insufficient use of profits for the whole provided for by the financial plan, etc. Exceeding the working capital standard may be justified in case of exceeding the production plan. Still, the growth rate of standard inventories should not outstrip the growth rate of production volume. Under modern economic conditions (price changes, inflation, production reductions), an excess of the actual

availability of own working capital over the standard is a relatively rare phenomenon in the economic activities of enterprises [21].

The essence of the direct calculation method (or the standardization method) is to calculate inventories for each element of working capital, considering all changes at the level of organizational and technical development, transportation of inventory, and settlement practices between enterprises. The direct calculation method makes it possible to calculate individual and aggregate standards.

Individual working capital standards include: in production inventories (raw materials, essential and auxiliary materials, purchased semi-finished products, fuel, containers, spare parts, low-value and wearable items); in work in progress and semi-finished products of own production; in deferred costs; in finished products [25].

This method is very labor-intensive but also the most accurate. The norm for working capital (N_{WC}) by elements (raw materials, materials, purchased semi-finished products, auxiliary materials) is determined using formula 1.1 [25].

$$N_{WC} = C_C * D_D, \quad (1.1)$$

where C_C - one-day costs for the respective element, thousand UAH;

D_D - the norm of inventory for a specific element of working capital, in days.

One-day costs for the respective element are calculated using formula 1.2 [25]:

$$C_C = C_{PQ}/90, \quad (1.2)$$

where C_{PQ} - quarterly production expenses, thousand UAH;

90 - the number of days in a quarter.

The norm of inventory for a specific element of working capital is calculated using formula 1.3 [25]:

$$D_e = N_{tech} + N_{prep} + N_{stor} + N_{gar(insurance)}, \quad (1.3)$$

where N_{tech} - time for preparation for production, in days;

N_{prep} - time for receiving, unloading, sorting, and storage, in days;

N_{stor} - time in storage and delivery uniformity, in days;

$N_{gar(insurance)}$ - 50% of N_{stor} or 30% of N_{stor}, depending on supply conditions.

The total norm for working capital in the enterprise is determined as the sum of all norms, as shown in formula 1.4 [25]:

$$N_e = N_{pro} + N_{wip} + N_{fgp} + N_{cap}, \quad (1.4)$$

where N_{pro} - norm for production stocks, UAH;

N_{wip} - norm for working capital in work in progress, UAH;

N_{fgp} - norm for working capital in finished goods inventory, UAH;

N_{cap} - norm for working capital for future period expenses, UAH.

Thus, the total working capital requirement is the sum of working capital calculated for individual elements: production stocks (raw materials and primary materials, auxiliary materials, purchased products and semi-finished products, fuel, reusable packaging, spare parts, low-value and fast-wearing items), work in progress, finished goods, and future period expenses.

These calculations, carried out by the direct calculation method, are conducted over an extended period and do not anticipate sudden changes in product assortment, production technology, supply, and sales conditions. Therefore, the norm calculated using this method requires annual adjustment to account for changes in production programs and the turnover of working capital. More general methods are used for such adjustments, which will be discussed further.

The essence of the coefficient method lies in its ability to calculate the need for working assets while considering trends and ratios in changes in production volume and specific types of stocks and expenses. Determining the norm of working capital using the coefficient method consists of the following steps. First, it is important to note that the norm for the current year is divided into two parts: the

production norm and the non-production norm. The production norm includes norms for working capital by items whose size directly depends on the production costs: raw materials, primary materials, purchased semi-finished products, auxiliary materials, packaging, work in progress, and finished goods.

Non-production norms include those items of normed working capital for which the size is not directly dependent on changes in production costs: spare parts for equipment repairs, low-value and fast-wearing items, future period expenses. The ratios established in the past period, using corresponding coefficients, are transferred to the future period [46].

Analytical and economic methods are identical in essence. The essence of these methods lies in the calculation of the norm for individual elements of working capital. Instead, the total norm for the planned year is calculated based on the existing norm for the current year, adjusted for changes in production volume and the acceleration of working capital turnover in the planned year. The norm for the planned year, similar to the coefficient method, is divided into two parts: production and non-production norms. To determine the norm for working capital for the planned year, the production norm is increased according to the growth rate of the production program in the planning period. The non-production norm for working capital is increased by 50% of the growth in the production program (it should be noted that this increase only applies to the economic method).

The total norm amount obtained is reduced by the amount of funds released as a result of planned (forecasted) acceleration of working capital turnover. The norm for working capital for the planned year according to the analytical method is calculated as follows [67]:

– We determine the production norm for working capital for the planned year by multiplying the production norm for working capital in the reporting year by the growth coefficient of the production program for the next year.

– We determine the non-production norm for working capital for the planned year by multiplying the non-production norm for working capital in the reporting period by the growth coefficient of the non-production program for the next period.

– We calculate the total norm for working capital for the planned year by adding the production and non-production norms for working capital for the planned year.

– We determine the expected amount of working capital release by multiplying the total norm for working capital by the coefficient of changes in production volume or acceleration of working capital turnover.

– We calculate the norm for working capital for the planned year by subtracting the expected amount of working capital release from the total norm in the planned year.

The analytical method is applied in enterprises where the funds invested in tangible assets and expenses make up a significant portion of the total working capital amount [67].

Similarities were identified between the analytical (economic) and coefficient methods. In both methods, the norm for working capital is divided into two parts: production and non-production. This means that when calculating the norm for working capital, changes in production volume and specific types of stocks and expenses are taken into account. In the coefficient method, changes in the turnover of working capital are not considered. There is also a difference between the analytical method and the economic method, namely, in the economic method, unlike the analytical one, the non-production norm for working capital is increased by 50% of the growth in production volume [52].

In summary, three methods of capital normalization used in enterprises today have been discussed in this work: the direct calculation method, the analytical method, and the coefficient method. The direct calculation method is the most accurate among all. There is also an economic method, which includes both the analytical and coefficient methods. Determining the optimal working capital requirement is crucial for businesses in their operations. This is because if the amount of working capital is underestimated, it can lead to supply and production disruptions, reduced production volume and profit, overdue payments, and debt accumulation, among other negative consequences in a company's operations.

Excess working capital can lead to the accumulation of excessive inventories of raw materials and materials, a relaxation of cost-saving measures, and the creation of conditions for the use of working capital for purposes other than its intended use.

Conclusions to section 1

In Section 1 of the master's thesis, fundamental concepts and principles of working capital management were examined and analyzed. Based on the analysis conducted, the following conclusions can be drawn.

1. Working capital is an integral part of an enterprise's capital that is committed to current assets to generate profits. It undergoes continuous transformation throughout production and trade cycles, ensuring the smooth flow of business operations.

2. Working capital has the unique characteristic of circulating throughout production processes, changing its form, and ultimately contributing to profits. It is not consumed but invested, with the potential for its value to grow. Working capital can be categorized based on its role in circulation, planning methods, and sources of formation. This classification is essential for determining its optimal composition, structure, funding requirements, and sources, significantly impacting the financial health of the enterprise.

3. Effective working capital management involves granting autonomy to enterprises, planning and allocating working capital to specific elements, adjusting norms to changing economic conditions, implementing a rational financing system, and controlling the efficient utilization of working capital.

4. A company's working capital sources include equity, near-equity, debt, and borrowed funds. Maintaining an optimal level of operating capital is crucial for balancing liquidity risk and operational efficiency. An inadequate working capital

level can lead to liquidity problems, while excessive working capital can result in idle assets and increased financing costs.

5. Financial managers should carefully evaluate various financing options for working capital and choose the most suitable one based on the company's unique characteristics and external economic conditions. The chosen working capital management strategy can be cautious, moderate, or restrictive, depending on the organization's goals and risk tolerance.

6. Efficient utilization of working capital relies on accurately determining the required level of working capital, ensuring the balance between liquidity and profitability. Insufficient working capital can lead to liquidity problems and operational disruptions, while excess working capital may result in idle assets and increased financial costs. Planning the optimal working capital requirement involves considering factors such as production needs, unfinished production, and finished product storage.

7. Three methods for calculating the optimal working capital requirement were discussed in this master thesis: direct calculation, analytical method, and coefficient-based method. The direct calculation method is the most precise.

8. Properly determining the optimal working capital requirement is essential for the smooth operation and financial stability of an enterprise, as it helps avoid disruptions in supply, production, and financial obligations. An excess of working capital can lead to inefficient resource allocation, excessive inventory, and missed investment opportunities, emphasizing the importance of finding the right balance.

SECTION 2
ANALYSIS OF WORKING CAPITAL MANAGEMENT EFFICIENCY AT THE EXAMPLE OF PRIVATE ENTERPRISE "CONCOR" FOR 2020-2022

2.1 Characteristics of the financial and economic activities of the enterprise

The private enterprise "Concor" is a light industry enterprise specializing in producing various fabrics, such as cotton, wool, synthetic, and mixed materials.

The enterprise is a legal entity with independent balance sheets and bank accounts.

The enterprise has property and the right to enter contracts on its behalf, acquires property and personal non-property rights, and assumes obligations. It also has the right to act as a plaintiff or defendant in courts, arbitration, and arbitration institutions.

Enterprise property includes a variety of assets that the company uses in its activities to achieve its goals and ensure stable operation. These are fixed assets, which have buildings, structures, equipment, machinery, and vehicles that an enterprise uses to produce goods or provide services; intangible assets, which cover rights and value not associated with physical objects, such as patents, trademarks, copyrights, licenses, technologies, and other intellectual assets; Inventories - raw materials, semi-finished products, finished goods and goods in the process of production or awaiting sale, accounts receivable, cash and bank accounts.

The structure of the authorized capital of the enterprise is formed from the cost of production of administrative buildings and production equipment.

The enterprise has a linear functional organizational structure. A line-functional organizational structure divides tasks and responsibilities into functional

areas, and power is transferred in strict linear order from top to bottom. An organization with a linear-functional structure has a clear hierarchy where each employee reports to only one manager.

At the head of the enterprise is a director, to whom all employees are subordinate. But depending on the functions performed, each is subordinate to his department.

The enterprise has the right to autonomously plan its activities and determine its development strategy, focusing on the demand for manufactured products and services provided and the need to ensure industrial and social development to increase income. In addition, the enterprise has the independent right:

– determine the wage fund and establish forms, systems, amounts of remuneration, and other types of income for its employees;

– conducted economic relations with other enterprises, organizations, and citizens in all areas of business based on concluding contracts;

– to sell its products both on the territory of Ukraine and abroad;

– provide logistics for its production and capital construction through direct agreements, commodity exchanges, and other intermediary organizations in Ukraine and other countries;

– transfer, exchange, lease, temporarily provide relevant assets, such as buildings, structures, equipment, vehicles, and inventory, to other enterprises, institutions, and organizations, and write them off from accounts;

– use a bank loan on a commercial basis.

The company sells its products and other material assets based on direct agreements (contracts), through commodity exchanges, and a network of its trading enterprises. Sales of products and property are carried out at prices and tariffs determined independently or on a contractual basis and, in cases provided for by Ukraine legislation, at state prices and tariffs.

PE "Concor" independently draws up and monitors the implementation of business and other contracts with all types of organizations, enterprises, institutions, and individuals.

The company maintains operational and accounting records of the results of its activities and generates statistical reporting. Accounting is carried out using order books and an accounting system. Annual reports provide concentrated information on analyzing the enterprise's activities and financial position. In addition to summarizing critical statistics for the last five years, data for the previous two years is provided. Quantitative data (numbers) and explanations of why an event occurred are of particular importance. Financial statements show how income has changed over the past few years and contain information that allows you to understand the reasons and circumstances of events.

Express analysis was used to analyze the financial and economic activities of the enterprise. Express analysis of the financial condition of an enterprise is a method of assessing a company's financial position, carried out relatively quickly using vital economic indicators. This analysis provides a snapshot of a business's financial position and can be used to identify significant trends and issues.

An express analysis of the financial condition of an enterprise provides a brief but informative picture of the company's financial stability. It can be helpful for investors, creditors, and company management to make quick decisions.

As a result of an express analysis of the financial condition of the Concor private enterprise, it was determined that the primary enterprise's leading source of capital formation is its capital (Figure 2.1).

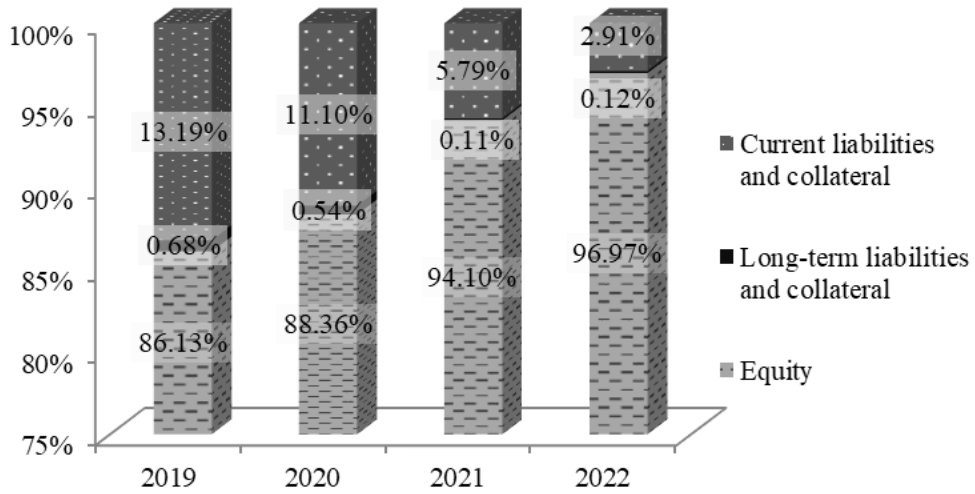

Figure 2.1 - Capital Structure of Private Enterprise "CONCOR" for 2020-2022

A business's equity (or shareholders' equity) is the portion of a company's assets that belongs to its shareholders. This is the difference between the assets and liabilities of a business.

A company's equity performs several vital functions, influencing financial health, sustainability, and performance. Here are the main tasks of equity:

1. Ensuring financial stability. Equity is a form of long-term financing that does not require mandatory interest payments or loan repayments. This contributes to the company's sustainability since it is not obligated to return funds to shareholders until other obligations are met.

2. Source of financing for growth. A company can use equity to finance new projects, expand its business, or acquire assets. This allows the company to grow without the need to take on additional debt.

3. Guarantee of solvency. Equity capital is a type of guarantee ensuring the company's solvency. Equity capital can cover obligations in case of a shortage of working capital or temporary difficulties with obligations.

4. Increased creditworthiness. Lenders and investors generally view a high level of net worth as a positive signal of financial strength. This can improve the company's creditworthiness, essential when raising debt or attracting new investments.

5. Distribution of income to shareholders. The part of the company's remaining profit after paying all obligations and reserving the necessary funds can be distributed among shareholders as dividends. This helps attract and retain investors.

6. Protection from financial risks. Equity can serve as a buffer to absorb losses and amortize financial risks. When a company faces difficulties, it has a certain reserve of funds that can be used to cover losses or restructure debt.

7. Participation of shareholders in management. Equity shareholders usually have the right to participate in important decisions at shareholder meetings. This promotes active involvement in managing and controlling the company's activities [46].

Equity plays a vital role in a company's financial structure, providing stability, flexibility, and the opportunity to develop.

The share of equity capital in the structure of financing sources is: at the beginning of 2020, 86.13%; at the end of 2020, 88.36%; at the end of 2021 94.10%, at the end of 2022, 96.97%. The predominant share of equity capital and its increase during the period under study indicates the enterprise's high level of financial stability.

The main forming item of equity capital is retained earnings, the share of which in the structure of own sources of financing is 89%-94%. The increase in the efficiency of the enterprise is evidenced by the rise in this balance sheet item by 90.05% at the end of 2022 compared to the beginning of 2020.

