# FINANCIAL SUPPORT RECOVERY AND DEVELOPMENT OF THE ECONOMY OF UKRAINE

## Monograph

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The research is aimed at substantiating new approaches to the formation of the system of economic security and its components, in particular the financial component, in order to ensure the integrity of the system from the point of view of the possibility of effective functioning in new economic conditions, characterized by changes in the forms of interaction of industry with the banking system, the tax system; changes in the state policy, which complicate the mechanism of interaction with business structures. It is proved that the financial security of an enterprise is central to the system of economic security, which is explained by the following: the level of financial security of any enterprise determines its ability to provide other components of its economic security, and changes in any field of the enterprise are ultimately reflected in its financial security.

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# INTRODUCTION

The development of global integration processes necessitates the formation of an effective national security system, an important component of which is food. The decisive role in providing the population with food belongs to national agricultural producers. At the same time, the agricultural sector of our country is one of the key in ensuring the revenue side of state and local budgets, in addition, being largely export-oriented, it is one of the main suppliers of foreign exchange earnings to the country. In addition, the agricultural sector of the country employs more than 10% of employees. That is why the financial security of this sector is extremely important for economic growth not only at the level of this activity, but also at the macroeconomic level as a whole.

Improving the financial condition of enterprises makes it possible to attract funds from investors, who, with the stable growth of companies, are increasingly considering agribusiness as an opportunity for successful investment and high profits. However, the agricultural sector is high risk, as not all investors are willing to wait for a long production cycle and sales period, especially given the fact that in some cases the cycle does not exist within the "spring-autumn" and "spring-late winter", so if there is no need for quick sales and there is the necessary infrastructure for storage, then entrepreneurs are waiting for higher prices.

Financial security as an economic category can be considered as a set of methods, sources and objects in the form of financial instruments. In our opinion, the main

methods used to finance the activities of economic entities, including in the agricultural sector are self-financing, which is most common among domestic enterprises, budget financing, which involves the use of various instruments, and market financing - in the form bank lending, financial leasing, raising capital through the issuance of securities, etc. Financial support of the agricultural sector has its own characteristics, which are determined by the length of the production cycle, lack of own financial resources, high cost of borrowing, imperfection and imbalance of financial support from the state.

The problem of forming sufficient financial security for agricultural enterprises is due primarily to the significant risks that accompany production processes, as mentioned above. Thus, banks and other financial institutions perceive the agricultural sector as highly profitable, but with many risks, such as climatic conditions, biological threats or long production cycles. Lack of necessary investment causes a shortage of funds for the development (activation) of the completed cycle of production (production, processing, sales).

Given the shortage of own financial resources, the credit mechanism is an essential lever for the formation of working capital and ensuring the continuity of the production process of agricultural enterprises. The development of banking products should be aimed at improving the efficiency of agricultural production and take into account its specifics. At the same time, the intensification of investment lending to agricultural

enterprises requires state support, as banks are reluctant to lend to such activities due to high risks. Unsatisfactory condition of machinery and equipment of many agricultural enterprises necessitates the development of leasing relations in this area. In the developed world, the leasing mechanism is an important stimulus for the modernization of agricultural production. In Ukraine, leasing is one of the most affordable tools for ensuring the sustainable development of agricultural enterprises.

An important component of achieving the financial goals of an agricultural enterprise is its investment policy. With this in mind, the long-term plan of economic development of the entity may include an analysis of the needs of resource provision of production activities, the feasibility of investing and the choice of assets for investment. If you plan to use bank loans for investment activities, it is necessary to calculate the effectiveness of investments.

# SECTION 1.
# MANAGEMENT OF THE NATIONAL ECONOMY AND THE ECONOMY OF ENTERPRISES

## 1.1. PRIORITIES OF MARITIME TOURISM AND ITS DEVELOPMENT PERSPECTIVES IN AJARA

Tourism is one of the main specialization sectors of Georgia`s economy, which is based on diverse touristic and recreational resources, more than 20% of country`s Gross National Product falls upon it and it has huge perspectives for its further development in this regard. Tourism is more or less developed in all regions of the country, especially it is developed in Autonomous Republic of Ajara, where role of tourism in the economy is quite higher comparing to average indicators. Preferable location, prominent natural conditions and diverse touristic and recreational resources of Ajara gives the basis for development of different type of tourism. By application of traditional and modern (contemporary) research methods, there are evaluated the factors for maritime tourism (Thalassotherapy) development in Ajara. There are shaped a place of maritime tourism in line with other types of tourism and its priorities are highlighted as well. There are discussed a basic properties of sea coast recreational resources of sea resorts, tourists` transmittance potential, originalities of dynamics of tourists and the challenges existing in front of development. There are analyzed a place of maritime tourism in Ajara in an international context and perspectives of its further development is substantiated on the basis of existing resources.

Georgia faces a new challenge throughout the market economy period, which by itself requires economy`s spatial and structural transformation. Coming out of the mentioned,

application of diverse natural resources of the country and its involvement into economic activity is one of the urgent topics, bearing the regional character and relating to number of issues. Prominent region in this regard is Ajara where significant changes were implemented in sectoral structure of the economy via application of diverse touristic and recreational resources and where tourism development is being prioritized. Maritime, coastal (Thalassotherapy) tourism holds a special place in the regional tourism structure, which needs to be assessed its place in economy`s sectoral structure, determine the field priorities and find out the originalities of its development. Meanwhile, on the basis of diverse touristic and recreational resources of Ajara region, maritime tourism should become the mean of formation of new tourism product regarding attraction of foreign tourists. Besides, development of maritime tourism infrastructure into spatial development of social and economic systems of coastal Ajara creates some particular ecological problems, the study of which and determination of originalities for field`s further development by foreseeing the basic principles of rational natural management - constitutes the quite important topic. Coming out of this, urgency of research topic is quite high. Urgency of the topic is also increased because that on the background of international competition, for maritime tourism`s development it is necessary to work out the innovative approaches in the direction of marketing and the management.

Main aim of the study is to find out the place of maritime tourism into tourism industry of Ajara relating to other types of tourism and determine the perspectives of its further development. In order to reach the goal set, the solution of following tasks are required:

- Determine tourism`s role and place in the sectoral structure of the economy of Ajara;

- Evaluate the natural-geographic and touristic and recreational potential (necessary for development of maritime tourism) according to some particular maritime recreational zones;

- Analyze the dynamics of quantitative indicators of maritime tourism according to particular resorts and determine the originalities of its development;

- Set the maritime tourism`s further development perspectives by taking into account the potential of touristic and recreational resources and harmonious operation of social-economic systems of the region.

Object of study is recreational zone of Autonomous Republic of Ajara (with 2900 sq. km area and population of 375 thousand) on the basis of which maritime, coastal (Thalassotherapy) tourism is functioning.

Traditional and modern (contemporary) research methods as well will be applied during the study. Dynamics of number of tourists in Ajara will be found out and number of maritime tourists will be determined according to statistical methodology. Besides, there will be defined the number of maritime tourists per specific resort, their distribution according to particular beaches and potential of simultaneous receipt of tourists will be determined. By application of comparative method, tourism development properties of specific section of coastal zone of some particular resort and geographical problems related to it were determined. According to space-time analysis method, spatial and quantitative indicators of maritime tourism development for some particular resort were determined, by means of which tourism development originalities and geographical problems of some specific natural management were defined. According to field observation method, materials of environment and

social-economic systems were collected, analyzed and further conclusions were made.

According to evaluation of touristic and recreational resources of the research territory and via application of method of tourists` transmittance potential (Birjhakov, 2012) and by taking into account the principles of rational natural management, the perspectives of tourism`s further development for some particular resort and beach were determined.

By application of modern research methodology - GIS (Geographic Information System) method, statistical information and geographical databases (charts, graphic images) will be created on the research territory, by means of which originalities of tourism development for some particular resort and recreational beaches will be presented.

Researches conducted in the direction of tourism is intended for harmonic development of the society from one side (Bugdol et al, 2019; Hacia, 2019; Jelinčić & Tišma, 2022; Uyarra et al, 2005) and tourism constitutes the significant field for sustainable development, maximally ensuring the opportunity to reach the economic effect by optimal usage of the existing resources from the other side (Amerta et al, 2018; Hanafiah et al, 2021; Mejjad et al, 2022). Coming out of this, maritime tourism constitutes the most dynamic fields of modern tourism, which uses such recreational resources, that actually deal less impact on environment and the researches conducted regarding its rational application (Diakomihalis, 2007; Filip et al, 2016; Zaucha & Kreiner, 2021. Papageorgiou, 2016; Volkova et al, 2023) gives us possibility to share an international experience per specific region. Therefore, researches conducted worldwide in the direction of challenges and perspectives existing towards the maritime tourism development (Burak et al, 2004; Davenport & Davenport,

2006; Maguigad eta al, 2015; Stan, 2022; Soyafruddin & Bodollahi, 2023) will become the means of optimal usage for touristic and recreational resources of Black Sea coast of Ajara, which will also have the rational natural management and economic effect trends.

Ajara is one of the prominent regions of Georgia according to tourism development, where tourism is one of the main specialization fields and more than 20% of Gross Domestic Product falls upon it. On the basis of diversity of touristic and recreational resources existing in Ajara, different types of tourism operate herein. In order to find out the principal types of tourism in the region, firstly it is necessary to determine the geographic originalities of dynamics of tourists and define the priority trends of tourism in the region (Table 1.1).

**Table 1.1 - Dynamics of tourists in Ajara during 2005-2023 years**

| | **2005** | **2015** | **2019** | **2021** | **2022** | **2023** |
|---|---|---|---|---|---|---|
| Batumi City | 99965 | 352481 | 373390 | 192150 | 428670 | 471135 |
| Kobuleti Municipality | 33955 | 66394 | 72880 | 34685 | 67885 | 78450 |
| Khelvachauri Municipality | 13080 | 20312 | 26350 | 12575 | 24560 | 27480 |
| Mountainous Ajara | - | 4480 | 12150 | 9650 | 14650 | 16850 |
| Total | 147000 | 443667 | 484770 | 249060 | 535765 | 593915 |

***Source:*** *table is made on the basis of materials by Department of Tourism of Autonomous Republic of Ajara and the field research materials*

Table 1.1 shows us that number of tourists in Ajara during 2005-2023 years was quite dynamically increasing absolutely in every municipality (exception is 2020-2021 period when Covid-19 pandemic was active). Most of tourists in Ajara come in Batumi. In order to find out the main goal of

research, it is necessary to find out the number of maritime tourists in Ajara, thus establishing the priority trends of tourism from one side and determine the perspectives of maritime tourism`s further development from the other side. Official statistical data about maritime tourists do not exist for not. On the basis of average data of the recent years, it can be defined that big part (69%) of tourists visits Ajara in June-September, 96% of which (374 150 tourists according to average data for 2022 and 2023 years – or 66.2% of total amount of tourists) falls upon the maritime tourists. Coming out of the mentioned, principal type of tourism in the region is maritime tourism, which constitutes the prioritized direction and develops with increasing dynamics. Therefore, it is necessary to substantiate the properties of natural resources required for the development of maritime tourism.

One of the significant conditions for maritime tourism`s development are quality convenience properties of the complex elements of weather. Regarding this also, recreational resources of Ajara sea coast zone play promoting role in maritime tourism`s development. Quality of comfort at Ajara beaches during summer period meets international standards (average temperature[air] is 22°C and water temperature is 27-30°C, wind speed up to 3m/sec.). Besides, there should be mentioned that relative humidity [air] of the region exceeds 80% (Palavandishvili, 2005), which somehow negatively affects the comfortability of tourists, but this problem is more or less fixed by air conditioning systems installed in the accommodation places.

As a result of researches, it is confirmed that development of maritime tourism needs the coasts which are characterized by dry, terrace-like disposition areas, without steep elevations – they should be fit for usage according to their natural conditions. From this side, Ajara beaches are

characterized with wide coasts, dryness, terrace-like constructions; besides, we do not meet here marshlands and steep elevations. Moreover – comfortability of the beach highly depends on attractivity of alongside landscapes, especially when the beaches of plain transforms into mountain landscape, for which Ajara is the worldwide prominent place (Pic. 1.1).

**Pic. 1.1 - Gonio-Kvariati Beach**

The data brought makes clear that natural properties of the beaches in Ajara creates best conditions for maritime tourism development. In order to find out the perspectives for maritime tourism development in the region, it is necessary to determine the tourists` ecological transmittance potential for some particular sea beaches of Ajara. Tourists` ecological transmittance potential implies load of touristic areas at their maximum, which can be handled by this or that touristic unit without dealing a serious effect on the natural resources, without negative impact and creation of social-economic problems in the population (Birjakov, 2012). In order to clear

up the topic, firstly it is necessary to determine the beaches` potential of receipt of tourists and in case of its excess – their ecological condition should be evaluated. In order to reach the goal set, properties of tourists` receipt and data about loading of some particular beaches become necessary, which will allow us to discuss in a complex manner the possibilities of maritime tourists` receipt in the recreational zone of Ajara sea coast. Total length of Ajara sea coast equals to 53 km, but only 36.1km out of it is being used for recreational purposes, total area of which is 126.4ha (average width of the beach is 35m). It should be noticed that existing beaches are only partially used in touristic comfortability standpoint. Practical experience confirms that in the study region, areas with 20m width from the sea line are mainly used by tourists, which areas can be considered as the comfort zone (this indicator may be changed in the future together with increase the number of tourists, as the opportunities for this really exist), total area of which is 72.2ha. If we take into consideration the circumstance that according to average standards, one tourist needs 3sq.m beach, coming out of it – beaches in Ajara holds the potential to receive 240667 tourists at a time. Sea season in Ajara starts on July and extends to the end of September, but peak period is from 20-th of July until 20-th of August.

In average, 70% of sea tourist falls upon this period, and 62% of them (or 184770 tourists) use beaches of Batumi City, whilst 78% of it (or 59385 tourists) use the rest of beaches. Thus, during the peak period, beaches of Ajara are visited by 244155 tourists. One should foresee the circumstance that, one tourist in average stays for 7 days.

Coming out of this, maximum load of beaches during the peak period is (244155:4) =61040 tourists. If we add the number of tourists to number of local population (29000 people in average), then simultaneous load of the beaches will be

90040 tourists, or only 37.4% of total potential (Figure 1.2 and Table 1.2).

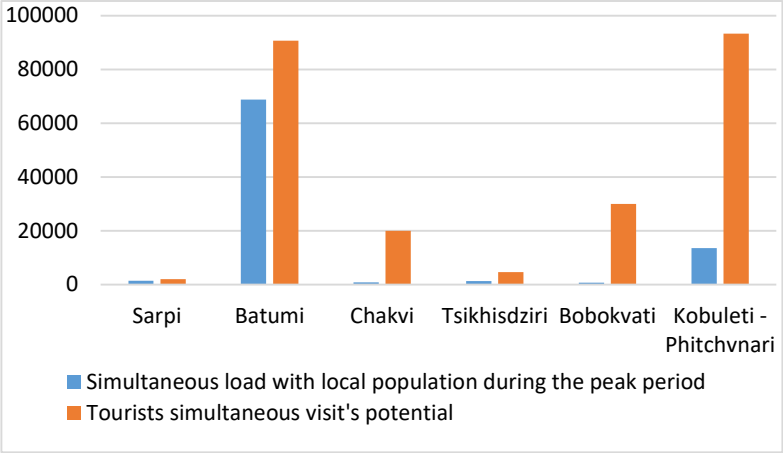



**Figure. 1.2 - Tourists' conduction characteristics of Adjaria seacoast zone (beaches) (According to 2022-2023 years`average indicators)**

As the Figure 1.2 and Table 1.2 demonstrate, beaches are evenly loaded with tourists. If average simultaneous load during the peak period is 37.4%, this index is higher in Batumi – 75.9%, and very low (lower than 28%) in all other beaches (Table 1.2, Chart 1). Here we should mention also that load at the peak season according to locations are as follows: central part of Batumi`s old boulevard – 88-90%; extreme south part of Gonio and Kvariati`s beach – 80-85% (Putkaradze & Khorava, 2018; Putkaradze et al, 2021) and central part of Kobuleti beach – 80-82%.

Research makes clear that natural touristic and recreational potential in Ajara is quite high to develop the maritime tourism, which is not completely assimilated yet.

Here should be also noted that during recent years, there are some problems observed on the beaches of Batumi City, that is washed out sea coast by abrasive processes due to global climate change, bearing the massive character from one side (Anning et al, 2009; Bisinicu et al, 2024; Csate & Stecsi 2015; Cowell et al, 2006; Rahmstorf, 2010; Stancheva et al, 2021) and decrease of solid alluvium in Riv.

**Table 1.2 - Tourists' transmittance characteristics of Ajara seacoast zone (beaches), according to an average indicators of 2022-2023 years**

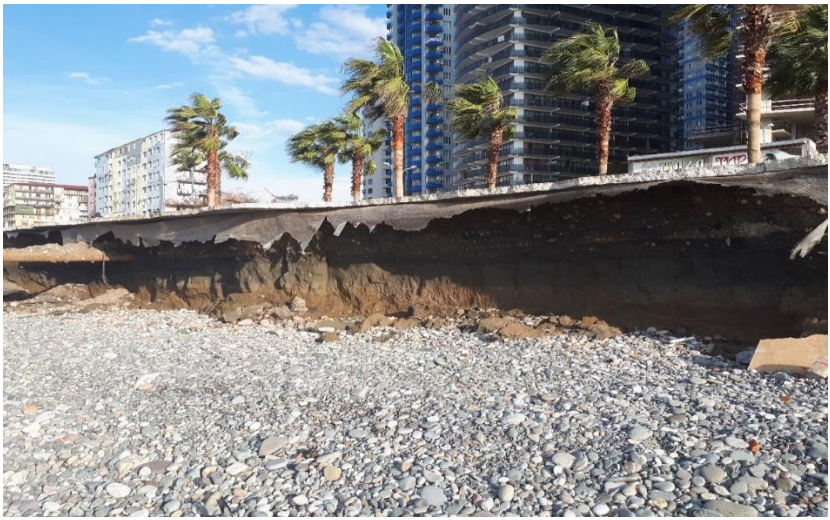
| Beaches | Beach length km | Total area of the beach ha | Area of the beach occupied by the tourists ha | | Average annual amount of tourists visits/amount of local population | | |
|---|---|---|---|---|---|---|---|
| Sarpi | 0,3 | 1,15 | 0,6 | 2000 | 6650/150 | 1450 | 72,5 |
| Batumi | 13,6 | 47,6 | 27,2 | 90667 | 298015/22650 | 68842 | 75,9 |
| Chakvi | 3,0 | 10,5 | 6,0 | 20000 | 3250/150 | 785 | 3,9 |
| Tsikhisdziri | 0,7 | 2,5 | 1,4 | 4667 | 5750/150 | 1270 | 27,2 |
| Bobokvati | 4,5 | 15,7 | 9,0 | 30000 | 2950/150 | 725 | 2,4 |
| Kobuleti-Phitchvnari | 14,0 | 49,0 | 28,0 | 93334 | 57535/5750 | 13555 | 14,5 |
| **Total** | **36,1** | **126,4** | **72,2** | **240667** | **374150/29000** | **90040** | **37,4** |

***Source:*** *Table 1 is created based on rhe materials of field research and the Department of Tourism of Adjara AR*

Chorokhi basin as a result of construction of large water reservoirs on the territory of Turkey, those which contributed

to the beaches of Batumi City from the other side. The existing issue especially is demonstrated in the Batumi`s new boulevard coastal zone (Pic. 2).