Retained earnings represent a company's reserve that can be used for various purposes in the future. For example:

Investment and growth. The company may use retained earnings to finance new projects, research and development, asset acquisitions, or business expansion.

Coverage of losses. If losses occur in the future, retained earnings can be used to cover them.

Payment of dividends in the future. When a company decides not to pay out all of its earnings as dividends, this can be used to increase payout stability during periods of low profitability.

Reservation of funds. Part of retained earnings can be allocated as reserves in case of possible risks and liabilities.

Retained earnings are essential for assessing a company's financial condition and strategy. In income statements and balance sheets, this category allows third parties, such as investors or analysts, to understand how a company uses its earnings and plans to manage its resources in the future [35].

Despite the high financial stability and operational efficiency, the enterprise has an irrational structure of borrowed capital, in which current liabilities and collateral predominate (95.09% of the amount of borrowed capital at the beginning

of 2020, 95.38% at the end of 2020, 98.11 % at the end of 2021 and 96.08% at the end of 2022).

The balance sheet currency of the enterprise at the end of 2020 increased by 1.58 times, at the end of 2021 - by 1.08 times, at the end of 2022, decreased by 5.78% compared to the beginning of the year but increased by 90.05% relative to the beginning of the analyzed period. An increase in the balance sheet currency indicates the expansion of the enterprise's activities.

The structure of assets of the private enterprise "Concor" is presented in figure 2.2.

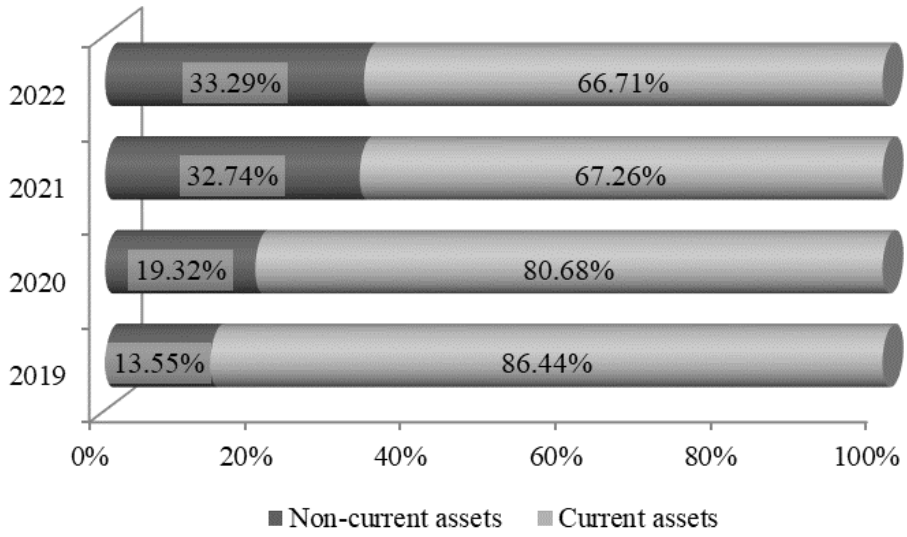

Figure 2.2 - Asset Structure of the «Concor» Private Enterprise for 2020-2022

The structure of the enterprise's assets is formed mainly due to current assets: at the beginning of 2020, their share was 86.44%; at the end of 2020 - 80.68%; at the end of 2021 - 67.26%; at the end of 2022 - 66.71%. Since part of the non-current assets is less than 40%, the enterprise has a "light" asset structure, which indicates the mobility of assets and liquidity of the enterprise.

Analysis of the financial performance of an enterprise plays a crucial role in business management and strategic decision-making.

Analysis of financial results allows you to assess the overall financial health of the enterprise. This includes assessing the company's profit, liquidity, solvency, and financial strength.

Financial analysis provides information for making strategic and operational decisions. It can help management determine which business areas are generating the most profit and where efficiency can be improved.

Analyzing the results of previous financial periods is an essential element in planning and budgeting for the future. This allows the company to set realistic goals and strategies to achieve success.

By analyzing financial results, a company can measure the effectiveness of its operations. For example, profitability, asset turnover, and other indicators can be used to measure resource use efficiency.

Investors and lenders evaluate financial performance to make investment or loan decisions. Positive results can attract new investors and improve lending conditions.

Analysis of results helps in cost control and efficient use of resources. It can identify areas where efficiency can be improved, and costs can be optimized.

Comparing financial results with those of competitors allows a company to evaluate its position in the market and identify competitive advantages or weaknesses.

Financial analysis provides information for communicating with various stakeholders, including shareholders, employees, customers, and government agencies.

Generally, it analyzes the company's financial results and a complete picture of its financial position for sustainable business development and informed decision-making.

The financial results of the enterprise are presented in the table 2.1.

The years: 2020 and 2021 are characterized by the practical activities of the enterprise, which is expressed in the receipt of profit from all types of activities, including net profit. But in 2022, due to a decrease in net income by 56.01% compared to 2020, gross profit by 78.74%, profit from operating activities by 95.06%, and profit before tax by 95.62%, the company received net losses of UAH 6.12 thousand.

Table 2.1 - Financial Results of the «Concor» Private Enterprise for 2020-2022

Indicators	Period		
	2020	2021	2022
Net income, thousand UAH	8979,7	5795,6	3949,8
Gross profit, thousand UAH	3088,8	1493,5	656,82
Financial result from operating activities, thousand UAH	2514,2	946,44	124,2
Financial result before taxation, thousand UAH	2509,2	942,3	109,89
Net financial result, thousand UAH	1816,3	617,67	-6,12

The increase in the resource intensity of products and the ineffective use of equity capital (excessive level of financial stability) are the reasons for the enterprise's decrease in efficiency.

2.2 Analysis of the dynamics and structure of enterprise's working capital

Current assets account for the largest share of the total balance sheet value. This is the most liquid part of capital, and the results of the company's operations and financial health largely depend on its rational utilization.

The primary objective of the analysis is to promptly identify and rectify deficiencies in working capital management and discover reserves for increasing the intensity and efficiency of its utilization.

The main sources of information for analyzing the formation and deployment of a company's capital are financial statements: Form No. 1 "Balance Sheet (Statement of Financial Position)," Form No. 2 "Statement of Comprehensive Income (Statement of Comprehensive Income)," Form No. 3 "Statement of Cash Flows (Direct Method)," and data from synthetic and analytical accounting accounts for cash.

Analysis of the formation of a company's working capital involves assessing the business activity of the company, calculating the impact of factors on the

turnover duration, calculating the economic efficiency of accelerating capital turnover, analyzing cash flows, and drawing conclusions based on the analysis results.

The successful operation of a company in the market and its financial health are significantly influenced by the volume, composition, structure, and efficient utilization of working capital.

Let's examine in detail the composition, structure, and dynamics of current assets of the researched enterprise (Table 2.2).

Based on the data in Table 2.2, it is worth noting that the largest proportion in the structure of the company's current assets is occupied by inventories, averaging 70% over the research period. In 2021, compared to 2020, there was an increase of 105.39 thousand hryvnias in their amount, and in the structure, this represented a 10.2% increase. An increase in the share of inventories may indicate an expansion of the company's operations or ineffective inventory management.

In 2022, compared to 2021, the situation improved. The inventory amount decreased by 353.52 thousand hryvnias, representing a 5.64% decrease in the structure of current assets (Figure 2.3). This indicates an increase in the business activity of the company.

According to calculations, the change in accounts receivable has the opposite trend compared to inventories. That is, a decrease in 2021 compared to 2020 and an increase in 2022 compared to 2021. An increase in accounts receivable indicates a deterioration in settlements with the enterprise.

An increase or decrease in accounts receivable greatly influences the turnover of capital invested in current assets and, consequently, the enterprise's financial condition. Its value depends on the volume of sales, the terms of settlement with customers, the period of deferred payment, the payment discipline of customers, the organization of control over the state of receivables and pretentious work at the enterprise, etc.

Table 2.2 - Indicators of the Dynamics and Structure of Current Assets for the "Concor" Private Enterprise for 2020-2022

Type of Current Assets	Amount of Funds, thousand of UAH					Structure of funds, %				
	2020	2021	2022	Dynamics		2020	2021	2022	Dynamics	
				2022 to 2020	2022 to 2021				2021 to 2020	2022 to 2021
1	2	3	4	5	6	7	8	9	10	11
Total current assets	3775,23	3414,15	3190,5	-361,08	-223,65	100	100	100	0	0
Stocks:	2540,07	2645,46	2291,94	105,39	-353,52	67,28	77,48	71,83	10,20	-5,64
production	1628,37	1572,3	1601,82	-56,07	29,52	43,13	46,05	50,20	2,91	4,15
unfinished production	258,84	421,74	347,58	162,9	-74,16	6,85	12,351	10,892	5,49	-1,45
finished products	652,23	651,42	342,54	-0,81	-308,88	17,27	19,081	10,73	1,80	-8,34
goods	0,63	0	0	-0,63	0	0,016	0	0	-0,01	0
Accounts receivable for goods, works, and services	656,1	273,06	71,55	-383,04	-201,51	17,37	7,99	2,24	-9,38	-5,75
Accounts receivable according to calculations	452,7	363,6	638,28	-89,1	274,68	11,99	10,64	20,01	-1,34	9,35
Cash and cash equivalents	126,36	132,03	188,73	5,67	56,7	3,34	3,86	5,91	0,52	2,04
Regarding participation in the operational process:										
in the field of production	2540,07	2645,46	2291,94	105,39	-353,52	67,28	77,48	71,83	10,20	-5,64
in the sphere of circulation	1235,16	768,69	898,56	-466,47	129,87	32,71	22,51	28,16	-10,20	5,64

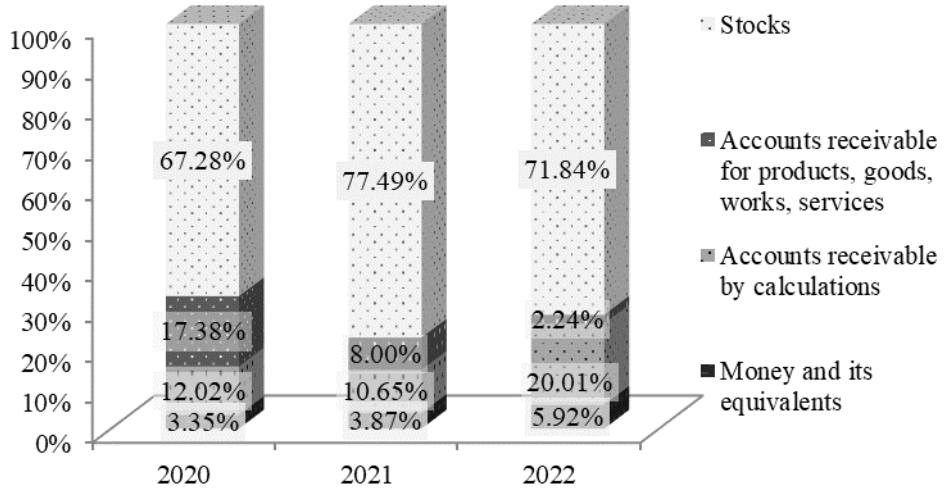

Figure 2.3 - Dynamics and structure of current assets at PE "Concor" for 2020-2022

A sharp increase in accounts receivable and its share in current assets may indicate an inappropriate credit policy of the enterprise regarding buyers, an increase in sales volume, or the insolvency and bankruptcy of some buyers. A reduction in accounts receivable is assessed positively if this occurs due to a reduction in the repayment period. If accounts receivable decrease due to the decline in product shipments, this indicates a reduction in the enterprise's business activity [25].

So, an increase in accounts receivable is not always assessed negatively, while a decrease is not always assessed positively. It is necessary to distinguish between average and overdue debt. The second creates financial difficulties because the company lacks the resources to purchase inventory, pay wages, etc. In addition, freezing funds in accounts receivable leads to a slowdown in capital turnover. Overdue receivables also mean an increase in the risk of non-payment of debts and a decrease in profits. Therefore, every enterprise is interested in reducing the repayment period of its due payments.

Table 2.3 and Fig. 2.4 show the dynamics and structure of receivables of the Concor private enterprise for 2020-2022.

Table 2.3 - Indicators of the structure and dynamics of receivables at private enterprise "Concor" for 2020-2022

Indicators	2020		2021		2022		Deviation					
							2021 to 2020			2022 to 2021		
	Absolute Value, thousand UAH	Specific gravity, %	Absolute Value, thousand UAH	Specific gravity, %	Absolute Value, thousand UAH	Specific gravity, %	Absolute Value, thousand UAH	Change in Percentage Share, %	Growth Rate, %	Absolute Value, thousand UAH	Change in Percentage Share, %	Growth Rate, %"
Total amount of accounts receivable	1108,8	100	636,66	100	709,83	100	-472,14	0	57,42	73,17	0	111,49
Including:												
by goods, works, services	656,1	59,17	273,06	42,89	71,55	10,07	-383,04	-16,28	41,62	-201,51	-52,97	26,20
budget calculations	452,61	40,81	354,24	55,64	633,06	89,18	-98,37	14,82	78,27	278,82	-144,83	178,71
on advances issued	0,09	0,008	6,39	1,00	5,22	0,74	6,3	1,00	7100,00	-1,17	-1,74	81,69
with internal calculations	0	0	2,97	0,47	0	0	2,97	0,47	-	-2,97	-0,47	0,00

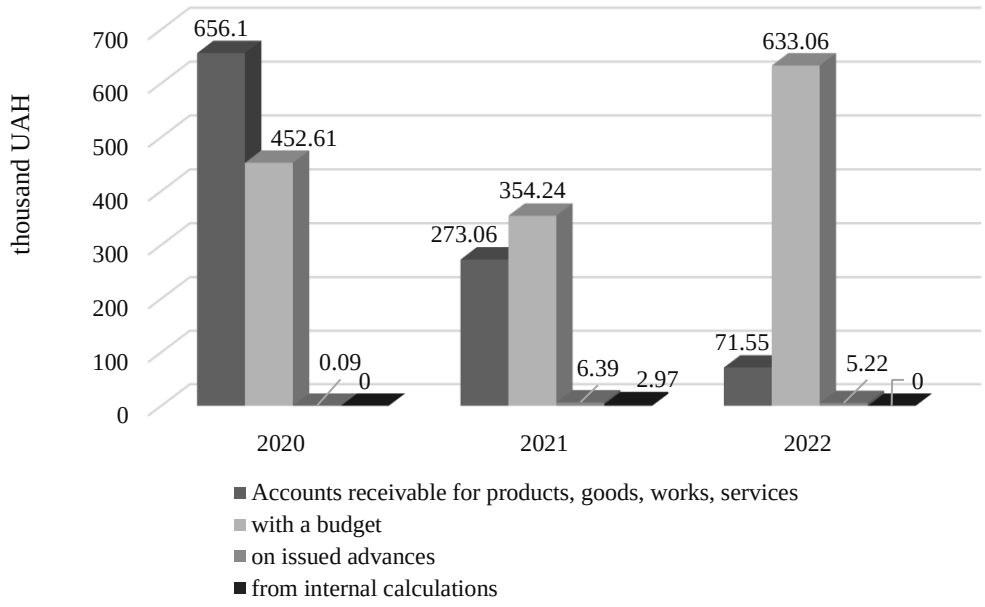

Figure 2.4 - Dynamics and structure of receivables at private enterprise "Concor" for 2020-2022

According to Table 2.3, we will analyze the changes in the accounts receivable structure at the enterprise under study during the analyzed period.