Problem related to wash out of Batumi`s beaches bears global and local nature as well. Therefore, the only way to solve the mentioned problem is to perform coast strengthening works, which is currently under the process but not effective enough.



**Pic 1.2 - Batumi Beach (2023 year)**

As it is known, tourism development not only needs existence of touristic and recreational resources, but also location of tourism infrastructure, especially accommodation objects near the sea coast. In this regard, Batumi is one of the prominent cities in Eastern Europe, where ultramodern architectural buildings and hotels are presented in the sea coast zone and adjacent areas (Pic. 3).

On the basis of research, it is proved that principal type of tourism in Ajara is maritime tourism the priorities of which

are confirmed by touristic and recreational resources and quantitative indicators of tourists as well. In addition, it should also be noted that marine tourists have great opportunities to get various tourist products at the base of tourist and recreational resources of mountainous Adjara in a very short distance (15-100 km) (Putkaradze & Abuselidze, 2019; Putkaradze et al, 2022).

**Pic. 1.3 - Touristic infrastructure of recreational zone of Batumi seacoast**

Coming out of this, huge perspectives for field`s development exist therein. As it is known, development of maritime tourism faces serious competition worldwide and it relates to political and social-economic processes progressing in this sector throughout the world. Accordingly, this sector of tourism has become somehow diversified. Coming out of this, the perspectives of maritime tourism`s further development in Ajara (Georgia) are as follows:

1. Ajara has best touristic and recreational resources for development of maritime tourism, which are known for their attractivity, less load and high level of comfortability;

2. Georgia and Ajara has best economic and geographic location, which determines the transport availability for international tourists in many aspects. Tourists are able to choose and use all the means of transport in order to easily reach touristic units;

3. Ajara`s best geographic location guarantees that area for attraction of tourists and vulnerable countries are quite wide. Marketing policy`s efficiency in this regard would be far high in case of attraction of tourists from the countries of Eastern Europe, Central Asia and Near East;

4. Except the receipt of recreational (Thalassotherapy) products at the sea resorts, tourists have possibility to get different types of touristic products for short (10-90km) distance, especially to enjoy views of exotic landscape of mountainous Ajara, involve in wine tourism, rafting, gastronomy tourism, agricultural tourism in a manner that they will be still able to swim in the sea on a daily basis;

5. Priorities of maritime tourism in Ajara in an international standpoint are that there exist comparatively lower prices for the mentioned tourism products also, which is confirmed by increasing dynamics of tourists.

The research makes clear that tourism is a leading field in Ajara, where priority is granted to maritime tourism and 66.2% of total tourists fall upon it. Development of maritime tourism is based on prominent touristic and recreational resources of sea coast, potential of simultaneous receipt of tourists of which exceeds 240 thousand in the comfortable zone, but its usage level at the peak period is only 37.4%. Region has huge perspectives for development of maritime tourism – especially preferable (suitable) economic and geographic location and

with properties of diverse touristic and recreational resources. Besides, tourists are not only limited by recreation (Thalassotherapy), but they have opportunities to get another tourism products as well.

Further development of maritime tourism in Autonomous Republic of Ajara will be highly depended on political and social-economic development of the country, also on implementation of effective marketing and the management via working out an innovative tourism policy.

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## 1.2. National plan for the development of innovative logistics business in Ukraine at the level of the European Union

The article dais with the importance of innovation environment as a condition development of logistics business in Ukraine. National plan for the development of innovative logistics business in Ukraine at the level of the European Union. Role of organizational and logistics business factors in improving enterprise business. The author analyzes their influence on the production personnel managers' performance as well as on the formation of the internal environment of the logistics business. The development of information technology, which has taken place over the past 50 years, has formed a fundamentally new world, in which the use of external information resources is a natural consequence of globalization. This is manifested primarily in the fact that devices that are connected to the Internet are used in all areas of human life. Computers and the Internet have made their way into all sectors of the economy and created the preconditions for the formation and development of the digital economy. The use of digital technologies in various sectors of the economy have significantly changed people's lifestyles, working conditions and doing logistic business.

Organizational and logistics business is a prerequisite for effective e enterprise of the national plan of Ukraine at the level of the European Union. However, sometimes the

management of Ukraine enterprises does not pay enough attention to different aspects of organizational and logistics business, neglects the knowledge and experience of previous cultures and does not develop new traditions based on European experience.

Economic values are generally shared ideas about the goals of economic activities. They function in the form of an ideal, the basic principles of thinking and are ideal criteria assessing economic events, phenomena and processes.

Economic values have advantages over such concepts as wealth, money and income-generating means, and the relatively more abstract categories such as capitalism, socialism, individualism, economic liberty, equality, etc. Any society and any social group have their own hierarchy of values. For some population groups, wealth is the highest value, for others it is a pure conscience. In some societies, private property is regarded as a condition for the realization of economic and social freedom, and in others as a social evil that generates social inequality and conflicts.

Unfortunately, to date, there are no definitions and interpretations of organizational and logistics business in the above-specified context. Organizational and logistics business, as a term, covers most of the phenomena not only of the material and non-material life of the organization including the material values and moral norms, the adopted code of conduct, traditions, rituals, dress code as well as the established standards of quality of ducts. Different manifestations of enterprise logistics business and economic mechanisms are observed as soon as an individual steps across the threshold of the enterprise. Organizational and logistics business improves the works' adaptation to the decrements of economic reform and is reflected in a certain philosophy of the enterprise management, above all, top management, which is realized in a

specific enterprise strategy. This, organizational and logistics business has a critical impact on the enterprise otioning.

Yes, organizational and logistics business has a critical impact on enterprise optioning. Innovative logistics business implies the perfect use of electronic means, developed skills and abilities to work with 'the digital''. The definition of digital competence is based on a general understanding of competence and consists of relevant knowledge, skills, experience, values and attitudes that can be fully implemented in practice.

It is known that innovation activity is an activity which focuses on the search, development, and implementation of results of scientific research in a new or advanced product, service or process with their further dissemination to obtain profit. In order to achieve the objective of innovative activity it is necessary to search for new ways and opportunities, use more rationally available resources, and implement the latest achievements to meet the diverse needs of consumers. Innovation activity consists of scientific, technological today remains relevant as the intensification of such activity is an important factor in the further development, organizational, financial and commercial activities, which together lead to the creation of innovation. The thesis regarding the importance of innovative activity in Ukraine of the country. *A*ccording to the value of the global innovation index, Ukraine ranked 45th among 127 countries in 2020, which is a good result (in 2019 - 47, in 2018 - 43, in 2016 - 56, in 2014 - 63rd place) [1]. The most innovative countries in the world are Switzerland, Sweden, the United States, the Netherlands and the United Kingdom. According to the Global Startup Ranking in 2020, Ukraine entered the top 30 countries in the global startups ranking –

[1] Global innovation index URL: https://www.globalinnovationindex.org/analysis indicator

Startup Blink, which evaluates the startup ecosystem among 100 countries and 1,000 cities, and ranked 29th in the ranking [2].

Innovation policy in Ukraine is implemented in accordance with the Strategy for Sustainable Development "Ukraine-2020"[3], which provides impetus and guidelines for its formation and creates the necessary conditions for the functioning of the implementing mechanism of such a policy. It determines, on the one hand, the attitude of the authorities to the existing innovation and scientific and technical problems, and on the other hand - the ability to ensure participation in their solution.

Assessing the situation in the innovation activity of the country, domestic scientists identify the following tendencies: concentration of innovation activity on large industrial enterprises; disparities in the innovative activity of enterprises and actually produced innovative product; reduction of technological activity of industrial enterprises; the progressive tendency of domestic industry to lose the technical and technological resource of modernization of serial production, etc[4]. Therefore, there is a need to study trends in innovation, identify problems and outline areas for innovation.

The nature and role of logistics business as an economic category have been used by a number of Ukrainian scientists, among whom are B. M.Andrushkiv, P.V. livitska, V.S. loznitsa, J.l.Palekh and L.G.Chimich[1-3]. It’s wor thy that much more extensively logistics business has been studied by foreign cars, in particular, by E.A.Chernykh, R.Kigan, D.

[2] Global ranking of startups URL: https://report.startupblink.com/

[3] Tsyfrova adzhenda Ukrainy – 2020.

[4] Tsyfrova adzhenda Ukrainy -2020. Kontseptualni zusady. Perschochergovi sfery, initsiatyvy, proekt “tsyfrovizatsii” Ukrainy- 2020. Kontseptualni zasady. Pershochergovi sfery, initsiatyvy, proekt “ tsyfrovizatsii” Ukrainy do 2020 roku. [The Digital Agenda of Ukraine-2020. The Conceptual Principles. Priority areas, initiatives and projects of digitalization of Ukraine until 2020.]https://ucci.org.ua/uploads/files/58e78ee3c3922.pdf

Meyerson and others [1-10]. The impact of organizational and logistics business on the improvement of performance has been left out of researchers' attention.

Economic ideals can be defined as the general concepts of perfection in the sphere economic life that are produced by and present in economic consciousness. Therefore, are not fully achievable, although they represent a dream and a model which people For example, the modern mechanisms of a market economy in the Western world been developed by approaching the ideal. Today they are adopted as legal and economic norms that regulate the economic process agents' behaviours. Ideals reflect the practical economic experience of a particular society and undergo historical specification. Although the ideas of social equality, economic freedom and established values, the different social conditions, 'materialized form' and understanding of equality, freedom and justice have changed. It is necessary to gush between the real values of society and the ideals, which are formulated as digital constructs.

Economic norms are common patterns that regulate economic behaviours. They are behaviours expected in the economic sphere.

Economic norms exist in the economic sphere and serve certain economic friendships. Economic norms function at the formal legal superstructure level as state and regulation and as official legal documents (laws, instructions, orders) that the economic relations in the country. In order for these norms to be not purely active, they should become everyday socio-economic practices, i.e. they should on successfully at the level of the economic process agents' behaviours. Therefore, it is important that the content of the state norms should be realistic and adequate to the conditions of their implementation, meet citizens' expectations and agree with their moral consciousness

because economic norms that can not be followed undermine the very idea of the mandatory norm implementation.

Changes in the economic and other social spheres change the conditions of people's joint activities. Therefore, some economic norms cease to meet the needs of economic actors over time and become dysfunctional and inappropriate. Moreover, obsolete norms slow down the economic system development. Therefore, people will strive to change them in order to bring them into line with new living conditions.

Enterprise organizational and economic culture should ensure the enterprise's high profitability by maximizing the efficiency of management and improving the enterprise performance as a whole [5] by;

- improvement of human resources management;
- formation of worker's attitudes towards the enterprise as a modern European industrial production [their second home];
- development of workers' ability to rely in their work and personal life on the established behavior norms and to use conflict- free issue solving tactics;
- use of new organizational and economic culture development mechanism.

As J.Eldridge and A.Crombie state, logistics business refers to the unique configuration of norms, values, beliefs ways of behaving and so on, that characterize the manner in which groups and individuals combine to get things done[6]. This definitional of logistics business is complemented by W.Ouchi,

[5] Tsyfrova adzhenda Ukrainy -2020. Kontseptualni zusady. Perschochergovi sfery, initsiatyvy, proekt "tsyfrovizatsii" Ukrainy- 2020. Kontseptualni zasady. Pershochergovi sfery, initsiatyvy, proekt " tsyfrovizatsii" Ukrainy do 2020 roku. [The Digital Agenda of Ukraine-2020. The Conceptual Principles. Priority areas, initiatives and projects of digitalization of Ukraine until 2020.]https://ucci.org.ua/uploads/files/58e78ee3c3922.pdf

[6] Eldridge, J., Crombie, a. (1974). *Sociology of organization*. London: Allen &Unwin.

who believes that organization members about the established values and beliefs [7].

According to V.Katkov, logistics business is a system of formal and informal rules and norms, customs, customs and traditions, individual and group interests and behaviours in a given organization, which may differ in behaviours styles, work satisfaction measures, levels of cooperation and the degrees of employee identification with the organization and its goals[8].

Although the proposed definitions of logistics business cannot be disputed, one should take into account the fact that enterprise logistics business is greatly influenced by the economic factors associated with the enterprise workers, top managers and the environment.

All this calls for the introduction of a new term. We suggest to understand enterprise organizational and economic culture as a system of social and economic factors that influence the enterprice development. Since organizational culture affects all the enterprise personnel from the institutional to the technical level of management, it is necessary to take into consideration its role in every worker's work and life[9];

- for the enterprise owner, it is a way of self-realization;
- for managers, it is an incentive for self-organization and a standard of the established order;
- for workers, it is working conditions.

The logistics business reflects the values and norms of behavior that have been formed by the history of the organization's development. It is based on the national culture

[7] Ouchi, W. (1981). *Theory "Z": How American business can meet the Japanese challenge* Reading. Ma: Addison-Wesley.

[8] Tsyfrova adzhenda Ukrainy – 2020

[9] Dimaggio P. (1994). Culture and economy. The Handbook of Economic sociology. Princeton, P. 27-57

of the country and\or region where the enterprise is located. However, it should be noted that the content of logistics business is strongly influenced by the values, principles, ideas and attitudes of the organization creators[10].

Economic habits and routines determine the choice of the most appropriate and fairly common means of group economic activity. The importance of habits in the formation of economic behaviour has been stressed by such eco-sociologists as T.Veblen, F.Knight, J.Kato and others. The emergence of habits and people's following the general rules of behaviours are both the result of a relatively passive and often unconscious imitation of others and the result of individuals' conscious free choice.

Social habits and routine behaviours can not be overestimated. For example. All economic activities are carried out in accordance with the traditional law, which enables economic agents to judge the viability of contracts and the probabl consequences of actions. Traditional law is understood through daily monitoring of its e functioning, rather than by a detailed analysis of different legislative acts Business itself is limited to informal customs and ruies, which are recognized by everyone who does logistics business and are regarded as an 'entry ticket' to the logistics business community.

The lives and activities of logistics business circles, to a great extent, depend on a network of contacts, which are often controlled by rules and routine formal and informal agreements. It is common knowledge that many labor markets are based on strict principles of conduct and contracting, which are largely shaped by social traditions and innovation.

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[10] Chernykh, E. Korporativnaya i organizatsionnaya kultura – sinonimy iti raznye ponyatiya [*Corporate and organizational culture –synonyms or different concepts]*. Retrieved December 22, 2017, from: http://www. Corpculture. ra/ content/ korporativnaya-i-organizatsionnaya-kultura-sinonimy-ili-raznye-ponyatiya

Logistics business plays an important role in the economic system functioning because it shapes the social base and a specific type of economy. It determines who and how will influence the image and behaviors of various socio-economic culture. In our opinion, these are: formation of social-economic consciousness and certain types of economic thinking and behavior; reflection and evaluation of various aspect of economic activity, identification of the most significant problems and goals and the development of appropriate economic programs; creation and accumulation of economic values and norms that regulate the entire system of economic relations; development of economic laws and models that are the basis of people's economic consciousness and behaviors; accumulation of all social experience; values-based social economic integration; consolidation of economic ties and forms of communication; personal socialization and development through various economic activities.

– There are enterprises in Ukraine that originated in the Soviet period and were shaped by the then ideas about effective management and logistics business. However, over time these enterprises' organizational and logistics business has changed considerably which has brought about fundamental changes in the enterprise management structure and customer communications.

Economic culture manifests itself in people's economic relationships and reflects the most typical and repetitive elements of these relationships that facilitate the reproduction of their institutional and personal forms. Innovation takes in and promotes certain rules- and norms-regulated economic interactions and methods of formation of individual and group consciousness and behaviors.

Another important aspect of organizational and economic culture is top management's attitudes towards it, which can be

manifested in two ways: if culture does not contradict the objectives of the management, managers do not feel or notice it and are quite comfortable. However, if the principles of the organizational culture do not contribute to the development of the enterprise and the workers' goals contradict the goals of the management, such culture becomes a serious obstacle to the development and can cause the collapse of the enterprise.

Thus, enterprise management view logistics business as a regulator of workers' behavior, which at best promotes the organization's prosperity or at worst hinders and limits its development. The logistics business, being the strongest work motivator, encourages managers to look for the ways of enhancing its motivating capacity and weakening its demotivating effects.

Socio-economic changes and the development of a socially oriented economy in Ukraine necessitate the formation of youth market economic culture, which would improve young people's economic activities and allow assessing these activities in terms of social and moral values rather than economic expediency.

The transition of Ukraine to market relations contributes to the freedom of people, opens up new possibilities for the realization of their social, economic and spiritual needs as well as creates a basis for the growth of national wealth. This largely depends on the education system, because human culture is, to a great extent, a product of education and training.

Analysis of organizational and logistics business properties, functions, elements, strengths and weaknesses allows enterprise managers to avoid making different mistakes, extra costs and and worries. It is very important to know that any phenomenon in the organization is closely linked to its culture, and any smallest change in the organization will

inevitably bring about positive or negative changes in the organizations's culture.

Enterprise workers who have been employed for a long time, usually do not notice the manifestations of culture and their co-workers' behaviors seem to them quile ordinary. Veteran workers can become aware of their enterprise logistics business if they compare it with other enterprises as a consumer of new workers come to work[11].