Thus, the total amount of receivables in 2021, compared to 2020, decreased by UAH 472.14 thousand. As noted earlier, a decrease in accounts receivable has a positive effect on the enterprise's financial condition, and its increase is not a positive trend. The largest share of accounts receivable in 2020 was occupied by debt for goods, works, and services (59.17%). In 2021 and 2022, there was a decrease in its structure to 10.07%. This indicates that the enterprise has implemented a more appropriate sales policy.

The next item in terms of share in the structure in 2020 was the item of settlements with the budget, and from 2021, it takes first place. During the analyzed period, there was a tendency to increase debt on advances issued. Such changes negatively affect the financial condition of the enterprise.

As for money and its equivalents, during 2020 - 2022. an increase in their number can be traced. So, in 2021, compared to 2020, there was an increase of UAH 5.67 thousand, and the share in the structure increased by 0.52%. In 2022, compared to 2021, cash increased by UAH 56.7 thousand, and the share in the structure

increased by 20.4%. Such changes should be characterized as positive for the enterprise.

The augmentation of cash and cash equivalents not only indicates the effective management of liquidity but also holds broader implications for the company's financial health and operational capabilities. This increase in cash reserves suggests that the company had the financial flexibility to navigate its business activities, respond to unforeseen challenges, and capitalize on opportunities during the observed period.

Maintaining a healthy cash position allows the company to swiftly address its day-to-day financial needs, including covering operating expenses, paying off short-term debts, and seizing strategic investments. Moreover, it provides a safety net that can shield the company from potential economic downturns, market volatility, or unexpected expenditures. Furthermore, the heightened share of cash and cash equivalents within the asset structure of the company conveys its growing importance in supporting the overall financial stability and resilience. This, in turn, can serve as a positive signal not only for investors and creditors but also for various stakeholders interested in the company's financial well-being.

In summary, the increase in cash and cash equivalents reflects prudent financial management, enhanced liquidity, and the potential for the company to capitalize on strategic opportunities, all of which contribute to a more robust and stable financial position.

2.3 Evaluation of the effectiveness of the enterprise's working capital management strategy

The effectiveness of the enterprise's working capital management strategy was assessed based on indicators of the turnover rate of current assets and the balance of receivables and payables.

The following indicators characterize the rate of capital turnover:

- turnover ratio;
- duration of one revolution.

The turnover rate is calculated using formula 2.1 [34, p. 286]:

$$TR = ROR / AWC, \quad (2.1)$$

where *TR* – turnovers;

ROR - revenue from operations (or revenue from realization), in thousands of UAH;

AWC - average working capital, in thousands of UAH.

The opposite of the capital turnover ratio is the capital intensity ratio. It indicates the amount of working capital required for every 1 currency unit of product sold at cost. It is calculated using the formula 2.2 [34, p. 286]

$$CIR = AWC / ROR, \quad (2.2)$$

where *CIR* - capital intensity ratio;

AWC - average working capital for the reporting period (in thousands of UAH);

ROR - sales revenue from product sales (in thousands of UAH)

The duration of one revolution in days is calculated using formula 2.3 [34, p. 287]:

$$WCTC = (AWC \times D) / ROR, \quad (2.3)$$

where *WCTC* - working capital turnover cycle;

AWC - average working capital for the reporting period (in thousands of UAH);

D - number of days in the accounting period (365 days for a year);

ROR - sales revenue from product sales (in thousands of UAH)

The Working Capital Turnover Cycle calculated by dividing the number of days in the accounting period (usually 365 days for a year) by the Working Capital Turnover Ratio (CTR). This calculation provides the duration of one complete cycle of working capital turnover in days.

It calculated the working capital turnover indicators for the enterprise under study (Table 2.4). The necessary information for calculating turnover indicators is available in the balance sheet and the income statement (Appendix B).

Table 2.4 - Indicators of Working Capital Turnover for Private Enterprise "Concor" for 2020-2022

№	Indicators	2020	2021	2022	Deviation	
					2021 to 2020	2022 to 2021
1	2	3	4	5	6	7
1	Net income (revenue) from product sales, thousand UAH	8979,66	5795,64	3949,83	-3184,02	-1845,81
2	Average annual working capital, thousand UAH	3163,45	3594,69	3302,32	431,24	-292,37
3	Working capital turnover ratio	2,84	1,61	1,19	-1,23	-0,42
4	Duration of one revolution, days	151,35	212,06	290,78	60,71	78,72
5	Capital intensity ratio	0,39	0,62	0,84	0,23	0,22

At the analyzed enterprise, as indicated by the data in Table 2.4, the duration of working capital turnover increased by 60.71 days in 2021 compared to the previous year, and in 2022, compared to 2021, it increased by 78.72 days. Consequently, the turnover coefficient decreased by 1.23 in 2021 compared to 2020 and by 0.42 in 2022 compared to 2021. The capital intensity coefficient shows that for every 1 UAH of products sold, the amount of working capital decreased by 23 kopecks in 2021 compared to 2020, and in 2022 compared to 2021, it decreased by 22 kopecks.

The decrease in working capital turnover and the increase in its turnover period indicate a decrease in the efficiency of working capital management at the enterprise. In the further analysis, we will examine the change in working capital turnover at all stages of its cycle, which will allow us to track where acceleration or deceleration in working capital turnover occurred. To do this, the average balances

of individual types of current assets need to be multiplied by the number of days in the analyzed period and divided by the total sales turnover (Table 2.5).

Table 2.5 - Indicators of Capital Turnover Duration for "Concor" Private Enterprise, in Days

Indicators	2020	2021	2022	Deviation	
				2021 to 2020	2022 to 2021
The total duration of working capital turnover,	151,35	212,06	290,78	60,71	78,72
Including in:	65,28	97,66	145,99	32,38	48,33
production inventories	10,37	26,19	31,68	15,82	5,49
work in progress	26,31	40,46	31,22	14,15	-9,24
finished products	44,49	39,56	64,74	-4,93	25,18
accounts receivable	5,06	8,2	17,20	3,14	9,0

Table data 2.6 shows at what stages of the circulation the acceleration of working capital took place. Thus, at the enterprise under study, the duration of capital remaining in accounts receivable decreased in 2021, compared with 2020, and in 2022, compared with 2021, in finished products. At the same time, the duration of the period of circulation of funds in inventories and work in progress has increased, which indicates an increase in the production cycle.

The turnover duration of both total current assets and individual types (*WCTC*) can change due to the amount of revenue (*ROR*) and the average balances of current assets (*AS*). To calculate the impact of these factors, the chain substitution method is used and calculated using formulas 2.4 - 2.6 [29, p. 149]:

$$WCTC_0 = (AS_0 \times D) / ROR_0, \quad (2.4)$$

$$WCTC_i = (AS_0 \times D) / ROR_0, \quad (2.5)$$

$$WCTC_1 = (AS_1 \times D) / ROR_1, \quad (2.6)$$

where *WCTC* is the turnover duration ($WCTC_0$ is the turnover duration at the beginning of the period, $WCTC_1$ is the turnover duration at the end of the period, $WCTC_i$ is the intermediate value of turnover duration, necessary to implement factor analysis using the method of chain substitutions);

AS_0 is the sum of average balances of current assets in the base period;

AS_1 is the sum of average balances of current assets in the reporting period;

D - number of days in the accounting period (365 days for a year);

ROR_0 is the sum of revenue in the base period;

ROR_1 is the sum of revenue in the reporting period.

This formula helps assess how the turnover duration of current assets, both total and individual types, changes over time due to changes in revenue and average asset balances.

Hence, the change in the duration of capital turnover due to the amount of turnover (revenue) is calculated using formula 2.7 [29, p. 150]; the average working capital is calculated using formula 2.8 [29, p. 150]:

$$\Delta WCTC_{ROR} = WCTC_1 - WCTC_i, \quad (2.7)$$

$$\Delta WCTC_{AS} = WCTC_i - WCTC_0, \quad (2.8)$$

where $\Delta WCTC_{ROR}$ - change in the duration of capital turnover due to changes in revenue;

$\Delta WCTC_{AS}$ - change in the duration of capital turnover due to changes in the average amount of working capital.

For the enterprise under study:

2020 – 2021:

$$WCTC_0 = (3775{,}23 \times 365) / 8979{,}66 = 151{,}35 \text{ days}$$

$$WCTC_i = (3414{,}15 \times 365) / 8979{,}66 = 136{,}87 \text{ days}$$

$$WCTC_1 = (3414{,}15 \times 365) / 5795{,}64 = 212{,}06 \text{ days}$$

$$\Delta WCTC_{ROR} = 212{,}06 - 136{,}87 = 75{,}19 \text{ days}$$

$$\Delta WCTC_{AS} = 136{,}87 - 151{,}35 = -14{,}48 \text{ days}$$

including:

in production inventories:

$$\Delta WCTC_{AS} = (1572{,}3 - 1628{,}37) \times 365 / 8979{,}66 = -2{,}25 \text{ days}$$

in work in progress:

$$\Delta WCTC_{AS} = (421,74 – 258,84) \times 365 / 8979,66 = 6,53 \text{ days}$$

in finished products:

$$\Delta WCTC_{AS} = (561,42 – 652,23) \times 365 / 8979,66 = -0,03 \text{ days}$$

in accounts receivable:

$$\Delta WCTC_{AS} = (736,66 – 1108,8) \times 365 / 8979,66 = -18,92 \text{ days}$$

in cash:

$$\Delta WCTC_{AS} = (132,03 – 126,36) \times 365 / 8979,66 = 0,22 \text{ days}$$

2021 – 2022:

$$WCTC_0 = (3414,15 \times 365) / 5795,64 = 212,06 \text{ days}$$

$$WCTC_i = (3190,5 \times 365) / 5795,64 = 198,18 \text{ days}$$

$$WCTC_1 = (3190,5 \times 365) / 3949,83 = 290,78 \text{ days}$$

$$\Delta WCTC_{ROR} = 290,78 – 198,18 = 92,6 \text{ days}$$

$$\Delta WCTC_{AS} = 198,18 – 212,06 = -13,88 \text{ days}$$

including in:

production inventories:

$$\Delta WCTC_{AS} = (1601,82 – 1572,3) \times 365 / 5795,64 = 1,83 \text{ days}$$

work in progress:

$$\Delta WCTC_{AS} = (347,58 – 421,74) \times 365 / 5795,64 = -4,6 \text{ days}$$

finished products:

$$\Delta WCTC_{AS} = (342,54 – 651,42) \times 365 / 5795,64 = -19,11 \text{ days}$$

accounts receivable:

$$\Delta WCTC_{AS} = (709,83 – 736,66) \times 365 / 5795,64 = 4,55 \text{ days}$$

cash:

$$\Delta WCTC_{AS} = (188,73 – 126,36) \times 365 / 5795,64 = 3,87 \text{ days}$$

Thus, due to a decrease in revenue in 2021 compared to 2020, the duration of working capital turnover increased by 75.19 days, and due to a change in the average amount of operating capital, there was a decrease in turnover by 14.48 days.

As for 2022 compared to 2021, due to a decrease in the amount of revenue by 1845.81 thousand UAH, the duration of working capital turnover increased by 92.6 days, and due to a reduction in the total amount of current assets by 223.65 thousand UAH, there was a decrease in the duration of working capital turnover by 13.88 days.

It is possible to accelerate capital turnover by intensifying production, making fuller use of production capacity, labor, and material resources, preventing excess inventories of inventory, diverting funds to accounts receivable for a long time, etc.

The release of working capital by accelerating turnover at the «Concor» private enterprise represents:

ΔWorking Capital$_{2021}$ = 3414,15 – 5795,64 / 2.84 = 1373,43 thousand UAH.

ΔWorking Capital$_{2022}$ = 3190,5 – 3949,83 / 1.61 = 737,16 thousand UAH.

This indicates that, due to a slowdown in the turnover of current assets, an additional 1373.43 thousand UAH was injected into circulation in 2021 and 737.16 thousand UAH in 2022.

Let's calculate the level of production volume growth for the studied enterprise:

ΔSales Revenue$_{2021}$ = (1.61 - 2.84) × 3594.69 = - 4421.46 thousand UAH.

ΔSales Revenue$_{2022}$ = (1.19 - 1.61) × 3302.32 = - 1386.97 thousand UAH.

In other words, due to the slowdown in the turnover of current assets, losses in product sales amounted to 4421.46 thousand UAH in 2021 and 1386.97 thousand UAH in 2022. Thus, in 2022, compared to 2021, losses decreased by 3034.99 thousand UAH.

The impact of working capital turnover on profit for the studied enterprise:

ΔProfit$_{2021}$ = 1.61/2.84 × 8979.66 - 8979.66 = - 3889.07 thousand UAH.

ΔProfit$_{2022}$ = 1.19/1.61 × 5795.64 - 5795.64 = - 1511.90 thousand UAH.

Therefore, the reduction in working capital turnover hurt the company's profit. This means that due to the decrease in working capital turnover, the profit decreased by 3889.07 thousand UAH in 2021 compared to 2020, and by 1511.9 thousand UAH in 2022 compared to 2021. Such changes are unfavorable for the company.

Thus, it should be noted that the financial difficulties of the enterprise must be explained not so much by the lack of current assets as by the low speed of their movement. After exhausting all the possibilities for accelerating their turnover, you should search for additional sources to replenish them. The reserves for accelerating the turnover of current assets and releasing them from circulation are the use of progressive norms and standards, improvement of technology and use of more economical types of material resources, reduction of production cycle length, reducing the cost of manufactured products, acceleration of payments for sold products; sale of other material assets.

To characterize the quality of receivables, an indicator such as the share of the provision for doubtful debts in the total amount of receivables is used. An increase in this ratio indicates a decrease in debt quality. There are no doubtful accounts receivable at the enterprise under study, which is a positive thing for the enterprise. To summarize the results of the analysis, a summary table 2.6 was generated, in which receivables are classified as indicators for the three analyzed periods.

Table 2.6 - Indicators of the Turnover of Accounts Receivable for "Concor" Private Enterprise for 2020-2022

№	Indicators	Period			Deviation	
		2020	2021	2022	2021 to 2020	2022 to 2021
1	Accounts receivable turnover, times	8,09	9,1	5,56	1,01	-3,54
2	Receivables repayment period, days	44,49	39,56	64,74	-4,93	25,18
3	Share of accounts receivable in total current assets, %	29,36	18,63	22,25	-10,73	3,62
4	The ratio of average accounts receivable to sales revenue	0,1234	0,0115	0,1797	-0,1119	0,1682

The dynamics of receivables turnover indicators are shown schematically in figure 2.5.

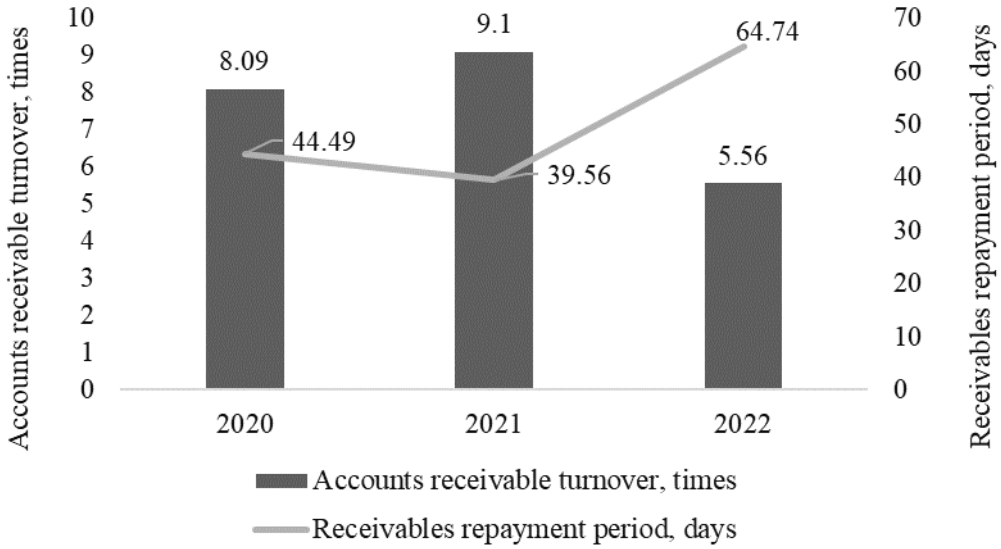

Figure 2.5 - Dynamics of receivables turnover indicators of private enterprise "Concor" for 2020-2022

As can be seen from the calculations, the rate of receivables turnover in 2021 improved slightly compared to 2020; during this period, the number of receivables turnover increased by 1.

In 2022, there was a slowdown in the turnover of receivables compared to 2021; during this period, the number of turnovers decreased by 3.5. Such changes are not suitable for the enterprise.

The repayment period for receivables in 2021, compared to 2020, decreased by almost five days, and in 2022, compared to 2021, increased by 25 days and amounted to 64.74 days. This indicates a slowdown in the collection of accounts receivable and is a negative phenomenon for the enterprise.

The share of accounts receivable in the total volume of current assets decreased by 10.73% in 2021, compared to 2020, and in 2022, compared to 2012, increased by 3.62% and amounted to 22.25% of the value of current assets.

It can be argued that the liquidity of current assets has decreased at the enterprise, which indicates a deterioration in its financial condition.

To speed up the collection of receivables, the following measures can be taken:

– provide discounts to buyers for reducing debt repayment periods;

– introduction of penalties for late payments;

– release goods to customers on an advance payment basis, etc.

Next, we will analyze accounts payable. The method of analyzing accounts payable is similar to the technique of analyzing receivables [31].

In Table 2.9, we consider how changes in accounts payable affect the enterprise's financial condition.

Analysis of the current debt structure (Table 2.7) shows that the current debt of the enterprise under study tends to decrease.

So, in 2021, compared with 2020, there was a decrease of UAH 226.89 thousand; in 2022, compared with 2021, by UAH 154.62 thousand, such changes are favorable for the enterprise.

The largest share in 2020 was occupied by the item “Current obligations with the budget” (38.03%). During the study period, indicators for this item tend to decrease.

There is also a reduction in accounts payable for goods, works, and services.

In 2021, it decreased by 46.44 thousand UAH, and in 2022, it by 63.09 thousand UAH.

In the last year, 2020, there was a reduction in short-term bank loans, and there are no obligations related to promissory notes. All of this indicates a favorable financial policy pursued by the company.

Let's perform calculations and analyze the turnover period of the total accounts payable for the company:

Accounts Payable Turnover 2020 = 520.0 / 24.6 = 21.13 days

Accounts Payable Turnover 2021 = 293.76 / 16.09 = 18.25 days

Accounts Payable Turnover 2022 = 139.14 / 10.97 = 12.89 days

Table 2.7 - Indicators of the Structure of Accounts Payable for "Concor" Private Enterprise for 2020-2022

Indicator	2020		2021		2022		Deviation			
							2021 to 2020		2022 to 2021	
	Amount, thousands of UAH	Percentage share, %	Amount, thousands of UAH	Percentage share, %	Amount, thousands of UAH	Percentage share, %	Amount, thousands of UAH	Percentage share, %	Amount, thousands of UAH	Percentage share, %
Short-term bank loans	0	0	101,52	34,55	44,82	32,21	101,52	34,55	-56,7	-2,34
Bills issued	113,4	21,78	0	0	0	0	-113,4	-21,78	0	0
Accounts payable for goods, works, services	143,64	27,66	97,2	33,08	34,11	24,51	-46,44	5,42	-63,09	-8,57
according to budget calculations	198,0	38,03	55,98	19,05	13,23	9,5	-142,02	-18,98	-42,75	-9,55
according to insurance calculations	6,66	1,27	8,73	2,97	11,25	8,08	2,07	1,7	2,52	5,11
according to wage calculations	19,98	3,7	17,1	5,82	22,5	16,17	-2,88	2,12	5,4	10,35
according to settlements with participants	38,97	7,48	13,29	4,52	13,23	9,5	-25,68	-2,96	-0,06	4,98
Total current liabilities	520,65	100,0	293,76	100,0	139,14	100,0	-226,89	-	-154,62	-

It calculate the ratio of accounts receivable to accounts payable for "Concor" Private Enterprise:

Accounts Receivable to Accounts Payable Ratio$_{2020}$ = 1108.8 / 520.65 = 2.13

Accounts Receivable to Accounts Payable Ratio$_{2021}$ = 636.66 / 293.76 = 2.16

Accounts Receivable to Accounts Payable Ratio$_{2022}$ = 709.83 / 139.14 = 5.1

The calculated ratio value exceeding 1 indicates an active balance for the company: accounts receivable exceed accounts payable, meaning that the company extends its customers a commercial credit greater than the funds received in the form of payment deferrals.

It calculations and analyze the ratios of accounts receivable to accounts payable for goods, works, and services for the studied enterprise:

Accounts Receivable to Accounts Payable Ratio for Goods, Works, and Services $_{2020}$ = 656.1 / 143.64 = 4.56

Accounts Receivable to Accounts Payable Ratio for Goods, Works, and Services $_{2021}$ = 273.06 / 97.2 = 3.83

Accounts Receivable to Accounts Payable Ratio for Goods, Works, and Services $_{2022}$ = 71.55 / 34.11 = 2.09

The calculated indicators will be summarized in Table 2.8.

Table 2.8 - Dynamics of accounts payable indicators of private enterprise "Concor" for 2020-2022

Indicated	2020	2021	2022	Deviation	
				2021 to 2020	2022 to 2021
Turnover period of total accounts payable, days.	21,13	18,25	12,89	2,88	5,36
General ratio of receivables and payables	2,13	2,16	5,1	-0,03	2,94
The ratio of accounts receivable and accounts payable for goods, works, services	4,56	3,83	2,09	-0,73	-1,74

Thus, Table 2.8 shows that the duration of one account payable turnover decreased in 2021, compared to 2020, by 2.88 days, and in 2022, compared to 2021,

by 5.36 days. That is, the time to cover accounts payable tends to decrease, which is positive for the enterprise.

The overall ratio of receivables to payables decreased slightly in 2021, but in 2022, it increased by 2.94 points; the total receivables are almost three times larger than the accounts payable. A significant excess of accounts receivable poses a threat to the financial stability of the enterprise, and it is necessary to attract additional sources of financing. The ratio of accounts receivable to accounts payable for goods, works, and services tends to decrease. So, in 2021, compared to 2020, its value fell by 0.73 points, and in 2022, compared to 2021, it fell by 1.74 points. Such changes have a beneficial effect on the financial condition of the enterprise.

To improve the financial condition of an enterprise, we can recommend monitoring the status of settlements with customers for deferred (overdue) debts, target a more significant number of buyers to reduce the risk of non-payment by one or more large buyers, monitor the ratio of receivables and payables; use a system of providing discounts for early payment [29].

The data in Table 2.9 shows that in 2022, compared to 2021, the net cash flow from operating activities increased by UAH 23.29 thousand, and in 2020, it decreased by UAH 11.25 thousand. The main reason for its reduction is the increase in accounts receivable. In this situation, the company needs to reduce accounts receivable.

Table 2.9 - Structure of net cash flows of private enterprise "Concor" for 2020-2022

Activities form	Years			Deviation	
	2020	2021	2022	2021 to 2020	2022 to 2021
Operating room, thousand UAH	14,22	2,97	26,27	-11,25	23,29
Investment, thousand UAH	10,01	1,86	28,08	-8,15	26,22
Financial, thousand UAH	2,22	0,83	2,35	-1,39	1,51
Net cash flow for the reporting period, thousand UAH	26,46	5,67	56,7	-20,79	51,03

Net cash flow from investment activities increased in 2022, compared to 2021, by UAH 26.22 thousand. When analyzing financial activities, there is a decrease in net cash flow in 2021 by UAH 1.39 thousand. And an increase in 2022 by 1.51 thousand UAH.

Thus, the enterprise receives timely payment for products sold, work performed, and services provided by buyers and customers. In addition, the enterprise's expenses associated with selling products (goods, works, services) are less than the income received. That is, the enterprise has a profit.

Conclusions to section 2

1. The following conclusions were drawn based on assessing the effectiveness of working capital management.

2. Current assets have the largest share in the total balance sheet currency of the private enterprise Concor. At the beginning of 2020, their share was 86.44%; at the end of 2020 - 80.68%; at the end of 2021 - 67.26%; at the end of 2022 - 66.71%. This indicates the liquidity of the company's balance sheet but can also create a problem due to the significant volume of accounts receivable.

3. Despite the high financial stability and operational efficiency, the enterprise has an irrational structure of borrowed capital, in which current liabilities and collateral predominate (95.09% of the amount of borrowed capital at the beginning of 2020, 95.38% at the end of 2020, 98 .11% at the end of 2021 and 96.08% at the end of 2022).

4. Throughout 2020 and 2021. the enterprise is characterized by efficient activity, expressed in the receipt of profit from all activities, including net profit. But in 2022, due to a decrease in net income by 56.01% compared to 2020, gross profit by 78.74%, profit from operating activities by 95.06%, and profit before tax by 95.62%, the company received net losses of UAH 6.12 thousand.

5. The most significant share of the company's current assets is occupied by inventories - on average, 70% for the period under study. In 2021, compared to 2020, there was an increase of UAH 105.39 thousand in the structure - by 10.2%. Accounts receivable accounts for 29.36% of current assets in 2020, 18.63% in 2021, and 22.25% in 2022, while cash accounts for 3.34-5.91%. A significant excess of accounts receivable over cash indicates an irrational sales policy.

6. The amount of accounts receivable in 2021, compared to 2020, decreased by UAH 472.14 thousand. The largest share of accounts receivable in 2020 was occupied by debt for goods, works, and services (59.17%). In 2021 and 2022, there was a decrease in its structure to 10.07%. This indicates that the enterprise has implemented a more appropriate sales policy.

7. A decrease in working capital turnover and an increase in the period of its turnover indicates a reduction in the efficiency of working capital management at the enterprise. At the enterprise under study, the duration of capital remaining in accounts receivable decreased in 2021, compared to 2020, and in 2022, compared to 2021, in finished products. At the same time, the duration of the period of circulation of funds in inventories and work in progress has increased, which indicates an increase in the production cycle.

8. Due to decreased working capital turnover, profit decreased by UAH 3,889.07 thousand. In 2021, compared to 2020, and by 1511.9 thousand UAH. in 2022, compared to 2021, such changes harm the enterprise. It is possible to accelerate capital turnover by intensifying production, making fuller use of production capacity, labor, and material resources, preventing excess inventories of inventory, diverting funds to accounts receivable for a long time, etc.

SECTION 3
IMPROVEMENT DIRECTIONS FOR WORKING CAPITAL MANAGEMENT STRATEGY FOR "CONCOR" PRIVATE ENTERPRISE

3.1 Determining an effective strategy for financing the working capital of the enterprise

Today, one of the most critical problems of Ukrainian enterprises in market conditions is the lack of working capital. Therefore, one of the most essential tasks of the Ukrainian economy is developing an effective working capital management policy.

The main objectives of financial management of working capital are as follows:

- provide financial resources for the current activities of the enterprise;
- carry out all recent calculations promptly;
- maintain high liquidity of the enterprise;
- increase the efficiency of using working capital [41].

The target setting of the working capital management policy is to determine the volume and structure of current assets, sources of their coverage, and the relationship between them, which is sufficient to ensure the long-term production and efficient financial activity of the enterprise. This installation is strategic; no less important is the support of working capital in an amount that optimizes the management of current activities.

This installation is strategic; no less important is the support of working capital in an amount that optimizes the management of current activities. From the perspective of daily activities, an enterprise's most critical financial and economic characteristic is its liquidity, the ability to repay short-term accounts payable promptly. For any enterprise, an adequate level of liquidity is one of the most

essential characteristics of the stability of economic activity. Loss of liquidity is fraught with tax costs and periodic stoppages of the production process.

If cash, accounts receivable, and inventories are maintained relatively low, the likelihood of insolvency or insufficient funds to operate profitably is greater.

Of course, the relationship is more complex since not all current assets equally affect the level of liquidity.

However, let us formulate the simplest version of working capital management, which minimizes the risk of loss of liquidity: the more significant the excess of current assets over current liabilities, the lower the degree of risk; thus, one must strive to increase net working capital.

Production activities are not adequately supported when working capital levels are low, hence possible loss of liquidity, periodic disruptions, and low profits. At some optimal level of working capital, profit is maximized. A further increase in the amount of operating capital will lead to the fact that the enterprise will have at its disposal temporarily idle, inactive current assets and unnecessary financing costs, which will cause a decrease in profits. In this regard, the above-formulated option for managing working capital, associated with reducing liquidity risk, is not entirely correct.

The working capital management policy must ensure a compromise between the risk of loss of liquidity and operational efficiency. This comes down to solving two critical problems:

– ensuring the solvency of the enterprise;

– ensuring the accepted volume, structure, and profitability of assets.

Working capital is assets that can be converted into money during one production cycle or calendar year. Net working capital is the difference between current assets (current assets) and current liabilities (accounts payable), that is, the enterprise's own working capital, and shows the extent to which long-term sources of funds cover current assets (Fig. 3.1). The level of net working capital determines the liquidity and efficiency of existing assets [10].

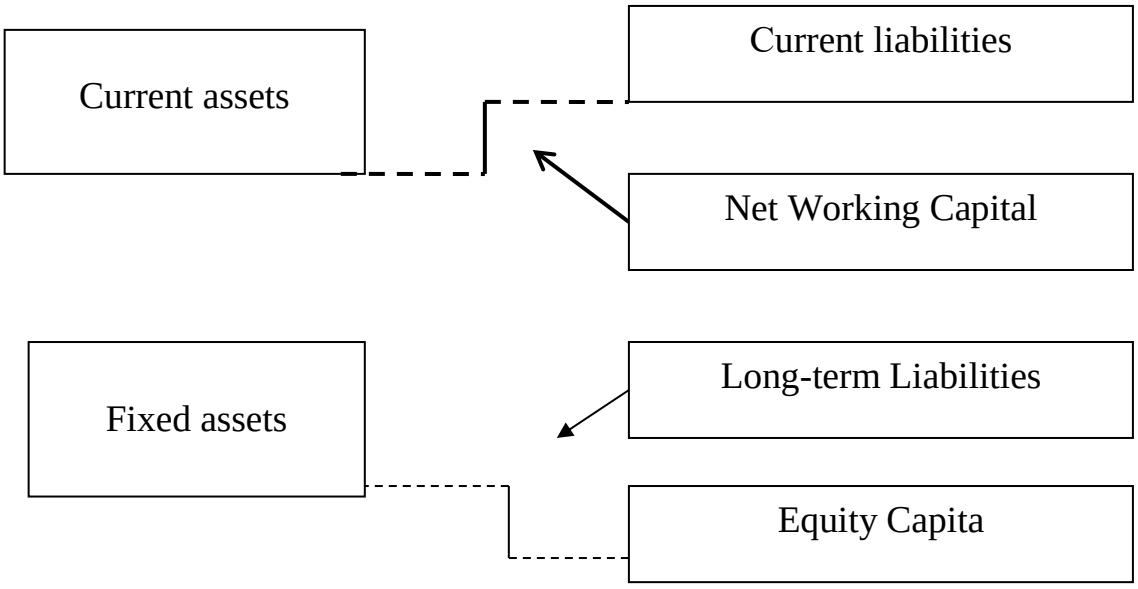

Figure 3.1 - The relationship between the assets of the enterprise and the sources of their coverage

For convenience, the following notations have been introduced [10]:

- NA: Non-current assets.
- CA: Current assets (CA = SC + VC).
- SC: Systemic part of current assets.
- VC: Variable part of current assets.
- STL: Short-term liabilities.
- LTC: Long-term debt capital.
- SK: Shareholders' equity (Owner's Equity).
- LTL: Long-term liabilities (LTL = SK + LTC).
- NWC: Net Working Capital (NWC = CA - STL).