Innovation logistics business directs enterprise workers' activities and serves as a standard, because work objectives are closely linked with the organization's values. Logistics business also includes the permissible ways to achieve various goals, both personal and organizational. The relative stability of organizational culture characteristics maintains workers' sense of stability, which meets their need for safety as a basic human need. Too fast or dramatic in logistics business, especially large-scale ones or those the relate to the enterprise changes structure, may undermine the workers' sense of stability and cat anxiety for the professional future. If large changes take place in the external environme logistics business orientates workers and serves as a king of survival technology well as contributes to maintaining the organization's position on the agro-industrial complex [12]

In addition, logistics business forms worker's positive attitudes towards wo because achieving the goals of the enterprise contributes to the achievement of work own goals,

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[11] Chernykh, E. Korporativnaya i organizatsionnaya kultura – sinonimy iti raznye ponyatiya [*Corporate and organizational culture –synonyms or different concepts]*. Retrieved December 22, 2017, from: http://www. Corpculture. ra/ content/ korporativnaya-i-organizatsionnaya-kultura-sinonimy-ili-raznye-ponyatiya

[12] Chernykh, E. Korporativnaya i organizatsionnaya kultura – sinonimy iti raznye ponyatiya [*Corporate and organizational culture –synonyms or different concepts]*. Retrieved December 22, 2017, from: http://www. Corpculture. ra/ content/ korporativnaya-i-organizatsionnaya-kultura-sinonimy-ili-raznye-ponyatiya

facilitates satisfaction of their needs and is consistent with the structure of a worker's personality. Elements of logistics business and the values and norms acquin by workers are internal motivating forces that encourage workers to be professionally efficient [12]

The leading role in the enterprise innovation logistics business is played by the extent environment, which to some extent stimulates the development of information technology although, according to some people, it is not seen as quite active. The emergence of no market segments forces enterprises to shift the emphasis in their activities and requires use of new management, human resource and production methods, including personal training, refresher training and retraining and recruitment of workers of new specialties.

Obviously, logistics business is closely connected with customers, supply and partners. Information about the goals and principles of the enterprise all logistics business to be a stable image of the organization. This information can be purposefully formed by means of advertising, and public relations and is represented in form of external, material aspects of the organization's life. These include design, clothing logo, brand name and trade mark.

However, the external image of the enterprise must be consistent with it's inter image. The purposeful formation of the internal image of the organization is impossible with changes in or the development of logistics business.

There are several functions that reflect the role-played by organizational and logistics business.

The values of logistics business are those shared by the majority of works Shared values bring together workers or team members. Compliance with organization's norms, customs, rituals and traditions as well as the knowledge of a specific language, the history and features of the organization

makes workers feel affiliated work their enterprise, develops their commitment to the enterprise and integrates them into enterprise community.

Through the means of broadcasting used in a given digital culture, a new worker receives an idea about the rules, norms, behaviors, traditions and career development opportunities. In the way, organizational culture promotes new workers' adaptation to new work conditions and environment.

Orientation to the enterprise mission-stated values, goals and principles creates an algorithm, a technology of achieving the goals and sets a benchmark in the change environment, thus instilling in everyone associated with the enterprise the feeling of stability and reliability.

Innovative logistics business, which plays a significantly role in enterprise performance, is formed by a number of factors, or (sub) cultures.

The working conditions culture describes the division of responsibilities in the organization. The interpersonal relations culture characterizes relations between co-workers, their cohesion and proneness to conflict. The workers culture stems from their spiritual culture, moral attitudes and beliefs, which form their worldviews, skills in using the acquired knowledge and the relationships with other people. The production organization digital culture focuses on specific projects implementation using the necessary resources and people in order to produce a synergistic effect. The management culture is based on the central source of power, a key figure that directs all processes in the organization. This digital culture is 'responsible' for management activities and management functions.

Logistics businesses a multidimensional phenomenon that consists of both rational and irrational components and contains, as its basic elements, economic values, norms,

stereotypes, ideas, concepts, beliefs and traditions popular in a given society as well as people's attitudes and orientations towards the existing economic system, important rules of the game' and the principles of the relationship between individuals and economic institutions.

Economic digital culture: selects( eliminates, preserves, accumulates) the values and norms necessary for the survival and development of the economy; collects benchmarks for the appropriate economic behaviors and economic activities (e.g., preserves craftsmen's traditions of co-workers' mutual economic assistance, relations with the top management, attitudes to various instructions, orders, regulations, etc.); passes down from the past into the values and norms that are the basis of labor, consumption, distribution and other economists and relations; updates the values and norms that direct the development of the economy( it is the source of new normative ideas and behaviors).

Thus, the economic digital culture development mechanisms are constantly changing and improved under the influence of different environmental factors. Organizational culture of the enterprise allows finding out the drawbacks in the enterprise's work and identifying their causes followed by working out the ways of their eliminating in order to improve the enterprise's performance for its survival in a competitive environment.

Based on the analysis of Ukrainian legal documents as well as Ukrainian and feign scientific publications, the authors prove that the concepts of digital culture go beyond the technological or digital industry and are about a wide range of educational, cultural, socio-humanitarian and other aspects of life.

Logistics business implies the perfect use of electronic means, developed skills and abilities to work with 'the digital'.

The definition of digital competence is based on a general understanding of competence and consists of relevant knowledge, skills, experience, values and attitudes that can be fully implemented in practice.

The Digital Agenda of Ukraine 2022 defines the principles of Ukraine's development in the digital space and the fundamentals of a digital economy. It includes 10 areas to develop: public safety, health, e-governmentals, e-democraty, ecology, smart cities, e-payments, social sphere, e-customs, and e-commerce[13].

Digital technologies offer new opportunities for the improvement of the quality of quality of teaching, learning… Ifivestment in people and staff's digital skils brings individual and organizational benefits, such as quality education in flexible and innovative forms to meet people expectations and needs, better employment opportunities thanks to understanding of the principles of the digital economy, as well as greater organizations' returns on investment in learning technologies.

The study of educational concepts of digital competence, digital culture, and digital intelligence are based on a number of European and Ukrainian government documents ("Recommendations of the European Parliament and the Council of Europe on the Formation of Key Competencies of Lifelong Learning" (2009), "Information Society Development Strategy in Ukraine" (2018), and the Law of Ukraine "On Higher Education" (2017), etc.).

The concept of digital culture was introduced into scientific use by T. O'Reilly in 2008 with the emergence of web 2.0 technology, the second generation of Internet services

[13] Tsyfrova adzhenda Ukrainy – 2020

with a new a new approach to the Web-resources organization, implementation and support.

The Analytical Note of the Humanitarian Policy Department of the National Institute for Strategic Studies states that digital culture is the basis for modern world culture, an integral part of all social processes, including educational; the phenomenon of digital culture is significant because it indicates that information and virtual socialization is the dominant form of socialization [14]. The document testifies to the radical changes in the understanding of culture itself, which takes new forms (cinematic and literary cyberpunk, video sculpture, digital installation, techno- and electronic music, virtual museum and theater, soft art, etc.) and demonstrates fundamental changes in human cognition and creativity.

In modern science (L.Baeva, O.Gook, V. Kryvosheev) there is a tendency to interpret digital culture as a technological phenomenon, because all objects of this culture operate using digital devices that use binary-coded information, which becomes this culture's system-forming factor ( from the technological point of view). In this case, the concept of logistics business coincides with  ethe definition of electronic culture (e-culture) as set results of people's IT– technologies-based creativity and communication and the formation of a single information space. Since all modern information and communication means (computers, analog and digital video cameras, mobile phones, photo-, video- and TV- cameras, players, and tablets, etc.) are electronic devices, electronic culture also includes the phenomena of computer-, multimedia-, and cyberculture as its varieties [15].

[14] Science and innovation activity in Ukraine, 2019

[15] Tsyfrova adzhenda Ukrainy – 2020

K. Litvinov in his DigitalBlog emphasizes other aspects of logistics business. He understands it as a system of rules of human behavior, which people follow when they use information and communication technologies [16]. Digital culture includes the following components:

- critical thinking the regarding the quantity and quality of perceived information; it includes search (choosing reliable information sources), interpretation (preferring facts to opinions), research (in-depth analysis of information to draw conclusions), and evaluation (assessment of the information message from various aspects);

- digital literacy, i.e. the ability to use modern IT and software, especially in professional activities;

- IT volunteering, i.e. the use of ICT not only for their own needs, but also to improve the world around them;

- rational consumption of information;

- competent use of social media ( social media literacy);

- network literacy, which implies knowledge of the basics of network security and net-etiquette standards;

- green use of information technology (“green IT”), participation in solving environmental problems caused by information progress [17].

Today, scientists believe that digital culture depends on different types of skills, such as:

- skills of interacting with computers and other devices ( hardware skills), which allow going online or creating digital artifacts;

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[16] Chernykh, E. Korporativnaya i organizatsionnaya kultura – sinonimy iti raznye ponyatiya [*Corporate and organizational culture –synonyms or different concepts]*. Retrieved December 22, 2017, from: http://www. Corpculture. ra/ content/ korporativnaya-i-organizatsionnaya-kultura-sinonimy-ili-raznye-ponyatiya

[17] Tsyfrova adzhenda Ukrainy – 2020

- agro-complex of interacting with software, universal complex of work with digital technologies ( meta complex), in particular for designing and developing digital online or offline environment [17, 18].

The concept of teacher digital culture in the scientific and methodological literature is used mainly as a synonym for digital literacy. Thus, V. Rebrina defines this phenomenon as a teacher's ability to work with modern digital technology and modern information and communication technologies and distinguishes its following components: computer literacy, information literacy (information culture), multimedia literacy, and computer communication literacy.

The concept of digital competence compared to the above definitions of digital culture is much broader and more general. It includes skills in the information and communication (digital) environment as a leading feature of digital literacy, as well as new practices of digital culture with relevant values and personal experience (a socio-cultural component).

Aspects of innovative logictics business and their effect on the economy of the country have been B. Twiss, J. Schumpeter. The works of S. Valdaytsev, L. Vodochek, P. Drucker, G. Mensh, F. Hayek and others are devoted to the formation of innovative strategies. Among the Ukrainian scientists who studied the problems of innovative development, we will single out O. Amosha, B. Burkinsky, J. Zhalilo, V, Zakhatchenko, S. Illyashenko, M. Krupka, O. Lapko, B. Malytsky, Z. Poplawska, L. Fedulova, Z. Yurynets and others. Works of both foreign and Ukrainian scientists, including B. Martin, J. Irvine and P. Isard, V. Volikov, K. Savenko and

[18] Eurostat URL: https://ec.europa.eu/eurostat/web/science-technology-innovation/data/database

others are devoted to the issue of funding and other governmental support. Works of O. Levkivskyi, A. Kozlov, T. Pisarenko, T. Kvasha, L. Rozhkova, O. Kovalenko and others are devoted to the analysis of the innovation activity of Ukraine within the framework of international ratings. However, the character of innovation processes is so dynamic that it is necessary to have information about their status for a specific period of time in order to provide an appropriate evaluation with a view to managerial decision-making.

**Table 1.3 - The share of researchers, technicians and support staff in the total number of employees involved in the implementation of R&D, (%)**

| | Researcher | | | | Technical engineers | | | | Support staff | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2013** | **2018** | **2019** | **2020** | **2013** | **2018** | **2019** | **2020** | **2013** | **2018** | **2019** | **2020** |
| EU 28[2] | 64,0 | 65,3 | … | 64,9 | … | … | … | … | … | … | … | … |
| Bulgaria | 67,9 | 65,4 | 65,3 | 67,2 | 21,5 | … | … | … | 10,6 | … | … | … |
| Estonia | 74,4 | 72,6 | 74,1 | 76,6 | 17,8 | 17,0 | 18,0 | 16,0 | 7,9 | 10,4 | 7,9 | 7,4 |
| Spain | 62,2 | 63,3 | 64,0 | 63,8 | 23,9 | 24,1 | 24,0 | 24,3 | 13,9 | 12,5 | 12,1 | 11,9 |
| Latvia | 71,0 | 69,4 | 67,1 | 66,4 | 17,6 | … | … | … | 11,3 | … | … | … |
| Lithuania | 74,3 | 79,5 | 79,4 | 78,9 | 12,2 | … | … | … | 13,5 | … | … | … |
| Germany | … | 64,0 | … | 64,2 | … | 21,4 | … | 21,4 | … | 14,6 | … | 14,5 |
| Poland | 77,8 | 75,0 | 77,2 | 78,5 | 13,2 | 14,9 | 13,9 | 10,2 | 9,1 | 10,1 | 8,9 | 6,9 |
| Romania | 78,6 | 62,7 | 62,6 | 61,1 | 8,7 | 14,1 | 14,3 | 13,9 | 12,7 | 23,2 | 23,1 | 25,0 |
| Slovakia | 85,5 | 84,8 | 80,4 | 80,3 | 10,1 | 9,9 | 12,4 | 13,3 | 4,4 | 5,3 | 7,2 | 6,5 |
| Slovenia | 61,5 | 54,8 | 56,3 | 64,0 | 28,6 | 34,6 | 33,1 | 25,5 | 9,9 | 10,5 | 10,5 | 10,5 |
| Hungary | 66,1 | 68,3 | 71,2 | 70,1 | 17,3 | 18,3 | 16,7 | 17,6 | 16,6 | 13,4 | 12,1 | 12,3 |
| Czech Republic | 55,7 | 56,5 | 56,2 | 55,5 | 30,4 | 29,6 | 30,0 | 29,9 | 13,9 | 13,9 | 13,8 | 14,6 |
| **Ukraine** | **73,3** | **73,7** | **65,1** | **63,0** | **11,0** | **9,1** | **10,2** | **9,7** | **15,7** | **17,2** | **24,7** | **27,3** |

***Source:*** *compiled on the basis of* [19]

[19] Eurostat URL: https://ec.europa.eu/eurostat/web/science-technology-innovation/data/database

Innovation logistics business in agro-complexe performers of such work in 2022 amounted to 79.3 thousand people (including part-time employees and persons working under civil contracts), 64, 5% of which were researchers, 9.4% - technical engineers, 26.1% - support staff.[20] In 2012, the share of R&D performers (researchers, technical engineers and support staff) of the total employed population was 0.60%, including researchers - 0.39%. In comparison, according to Eurostat in 2017, the highest share of researchers was concentrated in Slovakia (80.3%), Lithuania (78.9%), Hungary (70.1%) and

Estonia (76.6%); the lowest share was in Romania (61.1%), Slovenia (61.1%) and the Czech Republic (55.5%) (Table 1.3)

At the same time, according to 2020 data, the share of R&D expenditures in the GDP of the 28 EU countries averaged 2.12%. Germany occupies a leading position 3.13%, Slovenia 1.95%. In the Czech Republic 1.93% and in Poland 1.21% (Table 1.4).

The availability and use of computer equipment and its various software in the activity of organizations and industrial enterprises is important for the development of innovation. Nowadays, technologies, the main component of which is a computer, is permeating almost all spheres of human activity.

Regarding the status of these processes in the economic system of Ukraine, according to statistical observations in 2019, 87.9% of enterprises used computers in their work (while in 2018 95.2%), had access to the Internet - 86.4 % (in 2017-93.2%)[21]. It is quite natural that the highest level of computerization was shown by enterprises engaged in

[20] Science and innovation activity in Ukraine, 2019

[21] Use of information and communication technologies at enterprises URL: http://www.ukrstat.gov.ua

information and telecommunications - 89.2% (in 2019 - 98.2%). The lowest level of computerization was observed in enterprises involved in temporary accommodation and catering - 77.2%, while in 2012 - 2019 it was the lowest in the field of administrative and support services.

**Table 1.4 - The share of costs for R&D, %**

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|
| EU 28[2] | 1,92 | 1,96 | 2,00 | 2,01 | 2,02 | 2,03 | 2,04 | 2,08 | 2,12 |
| Bulgaria | 0,57 | 0,53 | 0,60 | 0,64 | 0,79 | 0,95 | 0,77 | 0,74 | 0,76 |
| Estonia | 1,57 | 2,28 | 2,11 | 1,71 | 1,42 | 1,46 | 1,25 | 1,28 | 1,40 |
| Spain | 1,36 | 1,33 | 1,30 | 1,28 | 1,24 | 1,22 | 1,19 | 1,21 | 1,24 |
| Latvia | 0,61 | 0,70 | 0,66 | 0,61 | 0,69 | 0,62 | 0,44 | 0,51 | 0,64 |
| Lithuania | 0,79 | 0,91 | 0,90 | 0,95 | 1,03 | 1,04 | 0,84 | 0,90 | 0,94 |
| Germany | 2,73 | 2,81 | 2,88 | 2,84 | 2,88 | 2,93 | 2,94 | 3,07 | 3,13 |
| Poland | 0,72 | 0,75 | 0,88 | 0,87 | 0,94 | 1,00 | 0,96 | 1,03 | 1,21 |
| Romania | 0,46 | 0,50 | 0,48 | 0,39 | 0,38 | 0,49 | 0,48 | 0,50 | 0,50 |
| Slovakia | 0,61 | 0,66 | 0,80 | 0,82 | 0,88 | 1,16 | 0,79 | 0,89 | 0,84 |
| Slovenia | 2,05 | 2,41 | 2,56 | 2,56 | 2,37 | 2,20 | 2,01 | 1,87 | 1,95 |
| Hungary | 1,14 | 1,19 | 1,26 | 1,39 | 1,35 | 1,35 | 1,19 | 1,33 | 1,53 |
| Czech Republic | 1,34 | 1,56 | 1,78 | 1,90 | 1,97 | 1,93 | 1,68 | 1,79 | 1,93 |
| **Ukraine** | **0,75** | **0,65** | **0,67** | **0,70** | **0,60** | **0,55** | **0,48** | **0,45** | **0,47** |

***Source:*** *compiled on the basis of* [22]

There are growing trends in the number of enterprises that purchased goods or services via the Internet (20.1% in 2019, against 18.3% in 2015), in relation to the volume of sold products (goods, services) by their sale on websites or in applications (4.5% in 2019, compared to 2.9% in 2015). Obviously, such changes in trends can be explained by the impact of the pandemic.

[22] Eurostat URL: https://ec.europa.eu/eurostat/web/science-technology-innovation/data/database

The largest number of enterprises that purchased cloud computing services from the general servers of service providers was involved in wholesale trade, information and telecommunications and in professional, scientific and technical activity (Table 1.5).

**Table 1.5 - Dynamics of the share of enterprises by type of economic digital activity that bought cloud computing in 2021**

| | Shared servers of service providers | Servers of service providers reserved exclusively for the enterprise |
|---|---|---|
| Processing industry | 8,7 | 2,1 |
| Supply of electricity, gas, steam and air conditioning | 8,7 | 3,5 |
| Water supply; sewerage, waste management | 7,8 | 1,5 |
| Construction | 7,8 | 1,8 |
| Wholesale and retail trade; repair of motor vehicles and motorcycles | 10,3 | 2,6 |
| Transport, warehousing, postal and courier activities | 7,0 | 1,5 |
| Temporary accommodation and catering | 8,5 | 1,9 |
| Information and telecommunications | 15,3 | 4,5 |
| Real estate transactions | 5,9 | 1,3 |
| Professional, scientific and technical activities | 12,0 | 3,3 |
| Activities in the field of administrative and support services | 7,5 | 1,7 |
| Repair of computers and communication equipment | 10,5 | 7,5 |

***Source:***[23]

[23] Use of information and communication technologies at enterprises URL: http://www.ukrstat.gov.ua

Summarising the results of the presented analysis, we have a general tendency to preserve all the signs of a moderate innovation and technological process.

It should be noted that during the study period almost 40 strategic documents at the industry level related to the development of innovation in a particular area were approved in Ukraine. A successful positive example is the dynamic development of Kyiv, which is changing primarily due to innovation and technology.

Here they began to introduce the latest technologies in a variety of areas, including city government. Kyiv became the first city in the country to successfully and we concur with a scientists' thought that there is an urgent need to form a system innovative culture [24,25], develop and implement a number of measures for reinforcing of its components:

- innovation infrastructure, national and regional innovation systems;
- quality of intangible assets (quality of management, human capital, process capital, competence and loyalty of human capital);
- level of innovative potential (level of perception of innovations, motivational and human potential development tools, initiative for development).

The following issues are also relevant: enhancing of the competence level of domestic economic elite, establishment of programmes and initiatives aimed at recognition of the need for economic development solely on innovative basis,

[24] Andriychuk O. Ya. Innovative culture as an effective mechanism of functioning of the innovative system of the enterprise. Economics: problems of theory and practice: collection of studies. Dnipropetrovsk. 2008. Issue 237, Volume III. Pp. 559-567.

[25] Pushnykh V. A. Innovative corporate culture and competitive environment of the university URL: https://zakadry.tpu.ru/newspaper/article/ view? Id = 1223

development of values related to the importance of innovative development and a new behavior pattern, establishing social interaction, education of the population on innovation business culture, definition of the structure of relations in the innovative business environment, determination of the rules of conduct typical for innovative entrepreneurship, establishment of the responsibility of participants for the institutionalisation of innovation culture. For this purpose the following experience of foreign countries should be used:

- to form a national program for the development of innovation culture [26];

- to increase the significance of domestic media in the formation of innovative consciousness of society, contribute to the popularisation of science and its modern achievements, the values of creative and intellectual work;

- to develop educational and information programs which are focused on fostering the creation and implementation of innovations at all levels of social activity;

- to introduce special training programs for entrepreneurs in order to change thinking towards the need for business development on an innovative basis, to encourage the creation of innovative products and the use of innovative equipment, technology, etc .;

- to form the managerial and legal culture of specialists, managers; to involve staff in the process of change and form a system of motivation for the result orientation, increase efficiency in the workplace;

- to raise the moral and ethical foundations of society, the level of education of citizens (economic, information, etc.), teams of employees of enterprises and institutions in order to

[26] Bykonya S. Innovative culture - a condition for the implementation of innovation policy // Staff. - 2006. - No 4. URL: http://personal.in.ua/article.php?ida=266

be tolerant to the development of individual capabilities of each person [27].

The change in the legal basis for digital competence standards published by UNESCO and adopted by the European standards for digital competences, the development of relevant standards in Ukraine, and enabling teachers to choose refresher courses allow determining new approaches to building individual ways of teachers' digital competence development in agro- complex. Analysis of statistical data allowed us to assume that the use of active and interactive learning methods and in particular in the educational process contributed to increasing the level of The formation of professional competence.

Despite the large scale of scientific achievements there is a need to transform the national plan for restoring the logistics business at the EU level in Ukraine in order to form a logistics business whose members should have developed digital skills and higher education in new specialties. In addition, digital education should be institutionalized, i.e.it should follow certain standards, norms, and rules. This stage is quite time consuming and requires the involvement of a large number of leading scientists, researchers, and practitioners.

As a conclusion, it can be noted that digital education is an accelerator of socio-economic order in the direction of digital competencies formation and development should consider different aspects of the evolution of today's social values. It should be based on quality education and use creative innovators.

[27] Problems of management of innovative development of enterprises in transition economy: monograph / [for general. ed. Doctor of Economics, Prof. S.M. Ilyashenko]. - Sumy: "University Book", 2005. - p. 582

## 1.3. IMPACT OF DIGITAL TRANSFORMATIONS ON THE MANAGEMENT AND ECONOMY OF ENTERPRISES IN THE NEW REALITIES

Today, every domestic company faces important challenges: how to cope with the onslaught of unpredictable threats and unexpected risks, what management measures need to be taken to ensure the survival and development of the company and its team. After all, full-scale hostilities, unpredictable destruction of the aggressor country, rapid changes in conditions, and risks of damage to critical infrastructure have led to increased economic and social uncertainty, which makes it difficult to take sound management measures to transition businesses to wartime, adopting strategies on how businesses should act in the face of constant tax changes and inspections, how to build systemic and structural volunteering, what innovative approaches will help businesses emerge from the crisis stronger, and what financing instruments are most effective. The development of digital transformation can be an adequate response to the current problems of companies, which will help to respond promptly to all surprises based on appropriate management decisions driven by forecasts, optimization, new value orientations, and a reasonable [28]choice of strategic alternatives. That's why it's so important to study and to reveal the consequences of the impact of digital transformations on the management and economy of companies in today's changing environment.

The most significant scientific studies on digital transformation and its impact on the management and economy of companies in crisis conditions are found in the publications

[28] Sedikova I. 0., Sedikov D. V. New management paradigms in the digital economy. Economics of the food industry. 2022. Volume 14. Issue 3. P. 37—43. URL: https://joumals.ontu.edu.ua/index.php/fie/article/download/2360/2555.

of such recognized scientists as S. Boida, A. Buriak, O. Vynohradova, V. Heiets, O. Husieva, N. Davydenko, I. Demianenko, V. Derhachova, P. Drucker, N. Yevtushenko, O. Lozovskyi, M. Porter, O. Reshetniak, D. Sedikov, D. Stiglitz, V. Khaustova, Colin O'Reilly, P. Ulrich, and others.

Thus, we support the thesis that "fundamental changes and the formation of a new management paradigm are taking place under the impact of digital technologies"[29], therefore, "it becomes extremely important not only to install modern equipment and software, but also to find effective management systems to ensure the success of companies"[30]. After all, "military conflicts can disrupt the existing political equilibrium and allow for institutional changes that were previously impossible"[31].

At the same time, it should be noted that last year, domestic companies proved that they can function in exfreme conditions, although only a third of them (31.7%) managed to fully adapt to the new military realities, they were able to prepare for blackouts, to transfer key data and systems to the cloud and to move their locations to another safer region or co-working space, to diversify networks and providers, to use remote work, etc. And we would like to emphasize that, despite everything, most companies have demonstrated social responsibility (donations to the Armed Forces, job preservation, support for veterans and volunteers, etc.).

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[29] Седікова І. О., Седіков Д. В. Нові парадигми менеджменту в умовах цифрової економіки. Економіка харчової промисловості. 2022. Том 14. Випуск 3. С. 37–43. URL: https://journals.ontu.edu.ua/index.php/fie/article/download/2360/2555.

[30] Бойда С. Інноваційні підходи до управління підприємствами в умовах діджиталізації економіки. Економіка та управління підприємствами. 2022. Випуск 1 (85). С. 72–81. С. 76. URL:https://archer.chnu.edu.ua/xmlui/bitstream/handle /12345.

[31] Colin O'Reilly, Benjamin Powell. War and the growth of government. European Journal of Political Economy. 2015. Vol. 40. Part A. P. 31–41. URL: https://www.sciencedirect.com/science/article/abs/pii/S0176268015000853.

The timeliness of the study of the impact of digital transformations on the management and economy of companies is also confirmed by the following: change in the competitive environment, as the introduction of digital technologies expands the capabilities of companies, allowing them to move from traditional business to the digital economy, while new market players appear that quickly adapt to new technologies, and the established balance of interactions is disturbed, which requires the development of a creative competitiveness strategy and the choice of their market niche; digital technologies enable automation of many routine tasks and optimization of business processes, as a result of which companies can reduce labour and material costs, increase productivity and product quality, which requires companies to identify specific business processes that can be automated and optimized to improve their performance; digital technologies are expanding business opportunities, allowing to create new products and services, to transform existing business models and to enter new markets, in particular, e-commerce allows companies to expand their customer audience on all continents, and managing large amounts of data allows to make more accurate forecasts and strategic decisions, therefore, studying the impact of digital transformations will allow companies to find new business models and to use digital technologies to create additional competitive advantages; implementation of digital technologies allows businesses to be more flexible and responsive in a changing market environment, which contributes to increased competitiveness, in particular, decentralized management systems allow making quick decisions based on real-time, and data analytics allows predicting changes in market trends, and companies can understand how to use digital technologies to increase competitiveness and to make adequate and effective decisions.

Thus, we consider the study of the impact of digital transformations on the management and economy of companies to be urgent, as it allows us to develop a modernized competitiveness strategy, to optimize business processes, to create new business models and to increase competitiveness in a changing economic environment.

The results of the survey of specialists from the Kyiv region allowed us to identify the current key trends in the use of digital transformations in companies: automation of all business processes is expanding, as businesses increasingly use digital solutions to automate routine tasks and to optimize business processes, helping them to increase productivity, to shorten the time of task completion and to reduce errors; customer relationship management (CRM) systems are used more often, allowing to collect, to analyze and to use customer data to optimize communication with customers, sales and marketing management; enterprise resource planning systems (ERP - integrated software solutions) are being introduced to manage various aspects of the enterprise, including finance, production, supply, human resources, etc.; automated project management systems are being introduced to help to organize, to plan and to manage projects, which ensures efficient use of resources, reduces risks and improves the implementation of projects on time; business intelligence systems are installed to analyze, to visualize and to disseminate data, which allows making informed decisions and identifying problematic areas; electronic document management systems are widely used to create, to store, to process and to exchange electronic documents, automating workflow processes and facilitating cooperation between employees; online communication and collaboration systems (chats, video conferencing, shared workspaces) are being introduced to allow teams to work together regardless of geographic location, outside the office;

digital marketing is becoming increasingly important for businesses as social media and online platforms grow, and they are using digital channels more frequently to promote their products and services, to maintain customer engagement and to build their brand; automated data monitoring and analytics systems are tools that allow collecting and analyzing various types of data used to monitor and to improve the efficiency of management processes; digital technologies allow businesses to make extensive use of data analytics (collecting, analyzing and using large amounts of information), which allows them to make better business decisions, to predict market trends, to develop marketing strategies and to improve customer experience; widespread adoption of cloud technologies allows enterprises to store and to process data in the cloud, which helps to reduce the cost of IT infrastructure and increases the speed of work with information flows; businesses have started to use artificial intelligence to automate tasks, to increase employee productivity, and to improve processes, which help businesses to develop personalized products and services, to predict demand, and to reduce risks; some businesses are using augmented and virtual reality technologies to improve customer experience, to train staff, and to create new interactions.

In fact, these trends in the use of digital transformation in enterprises help businesses to become more competitive, to improve communication and collaboration, to make their operations more efficient, to increase productivity and to provide better customer experience.

Digital transformation should be considered a key factor in the development of enterprises, as it generates new opportunities for business operations and management, but it also necessitates the development of new competencies.

„77% of the surveyed top managers believe that in the next five years they will use new technologies to predict consumer demand; 68% plan to use advanced technologies to improve supply chain transparency, tracking and efficiency; 47% believe that blockchain transactions will be conducted”[32].

„In order to understand the possible consequences of certain events and processes, it is important to have an idea of the approximate vectors of future development, rather than pure guesswork. Assumptions and imagination are two methods often used to formulate a path for future development”[33].

BOB analysis, SWOT analysis, PEST analysis, comparative analysis, multimodular map of risks and threats, assessment of flexibility and adaptability, capability profile, and performance identification should be used to identify the impact of digital transformations on the management and economy of enterprises, determination of focus factors, potential, digital maturity and readiness for digital transformation, identification of innovative vanguard posts, drivers and triggers, 3D visualization of spatial correlation multivariate analysis modeling, identification of critical areas and growth points. At the same time, the following indicators and parameters should be evaluated:

Increased profitability (digital transformations can improve the efficiency of business processes, reduce labor costs and optimize production processes, and thus increase profitability); increase in productivity (the implementation of

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[32] Хаустова В. Є., Решетняк О. І., Хаустов М. М., Зінченко В. А. Аналіз розвитку ІКТ-сфери в Україні за міжнародними індексами та рейтингами. *Бізнес інформ.* 2022. № 5. С. 40 56.

[33] Ulrich P., Naegler T., Becker L., Lehr U., Simon S., Sutardhio C., Weidlich A. Comparison of macroeconomic developments in ten scenarios of energy system transformation in Germany: National and regional results. Energy, Sustainability and Society. 2022. 12 (1). URL: https://www.researchgate.net/publication/363260493_

digital tools and technologies should lead to an increase in employee productivity, for example, process automation; the use of artificial intelligence and robots should increase the productivity and efficiency of production operations); sales growth (digital transformations should help to improve marketing and advertising strategies, as well as to facilitate access to markets through e-commerce and online trading, which should lead to increased sales and higher profits); expanding the range of customers (digital transformations allow businesses to establish and to maintain more effective communication channels with customers, to provide personalized services and to improve customer experience, which should help to retain customers, to attract new ones and to increase customer satisfaction); strengthening the competitive position of the enterprise (digital transformations have a significant impact on the competitive environment of the enterprise, and the introduction of new technologies and business models should strengthen the competitive position of the enterprise, its relationship with competitors and the level of competitiveness); increasing innovation activity and introducing new products and services (digital transformations should facilitate the creation and development of new products and services, change business models and launch innovative solutions on the market, which will increase competitiveness, the ability to respond to changing customer needs and to create new growth opportunities); improving employees' competencies and modernizing organizational culture (the implementation of digital technologies requires enterprises to change their organizational culture and employee competencies, to create new jobs (in particular, for data analysts, digital marketing experts, digital transformation specialists), and to retrain employees.

It is believed that the development of digital transformation of enterprise management "in the context of digital innovations is a complex process that requires proper preparation and organization, an integrated approach and consideration of many factors"[34].

The external factors that have the greatest impact on the management and economy of enterprises in the context of digital fransformation are [35].

technological progress, as the rapid development of digital technologies, such as artificial intelligence, the Internet of Things, data processing and cloud technologies, are significantly changing business models and business tools; change in consumer behaviour, as the growing role of online commerce and electronic payments leads to the transformation of consumer behaviour, which requires the company to adapt to new marketing and logistics strategies; deepening of globalization processes, as the growth of international trade and global competition puts demands on enterprises to use digital tools to ensure competitiveness and optimize the supply chain; legislation and regulatory changes, as the growing role of digital technologies requires new laws and regulatory changes to ensure data security, consumer protection and privacy; cultural changes, as the expansion of digital technologies leads to the transformation of cultural values and ways of communication, which requires changes in business strategies and approaches to cultural understanding of customers.

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[34] Лозовський О. М. Шляхи оптимізації системи менеджменту підприємства. Ефективна економіка. 2019. No 2. URL: http://www.economy.nayka. com.ua/pdf/2_2019/48.pdf.

[35] Махмудов, Х., & Чухліб, В. (2023). Вплив цифрових технологій на ефективність управління персоналом. *Проблеми і перспективи економіки та управління*, (4 (32), 17–26. https://doi.org/10.25140/2411-5215-2022-4(32)-17-26

Черніков, Д., & Гришко, С. (2023). Сучасні тенденції та стратегічні ризики впровадження технологій індустрії 4.0 та індустрії 5.0. *Економіка та суспільство*, (54). https://doi.org/10.32782/2524-0072/2023-54-68

These external factors affect the management and economics of enterprises, require a review of existing strategies and flexibility in adapting to new conditions, and can have both a positive and negative impact on business success. At the same time, it should be noted that the factors described above are general and may differ depending on the specific enterprise and its field of activity.

The internal factors that have the greatest impact on the management and economy of enterprises in the context of digital fransformation are:

- organizational culture of the enterprise, since digital transformation requires changes in organizational culture, approaches to doing business, increasing innovation activity and digital maturity, which contributes to the adoption of modern technologies and changes; leadership models and governance formats, as adequate management understanding of digital technologies and their impact on the business are crucial, management should provide appropriate resources and support for the implementation of digital initiatives and establish appropriate communication chains; modernization of internal business processes, since digital transformation involves reviewing and optimizing the company's internal business processes by automating routine operations, introducing new technologies and building effective management systems;

- staff competence, since the effective implementation of digital transformations requires a team of competent professionals, and the company must develop the ability to digital competencies, as well as attract new talents by promoting training and development of employees; customer focus, as digital transformation involves changes in the ways of interacting with customers and focusing on their needs, the

company must provide new digital services and transform its business model to reflect digital realities.

All these internal factors are interrelated and require the attention of the company's management.

According to the survey, domestic enterprises mostly face the following problems when implementing digital solutions, which complicate digital transformation processes and reduce their efficiency:

- limited financial resources (72%);
- lack of staff competence to implement digital transformations (64%);
- rejection and resistance to change by the company's staff (58%);
- insufficient understanding and support of digital transformation implementation by the company's management (52%);
- limited integration with existing technologies, systems, and software (47%);
- imperfect organization of the implementation of new digital systems (45%).

The success of digital transformation depends on the ability of an enterprise to adapt to digital changes and to use digital technologies to improve its business.