Different strategies for financing current assets are distinguished based on the choice of sources for covering the variable part, i.e., the choice of the relative amount of net working capital. Four working capital management models are known: perfect, aggressive, conservative, and compromise. The choice of one or another financing strategy model is reduced to determining the amount of long-term liabilities and calculating net working capital as the difference between long-term liabilities and non-current assets based on it.

So, each circulation strategy has its basic balance equation.

The ideal model (Fig. 3.2) is formed based on the essence of the categories “current assets” and “current liabilities” and their mutual correspondence [10, p. 223].

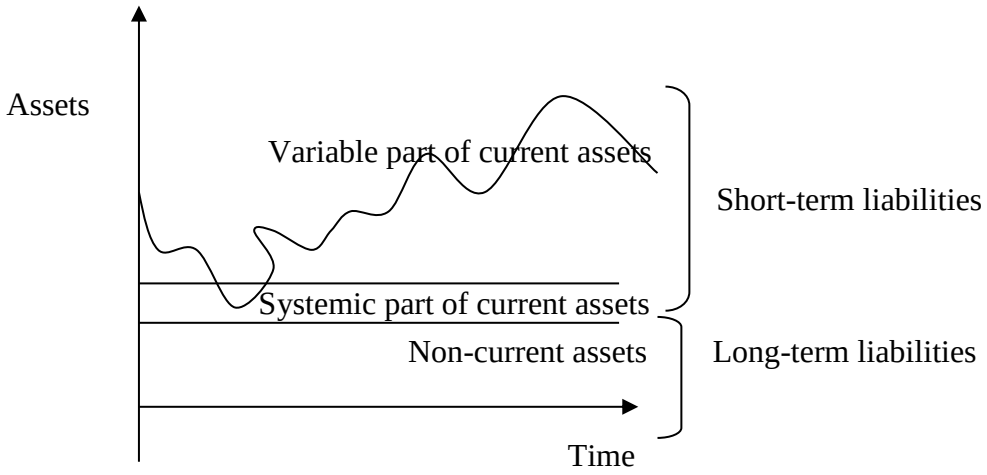

Figure 3.2 - An ideal model for financing the enterprise's working capital

In this case, the term “ideal” does not mean an ideal to which one must strive but only a combination of assets and sources of coverage based on their economic content.

The model means that current assets coincide in value with short-term liabilities; net working capital equals zero.

In real life, this model is rarely encountered, and it is also the riskiest from a liquidity perspective. The essence of this strategy is that long-term liabilities are set at the level of non-current assets, meaning the basic balance equation will take the form of formula 3.1 [10, p. 224]:

$$LTL = NA \tag{3.1}$$

For a specific company, one of the following three models of working capital management strategy (Figure 3.3-3.5) is more realistic [10, p. 224-227].

The aggressive model (Figure 3.3) means that long-term liabilities serve as sources to cover non-current assets and the systemic part of current assets, which is the minimum required for conducting business activities [10, p. 224].

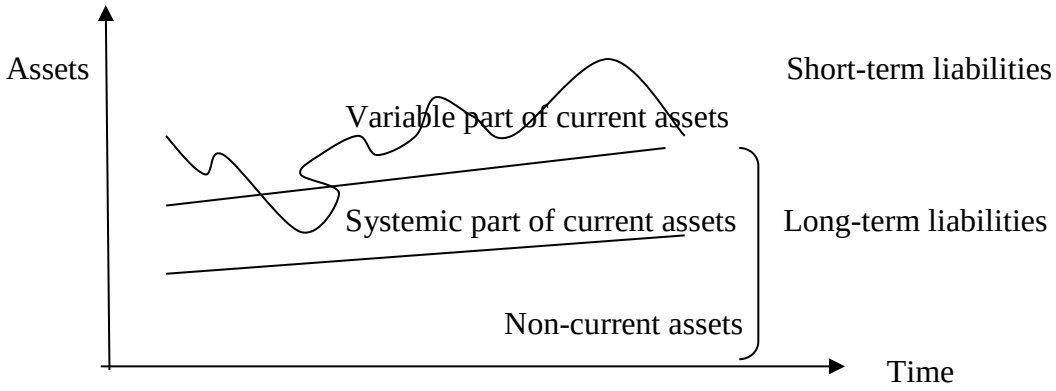

Figure 3.3 - Aggressive model for financing enterprise's working capital

In this case, net working capital is exactly equal to this minimum (NWC = SC). The variable part of current assets is fully covered by short-term accounts payable.

From a liquidity perspective, this strategy is also very risky because in reality, it's impossible to limit oneself to just the minimum level of current assets. The basic balance equation will take the form of formula 3.2 [10, p. 225]:

$$STL = NA + SK \tag{3.2}$$

The conservative model (Figure 3.4) assumes that long-term liabilities serve as sources to cover non-current assets, the systemic part, and the variable part of current assets [10, p. 225].

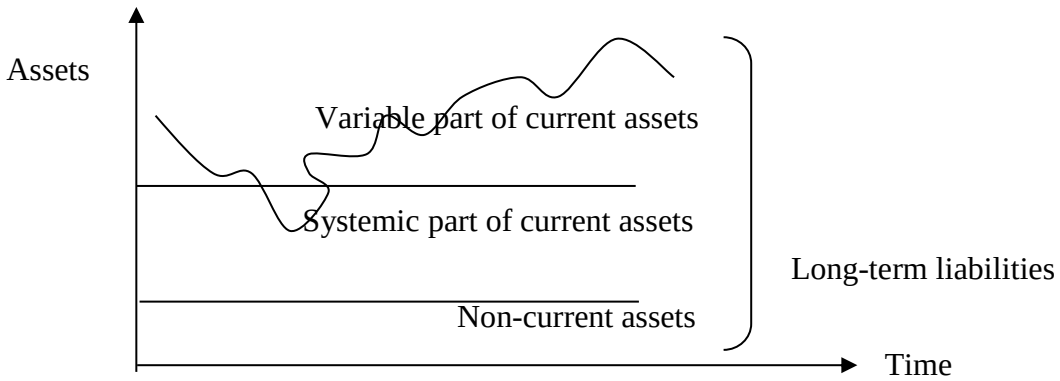

Figure 3.4 - Conservative Model of Financing the Working Capital of the Enterprise

In this case, there is no short-term accounts payable, eliminating the risk of liquidity loss. Net working capital equals the total current assets (NWC = CA). Undoubtedly, this model is artificial in nature.

This strategy involves setting long-term liabilities at a level determined by the following basic balance equations (formula 3.3) [10, p. 226]:

$$STL = NA + SK + VC \tag{3.3}$$

The compromise model (Figure 3.5) is the most realistic.

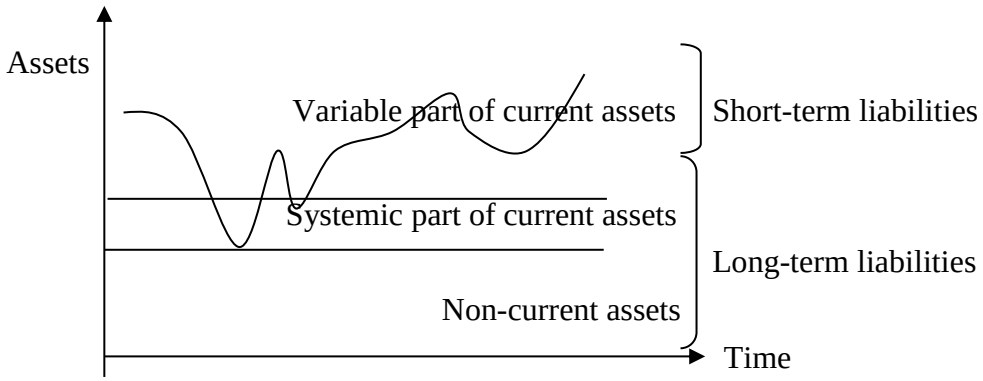

Figure 3.5 - Compromise model for financing enterprise's working capital

In this case, non-current assets, the systemic part of current assets, and approximately half of the variable part of current assets are covered by long-term liabilities. Net working capital equals the sum of the systemic part of current assets plus half of the variable part (NWC = SC + 0.5 * VC).

At times, the company may have excess current assets, which negatively impacts profitability, but this is considered as the cost of maintaining liquidity risk at an appropriate level [10, p. 227]. The strategy involves setting long-term liabilities at a level determined by the following basic balance equations (formula 3.4) [10, p. 226]:

$$STL = NA + SK + 0.5 * VC \tag{3.4}$$

Let's consider the working capital management model that "Concor" Private Enterprise has. The data for this are presented in Table 3.1.

Table 3.1 - Indicators for Determining the Working Capital Financing Model of "Concor" Private Enterprise

№	Indicators	Value as of the end of 2022, in thousands UAH
1	Non-current assets	1592,28
2	Current assets	3190,5
2.1.	System part of current assets	2551,68
2.2.	Variable part of current assets	638,82
3	Short-term accounts payable	139,14
4	Long-term debt capital	5,67
5	Equity	4618,53
6	Long-term liabilities	4624,2
7	Net working capital	3051,36

The minimum amount of current assets for 2020-2022 was taken as the system part of existing assets (Figure 3.6).

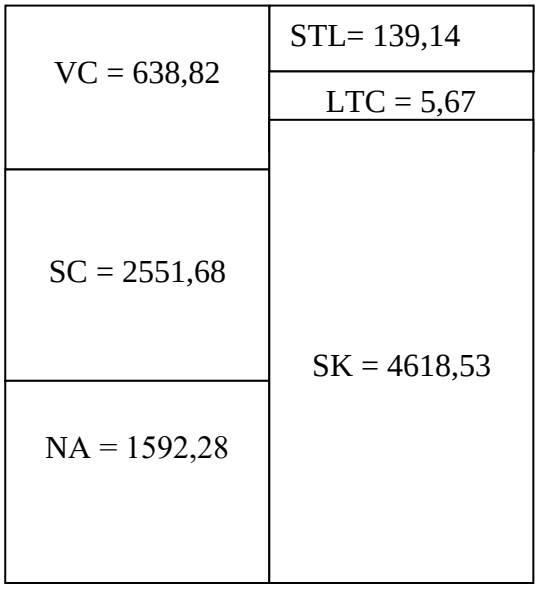

Figure 3.6 - Working capital financing model for private enterprise "Concor" for 2022

As can be seen from the table 3.1 and figure 3.6, PE “Concor” strives for a compromise model of financing working capital because long-term liabilities serve

as sources of covering non-current assets, the systemic part of current assets and half of the variable part of current assets, that is, the amount of assets that is necessary to carry out business activities. This model of financing current assets allows you to maintain sufficient liquidity, financial stability, and efficiency in the enterprise.

3.2 Assessing the risks of the functioning of an enterprise's working capital using dynamics indicators

Working capital is the object of management at the enterprise. This should actively influence the parameters of its elements to eliminate undesirable deviations from the specified optimal operating modes and maintain internal livability and dynamic balance with the external environment.

The dynamics of each element that is part of working capital reflects their different individual state, namely, absolute value, and individual changes, namely growth and growth rates. This reveals patterns of a probabilistic nature as a consequence of the action of internal and external factors. This, in turn, largely determines the enterprise's risk level. For example, a lack of funds for the acquisition of inventory, significant amounts of funds accumulated in work in progress and finished products, a critical amount of short-term accounts payable by various business entities and the dynamics of these indicators are potentially negative phenomena that can paralyze the production activity of an enterprise and interrupt the production cycle, lead to difficulties or inability to pay their obligations, which, as a result, may cause bankruptcy [35].

Risk refers to the uncertainty in achieving a positive result. The level of this uncertainty must have its limit. To assess the quantitative level of risk, two indicators are used: its average predicted value and the magnitude of its variability, given by the standard deviation (σ) and the coefficient of variation (ν).

The standard deviation has the form represented by formula (3.5) [29, p. 219]:

$$\sigma = \sqrt{\sigma^2}\ , \tag{3.5}$$

where σ^2 – dispersion.

Dispersion is the weighted average of the squared deviations of actual results from the expected average (formula 3.6) [29, p. 219]:

$$\sigma^2 = \frac{\sum(x_i - \bar{x})^2 \times n}{\sum n}, \tag{3.6}$$

where x_i is the expected value for each observation case;

$\bar{x}$ is average expected value;

n is the number of observation cases (frequency).

The coefficient of variation is the ratio of the standard deviation to the arithmetic mean and shows the degree of deviation of the expected result from the average value (formula 3.7) [29, p. 220]:

$$V = \sigma / x \times 100\% \tag{3.7}$$

These indicators need to be studied and analyzed in the dynamics of absolute values and relative characteristics: growth and growth rates, which are determined by chain indices. The latter makes it possible to study not only the pattern of dynamics, the growth or decline of individual elements of working capital over time, but also to assess the intensity of these dynamics, that is, to determine acceleration or deceleration. The standard deviation indicator, in this case, can be taken as a risk boundary, and the coefficient of variation can be taken as an indicator of the degree of stability of the system and its elements [29, p. 220].

A change in the absolute values of working capital elements indicates the individual behavior of each component while maintaining the general trend of growth or decline over the analyzed interval.

The methodology for studying working capital using indicators of growth rates and growth rates reflects the dynamic essence of the elements of working capital and reveals their trends. The value of standard deviations and coefficients of variation allows you to assess the risks of an enterprise's economic activity: the lower the coefficient value, the lower the risk of the indicator relative to the average optimal value, and therefore, the lower the risk of unforeseen situations.

The successful activity of an enterprise in the market and its financial condition is primarily determined by the volume, composition, structure, and efficiency of its use of working capital.

The defining feature of working capital is that it is a purely cost category. This advanced cost is in the turnover of the enterprise simultaneously at all stages and ensures continuous circulation of funds.

The structure of some elements of working capital by quarter for the analyzed period is given in Table 3.2 and in Fig. 3.7.

Table 3.2 - Components of private enterprise "Concor" working capital for 2020 - 2022, thousand UAH

Component	Value by quarter											
	2020				2021				2022 г			
	1 Q.	2 Q.	3 Q.	4 Q.	1 Q.	2 Q.	3 Q.	4 Q.	1 Q.	2 Q.	3 Q.	4 Q.
1	2	3	4	5	6	7	8	9	10	11	12	13
Productive reserves	392,4	385,3	424,1	426,7	415,2	390,1	381,2	385,8	390,2	398,4	405,7	407,52
Finished products	174,21	153,37	165,1	159,55	161,46	169,46	168,02	152,79	123,19	92,02	80,24	47,09
Unfinished production	59,11	67,81	65,21	66,71	92,48	115,4	120,2	93,69	89,22	94,64	93,64	70,54
Accounts receivable	309,2	312,3	269,7	217,6	195,1	160,8	169,7	111,06	148	156,7	172,3	232,83

Continuation of the table 3.2

1	2	3	4	5	6	7	8	9	10	11	12	13
Cash	30,6	28,2	31	36,5	35,2	30	31,1	35,7	38,3	42,1	48,6	59,8

Thus, replenishing the working capital of enterprises requires drastic steps on the part of both government authorities and enterprises.

Let us assess the degree of risk in working capital management for the analyzed enterprise.

As a result of a study of the state and dynamics of working capital in the enterprise, a particular trend was identified.

It can be stated that the dynamics of working capital elements over the analyzed period are generally increasing. The dynamics of operating capital by element for the analyzed period are shown in Fig. 3.7-3.12.