Summarizing, we would like to note that the digital transformation of enterprises and every digital solution help the country's economy and defenders, and every additional business deal concluded means support for employees, loved ones and the community. Of course, we understand that 2024 will be a challenging year for all businesses and society, but our unity and belief in victory multiplies our resources, competencies and capabilities, since modern warfare is not limited to missiles and heavy weapons, but manifests itself in

the "battle of the brains" phase, where Ukrainian businesses have undeniable advantages.

## 1.4. QUALITY OF MEDICAL SERVICES AS A KEY INDICATOR OF MANAGEMENT EFFECTIVENESS IN MEDICAL INSTITUTION

Ensuring high-quality medical care and improving patient satisfaction are becoming the most important tasks for modern medical institutions. In this context, the quality of medical services is recognized as a key indicator of management effectiveness in medical institutions. The quality of medical services not only reflects the level of competence and professionalism of the staff but also determines the level of patient satisfaction, their trust, and loyalty to the medical institution.

Modern management of medical institutions requires not only clinical knowledge and medical expertise but also strategic planning, organizational skills, and the ability to effectively manage personnel and resources. Therefore, understanding and analyzing the quality of medical services become critically important for the successful functioning and development of medical institutions.

In this context, our research aims to consider various aspects of the quality of medical services as a key indicator of management effectiveness in medical institutions. We seek to uncover the role of management in improving the quality of medical services, examine the impact of various factors on the quality of services provided, and propose recommendations for optimizing management processes to achieve the highest level of quality in medical care.

The relevance of researching the quality of medical services as a key indicator of management effectiveness in medical institutions is extremely important for several reasons:

– increased public interest: Growing awareness and demands from the public regarding the quality of medical services challenge traditional approaches and require greater transparency and openness regarding the quality of medical care.

– constant changes in healthcare: Changes in regulation and funding of healthcare, as well as technological innovations, demand more effective resource utilization and increased attention to the quality of services provided by medical institution management.

– market competitiveness: Increasing competition among medical institutions stimulates them to improve the quality of medical services as a way to attract and retain patients.

– impact of the COVID-19 pandemic: The global COVID-19 pandemic has underscored the need for effective management and mobilization of resources in medical institutions to ensure safety and quality of medical care.

– need for innovation and development: Rapid technological changes and the emergence of new treatment methods create the need for continuous improvement and updating of processes in medical institutions to ensure high-quality medical care.

Therefore, researching the quality of medical services as a key indicator of management effectiveness in medical institutions is relevant and important for providing high quality and safe medical care in accordance with the needs of patients and modern requirements in the field of healthcare.

The research focuses on examining the role and functions of management in the context of providing medical services,

including strategic management, personnel management, financial planning, and organization of workflow processes. It also involves evaluating the level and characteristics of medical services, including efficiency, safety, accessibility, and patient satisfaction.

The purpose of the research is to uncover mechanisms and strategies that can be used to improve the quality of medical services through effective management and coordination of activities in medical institutions.

In Ukraine, the relevance of the issue of accessibility and quality of medical services becomes even more significant. To effectively address these issues, medical facilities need to enhance their methodologies and approaches to planning, organization, and funding. A key aspect is the continuous study and assessment of the quality of provided medical services, which serves as an indicator for effective management of medical institutions.

Managing medical enterprises becomes more challenging in the context of limited resources, and ensuring the safety and quality of medical care becomes even more crucial. Addressing these issues involves determining the optimal combination of different types of medical care and ensuring high quality of these services.

Given the competitive environment in the healthcare market, medical institutions are forced to seek new methods of optimizing corporate governance. However, considering the specificity of the industry, medical facilities are increasingly paying attention to indicators such as customer satisfaction, which serve not only as performance metrics but also as key factors for further development.

In conclusion, the research aims to provide insights into the management practices and strategies that contribute to enhancing the quality of medical services and meeting the

evolving needs of patients in the healthcare sector.

Assessing the quality of medical services has become an essential part of the development strategy for medical institutions. The quality of services provided is a comprehensive indicator that takes into account many aspects. Patient satisfaction, in particular, emerges as a key factor in shaping quality control strategies and enhancing management effectiveness in medical institutions.

The issue of the quality and efficiency of medical services is one of the most relevant topics directly linked to the ultimate outcome of healthcare system functioning and its perennially limited resources.

In contemporary circumstances, achieving an adequate level of healthcare quality becomes a priority for the effective operation of healthcare systems in all countries. The focus on researching all aspects of healthcare quality is reflected in the increasing number of publications dedicated to this topic.

The peculiarity of the "quality" category in the healthcare sector lies in the fact that conducting examinations and treatments for patients in full accordance with pathological types and standards of medical institutions does not always fully consider the needs and expectations of patients. The absence of objective criteria, the possibility of correcting pathological conditions using modern medicine-these are just some of the challenges faced by medical institutions.

The quality of medical services is a key concept in the healthcare sector and is defined as the degree to which provided medical services meet the needs and expectations of patients, as well as professional standards and requirements. It is a broad concept that encompasses various aspects, including accessibility, safety, effectiveness, positive patient experience, as well as ethics and patient support.

Accessibility is the first and perhaps most crucial aspect

of the quality of medical services. This includes both physical access to medical services and financial accessibility for different social groups. The quality of medical services should also ensure treatment efficiency and effectiveness, meaning the achievement of necessary clinical indicators and improvement in the health status of patients.

Therefore, evaluating and enhancing the quality of medical services is paramount for ensuring patient satisfaction, optimizing healthcare outcomes, and advance Positive patient experience is also a crucial indicator of the quality of medical services. This includes both communication with medical staff and overall comfort and satisfaction with the services received. The ability to meet the needs and expectations of patients contributes to enhancing their experience and increasing confidence in receiving medical care [1].

Ethical considerations and patient support are also important components of the quality of medical services. This encompasses adherence to ethical norms and principles in interactions with patients, maintaining the confidentiality of medical information, and considering individual needs and rights of patients in the provision of medical care.

Furthermore, patient-centered care, which emphasizes the importance of involving patients in decision-making processes and tailoring care to their preferences and values, plays a significant role in ensuring high-quality medical services. This approach fosters trust, empowerment, and collaboration between healthcare providers and patients, ultimately leading to better health outcomes and overall satisfaction with the healthcare experience. Therefore, promoting patient-centered care practices is essential for enhancing the quality of medical services and improving patient outcomes.ng the effectiveness of healthcare management.

Therefore, it can be said that the quality of medical

services is a comprehensive concept that takes into account various aspects such as accessibility, safety, effectiveness, patient satisfaction, ethics, and support. It is an important indicator of the effectiveness of medical management and a defining factor in providing optimal medical care and meeting patient needs.

Considering these characteristics, the definition of the concept of quality of medical services and the distinction between adequate and inadequate quality of care can be elucidated as follows. Adequate quality of medical services implies that the provided medical care meets contemporary standards and considers not only universally accepted norms for a specific type of pathology but also the individual characteristics of each patient and the resources of a particular medical institution.

On the other hand, inadequate quality of medical services manifests when the provided services do not meet recognized contemporary standards and fail to consider individual characteristics and resources of a specific medical institution. This can lead to suboptimal outcomes, decreased patient satisfaction, and compromised patient safety. Therefore, ensuring adequate quality of medical services is essential for achieving positive patient outcomes and maintaining trust in the healthcare system.

With the advancement of medical technologies and the changing nature of diseases, the issue of assessing the quality of medical services becomes even more complex. Previously, when acute illnesses predominated, the criteria for evaluation were simpler: the patient either recovered or died. Now, with the prevalence of chronic diseases and the variety of treatment outcomes, assessing the quality of medical services becomes more nuanced. Taking into account patient preferences becomes a crucial factor, as treatment can have diverse

outcomes that impact quality of life.

Therefore, defining and assessing the quality of medical services in modern conditions requires new methods and standards, as well as consideration of the complexity of individual factors and the contemporary challenges of the medical field.

The main aspects of defining quality in the medical field encompass a wide range of criteria and parameters evaluated to ensure effective, safe, and satisfactory medical care, including [2]:

1. Effectiveness – this aspect assesses how successfully medical services achieve their intended goals. Defining effectiveness may include parameters such as the percentage of patients cured, reduction of symptoms, or improvement in health status. This aspect also determines how efficiently resources are used for delivering medical services. It involves optimizing costs, minimizing waiting times, and maximizing treatment outcomes. Evaluating the effectiveness of medical services in terms of utilizing advanced technologies, methods, and standards includes the application of modern diagnostic and therapeutic approaches, as well as the use of innovative technologies and methodologies.

2. Safety – safety is another critical aspect of the quality of medical services. It encompasses the safety of medical procedures, the application of correct diagnostic methods and treatments, as well as risk management and prevention of adverse outcomes for patients' health. This important aspect evaluates the level of risk for both patients and medical personnel in healthcare facilities. It includes the correct use of medications, the implementation of safe medical procedures, and risk management for health.

3. Communication and Information – assessing the quality of medical services also considers the availability and

clarity of information for patients, the quality of communication between medical staff and patients, and the existence of shared decision-making systems.

4. Patient-Centered Care – quality in healthcare increasingly emphasizes patient-centered care, which involves tailoring medical services to meet patients' individual needs, preferences, and values. This aspect includes respecting patients' dignity, preferences, and autonomy, as well as fostering partnerships between patients, their families, and healthcare providers.

5. Continuity of Care – ensuring continuity of care, particularly in cases of chronic conditions or long-term treatment plans, is vital for quality healthcare. This aspect involves seamless transitions between different healthcare settings, effective coordination among healthcare providers, and comprehensive follow-up care to prevent gaps or disruptions in treatment.

6. Evidence-Based Practice – quality healthcare relies on evidence-based practice, which involves integrating the best available evidence from research with clinical expertise and patients' preferences and values. This approach ensures that medical decisions and interventions are based on sound scientific evidence and have the highest likelihood of achieving positive outcomes for patients.

7. Resource Utilization – efficient utilization of resources is integral to quality healthcare delivery. This includes optimizing the allocation of financial, human, and technological resources to maximize the value and effectiveness of medical services while minimizing waste and inefficiencies.

In conclusion, defining and assessing the quality of medical services involve multifaceted considerations that extend beyond mere clinical outcomes. It encompasses various

dimensions, including effectiveness, safety, communication, patient-centeredness, continuity of care, evidence-based practice, and resource utilization, all of which are essential for delivering high-quality healthcare services.

These aspects are fundamental but do not exhaust all aspects of defining the quality of medical services. Considering these factors allows assessing the overall level of quality and effectiveness of medical care, which is critical for ensuring high standards of medical practice and patient satisfaction. Measurement of quality in the medical field is the process of collecting, analyzing, and evaluating data that allows assessing the level of performance of medical services according to defined standards, criteria, and expectations. Various methods and tools are used to achieve this goal, the main ones being:

– clinical indicators: specific medical indicators used to assess the health status of patients and treatment outcomes. For example, the number of registered cases of illnesses, the age distribution of patients, the use of different diagnostic and treatment methods.

– patient surveys: assessing patient satisfaction with medical services through surveys, questionnaires, and collecting feedback from them. This may include evaluating the quality of communication with medical staff, the accessibility of services, waiting times, and other aspects of the interaction experience with the medical institution.

– medical activity audit: systematic evaluation of resource utilization and compliance with standards in medical facilities. This may include checking the use of effective treatment methods and adherence to medical protocols.

– outcome indicators: using specific indicators to assess treatment outcomes, including patient health indicators before and after treatment, disease recurrence, etc.

These methods of measuring quality complement each

other and are used to create a comprehensive picture of the level of quality of medical services. They help medical institutions and organizations understand their strengths and weaknesses, identify issues, and develop strategies for further improvement of medical care.

In this case, we can emphasize the following strengths: many medical institutions have highly qualified doctors, medical staff, and specialists from various fields of medicine, providing a high level of medical care. They invest heavily in modern equipment and state-of-the-art technologies, allowing them to provide more effective diagnosis and treatment for patients. Many medical institutions offer a wide range of medical services, from primary care to specialized surgery and rehabilitation, while being located in convenient locations for patients and having flexible working hours, making them accessible to patients.

However, alongside these strengths, there are weaknesses as well: sometimes, popular medical institutions may have queues for services, leading to delays in treatment; some medical services can be expensive, especially if they are not covered by medical insurance. Additionally, in large medical institutions, there may be issues with coordination among different specialists, which can affect the quality of services.

Thus, to ensure quality medical care, managers need to consider both strengths and weaknesses and actively work on improving the healthcare delivery system.

It should be noted that the reformation of the healthcare and medical insurance model nationwide is a primary task of the medical reform in Ukraine – aiming to enhance the quality of diagnostic and treatment services provided to the population.

During the Soviet era, Ukraine faced limited financial resources for medical services under the Semashko model. This led to constant reductions in the purchase of necessary medical

equipment, a decrease in the wages of medical workers, and the outflow of qualified specialists, which, in turn, affected the quality of medical care.

In modern conditions, the economic approach to healthcare financing in Ukraine utilizes the mechanism of strategic medical procurement from the state budget, funded through state taxes, independent of the patient's personal contribution.

However, currently, the most promising direction for improving the quality of medical services within the framework of ongoing reforms is the implementation of a differentiated system of remuneration for medical workers. The introduced medical accounting technology allows for an objective assessment of the contribution of each medical worker involved in the process of medical diagnostics. This can incentivize high professional standards and dedication among medical personnel, contributing to the improvement of the quality of medical services provided and achieving the main goal of healthcare reform - enhancing the nation's healthcare system.

When discussing the components of the concept of “quality of care”, various scholars highlight different aspects that they consider key. However, from the perspective of the author of this research, “medical quality” should correspond to specific characteristics of medical quality, including [3]:

1) prevention of health problems;
2) impact on physical, social, biological, and psychological functions (health outcomes);
3) ability to detect health problems;
4) consistency between diagnosis, prognosis, and treatment;
5) duration of service provided;
6) treatment adherence;

7) interpersonal interaction;
8) attention paid to treatment;
9) information useful for managing personal health.

These qualitative characteristics are critical for meeting consumers' needs, but it is important to consider that different consumer groups may evaluate them differently. Thus, obtaining information from consumers is a key element in refining the definition of service or product quality.

Another important aspect concerns the alignment of the cost of services and goods with their quality. In contemporary understanding, cost is considered a quality characteristic, and only after quality improvement can cost increase occur. Such an approach contributes to ensuring the accessibility of each service at a reasonable price and maintaining its quality alignment with consumer needs.

Experts who focus solely on expert opinions may not always correctly understand patients' attitudes towards issues and demands. In such cases, the services provided or improved may not reflect the real needs and expectations of patients, which can affect their satisfaction and perception of the quality of services provided. To achieve high quality professional services, it is important to use minimal resources to achieve expected results.

Patient satisfaction with the quality of services can serve as an important reflection of management effectiveness in medical organizations. Effective management aims to achieve the profitability of the organization, which in turn is the result of demand for services provided by that organization. It is worth noting that demand itself is determined by the satisfaction of consumers with the quality of the services received. Thus, high service quality becomes the result of investments in process improvement, which impacts service quality improvement and customer satisfaction. The main idea

is that investing in quality improvement leads to more satisfied patients and therefore creates demand for medical services, which is strategically important for managing medical institutions.

Effective management in medical institutions is a key aspect for improving the quality of services provided. The organization should function as a system where all team members understand the common goal and each individual's contribution to achieving that goal. This is crucial for ensuring internal coordination and directing all efforts towards achieving organizational objectives.

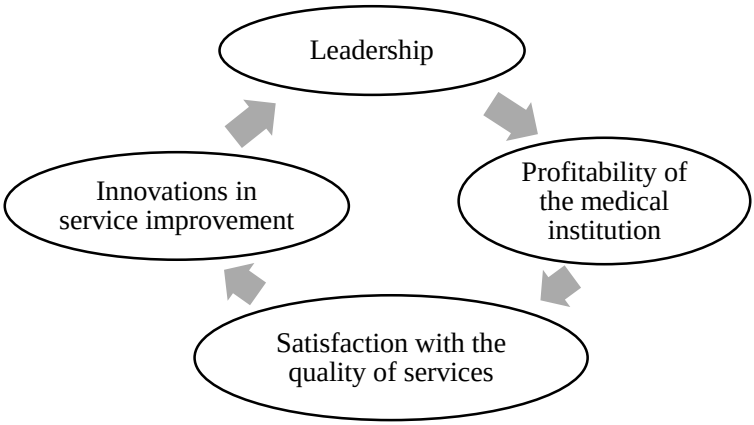


**Fig. 1.3 – Diagram of the relationship between satisfaction with the quality of medical services and the effectiveness of management of medical institutions**

The role of management in enhancing the quality of medical services is extremely important, as it is a key factor in ensuring the effective and efficient functioning of medical institutions. Let's consider each aspect of the management role

in more detail [3]:

1. Development of quality strategies – management defines strategies and goals aimed at improving the quality of medical services. This includes the development and implementation of procedures and standards aimed at ensuring patient safety, treatment effectiveness, and increasing patient satisfaction.

2. Implementation of quality management systems – management actively implements quality management systems, such as ISO quality certification systems or Lean Six Sigma methodologies. These systems help identify, analyze, and rectify defects in healthcare delivery processes, contributing to achieving consistent quality.

3. Training and development of staff – management ensures the training and development of medical personnel to enhance their qualifications and competence. This includes conducting trainings, seminars, webinars, and other forms of education to improve staff qualifications and equip them with the necessary knowledge and skills to provide high-quality medical care.

4. Monitoring and evaluation of results – management establishes monitoring and evaluation systems that allow for timely identification of problematic situations for improvement. This includes analyzing clinical data and using other tools to assess quality.

5. Risk management and accountability – management identifies and manages risks associated with the provision of medical services, and is responsible for ensuring the safety and quality of medical care.

Therefore, we can say that management plays a crucial role in ensuring the quality of medical services through the development of strategies, implementation of quality management systems, staff training, monitoring and evaluation

of results, patient engagement, and risk management. Effective management helps ensure safety, effectiveness, and patient satisfaction, which are important components of the quality of medical services.

The functions of management in medical institutions include a wide range of actions and responsibilities aimed at ensuring the effective functioning of the institution to provide high-quality medical care. In our opinion, the main functions of management in medical institutions should be highlighted as follows [4]:

1) planning – involves the development of strategies, goals, and action plans to achieve the institution's objectives. Management plans resources, sets priorities, and allocates tasks among staff for effective operation;

2) organization – distributes responsibilities and establishes a management system to rationalize resource utilization and ensure smooth operation of all departments;

3) personnel management – includes recruitment, selection, training, and development of staff. Management identifies staffing needs, evaluates their performance, and motivates them to achieve goals;

4) coordination – ensures interaction between different departments and team members to achieve common goals. This includes managing communications, resolving conflicts, and ensuring harmonious teamwork;

5) control – establishes systems to monitor the institution's activities to track the achievement of goals and plans. This includes monitoring financial indicators, clinical results, quality of medical care, and compliance with safety standards and regulatory requirements;

6) strategic management – develops and implements strategic plans and initiatives aimed at the institution's future development. This may include implementing new

technologies, expanding services, or opening new departments.

Overall, the functions of management in medical institutions are aimed at ensuring the effective and efficient functioning of the institution to provide high-quality medical care. They include planning, organizing, personnel management, coordination, control, and strategic management. Balancing these functions allows medical institutions to effectively meet the needs of patients and achieve their goals.

Clear formulation of the mission is a necessary condition for setting goals that meet the needs of consumers in the market or society. Understanding these needs helps determine the direction of development and improvement of the services provided by the medical institution.

Investments in improving the quality of services in medical institutions are a strategically important stage to ensure their competitiveness and meet the needs of clients. Market research and careful study of the expectations and needs of patients help identify the directions for improvement that will lead to positive results.

Initial investments include not only material costs but also an important resource – time. The process of research and implementation of improvements can be labor-intensive since medical personnel, who are already busy performing their professional duties, must allocate time for analysis and implementation of innovations. However, this investment of time is justified by the improvement of the quality of medical services and patient satisfaction.

Investments in the quality of existing goods include the development and application of new technologies, improvement of diagnostic and treatment methods, as well as optimization of service delivery processes. This may involve the implementation of modern equipment, improvement of treatment schemes, and standards of medical care.

Creating new services is also important for the development of a medical institution. Innovative medical services can open up new opportunities for disease diagnosis, treatment, and prevention. Investments in research and development of new approaches to providing medical services can contribute to improving the level of medical care and implementing innovations in practice.

Overall, investing in service improvement in medical institutions is a necessary step to ensure their sustainability and compliance with high standards. It is also an important condition for expanding the client base and ensuring the long-term success of the organization in the field of medical services.

Other types of investments are also important in the process of improving quality. Increasing the professional skills of personnel, ongoing education and training throughout their careers can significantly improve the quality of service. Investments in capital to maintain infrastructure in the appropriate condition, construction of new facilities, and acquisition of equipment are key elements of the right balance.

The importance of high-quality service in the context of a medical institution cannot be overestimated, as it determines not only the reputation of the institution but also the satisfaction and trust of patients. The quality of service becomes a determining factor in popularizing the institution and attracting new clients.

The central component of high-quality service is the knowledge and qualification of medical personnel. Professional training, expanding practical skills, and proper documentation confirming qualification become mandatory elements to ensure the excellence of medical care. The relevance and adequacy of professional training to academic courses and established standards determine the high level of competence of medical

personnel.

Achieving effective improvements in the operation of a medical institution is determined not only by the quality of medical equipment and techniques but also by the level of professional training of medical personnel. Systematic updates of knowledge and skills, adaptation to new medical technologies, and implementation of advanced treatment methods are important steps in ensuring the highest standard of medical services.

In particular, academic courses serve as an effective tool for continuous professional development of medical personnel. They contribute not only to updating knowledge but also to deepening expertise, which in turn contributes to improving medical practice and service quality.

Therefore, high-quality service in a medical institution is inseparable from the qualifications and knowledge of the staff. These two components interact, creating the foundation for the successful operation and development of the institution, as well as providing patients with a high level of trust and satisfaction with the medical care received.

In summary, effective management, clear goal orientation, investments in improvement, and high-quality service are interconnected elements that allow medical institutions to improve their work and provide quality medical services.

According to the principle "training new employees is an investment in the development of the entire team," the knowledge brought by new employees to the organization can serve not only their own professional growth but also contribute to enhancing the skills of existing colleagues. Building an atmosphere of cooperation and interaction becomes a key element that promotes not only effective knowledge exchange but also increases the organization's

overall ability to improve the quality of services provided [5].

Satisfaction with the quality of service defines the relationship between patients and the medical institution and is an important factor for the organization's further development. To assess the quality of medical services, it is necessary to consider both the subjective perception of patients and the objective factors and components of the service delivery process.

The system for assessing the quality of services in medical institutions is defined by three interacting elements, which form a comprehensive approach to researching and improving the processes of providing medical services.

The first stage of this system involves evaluating the existing service delivery system. This includes a comprehensive analysis of various aspects of the process, from patient intake to the actual provision of medical care. It is important to carefully study all stages, interactions between different departments, equipment quality, and technological processes. Such a detailed analysis allows identifying weaknesses and areas for further improvement.

The second stage of the system is understanding potential changes. This includes understanding and assessing aspects of the system that can be improved or modified. Developing strategies for implementing innovations and optimizing processes plays an important role in the organization's development. Understanding potential changes identifies directions for further improvements, contributing to the effective development of the medical service delivery system.

The final, third stage involves understanding the psychology of both consumers and staff. Identifying the needs and expectations of both patients and medical personnel allows creating a system that meets their needs and is perceived as optimal. Considering psychological aspects enhances

communication efficiency among all process participants and ensures overall satisfaction with the provision of medical services.

Therefore, the service quality assessment system includes a holistic approach that encompasses analyzing the existing system, developing strategies for potential changes, and understanding the psychology of all process participants. This comprehensive approach is a crucial foundation for continuous improvement and ensuring high-quality medical services.

The role of a manager responsible for service quality assessment in a medical institution is determined by their deep understanding of all aspects of the medical service delivery system. This professional must be equipped with a wide range of knowledge to effectively influence process improvements and ensure high-quality service delivery.

Firstly, the manager must have a deep understanding of production means. This includes knowledge of the technical aspects of medical practice, the use of modern equipment, and technological innovations. Production means in the medical field not only affect the effectiveness of treatment but also directly determine the level of service quality.

The second aspect is understanding the processes of manufacturing and providing medical services. The manager must be familiar with the chain of events that occur from the moment of patient intake to the completion of the medical process. This includes coordinating the work of different departments and professions, organizing treatment procedures, and ensuring a high standard of clinical practice.

Furthermore, the manager should be oriented towards the needs and expectations of consumers, namely patients. Understanding their needs, requirements, and perception of service quality plays a critical role in forming improvement strategies. An effective manager should interact with patients,

consider their feedback for further service enhancement [6].

Therefore, this comprehensive approach of the manager to service quality assessment takes into account understanding of production means, service delivery processes, and responsiveness to consumer needs. Such a professional acts as a strategic leader in forming a holistic strategy for improving the quality of medical services and ensuring client satisfaction.

Thus, the assessment of service quality in medical institutions requires a comprehensive approach, which includes analyzing the existing system, knowledge of potential changes, understanding the psychology of consumers and staff. This approach allows creating effective strategies for improvement and ensuring high quality of medical services.

Knowledge of changes in the medical field goes far beyond simple event perception; it is a strategic aspect of management that involves effectively responding to internal and external challenges. Researching and understanding potential changes in the external and internal environment can determine an effective way to manage the list of medical services to meet customer needs and ensure financial stability.

Managers should classify changes into two main categories [7]:

1) those resulting from ordinary events, such as increased incidence of winter flu;

2) those arising suddenly or irregularly, such as unexpected epidemics. Distinguishing between these categories allows for effective planning and implementation of appropriate change management strategies.

An important aspect of change management is predicting the future. Managers striving to maintain a high level of efficiency in their organization must have the ability to analyze trends and predict possible changes in the healthcare industry. This prediction is a key element of strategic planning and

allows adaptation to changes in community health.

Predicting the future in change management is not only an important element but also an integral part of strategic planning for managers of medical organizations. In a world where the healthcare sector is constantly influenced by various factors, from epidemics and new diseases to technological innovations and changes in the regulatory environment, adaptability is crucial to ensure the stability and high efficiency of medical organizations.

Managers must be active participants in analyzing emerging trends in the healthcare industry. This includes studying epidemiological data, observing disease incidence dynamics, studying medical literature, and collaborating with experts in the field. Active monitoring of such key aspects allows managers to timely respond to potential changes in the volume of medical services provided, prepare staff for new challenges, and effectively implement innovations.

Furthermore, anticipating future changes also requires a deep understanding of the impact of technological changes on organizational structure and functioning of medical facilities. Considering the rapid development of medical technologies, including telemedicine, artificial intelligence, and other innovations, leaders must consider the opportunities and challenges that these technologies may bring to improve the delivery of medical services.

This ability to adapt to future changes is not only strategic but also practical. Leaders must develop training and development systems for staff to effectively implement new methods and technologies. It is also important to build partnerships with other medical institutions and industry experts to exchange knowledge and learn best practices in healthcare.

Therefore, predicting future changes requires leaders to

systematically analyze trends, deeply understand the impact of technologies, and be prepared to implement strategies that will successfully adapt the organization to new realities in the field of medicine.

For effective prediction of any event, knowledge is required, which can be obtained through analysis of theories, observations, and scientific experiments. Using statistical forecasting methods, surveys, and data analysis helps to confirm or refute theoretical assumptions. Unfortunately, management personnel often underestimate the importance of scientific experimentation in the context of improving medical organizations.

Managers must recognize the importance of using at least one simplified experimental method – small-scale workplace research. This allows for quicker response to changes and timely implementation of corrections in the operation of medical facilities.

Furthermore, psychological knowledge about service quality proves to be important for understanding the motivation of staff. Even assuming that most employees are internally motivated, management should study and use internal sources of motivation to stimulate quality work through satisfaction, pride, and self-esteem. Understanding the psychology of staff contributes significantly to creating a stimulating environment and improving the workflow in medical institutions.

The profitability of a medical institution is a crucial indicator of its effectiveness and high-quality management. Making the right choice of a quality range of services contributes to the creation of a stable financial base and the ability to bring the organization to a profitable level. Satisfied customers receiving high-quality medical services are inclined to spend more within a specific organization, stimulating profitable development and indicating successful leadership.

Research results indicate that the concept of “medical quality” encompasses various aspects that reflect not only the needs and expectations of patients but also the characteristics of the medical institution itself. When assessing the quality of medical services, attention should be paid to important indicators such as timeliness, accuracy of delivery, achievement of planned results, availability of medical services, qualification of medical personnel, material-technical and sanitary-epidemiological support, as well as the quality of nutrition in hospitals and other aspects [8].

Quality indicators for medical facilities include licensing, certification, cost-effectiveness, technology, and other aspects that determine their effectiveness and compliance with established standards. Such an approach allows for evaluating not only the quality of medical services provided but also the effectiveness of internal management of the medical institution.

Quality indicators in medical facilities determine not only the medical services themselves but also the effectiveness of internal management of the institution. This is an important aspect to ensure a high standard of service and compliance with all norms and requirements.

Licensing and certification become the main indicators indicating that the medical institution meets all requirements and has the right to practice medicine. These processes allow controlling and ensuring the compliance of the institution with established standards.

Cost-effectiveness is a key aspect in managing a medical institution. The starting point is the optimal use of financial resources to provide quality medical care. This includes effective financial planning, cost control, and optimization of financial processes.

The use of modern technologies also defines the quality and efficiency of a medical institution. This includes the

implementation of electronic medical records, high-precision equipment, and other innovations that facilitate the work of personnel and enhance the accuracy and speed of service delivery.

Overall, a comprehensive approach to assessing the quality indicators of medicine for medical institutions allows for the creation of an effective system of medical services that meets the highest standards and satisfies the needs of patients.

The national assessment of the health status of Ukrainians includes the analysis of various areas and regions of the country. The nation's health is one of the key areas of socio-economic development, and it is important to study and evaluate it dynamically.

The frequency of visits to medical institutions for preventive medical check-ups and consultations is a significant indicator of the nation's health and the effectiveness of the healthcare system. This indicator interacts with numerous factors that shape citizens' medical behavior and influence the overall state of national health.

In each region of Ukraine, variations in the frequency of visits to medical institutions for preventive measures are observed. Socio-economic conditions, such as income levels and the availability of medical services, can significantly influence people's decisions to visit a doctor. For example, in economically developed regions, there may be more opportunities and financial resources for regular check-ups.

Public awareness also plays a key role in determining the frequency of doctor visits. High medical literacy and knowledge of preventive measures can support more active citizen participation in maintaining their health. National initiatives and informational campaigns can also influence public awareness and attitudes towards regular medical check-ups.

The accessibility of medical services is a key factor that shapes the foundation of doctor visits. The availability of medical institutions in close proximity, working hours, the quality of medical services, and trust in medical personnel can influence citizens' decisions to seek medical assistance.

A nationwide analysis of the frequency of visits to medical institutions for preventive check-ups is crucial for understanding the effectiveness of the healthcare system and developing strategies to improve the population's health.

However, the prevalence of campaigns and prevention programs, national initiatives, and medical education can impact how effectively the population utilizes opportunities to preserve their health.

Government statistical agencies, medical organizations, and civil society organizations can provide up-to-date data and assist in assessing this issue in real-time.

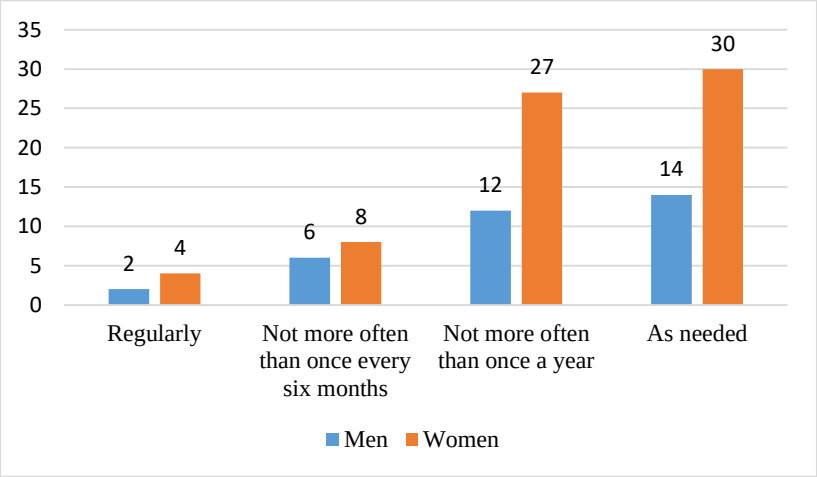


**Figure 1.4 – Frequency of Visiting Medical Facilities for Preventive Purposes**

On the histogram, we see that women visit medical facilities for preventive purposes more frequently than men. The assertion that women visit medical services more frequently than men has its grounds and is based on numerous factors, including biological, sociocultural, and psychological aspects. Biological differences between men and women may affect their health and medical needs. Therefore, biological characteristics may be a reason why women are more health-conscious and more prone to seek medical assistance. Sociocultural factors also play a crucial role in women's utilization of medical facilities. In many cultures, the responsibility for health-related matters and medical care may be placed on women as caregivers for their families and themselves. Social norms may encourage women to pay more attention to their health, leading to their active seeking of medical assistance. Psychological aspects may also contribute to differences in seeking medical assistance between men and women. Some studies suggest that women may be more health-conscious and inclined to consult professionals, while men may exhibit a tendency to postpone visits to doctors, considering it a sign of weakness or preferring to resolve issues independently. All these aspects contribute to why women may visit medical services more frequently than men. However, it is important to consider that these are general trends, and each individual may have their motivations and approaches to health matters [9].

The frequency of visits to medical facilities for preventive purposes may vary depending on several factors, such as the patient's age, health condition, individual needs, and recommendations from healthcare providers. Regarding the relationship between visit frequency and the quality of medical services, it is essential to consider several aspects: The correlation between visit frequency and service quality is complex and may vary depending on specific circumstances

and medical institutions. It is important for patients to receive proper medical care, and medical facilities should develop effective systems to meet their patients' needs in preventive measures and treatment.

Regarding the relationship between visit frequency and the quality of medical services, it is important to consider several aspects [10]:

1. Patient Outcomes: the frequency of visits may impact patient outcomes, such as recovery rates, management of chronic conditions, and overall health improvement. Higher visit frequency may allow for better monitoring and timely intervention, potentially leading to better health outcomes.

2. Continuity of Care: frequent visits can foster continuity of care, enabling healthcare providers to develop a deeper understanding of patients' medical histories, preferences, and needs. This continuity can contribute to more personalized and effective treatment plans.

3. Preventive Care: regular visits facilitate preventive care measures such as screenings, vaccinations, and health education. Early detection of health issues through preventive care can lead to timely interventions and improved health outcomes.

4. Resource Utilization: while frequent visits may enhance certain aspects of care, they can also strain healthcare resources, including time, personnel, and finances. Balancing visit frequency with resource availability is crucial to maintaining the quality and accessibility of medical services.

5. Patient Satisfaction: the quality of medical services is closely linked to patient satisfaction. Monitoring patient feedback and addressing concerns related to visit frequency, wait times, communication with healthcare providers, and overall experience can help maintain high levels of patient satisfaction.

6. Evidence-Based Practices: healthcare providers should adhere to evidence-based practices and clinical guidelines when determining the appropriate frequency of patient visits. Tailoring visit schedules to individual patient needs and evidence-based recommendations ensures that visits are both beneficial and justified.

7. Technology and Telemedicine: advancements in technology, including telemedicine platforms, remote monitoring devices, and digital health records, offer opportunities to optimize visit frequency and enhance the delivery of medical services. Integrating these technologies into healthcare practices can improve efficiency, accessibility, and quality of care.

By considering these aspects, healthcare providers can better understand the complex relationship between visit frequency and the quality of medical services, ultimately striving to deliver optimal care to patients.

The relationship between visit frequency and the quality of medical services figure 1.6.

The relationship between visit frequency and the quality of services is complex and can vary depending on specific circumstances and medical institutions. It is important for patients to receive proper medical care, and medical institutions should develop effective systems to meet their patients' needs in preventive measures and treatment.

Ensuring modern equipment in medical institutions also affects their ability to provide quality medical services, as it determines the availability of modern equipment, technologies, and resources for diagnosis, treatment, and patient care. This aspect is crucial in providing effective medical care and meeting the needs of modern patients.