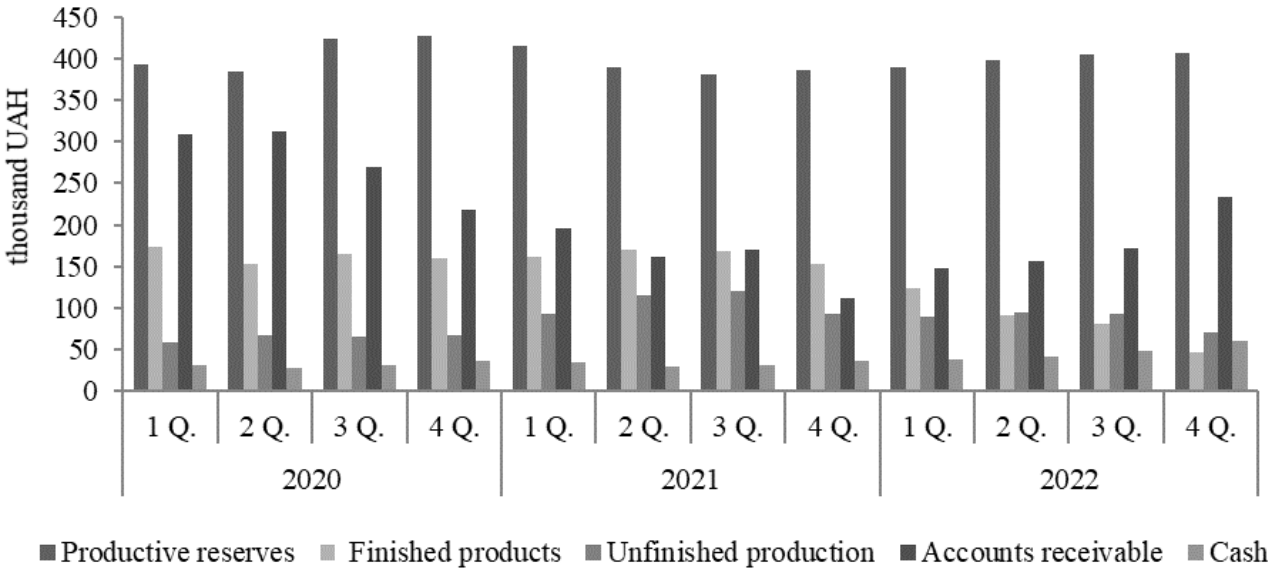

Figure 3.7 - Dynamics of the working capital structure of private enterprise "Concor" for 2020 - 2022, thousand UAH

The dynamics of absolute values of industrial inventories indicate their growth throughout 2020-2021.

At the analyzed enterprise, there is consistency in managing finished product inventories.

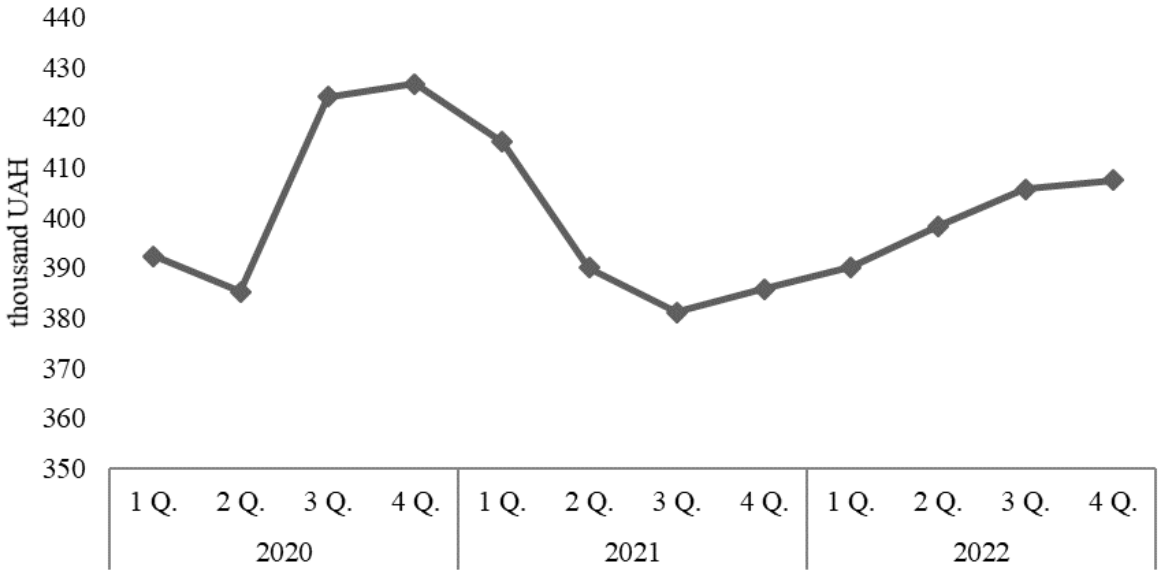

Figure 3.8 - Dynamics of industrial reserves of private enterprise "Concor" for 2020 - 2022, thousand UAH

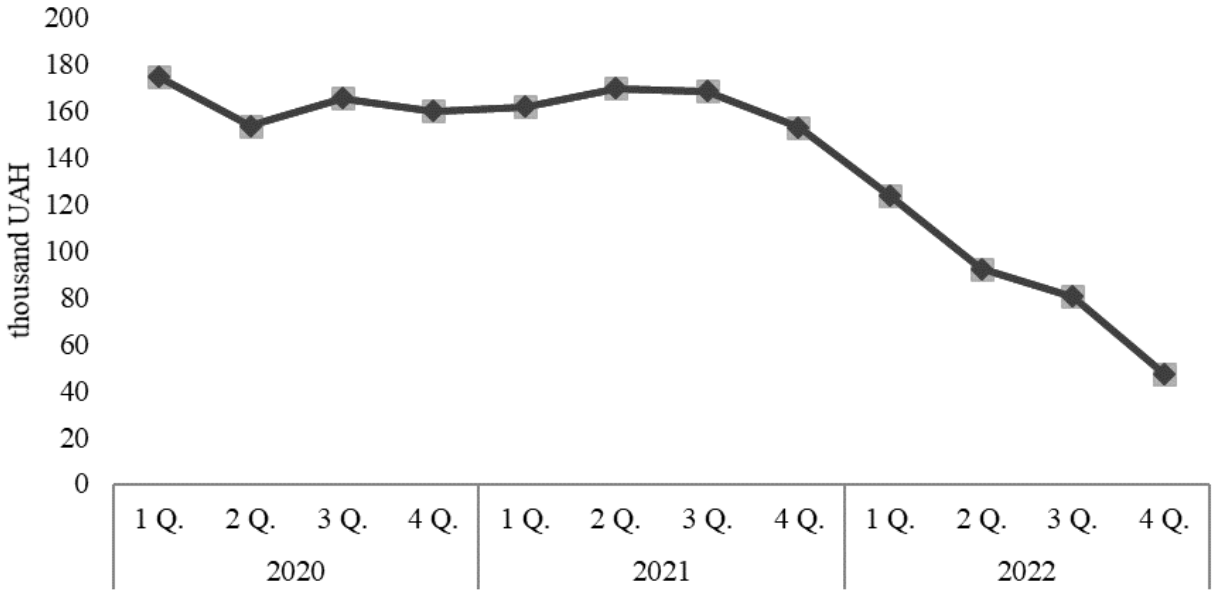

Figure 3.9 - Dynamics of private enterprise "Concor" finished products for 2020 - 2022, thousand UAH

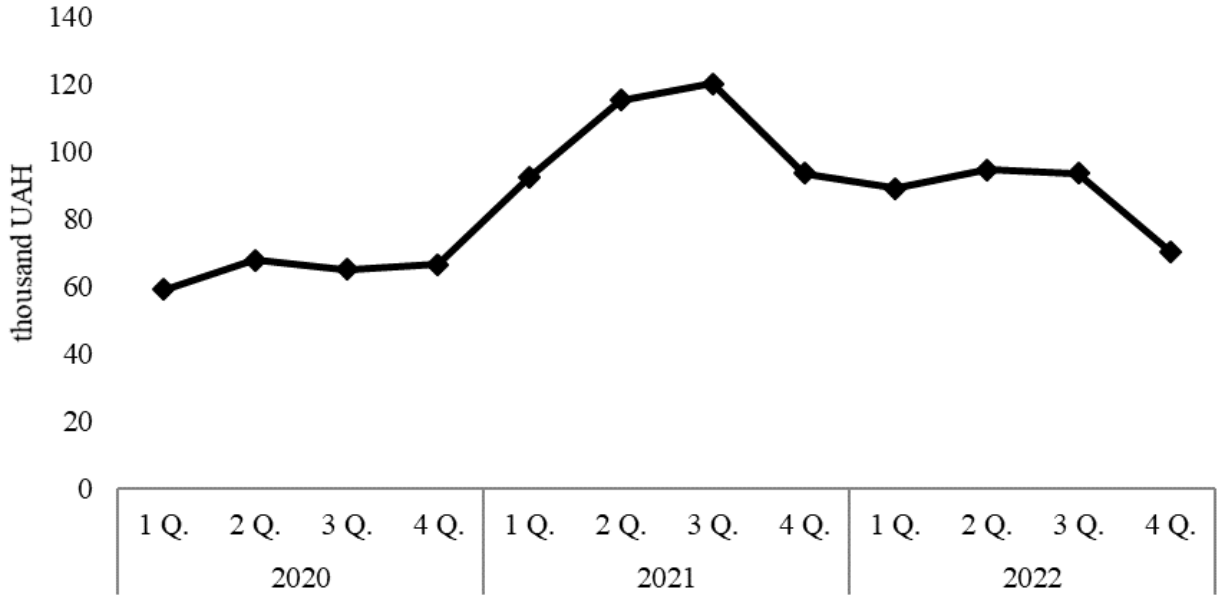

Figure 3.10 - Dynamics of unfinished productionat private enterprise "Concor" for 2020 - 2022, thousand UAH

Figure 3.11 - Dynamics of receivables of private enterprise "Concor" for 2020 - 2022, thousand UAH

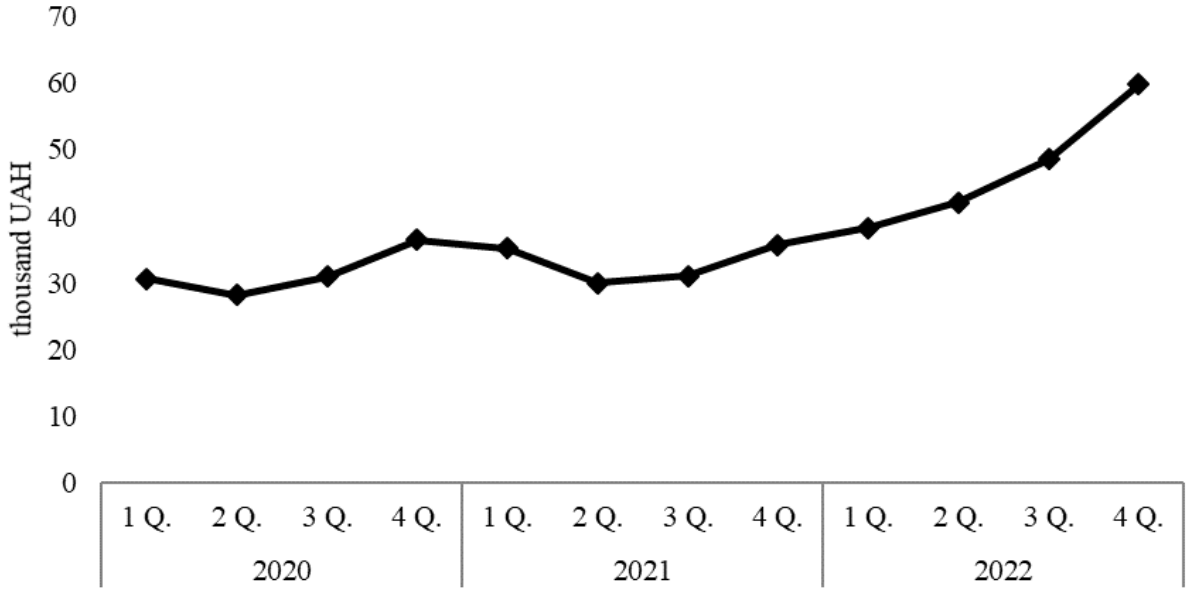

Figure 3.12 - Dynamics of cash of private enterprise "Concor" for 2020 - 2022, thousand UAH

It presented the calculations of the standard deviation and coefficient of variation using the above formulas in Table 3.3

Table 3.3 - Coefficients of variation and standard deviations of working capital elements of private enterprise "Concor"

Index	Average value, thousands of UAH	Standard deviation, thousands of UAH	Coefficient of variation, %
Productive reserves	400,22	14,83	3,71
Finished products	137,21	40,14	29,25
Unfinished production	85,72	19,09	22,27
Accounts receivable	204,61	62,09	30,34
Cash	37,26	8,76	23,51

The characteristics of the dynamics of indicators (Table 3.3) have low values, which characterizes the usuenterprise's al economic and production activities. The coefficient of variation ranges from a minimum value of 3.71% for inventories to 30.34% for accounts receivable, which indicates the lack of a strategy for managing this element of working capital. Fluctuations in the coefficient of variation also

indicate the presence of problems in the enterprise with the sales or marketing department.

3.3 Optimization of the working capital structure of the enterprise based on balancing accounts receivable

The presence of accounts receivable, as the main element of working capital, is associated with the search for a compromise solution between risk and profitability. Its optimal size is determined by comparing the gains the company expects to receive at a certain level of funds invested in receivables with the costs it will incur. Formalized procedures and models of behavior of an enterprise about existing and potential counterparties regarding the sale of products (goods) on credit is the management of the enterprise's receivables, which in turn is an integral part of the enterprise's management.

It should be noted that the dynamic nature and variability of accounts receivable is an element of an enterprise's working capital; its size and quality largely depend on the organization's chosen policy regarding product buyers, that is, on managing accounts receivable [35].

In most practical situations, an enterprise operates with limited resources and in conditions of balancing between risks and potential gains. Given the enterprise's limited resources, searching for optimal sources and tools for financing sales with deferred payment is necessary. Thus, the primary goal is to manage lending to the enterprise's counterparties, and in the event of a lack of working capital, the need arises to refinance the formed receivables.

Management of an enterprise's receivables must be carried out with the cooperation of various services of the enterprise, which are in one way or another connected with consumers of products. Thus, the financial and economic services of

the enterprise must play a leading role and coordinate the actions of other subsections of the enterprise in managing receivables.

In practice, such interaction should take the form of an exchange of information regarding the management of receivables. The process of such exchange, as mentioned above, is coordinated by the financial and economic service of the enterprise, which summarizes the information received and formulates it in the form of principles, methods, and tools.

The accounting service of an enterprise provides the financial and economic department with the information necessary for planning and analyzing work with debtors and receivables.

The marketing service develops and sends to the financial service a package of proposals regarding work with potential and current debtors, which may lead to an increase in sales volumes and expansion of the sales market. The marketing service also monitors the conditions developed in the market for providing goods on credit and, based on accounting data, analyzes the effectiveness of accounts receivable management [37].

The credit service brings previous experience communicating with potential and actual debtors to the marketing and financial-economic departments.

The legal service of the enterprise monitors compliance with the law when developing principles, methods, and tools for managing accounts receivable and thus contacts all subsections of the enterprise.

To achieve the maximum effect of credit policy, you need to focus on a particular integrated indicator, which should be the target level of receivables of the enterprise [19].

The multifactor nature of the accounts receivable management system requires multicriteria optimization based on the interaction of a set of relatively independent criteria.