Firstly, modern equipment is a prerequisite for accurate diagnosis and treatment of various conditions. High-precision

equipment such as magnetic resonance imaging (MRI), computed tomography (CT), and laboratory analyses allow doctors to obtain detailed information about the patient's condition and make accurate diagnoses. This is important for timely detection and effective treatment of various diseases.

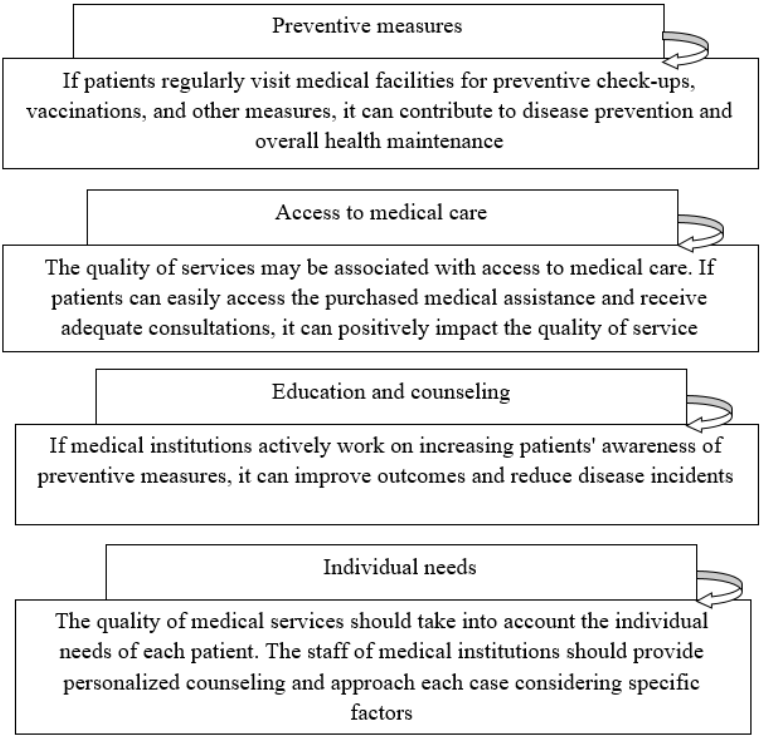


**Figure 1.5 – Relationship between visit frequency and quality of medical services**

Secondly, the availability of modern equipment facilitates the implementation of innovative treatment technologies and methods. Surgical robotics, laser therapy,

telemedicine, and other innovative approaches become accessible due to proper equipment in medical institutions. This contributes to the increased efficiency and safety of medical procedures and provides patients with access to advanced treatment methods [11].

Thirdly, equipment also affects the comfort and convenience of service delivery. Modern equipment and infrastructure create favorable conditions for patients, improving the quality of service and enhancing the positive impression of the medical facility.

Taking into account the aforementioned aspects, it can be determined that proper equipment of medical facilities is a key factor in ensuring quality medical care. This includes not only the availability of modern equipment but also qualified personnel who can effectively utilize these resources to provide efficient and individualized medical care to each patient.

Qualified medical staff defines the high quality and effectiveness of medical services provided in medical institutions. Their role in ensuring patient safety, diagnostic accuracy, and treatment effectiveness cannot be overstated, as the success of medical interventions and the overall health of patients depend on the qualifications and experience of the medical personnel.

A proper level of education and skills among medical staff is one of the critical components that determine the high standard of medical services and contribute to the improvement of overall patient health. This aspect plays a crucial role in ensuring safety, effectiveness, and individualization of treatment.

Physicians with a high level of education and professional competence are capable of providing accurate diagnoses and effective treatment. Their extensive medical knowledge, acquired through education and further training,

enables them to better understand complex medical issues and implement advanced treatment methods.

Nurses and pharmacists who continually improve their skills contribute to the safety and effectiveness of medical procedures. Their knowledge of new technologies and treatment methods becomes an essential resource in providing care and selecting the right medications for each patient.

Continuous education for medical personnel not only helps to enhance existing skills but also allows them to adapt to the rapidly changing medical environment. Innovations in medicine are developing rapidly, so to ensure a high standard of medical services, it is necessary to constantly update knowledge and skills.

Summarizing the above, it can be noted that a high level of education and skills among medical personnel is a fundamental prerequisite for ensuring quality medical services. Continuous education in this field contributes to the improvement of professional standards and provides patients with access to the most advanced diagnostic and treatment methods.

Communication skills also play a key role in the quality of medical services. The ability to effectively communicate with patients, their families, and other members of the medical team is essential for correctly understanding symptoms, providing clear information, and building trust between the patient and the physician.

Additionally, ethical principles and professional conduct are integral parts of qualified medical personnel. Adherence to high standards of morality and professional ethics ensures patient trust and careful attention to their well-being.

Thus, qualified medical personnel plays a crucial role in providing quality medical services. Their high level of competency, communication skills, ethical principles, and

continuous education contribute not only to successful treatment but also to creating a positive experience for patients in medical facilities.

The concept of "quality of medical care" includes various components that determine how effective and satisfactory the medical care provided to patients is. Here are a few questions related to the components of this concept:

1. Qualification and competence of personnel:

– How is the level of education and professional qualification of medical personnel evaluated in the institution?

– Is there systematic checking and updating of the knowledge of medical personnel?

2. Accessibility of services:

– What measures are taken to ensure access to medical services for different population groups?

– What barriers exist to accessing medical care, and how are they addressed?

3. Effectiveness of diagnosis and treatment:

– How is the diagnosis of various diseases conducted, and what modern methods are used for this?

– How do patients assess the effectiveness and results of treatment?

4. Patient safety:

– How is patient safety ensured during the provision of medical care?

– How does the medical institution interact with patients to prevent errors and avoid negative consequences?

5. Use of modern technologies and innovations:

– What technologies does the medical institution use to improve the quality of medical care?

– How does the medical institution implement innovations to increase the effectiveness and efficiency of its

activities?

Thus, in our opinion, these questions will help examine various aspects of the quality of medical care and identify the strengths and weaknesses of a medical institution in this regard [12].

Currently, the quality of medical services can vary depending on the country, region, and specific medical facility. Overall, some trends and aspects can be identified as follows:

– technological progress – initiatives to implement cutting-edge technologies in diagnosis, treatment, and patient care can positively impact the quality of medical services;

– accessibility of healthcare – challenges with healthcare accessibility may exist in some regions, especially due to uneven resource distribution;

– COVID-19 pandemic: It has affected healthcare systems in many countries. Remarkable efforts by medical personnel and the use of innovative methods are noted in combating the pandemic;

– e-Health – the development of electronic medical records and virtual consultations can facilitate patient access to healthcare and improve treatment coordination;

– patient health and preventive measures – the development of preventive programs and measures can influence the nation's health and disease prevention.

It is important to note that the quality of medical services is dynamic and can change from one period to another, as well as depending on the specific institution. Continuous evaluation and improvement of the healthcare system are important tasks to ensure high-quality medical services for the population.

Patients' assessment of healthcare issues is provided in table 1.6.

**Table 1.6 – Patients' Opinion on Healthcare Issues**

| Criteria | Percentage in responses |
|---|---|
| 1. Increase in private healthcare services volume | 44% |
| 2. High cost of medication | 61% |
| 3. Decrease in quality of healthcare services | 16% |
| 4. Lack of legal protection for patients | 12% |
| 5. Insufficient resources and equipment | 31% |
| 6. Negligent attitude of medical staff | 12% |
| 7. Insufficient qualification of medical personnel | 8% |
| 8. Shortage of medical staff | 32% |
| 9. Accessibility of healthcare services | 13% |
| 10. Other | 5% |

Therefore, addressing healthcare issues in medical institutions is a relevant and crucial topic in modern times. Thus, several key aspects require special attention and improvement:

– accessibility of healthcare services – ensuring equal access to quality healthcare services for the entire population, regardless of socio-economic status or geographical location;

– shortage of medical personnel – some regions face a shortage of doctors, nurses, and other medical professionals. Developing programs to attract and retain qualified personnel can help address this issue;

– lack of resources and equipment – providing medical institutions with modern equipment, medications, and necessary resources to deliver high-quality healthcare;

– effectiveness of management systems – implementing effective management and monitoring systems to optimize the functioning of medical institutions and improve service quality;

– development of telemedicine – utilizing telemedicine to improve access to consultations and diagnostics, especially

in remote or hard-to-reach areas;

– healthcare financing – ensuring adequate funding for the healthcare system to improve infrastructure, provide proper working conditions for medical staff, and develop advanced technologies [13].

These aspects require a comprehensive approach and collaboration between the government, medical institutions, the public, and other stakeholders to achieve improvements in healthcare provision.

**Table 1.7 – Issues of national healthcare models are presented**

| Model Name | Issues |
|---|---|
| State Model | Problems of the state healthcare sector include: authoritarian management system in healthcare; funding healthcare services from the state budget; inequality in access to services for certain social groups; insufficient incentive for efficiency and consumer service improvement; state controls the growth of healthcare expenditures; consumer opinions not considered in choosing specialists and service providers; queues as regulators of service provision, leading service recipients to prefer non-state service providers. |
| Budget-Insurance Model | Issues of the budget-insurance healthcare system include: unequal access to services for different social groups and rural residents; tendency for unjustified increase in healthcare service costs; inadequate consideration of service recipients' interests, such as those outside the social insurance system. |
| Private Entrepreneurial Model | Problems of the private entrepreneurial healthcare system include: rising healthcare service costs; absence of insurance policies for some service recipients; inequality in access to healthcare services for recipients |

The system of delivering quality healthcare services

exhibits significant differences across different countries. However, there are common elements that form the basis of this system. These elements interact to create a modern and effective healthcare system that meets the needs of the population and addresses the challenges of the contemporary medical environment. The issues of national healthcare models are presented in table 1.7.

Karen Davis, an American economist and professor, has made a significant contribution to the study of healthcare, particularly by examining various models of healthcare organization and financing. Some of the highlighted models she identified include:

1. Consumer-Driven Model – this model places the patient at the center of managing their health and medical expenses.
2. Market-Based Model – emphasizing competition and market principles, this model considers healthcare as a commodity, with services provided based on choice and competition among different providers.
3. Outcomes-Based Model – in this model, funding for medical institutions is based on achieving specific outcomes related to the quality of treatment and improvement of patients' health.
4. Universal Coverage Model – this model envisions that all citizens have access to a basic level of healthcare services, regardless of their status, socioeconomic position, or health.
5. Socialized Medicine Model – this model involves public financing and management of healthcare through government structures. Quality medical services may be provided for free or at a nominal cost.

**Table 1.8 – Models of Healthcare Financing by Nature of Interaction among Healthcare System Actors**

| Model of Funding | Characteristics |
|---|---|
| Public Funding Model | In this funding model, financing is provided from the government budget or from relevant funds generated through taxation. Patients have access to medical services on a free or subsidized basis. This model may include universal coverage. |
| Private Funding Model | In this funding model, financing is carried out through private funds, typically through payment for services, insurance premiums, or funds from private organizations. Patients or their insurance companies make payments for medical services. |
| Mixed Funding Model | This model combines elements of both public and private funding. For example, public funds may provide a basic level of services, while private funding may be used to obtain additional or expanded services. |
| Universal Health Insurance Model | In this model, all citizens are required to have health insurance, which guarantees access to basic medical services. Insurance contributions may be paid by the state, employers, or the patients themselves. |
| Social Health Provision Model | This model entails the state providing medical services or insurance coverage for socially vulnerable groups of the population, such as the unemployed, low-income individuals, or other social groups. |
| Public-Private Partnership Model | In this model, interaction between the public and private sectors is utilized to deliver healthcare services. The government and private organizations may jointly finance and manage healthcare services. |

These models reflect different approaches to organizing and financing healthcare systems, taking into account important aspects such as patient choice, competition, outcomes, accessibility, and social justice.

The models include various approaches to organizing and financing healthcare systems, taking into account the roles of

both the private and public sectors, as well as their interaction.

**Table 1.9 – Approaches to organizing and financing healthcare systems**

| Model Name | Nature of Interaction |
|---|---|
| Private Model | Financing is done by private individuals |
| Public Model | Financing is done by government resources |
| Mixed Model | Financing is done through both private and government resources |

These models reflect different approaches to organizing and financing healthcare systems, taking into account the role of the private and public sectors, as well as their interaction.

The assessment of the quality of medical services can be considered from two different perspectives: subjective, based on impressions and satisfaction of consumers, and objective, relying on specific criteria and measurable indicators. Both approaches are important for a comprehensive and objective determination of the level of quality of medical services in the healthcare sector.

Subjective assessment of service quality involves a set of properties and characteristics of medical services that determine their ability to meet the needs and expectations of consumers. This may include aspects such as accessibility and convenience:

– Evaluation of how easily and quickly patients can access necessary medical services and how well it meets their needs.

– The importance of effective communication between medical staff and patients, as well as the level of empathy and understanding.

–Assessment of overall impression and satisfaction of patients with the received medical services.

Objective assessment utilizes a system of specific criteria and indicators that can be measured and compared. This may include aspects such as:

– Accuracy and effectiveness of diagnostic tests and procedures.

– Determining the quality of treatment measures and the correspondence of their results.

– Efficiency of communication among different medical specialists and collaboration to achieve the best outcomes.

– Survey systems and reports that take into account the impressions and satisfaction of patients.

By combining objective and subjective aspects, a comprehensive picture of the quality of medical services can be obtained, considering both technical aspects and the needs of the patients themselves.

From the above, we understand that the quality of healthcare services in the healthcare sector is a fundamental aspect, especially in the modern era, where significant technological and scientific breakthroughs have been achieved. Developed medical technologies significantly enhance the quality of healthcare delivery and redefine approaches to treating diseases that were previously considered incurable. However, it is equally important to maintain society's interest in the development of new technologies, ensure adequate material and technical equipment, adequate funding for medical institutions, and the organization of healthcare services.

In developed countries such as the USA, Japan, and EU countries, quality management of healthcare services is implemented in accordance with international ISO 9001 standards. These standards are oriented towards meeting the

needs of service consumers, including patients, which enables providing better satisfaction of their needs and establishing effective management of medical institutions.

Quality management of healthcare services in developed countries such as the USA, Japan, and EU countries is a highly organized and systematic sphere aimed at ensuring the highest standards of medical care and patient satisfaction. Several factors contribute to the success of these systems in ensuring the efficiency and quality of healthcare services.

Firstly, developed countries actively utilize international standards such as ISO 9001 in the healthcare sector. These standards define quality management systems that allow medical institutions to develop and implement effective processes, standardize treatment approaches, and enhance patient satisfaction [14].

Secondly, quality management systems are often combined with other innovative practices such as the implementation of electronic medical records, telemedicine, and other technological solutions. This enables effective coordination of the medical process, ensures accessibility and exchange of information between hospitals and physicians, thereby improving the quality of diagnosis and treatment.

Thirdly, these countries prioritize continuous education and development of medical personnel. Professional certification systems and educational programs contribute to maintaining a high level of competence among healthcare workers, and their professional achievements are recognized and considered in the performance evaluation process.

Fourthly, patient integration into the decision-making process and active involvement in assessing the quality of healthcare services are another key feature. The application of feedback collection systems, surveys, and patient participation in treatment plan development improve collaboration between

medical staff and patients, leading to reduced errors and improved treatment outcomes.

Therefore, effective quality management of healthcare services in developed countries relies on the use of international standards, innovative technologies, continuous staff education, and active patient involvement. This contributes to creating a system that meets the highest standards of medical care and supports the health of the population in these countries.

The utilization of international standards such as ISO 9001 in quality management of healthcare services in developed countries is a significant element aimed at ensuring the highest level of service and patient satisfaction. The ISO 9001 standards define quality management principles that can be successfully applied in the healthcare sector.

Some advantages of using ISO 9001 standards include:

– Customer orientation: ISO 9001 standards emphasize customer satisfaction, which for medical institutions means providing high-quality services to patients.

– Process standardization: Implementing standards allows for standardizing processes of healthcare service provision, ensuring their efficiency.

– Continuous improvement: Based on the Plan-Do-Check-Act (PDCA) cycle, ISO 9001 standards require continuous analysis and improvement of processes, leading to a continuous enhancement of the quality of healthcare services.

– Public trust: The use of internationally recognized standards enhances public trust in medical institutions, as they operate according to recognized norms and requirements.

– Risk and error reduction: The standards system helps identify and reduce the risks of errors that may occur in the healthcare service process.

The integration of ISO 9001 standards in the healthcare

sector allows raising the standards of medical services and creating a system oriented towards safety, efficiency, and patient satisfaction. ISO 9001 is the most widely recognized quality standard worldwide, with over a million companies and organizations certified according to this standard in more than 170 countries. Figure 4.

Despite the fact that certification according to the ISO 9001 standard is a voluntary procedure, the absence of a functioning quality management system and the lack of certification can seriously undermine an organization's competitiveness and create a negative image. In fact, this may be seen as a lack of guarantee of compliance with quality requirements, which can affect the trust of clients and patients in the organization [14].

To achieve the maximum level of objectivity in controlling the quality of medical services, it is possible based on the developed and approved by the head of the healthcare institution information base of quality criteria and indicators corresponding to various components of the organization. This system should include: coordination and establishment of clear standards; establishment of metrics and quality indicators; conducting regular internal audits; implementation of a system of continuous improvement.

Implementing such an internal control system will allow medical institutions to maintain a high level of quality of medical services, despite the absence of ISO 9001 certification, and will contribute to increasing their competitiveness and trust among clients and patients.

The quality criteria should encompass all quality components and serve as guidelines for achieving the planned goals of providing quality medical care (table 1.5).

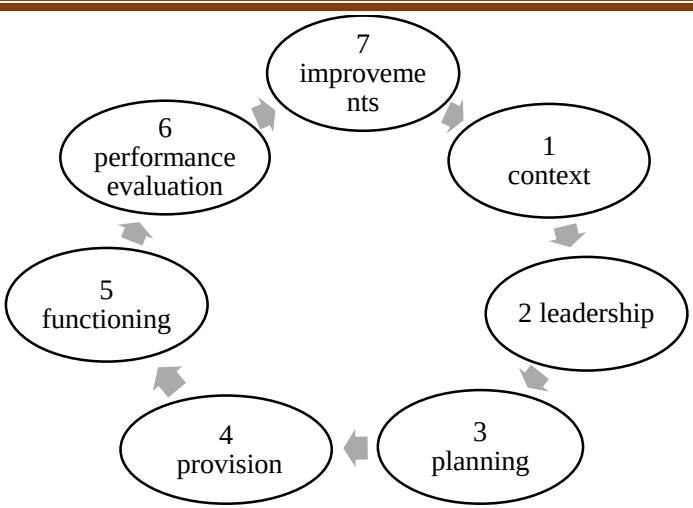


**Figure 1.6 – Structure of ISO 9001 Quality Certificate Standard**

Quality criteria are detailed for each structural unit and each employee according to the type and scope of medical care defined in the “Regulations on Structural Units” and “Job Descriptions”. Based on these criteria, a block of benchmark (planned) quality indicators is formed for the healthcare institution, defined in regulations, standards, instructions, methodologies, and other documents.