The methodological basis for this is the “Pareto principle”: a solution is optimal if an improvement in the condition according to one of the criteria does not cause a deterioration in the others. This means that all accounts receivable

management policy components need to be changed comprehensively to achieve such an (optimal) level where any changes in them will only worsen the final result [37].

Many authors note that the optimal level of debt exists. Still, it is pretty tricky to formally determine it due to the uncertainty about the disproportionate nature of the influence of the factors involved. To determine the potential for creating such a model for the timing and size of accounts receivable, we first need to consider the interaction of individual factors.

The level of trade turnover can be reflected using a function that increases depending on credit policy. In practice, an optimal level of debt can generally be achieved under market conditions. It should be noted that not all elements of an enterprise's credit policy are equivalent, both in terms of their impact on the effectiveness of the policy as a whole and in terms of optimizing the amount of debt.

The credit period is the factor that combines credit policy and the policy of determining the optimal amount of investment in debt. The amount of receivables is formed in proportion to the term of the credit period, but this relationship is not linear. If we look at the situation simplified, we can say that the deviation downward from the maximum debt value is inversely proportional to the credit period.

Let's denote the credit period as t, and the accounts receivable, which depends on it, as D(t). Then, based on the above, approximating this nonlinear relationship, we can determine it using formula 3.8 [37, p. 189]:

$$D(t) = Dmax - Dmax \times k/t = Dmax \times (1 - k/t), \quad (3.8)$$

where *Dmax* is the size of accounts receivable that was formed at the enterprise in the analytical period;

k is the proportionality coefficient between the change in the credit period and the change in accounts receivable.

In practice, the proportionality coefficient (*k*) is determined based on experimental observations and is equal for enterprises that sell products with a credit

period of 30 days: k = 10. This period must be relied upon when calculating the optimal amount of accounts receivable for the Concor private enterprise because This will increase the volume of product supplies and the turnover of enterprise resources. We will calculate accounts receivable with a credit period of 30 days for the Concor private enterprise and enter the indicators obtained in the table 3.4:

2020:

$$D(t) = 656.1 * (1 - 10/30) = 655.43 \text{ thousand UAH;}$$

2021:

$$D(t) = 273.06 * (1 - 10/30) = 182.04 \text{ thousand UAH;}$$

2022:

$$D(t) = 71.55 * (1 - 10/30) = 47.7 \text{ thousand UAH.}$$

Table 3.4 - Accounts Receivable of PE "Concor" (credit period 30 days)

Indicators	Period		
	2020	2021	2022
Dmax, thousand UAH	656,1	273,06	71,55
D(t), thousand UAH	655,43	182,04	47,7

Analysis of table 3.4 indicates that if the enterprise had a credit period of 30 days, then the number of accounts receivable would decrease significantly due to the following significant reasons:

Some debtors refused to further cooperate with the company because they expected a longer credit period;

The other part of the debtors fulfill their obligations promptly, thereby reducing the size of the total receivables.

Financial income (even potential) from accounts receivable can be determined based on the increase in gross profit before taxes using formula 3.9 [37, p. 189]:

$$P = D(t) * P2/P1, \quad (3.9)$$

where P – financial receipts from accounts receivable;

$P1$ – purchase price of goods;

P2 – selling price on credit terms.

The ratio between the selling price of goods on credit terms and the purchase price of goods is assumed to be 0.6, based on observations of the pricing policy of "Concor" PE. Then calculate the potential receipts using formula (3.9):

C_{2020} = 655.43 * 0.6 = 393.25 thousand UAH;
C_{2021} = 182.04 * 0.6 = 163.83 thousand UAH;
C_{2022} = 47.7 * 0.6 = 28.62 thousand UAH.

So, if the specified level of accounts receivable (D(t)) leads to an improvement in credit conditions at the enterprise, it will result in an increase in the amount of funds received.

The proportionality coefficient between accounts receivable and the credit period can be calculated using formula (3.10) [37]:

$$k = Dmax / T \quad (3.10)$$

Based on the formula (3.10) provided above, we will perform the calculations:

k_{2020} = 656.1 / 30 = 21.87;
k_{2021} = 273.06 / 30 = 9.1;
k_{2022} = 71.55 / 30 = 2.38.

Based on the calculations performed above, let's determine the optimal duration of the credit period at the enterprise using the following formula (3.11) [37]:

$$t_{opt} = \sqrt{\frac{k \times Dmax \times (P2/P1}{k_t}} \quad (3.11)$$

The optimal level of accounts receivable is calculated using formula (3.12) [37]:

$$D(t_{opt}) = D_{max} \times (1 - k / t_{opt}) \quad (3.12)$$

Let's calculate the values of the optimal credit period and the optimal level of accounts receivable for "Concor" PE and present the corresponding values in Table 3.5.

Table 3.5 - Optimal credit period and amount of receivables of private enterprise "Concor"

Idicator	Period		
	2020	2021	2022
t_{opt}, days	13,42	13,42	13,42
$D(t_{opt})$, thousand UAH	35,25	44,24	52,47

Based on the calculated model, the optimal credit period for the private enterprise "Concor" is 13.42 days; at the same time, the optimal level of receivables in 2020 was 35.25 thousand UAH, and in 2021 and 2022 - 44.24 thousand. UAH and 52.47 thousand UAH. Respectively. Thus, the value of the obtained results of the level of receivables is less than its actual value; this is due, first of all, to the existence of overestimated repayment periods for receivables for this enterprise.

This optimization model is valid under the following assumptions:

– with an increase in the level of receivables, the negative impact of credit policy increases - the risk of untimely repayment of money increases;

– for other types of expenses, a linear dependence on the factors that determine them is assumed; when using different kinds of dependence, a significant clarification and complication of the given model is possible;

– additional parameters of credit policy, except for the credit period, are unchanged or do not significantly affect the amount of debt;

– stable indicators of quality and structure of receivables;

– potential debtors are considered to be a homogeneous and relatively large population.

Thus, in the process of enterprise activity, the receivables management policy, as a complex part of financial management, cannot take into account the results of past periods and traditional statistical analysis methods. The proposed model for finding the optimum of the main parameters of credit policy will enable enterprise managers in practical activities to direct the process of managing receivables in the right direction.

Conclusions to section 3

The following conclusions were drawn based on the results of improving the working capital management strategy of the Concor private enterprise.

1. An effective strategy for financing the working capital of an enterprise has been determined based on a comparison of assets according to the degree of their liquidity and sources of financing.

Private enterprise "Concor" strives for a compromise model of financing working capital because long-term liabilities serve as sources of covering non-current assets, the systemic part of current assets, and half of the variable part of existing assets, that is, the amount of assets that is necessary to carry out business activities. This model of financing existing assets allows you to maintain sufficient liquidity, financial stability, and efficiency in the enterprise.

2. By calculating statistical indicators (variation, standard deviation), the risks of functioning of the enterprise's working capital are assessed. Indicators of the dynamics of elements of current assets for 2020-2022 every quarter have low variability (except accounts receivable), which characterizes the enterprise's usual economic and production activities.

The coefficient of variation ranges from a minimum value of 3.71% for inventories to 30.34% for accounts receivable, which indicates the lack of a strategy for managing this element of working capital. Fluctuations in the coefficient of

variation also indicate the presence of problems in the enterprise with the sales or marketing department.

3. The working capital structure of the private enterprise "Concor" was optimized based on balancing receivables. Based on the calculated model, the optimal credit period for the private enterprise "Concor" is 13.42 days; at the same time, the optimal level of receivables in 2020 was 35.25 thousand UAH, and in 2021 and 2022 - 44.24 thousand. UAH and 52.47 thousand UAH. Respectively. Thus, the value of the obtained results of the level of receivables is less than its actual value; this is due, first of all, to the existence of overestimated repayment periods for receivables for this enterprise.

CONCLUSIONS

The efficiency of using working capital affects the enterprise's profit and, consequently, its further development. Operating capital takes part in the production process and is one of the central management issues in an enterprise. Placing enterprise funds is critical in financial activities and increasing efficiency. The results of production and economic activities, and therefore the financial condition of the enterprise, largely depends on what allocations are invested in fixed and working capital, how many of them are in the sphere of production and the sphere of circulation, in monetary and material form, and how optimal their ratio is.

The provision of enterprises with working capital and the increase in the efficiency of its circulation is influenced not only by internal and external factors. These macroenvironmental factors can be divided into economic, political-legal, socio-demographic, and factors related to technological progress. The state regulation system, the primary mechanism of which is the tax system, significantly impacts the enterprise's activities. Socio-demographic processes greatly influence the activities of enterprises, although they proceed slowly. Factors of technical progress include changes in technology and equipment and production process automation.

The microenvironmental factors that enterprises can manage, first of all, include the specialization of the enterprise, since based on the types and assortments of goods produced, the required volume of inventories and all working capital is formed. The organization of production operations and the location of the enterprise are also of great importance.

Current assets have a large part in the total balance sheet currency. This is the most significant part of the capital, the state of rational use of which largely determines the results of economic activity and the enterprise's financial condition.

As a result of an express analysis of the financial condition of the Concor private enterprise, it was determined that the prienterprise's main source of capital formation is its capital, which indicates a high level of financial stability.

The main forming item of equity capital is retained earnings, the share of which in the structure of own sources of financing is 89%-94%. The increase in the efficiency of the enterprise is evidenced by the rise in this balance sheet item by 90.05% at the end of 2022 compared to the beginning of 2020.

The structure of the enterprise's assets is formed mainly due to current assets: at the beginning of 2020, their share was 86.44%; at the end of 2020 - 80.68%; at the end of 2021 - 67.26%; at the end of 2022 - 66.71%. Since part of the non-current assets is less than 40%, the enterprise has a "light" asset structure, which indicates the mobility of assets and liquidity of the enterprise.

By the technology, the analysis of the formation of working capital of an enterprise involves analyzing the business activity of the enterprise, calculating the influence of factors on the duration of turnover, calculating the economic efficiency of accelerating capital turnover, analyzing cash flows, and drawing conclusions based on the results of the analysis.

As a result of the analysis of the formation of working capital, it was determined that the largest share in the structure of the current assets of the enterprise under study is occupied by inventories. On average, for the period under study, it is 70%. In 2021, compared to 2020, there was an increase of UAH 105.39 thousand in the structure - by 10.2%. An increase in the share of inventories may indicate an expansion in the scale of the enterprise's activities or ineffective management of inventories. As for funds, during 2020–2022. there is an increase in their number, which can be characterized as a positive trends for the enterprise.

The company's working capital turnover is decreasing, which hurts the company's profit. That is, due to a decrease in working capital turnover, profit fell by UAH 3,889.07 thousand. In 2021, compared to 2020, and by 1511.9 thousand UAH. in 2022, compared to 2021, such changes harm the enterprise.

As a result of assessing the structure of the enterprise's cash flows, a positive indicator of net cash flow from operating, investing, and financing activities was revealed. Thus, the enterprise receives timely payment for products sold, work performed, and services provided by buyers and customers. In addition, the

enterprise's expenses associated with selling products (goods, works, services) are less than the income received; that is, the enterprise has a profit.

Private enterprise "Concor" strives for a compromise model of financing working capital because long-term liabilities serve as sources of covering non-current assets, the systemic part of current assets, and half of the variable part of existing assets, that is, the amount of assets that is necessary to carry out business activities. This model of financing existing assets allows us to maintain sufficient liquidity, financial stability, and operational efficiency.

The dynamics of each element that is part of working capital reflects their different individual state, namely, the absolute value and individual changes. This reveals patterns of a probable nature as a consequence of the action of internal and external factors. This, in turn, largely determines the enterprise's riskiness level.

The dynamics of the indicators have low values, which characterizes the enterprise's rage production and economic activity. The coefficient of variation ranges from a minimum value of 3.71% for inventories to 30.34% for accounts receivable, which indicates the lack of a strategy for managing this element of working capital. Fluctuations in the coefficient of variation also indicate the presence of problems in the enterprise with the sales or marketing department. Based on the calculated model for balancing receivables, it was determined that the optimal credit period for the private enterprise "Concor" is 13.42 days; at the same time, the optimal level of receivables in 2020 was 35.25 thousand UAH, and in 2021 and 2022 years 44.24 thousand UAH. and 52.47 thousand UAH. Respectively. Thus, the value of the obtained results of the level of receivables is less than its actual value; this is due, first of all, to the existence of overestimated repayment periods for receivables for this enterprise.

Thus, in the process of enterprise activity, the receivables management policy, as a complex part of financial management, cannot take into account the results of past periods and traditional statistical analysis methods.

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APPENDIXES

APPENDIX A
The submitions of the results of the master's thesis

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Сільськогосподарська академія університету імені Вітовта Великого (м. Каунас, Литва)

Матеріали

IX Міжнародної науково-практичної конференції «Актуальні проблеми управління соціально-економічними системами»

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APPROACHES TO UNDERSTANDING THE ESSENCE OF ENTERPRISE'S WORKING CAPITAL

Under the influence of a combination of external and internal factors of the financial crisis in Ukraine and ongoing russian aggression, the proportions of the financial stability of enterprises are being violated. Property acquires an unproductive, illiquid, risky form, and industrial enterprises' working capital grows remarkably rapidly, tens of times higher than the revenue growth rate. Structural imbalances accompany extensive growth, the share of bad debts is growing, and working capital has a negative value. At the same time, sources of operating capital financing are becoming more expensive: equity capital, short-term loans, and accounts payable held by enterprises beyond the standard payment terms. Working capital is one of the components of an enterprise's property. Effective use of operating capital plays a significant role in ensuring the normalization of the enterprise's operation and increasing the profitability of production.

The condition and efficiency of their use are the primary conditions for the successful operation of the enterprise. The development of market relations determines new conditions for the organization. High inflation, non-payments, and other crisis phenomena force enterprises to change their policies regarding the management of working capital, search for new sources of their formation, and introduce organizational and economic measures to improve the efficiency of their use. In a market economy, its optimal structure indicates the organization of the production and marketing process [1]. Therefore, rational management of an enterprise’s working capital is relevant today.

An analysis of the scientific literature [1-8] has allowed for the identification of several main approaches to understanding the essence and substantive characteristics of a company's working capital (figure 1).

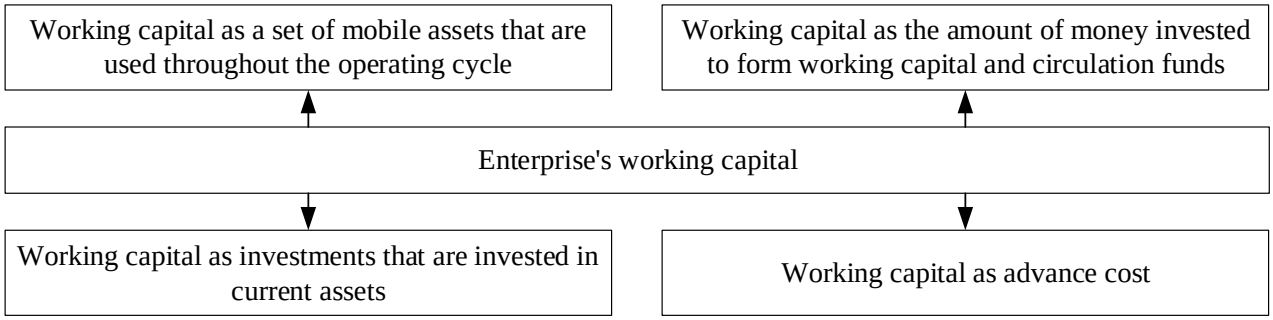

Figure 1 – Approaches to understanding the essence of enterprise's working capital

At the microeconomic level, working capital includes current assets and short-term financial investments. Current assets are formed from funds invested in circulating assets and turnover funds.

Working capital is a part of working capital that is completely worn out (consumed) during production, changes (loses) its primary appearance, and completely transfers its value to the cost of the finished product (goods, services) [2].

The working capital of an enterprise is a part of the capital of the enterprise, which, to make a profit, is advanced into current assets that serve current production and commercial activities

and are entirely consumed in each operating cycle, changing their form or physical and chemical properties, and are converted from a means of labor into the product of labor, they transfer their value entirely to the product, being in constant circulation and thereby ensuring the continuity of the process of economic activity [3].

An essential characteristic of working capital is its ability to circulate. The circulation of current assets of an enterprise, which are a tangible reflection of operating capital, is defined as a continuous circulation of assets (in particular material resources) during production. The circulation of current assets arises from the totality of circulating funds and circulation funds [4].

Entrepreneurial activity is possible if the entrepreneur has a specific capital (which, in modern conditions, must be monetary). To organize production, it is necessary to have savings (usually in the form of cash or fixed assets). Through the investment mechanism, these assets are invested in production. But to start production, it is necessary to purchase objects of labor (materials, raw materials, etc.) and purchase labor. Working capital goes from monetary form to production form. The specified assets (resources) are transformed into a finished product (products, services, works) at the production stage. Working capital is transferred from the production form to the commodity form [2].

Thus, working capital is funds advanced into circulating production assets and circulation funds to ensure the continuity of the production process, sales of products, and profit. The ratio of working capital in the sphere of production and circulation is not the same in different areas of the national economy. The peculiarities of the organization of production, supply, sales, and the payment system explain this. To ensure the continuity of the production process and product sales, achieving an optimal ratio of working capital in the sphere of production and circulation is necessary. At the same time, the enterprise is interested in reducing operating capital in the circulation sector by improving the supply system and more rational forms of payment.

The working capital organization system is based on certain principles [5, 6]. Firstly, it provided enterprises with independence regarding the disposal and management of working capital. This means operational autonomy in the use of operating capital. Secondly, the planned need and allocation of working capital for individual elements and subsections are determined. This refers to calculating the optimal need for working capital, which would ensure the continuity of the production process and the implementation of planned tasks for rhythmic work (development of long-term and annual standards). Thirdly, adjusting the calculated and current standards considers changing business requirements: production volumes, prices for raw materials, suppliers and consumers, and forms of calculations used. Fourth, a rational system for financing working capital. This means the formation of working capital from its resources and borrowed funds in amounts that ensure the normal financial condition of the enterprise. Fifthly, control over the rational placement and use of working capital. This means analyzing the efficiency of the circulation of funds used to speed up their circulation.

The approaches to understanding the essence of an enterprise's working capital defined in this research constitute the theoretical foundation for developing practical strategies for working capital management. These strategies aim to ensure financial stability, liquidity, and profitability of the enterprise's operations in an unstable economic and political climate.

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Appendix B

Financial statements of Private Enterprise «Concor»

Table B.1 - Balance Sheet (Report on financial position) of Private Enterprise «Concor» as of 12/31/2020

Assets	Line code	At the beginning of the reporting period	At the end of the reporting period
I. Non-current assets			
Intangible assets:	1000	22,23	38,7
initial value	1001	29,88	51,66
accumulated depreciation	1002	7,65	12,96
Incomplete capital investments	1005	21,69	39,15
Fixed assets:	1010	375,57	684,45
initial value	1011	494,91	959,4
Wear and tear	1012	137,34	274,95
Investment real estate	1015		
Deferred tax assets	1045		144,18
Total for section I	1095	401,49	906,48
II. Current assets			
Stocks	1100	1628,19	2540,07
Production stocks	1101	1004,94	1628,37
Unfinished production	1102	220,68	258,84
Final product	1103	402,57	652,23
Cargo	1104		0,63
Promissory notes received	1120		
Accounts receivable for products, goods, works, services	1125	546,03	656,1
Accounts receivable by calculations: on issued advances	1130	4,59	0,09
with a budget	1135	229,23	452,61
including income tax	1136		
from accrued income	1140		
from internal calculations	1145	0,36	
Other current receivables	1155	0,9	
Current financial investments	1160		
Money and its equivalents	1165	99,9	126,36
Cash	1166	21,87	3,78
Bank accounts	1167	78,03	122,58
Deferred expenses	1170		
Other current assets	1190	42,48	
Total for section II	1195	2551,68	3775,23
III. Non-current assets held for sale and disposal groups	1200		
Balance	1300	2962,17	4691,17

Continuation of Appendix B

Continuation of the table B.1

Liabilities	Line code	At the beginning of the reporting period	At the end of the reporting period
I. Equity			
Registered (share) capital	1400	180,0	180,0
Capital in revaluations	1405		
Additional capital	1410	25,38	27,54
Reserve capital	1415	62,64	62,64
Retained earnings (uncovered loss)	1420	2283,21	3875,04
Unpaid capital	1425		
Withdrawn capital	1430		
Other reserves	1435		
Total for section I	1495	2551,23	4145,22
II. Long-term liabilities and collateral			
Deferred tax liabilities	1500		
long-term bank credits	1510		
Other long-term liabilities	1515		5,67
Long-term security	1520	20,16	19,53
Long-term staff costs	1521	20,16	19,53
Targeted financing	1525		
Charity	1526		
Total for section II	1595	20,16	25,2
III. Current liabilities and collateral			
Short-term bank credits	1600		
Promissory notes issued	1605	42,48	113,4
Current debt on long-term liabilities: on long-term liabilities	1610		
for goods, works, services	1615	234,54	143,64
according to calculations with the budget	1620	54,45	198,0
for including income tax	1621		
according to insurance calculations	1625		6,66
according to payroll calculations	1630	19,71	19,98
on received advances	1635	0,63	
according to calculations with participants	1640	38,97	38,97
from internal calculations	1645		
Current supplies	1660		
Deferred commission income from reinsurers	1665		
Other current commitments	1690		
Total for section III	1695	390,78	520,65
IV. Liabilities related to non-current assets held for sale and disposal groups	1700		
Balance	1900	2962,17	4691,17

Table B.2 - Balance Sheet (Report on financial position) of Private Enterprise «Concor» as of 12/31/2021

Assets	Line code	At the beginning of the reporting period	At the end of the reporting period
I. Non-current assets			
Intangible assets:	1000	38,7	48,33
initial value	1001	51,66	70,38
accumulated depreciation	1002	12,96	22,05
Incomplete capital investments	1005	39,15	116,82
Fixed assets:	1010	684,45	1258,83
initial value	1011	959,4	1675,98
Wear and tear	1012	274,95	417,15
Deferred tax assets	1045	144,18	227,61
Total for section I	1090		
II. Current assets	1095	906,48	1662,21
Stocks			
Production stocks	1100	2540,07	2645,46
Unfinished production	1101	1628,37	1572,3
Final product	1102	258,84	421,74
Cargo	1103	652,23	651,42
Promissory notes received	1104	0,63	
Accounts receivable for products, goods, works, services	1120		
Accounts receivable by calculations: on issued advances	1125	656,1	273,06
with a budget	1130	0,09	6,39
including income tax	1135	452,61	354,24
from accrued income	1136		
from internal calculations	1140		
Other current receivables	1145		2,97
Long-term financial investments: which are accounted for using the equity method of other enterprises	1155	0,9	
Current financial investments	1160		
Money and its equivalents	1165	126,36	132,03
Cash	1166	3,78	15,48
Bank accounts	1167	122,58	116,55
Deferred expenses	1170		
Other current assets	1190		
Total for section II	1195	3775,23	3414,15
III. Non-current assets held for sale and disposal groups	1200		
Balance	1300	4691,17	5076,36

Continuation of Appendix B

Continuation of the table B.2

Liabilities	Line code	At the beginning of the reporting period	At the end of the reporting period
I. Equity			
Registered (share) capital	1400	180,0	180,0
Capital in revaluations	1405		
Additional capital	1410	27,54	28,44
Reserve capital	1415	62,64	62,64
Retained earnings (uncovered loss)	1420	3875,04	4492,71
Unpaid capital	1425		
Withdrawn capital	1430		
Other reserves	1435		
Total for section I	1495	4145,22	4763,79
II. Long-term liabilities and collateral			
Deferred tax liabilities	1500		
long-term bank credits	1510		
Other long-term liabilities	1515	5,67	5,67
Long-term security	1520	19,53	
Long-term staff costs	1521	19,53	
Targeted financing	1525		
Charity	1526		
Total for section II	1595	25,2	5,67
III. Current liabilities and collateral			
Short-term bank credits	1600		101,52
Promissory notes issued	1605	113,4	
Current debt on long-term liabilities: on long-term liabilities	1610		
for goods, works, services	1615	143,64	97,2
according to calculations with the budget	1620	198,0	55,98
for including income tax	1621		
according to insurance calculations	1625	6,66	8,73
according to payroll calculations	1630	19,98	17,1
on received advances	1635		
according to calculations with participants	1640	38,97	13,29
from internal calculations	1645		
Current supplies	1660		
Deferred commission income from reinsurers	1665		
Other current commitments	1690		
Total for section III	1695	520,65	293,76
IV. Liabilities related to non-current assets held for sale and disposal groups	1700		
Balance	1900	4691,17	5076,36

Table B.3 - Balance Sheet (Report on financial position) of Private Enterprise «Concor» as of 12/31/2022

Assets	Line code	At the beginning of the reporting period	At the end of the reporting period
I. Non-current assets			
Intangible assets:	1000	48,33	43,65
initial value	1001	70,38	80,01
accumulated depreciation	1002	22,05	36,36
Incomplete capital investments	1005	116,82	146,97
Fixed assets:	1010	1258,83	1344,6
initial value	1011	1675,98	1882,8
Wear and tear	1012	417,15	538,2
Deferred tax assets	1045	227,61	56,79
Total for section I	1095	1662,21	1592,28
II. Current assets			
Stocks	1100	2645,46	2291,94
Production stocks	1101	1572,3	1601,82
Unfinished production	1102	421,74	347,58
Final product	1103	651,42	342,54
Cargo	1104		
Promissory notes received	1120		
Accounts receivable for products, goods, works, services	1125	273,06	71,55
Accounts receivable by calculations: on issued advances	1130	6,39	5,22
with a budget	1135	354,24	633,06
including income tax	1136		
from accrued income	1140		
from internal calculations	1145	2,97	
Other current receivables	1155		
Current financial investments	1160		
Money and its equivalents	1165	132,03	188,73
Cash	1166	15,48	75,06
Bank accounts	1167	116,55	113,67
Deferred expenses	1170		
Other current assets	1190		
Total for section II	1195	3414,15	3190,5
III. Non-current assets held for sale and disposal groups	1200		
Balance	1300	5076,36	4782,78

Continuation of the table B.3

Liabilities	Line code	At the beginning of the reporting period	At the end of the reporting period
I. Equity			
Registered (share) capital	1400	180,0	180,0
Capital in revaluations	1405		
Additional capital	1410	28,44	36,54
Reserve capital	1415	62,64	62,64
Retained earnings (uncovered loss)	1420	4492,71	4339,35
Unpaid capital	1425		
Withdrawn capital	1430		
Other reserves	1435		
Total for section I	1495	4763,79	4618,53
II. Long-term liabilities and collateral			
Deferred tax liabilities	1500		
long-term bank credits	1510		
Other long-term liabilities	1515		
Long-term security	1520	5,67	5,67
Long-term staff costs	1521	5,67	5,67
Targeted financing	1525		
Charity	1526		
Total for section II	1595	5,67	5,67
III. Current liabilities and collateral			
Short-term bank credits	1600	101,52	44,82
Promissory notes issued	1605		
Current debt on long-term liabilities: on long-term liabilities	1610		
for goods, works, services	1615	97,2	34,11
according to calculations with the budget	1620	55,98	13,23
for including income tax	1621		
according to insurance calculations	1625	8,73	11,25
according to payroll calculations	1630	17,1	22,5
on received advances	1635		
according to calculations with participants	1640	13,29	13,23
from internal calculations	1645		
Current supplies	1660		
Deferred commission income from reinsurers	1665		
Other current commitments	1690		
Total for section III	1695	293,76	139,14
IV. Liabilities related to non-current assets held for sale and disposal groups	1700		
Balance	1900	5076,36	4782,78

Table B.4 - Announcement of financial results (Statement of comprehensive income) of Private Enterprise «Concor» for 2021

I. Financial results

Item	Line code	For the reporting period	For the same period of the previous year
Net income from sales of products (goods, works, services)	2000	5795,64	8979,66
Cost of goods sold (goods, works, services)	2050	4302,18	5890,86
Gross profit			
Gross: damage	2090	1493,46	3088,8
Other operating income	2095		
Administrative expenses	2120	3588,03	4451,13
Selling expenses	2130	279,36	279,45
Other operating expenses	2150	107,91	159,66
Net income from sales of products (goods, works, services)	2180	3747,78	4586,58
The financial result from operating activities: profit	2190	946,44	2514,24
The financial result from operating activities: loss	2195		
Income from equity participation	2200		
Other financial income	2220		
Other income	2240	0,99	4,77
Financial expenses	2250	0,63	
Losses from equity participation	2255		
Other expenses	2270	4,5	9,81
Pre-tax financial result: profit	2290	942,3	2509,2
Pre-tax financial result: loss	2295		
Expenses (income) from income tax	2300	324,63	692,1
Net financial result: profit	2350	617,67	1816,29
Net financial result: loss	2355		

II. Comprehensive income

Item	Line code	For the reporting period	For the same period of the previous year
Revaluation (depreciation) of non-current assets	2400	0	0
Revaluation (depreciation) of financial instruments	2405	0	0
Accumulated exchange rate differences	2410	0	0
Share of other comprehensive income of associates and joint ventures	2415	0	0
Other total income	2445	0	0
Other aggregate pre-tax income	2450	0	0
Income tax related to other comprehensive income	2455	0	0
Other total income after tax	2460	0	0
Total income (sum of lines 2350, 2355, and 2460)	2465	617,67	1816,29

Table B.5 - Announcement of financial results (Statement of comprehensive income) of Private Enterprise «Concor» for 2022

I. Financial results

Item	Line code	For the reporting period	For the same period of the previous year
Net income from sales of products (goods, works, services)	2000	3949,83	5795,64
Cost of goods sold (goods, works, services)	2050	(3293,01)	(4302,18)
Gross profit			
Gross: damage	2090	656,82	1493,46
Other operating income	2095		
Administrative expenses	2120	2792,07	3588,03
Selling expenses	2130	(322,92)	(279,36)
Other operating expenses	2150	(106,02)	(107,91)
The financial result from operating activities: profit	2180	(2895,75)	(3747,78)
The financial result from operating activities: loss	2190	124,2	946,44
Income from equity participation	2195		
Other financial income	2200		
Other income	2220		
Financial expenses	2240	2,88	0,99
Losses from equity participation	2250	(12,87)	(0,63)
Other expenses	2255		
Pre-tax financial result: profit	2270	(4,32)	(4,5)
Pre-tax financial result: loss	2290	109,89	942,3
Expenses (income) from income tax	2295		
Net financial result: profit	2300	(116,01)	(324,63)
Net financial result: loss	2350		617,67
Net income from sales of products (goods, works, services)	2355	(6,12)	

II. Comprehensive income

Item	Line code	For the reporting period	For the same period of the previous year
Revaluation (depreciation) of non-current assets	2400	0	0
Revaluation (depreciation) of financial instruments	2405	0	0
Accumulated exchange rate differences	2410	0	0
Share of other comprehensive income of associates and joint ventures	2415	0	0
Other total income	2445	0	0
Other aggregate pre-tax income	2450	0	0
Income tax related to other comprehensive income	2455	0	0
Other total income after tax	2460	0	0
Total income (sum of lines 2350, 2355, and 2460)	2465	(6,12)	617,67