Regarding quality indicators used to measure the achieved level of quality of medical care, they are developed and calculated according to the Methodology for Developing a System of Quality Indicators for Medical Care, approved by the Ministry of Health of Ukraine.

Quality indicators, as a tool for measuring the achieved level of quality of medical care, are developed and calculated in accordance with the Methodology for Developing a System of Quality Indicators for Medical Care, approved by the order of the Ministry of Health of Ukraine dated September 28, 2012,

№ 751, registered with the Ministry of Justice of Ukraine on November 29, 2012, under № 2002/22314.

**Table 1.10 – Quality Criteria for Medical Care According to Quality Components [1]**

| Component of Quality | Examples of Quality Criteria |
|---|---|
| Patient-Centeredness | 1.1. Patient rights are respected according to applicable legislation. |
| | 1.2. Ethical and deontological norms of medical activity are observed. |
| | 1.3. Regular sociological surveys are conducted to identify patient expectations, needs, and individual values. |
| Effectiveness | 2.1. Change in clinical condition corresponds to expectations for the given illness. |
| | 2.2. Medical care is provided in accordance with local medical-technological documents developed in line with industry standards harmonized with the best global practices based on evidence-based medicine. |
| | 2.3. There is a positive trend in reducing defects, adverse effects of treatment due to medical interventions, and complaints from citizens compared to the previous period of activity. |
| | 2.4. Patient satisfaction with the results of medical care and services is regularly assessed. |
| Safety | 3.1. Medical care is provided in accordance with local medical-technological documents developed in line with industry standards harmonized with the best global practices based on evidence-based medicine. |
| | 3.2. Standards for licensing and accreditation for the relevant profile of the healthcare institution are adhered to. |
| Accessibility | 4.1. Staffing of medical and non-medical positions is in accordance with norms. |
| | 4.2. The healthcare facility is equipped with medical equipment and supplies. |

Control in the healthcare quality management system can

be considered as a component of the management process, as a function, and as a system. According to the administrative law of Ukraine, control of activities in any area is carried out through extrajudicial, public, and departmental control. Accordingly, all specified types of control are present in the healthcare quality management system [15].

Entities responsible for quality control of medical care include authorities empowered to exercise control both within medical institutions (internal control) and outside them (external control). In medical institutions, internal control is typically entrusted to the administration and heads of departments or structural units. They are responsible for ensuring compliance with established quality standards. This includes the development and implementation of regulations for structural units, the definition and implementation of quality criteria, and ensuring compliance with them.

External control of medical institutions is usually carried out by authorized bodies such as the Prosecutor's Office of Ukraine, consumer rights protection authorities, and insurance companies. Their functions include supervising compliance with the rules of providing medical services and taking measures in case of violations. Civil society organizations and citizens can also be involved in public control of the quality of medical care by addressing government authorities and healthcare facility managers.

External departmental control, including by the Ministry of Health of Ukraine and the Department for Quality of Medical and Pharmaceutical Assistance, as well as healthcare management authorities at the regional and municipal levels, is conducted. Their functions include licensing and accreditation of healthcare facilities, standardization of medical care, certification of medical personnel, and consideration of citizen complaints. They have the right to make government decisions

and issue mandatory prescriptions and orders.

Internal quality control, according to current sectoral regulatory documents, is conducted by the management and medical councils of healthcare facilities. Traditionally, the practice of organizing activities involves delegating relevant powers by the head of the healthcare facility to deputies for specific areas of activity and heads of departments or managers of structural units. Modern approaches to internal quality control also include the implementation of audits and self-assessment of the quality management system.

An important feature of the subject of control in the quality management system is the mandatory inclusion of doctors and junior medical specialists (self-control level). According to the Order of the Ministry of Health of Ukraine dated September 28, 2012, № 752, the objects of control include structural, procedural, and outcome components of the quality system. Among them, it is worth noting the qualification of specialists, organization of medical care, implementation of management decisions on quality issues, compliance with standards, medical care protocols, cases of defects and adverse treatment outcomes, citizen complaints, ensuring the rights and safety of patients, and studying their opinions on the medical care received.

Control, as a component of management, is intended to achieve the strategic goal of providing patients with quality medical care by establishing the level of compliance of defined components (characteristics) of medical care quality with accepted requirements. Control as a management function involves the following stages:

– Collecting data on the actual characteristics of medical care quality based on their monitoring according to defined criteria.

– Comparing the obtained data with the requirements of

norms, standards, protocols, and instructions.

– Identifying deviations (non-compliances) and evaluating them.

– Analyzing the reasons for deviations.

Using analytical information to support decision-making for improving the quality of medical care.

Thus, feedback in the quality management system is implemented. Control as a system is considered through a set of interconnected elements:

– goals;

– tasks;

– identified subjects and objects of control;

– functions;

– methods;

– control means;

– sources of information about the functioning of the quality system;

– criteria and results of control.

Quality management in medicine is critically important for ensuring high standards of medical care and meeting patients' needs.

Let's consider some methods and strategies for quality management commonly applied in modern medical practice [15]:

1. Standardization and Accreditation Systems – many countries have national or regional systems for standardizing and accrediting medical institutions, which establish minimum requirements for the quality of medical care. For example, the Joint Commission International (JCI) sets international quality standards for hospitals and other medical facilities;

2. Electronic Medical Documentation (EMD) - implementing EMD systems allows for efficient tracking of

patients' medical history, avoiding treatment errors, improving care coordination, and providing access to up-to-date information for medical staff;

3. Engagement of Patients in Quality Management – increasing attention is given to involving patients in quality management processes and decision-making, helping medical institutions adapt their activities to patients' real needs;

4. Continuous Professional Development – medical personnel need to regularly update their knowledge and skills to adhere to modern standards and technologies. Educational programs and training sessions help maintain a high level of professional competence;

5. Internal Quality Control Systems – medical institutions develop their own internal quality control systems, including process monitoring, risk assessment, and implementation of measures to prevent errors.

These methods and strategies aim to continuously improve the quality of medical care and ensure the safety and satisfaction of patients. Implementing these approaches helps ensure the effectiveness and reliability of medical services.

Ukraine, in turn, also ensures the quality of medical services through a system of control and evaluation.

However, based on the experience of developed countries, it becomes evident that this may be insufficient, and it is necessary to actively implement strategic planning, systematically create and continuously improve quality assurance systems in medical institutions. A strong focus on the patient and the use of international standards can help raise the standards of medical quality in Ukraine.

In each country, there is its own healthcare system based on numerous factors and principles of healthcare delivery, taking into account the specifics of each particular state.

**Table 1.11 – Comparative Analysis of the Provision of Diagnostic Medical Services in Different Countries**

| Model Type | Social Insurance | | State | | Private | |
|---|---|---|---|---|---|---|
| Country | Germany | Japan | Canada | France | UK | USA |
| Share of health care expenditure in GDP | 8,1% | 6,6% | 8,7% | 8,5% | 6,0% | 14% |
| Share of health care expenditure in GDP | SHI - 60%, PHI - 10% State budget - 15%, personal funds - 15% | SHI - 60%, State budget - 10%, public funds - 10%, personal funds - 20% | Federal funds 90%, private company funds 10% | SHI - 50%, PHI - 20% State budget - 10%, personal funds - 20% | State budget 100% | private insurance 40%, personal funds 20%, programs for the underprivileged 40% |
| Accessibility of medical services | 90% | 40% | 98-99% | 80% | Overall accessibility | limited affordability for patients, programs do not cover all who need them |

With the aim of adapting European experience regarding the provision of the most in-demand diagnostic medical services in Ukraine, we have conducted and presented in table 6 a comparative analysis of the provision of diagnostic medical services in different countries.

Research into the provision of diagnostic medical services in different countries reveals a wide range of variations in approaches, technologies, and effectiveness of these services across various healthcare systems.

**Table 1.12 – Comparative analysis of accessibility, quality, and cost of diagnostic medical services in different countries**

| Country | Types of Services | Accessibility | Quality | Cost |
|---|---|---|---|---|
| Ukraine | X-ray, Ultrasound, MRI, CT | Limited | Varies | Relatively low |
| United States | X-ray, Ultrasound, MRI, CT | High | High | High |
| Germany | X-ray, Ultrasound, MRI, CT | High | High | High |
| Sweden | X-ray, Ultrasound, MRI, CT | High | High | High |
| Japan | X-ray, Ultrasound, MRI, CT | High | High | High |

This table provides a comparative analysis of the accessibility, quality, and cost of diagnostic medical services in different countries.

Based on the comparative prices for diagnostic medical services, the following conclusions can be drawn:

1. Ukraine – the cost of diagnostic medical services in Ukraine is relatively low. This may be an advantage for those seeking more affordable medical services, but limited availability may impact the ability to access necessary procedures.

2. United States, Germany, Sweden, Japan – in these countries, the cost of diagnostic medical services is higher, but availability and quality are high. The higher price may reflect broader access to modern technologies and higher standards of

medical care.

Therefore, the choice of country for receiving diagnostic medical services will depend on the balance between price, availability, and quality that meets the individual needs and capabilities of the patient.

Differences in economic, cultural, technological, and legal aspects influence the accessibility and quality of diagnostic medical services in different countries.

In developed countries such as the United States and EU countries, there is widespread use of modern technologies and high-quality equipment in diagnostics. In these countries, the availability of advanced medical technologies is high, allowing for rapid and accurate diagnosis.

In less developed countries or those with limited access to financial resources, there may be a deficit of modern equipment, limiting the ability to make accurate diagnoses and affecting service quality.

In countries with a universal healthcare system, such as Canada or the United Kingdom, diagnostic services may be free for patients. However, this can sometimes lead to longer wait times for service.

In the United States, where the healthcare system is more private, accessibility may depend on patients' insurance coverage and financial capabilities.

In developed countries, significant attention is given to the training and development of medical personnel, leading to a high level of competence and professional ethics.

In less developed countries, there may be a shortage of highly qualified professionals and limited access to educational resources.

In developed countries, there are strict ethical standards regulating diagnostic procedures, protecting patients' rights and confidentiality.

In less developed countries, ethical standards may be absent or less rigorously enforced, which can violate patients' rights and lead to problems.

Studying the European experience in providing private diagnostic services makes it clear that none of the countries has an ideal private healthcare system that could exist separately from state medicine. Most successful healthcare models in Europe take into account interaction with the public sector to ensure a comprehensive approach to population health.

Therefore, to develop quality recommendations for establishing an effective system for providing private diagnostic medical services in Ukraine, we believe that the American model of the healthcare system can serve as a basis. This is because, despite its shortcomings, the American system has some important advantages, such as a wide range of services, high availability of state-of-the-art technologies and innovations, as well as high levels of competition, which contribute to improving service quality and efficiency.

However, it should be noted that the American model also has its drawbacks, such as high healthcare costs, uneven access to medical services due to financial constraints, and varying levels of medical care quality depending on the patient's socioeconomic status. Therefore, when adapting the American model to the Ukrainian healthcare system, it is important to consider the peculiarities of the medical market, the needs and capabilities of the population, and to ensure effective government oversight to ensure accessibility and quality of medical services for all segments of the population.

Ensuring the quality of medical services through a system of control and evaluation is an important element of healthcare management. This system aims to ensure efficiency, safety, and a high standard of medical care. Now, let's consider some aspects that are part of this system:

–Development and implementation of standards and protocols help ensure a consistent approach to providing medical services. Standards may include quality criteria, diagnostic procedures, treatment protocols, and patient monitoring.

–Accreditation and licensing processes are also important stages for medical institutions to confirm their compliance with established standards. These processes confirm that healthcare facilities have the necessary resources and meet the requirements for providing quality medical services.

–Implementation of quality control systems allows for continuous monitoring and evaluation of the quality of medical services. This may include audits, compliance checks, and data collection on treatment outcomes.

–Involvement of patients in the quality evaluation process is a key element in providing medical services. Gathering feedback, surveys, and meetings can provide valuable information about patient satisfaction and needs.

–Providing continuous education and development for medical personnel helps maintain a high level of professional competence. Refresher courses and training on new methods and technologies contribute to improving the quality of medical care.

The general goal of the control and evaluation system is to ensure reliability, accessibility, and high quality of medical services, as well as to continuously improve the healthcare system [16].

Effective human resource policy is a key factor in ensuring high-level management of medical institutions and providing quality medical services. Personnel management in healthcare not only affects the efficiency of the institution but also directly determines the level of patient satisfaction and the quality of medical services provided.

One of the key components of effective human resource policy is the proper selection and deployment of personnel. Ensuring the optimal number and distribution of doctors, nurses, technical, and administrative staff according to the institution's needs helps maintain a balance between workload and available resources.

In addition, providing opportunities for professional development and training for staff is an important part of human resource policy. Ongoing training contributes to improving qualifications and skills of medical personnel, which in turn positively impacts the quality of healthcare provided.

Creating a conducive environment and defining clear requirements and responsibilities are also part of human resource policy. Ensuring a high level of moral and material incentives for employees, considering their needs, and assisting in balancing professional and personal life helps maintain high work standards and reduce staff turnover.

It is necessary to actively implement performance evaluation systems and select optimal personnel management strategies, as these aspects of human resource policy interact to create an effective, stable, and highly professional medical team. Such a team is a necessary condition for providing quality medical services and implementing innovations in healthcare.

Through performance evaluation systems, objective assessments of employees can be made, identifying their strengths and weaknesses, which allows for effective delegation of duties and ensures further development of personnel. Additionally, optimal personnel management strategies promote motivation and engagement of employees in achieving common goals, thereby enhancing overall professionalism and team capacity. This approach contributes to improving the quality of medical services and facilitates the

active implementation of innovations in healthcare, ultimately leading to the improvement of public health and the overall development of the medical field.

Analyzing domestic practices in quality management in medical institutions reflects the complexity and importance of ensuring a high level of healthcare and meeting patient needs. Quality management in medical institutions is a complex process that includes various aspects such as procedure standardization, service quality control, resource management, and patient safety assurance.

One of the key aspects of quality management in medical institutions is the implementation of a quality management system that allows standardizing the processes and procedures occurring within the institution. For example, many medical institutions in Ukraine are implementing quality management systems based on international standards such as ISO 9001:2015 or Joint Commission International (JCI). This standard sets requirement for a quality management system aimed at ensuring the reliability and quality of products or services. For medical institutions, this means creating a system that ensures standardization of processes, continuous improvement, and compliance with quality requirements.

Approaches defined in this standard include involvement of leadership, engagement of personnel, process approach, systematic approach to management, continual improvement, evidence-based decision making, and mutually beneficial supplier relationships.

Joint Commission International (JCI) is a leading global independent body that conducts audits and accredits medical institutions. Their standards are oriented towards ensuring patient safety and improving the quality of medical services. JCI accreditation is confirmation that a medical institution meets international safety and quality standards.

JCI standards cover a wide range of aspects, including patient safety, quality of medical services, departmental management, resource management, training and staff development, etc. Passing a JCI audit requires the institution to implement a quality management system that meets their standards.

These two standards provide medical institutions with a set of requirements and methods to achieve and sustain a high level of quality of medical care and patient safety. Successful implementation and adherence to these standards help medical institutions ensure the highest level of service and trust from their patients. These standards provide frameworks for process improvement and ensuring high quality medical care.

Another important aspect is quality control of services, which includes monitoring and evaluating the quality of medical services provided to patients. This may involve process audits, collecting and analyzing data on patient satisfaction, as well as implementing feedback systems from patients.

Resource management also plays a crucial role in ensuring the quality of medical care. This includes optimizing the use of medical equipment and other resources, workforce planning, training and development of personnel, as well as ensuring financial stability of the institution.

Ensuring patient safety is also a key function of quality management in medical institutions. This involves implementing safety procedures and policies, controlling infectious diseases, ensuring proper use of medical equipment and medications, as well as training staff on error prevention and mitigation.

Ukrainian medical institutions are constantly working on improving their quality management system, adapting best practices from around the world and considering the specifics

of the national context. However, there are challenges such as lack of funding, insufficient qualified personnel, and technical equipment, which complicate the implementation and maintenance of quality management systems in medical institutions.

Quality management in medical institutions is an extremely important aspect that affects the quality and safety of medical care. Both in Ukraine and in European Union (EU) countries, this process goes through similar and different stages, taking into account the specifics of each country and its healthcare system.

Ukraine focuses on improving its quality management system in medical institutions through the implementation of international standards such as ISO 9001:2015 and JCI standards. This allows healthcare facilities to establish standards in quality and safety, which contributes to the improvement of the level of medical care and patient satisfaction. The establishment of the National Agency for Quality of Medical Services in Ukraine is an important step towards standardization and improvement of the quality management system [15].

At present, in many EU countries, quality management in medical institutions is based on international standards similar to those used in Ukraine. Evaluation and accreditation systems, such as JCI, are used to ensure a high level of quality of medical care and patient safety. Additionally, EU countries actively implement digital technologies in the medical field, including electronic medical records, telemedicine, and other innovations to improve the accessibility and efficiency of medical services.

Overall, both in Ukraine and in EU countries, quality management in medical institutions is developing based on international standards and national initiatives. Continuous

improvement of the quality and safety assurance system for medical care is a key task to ensure the highest level of service and patient trust.

Analyzing successful cases of quality management in medical services can help identify key principles and strategies that contribute to improving the quality of medical care and satisfying patients' needs. Here are a few examples of successful cases:

– Mayo Clinic, USA, is an example of successful management of medical services quality. They are known for their high level of medical care and consistent focus on patients. One of the key principles of quality management at Mayo Clinic is the "integrated connection" approach, which places the patient at the center of all medical processes. This includes coordinated service delivery among different specialists to ensure comprehensive treatment and better outcomes. The implementation of advanced technologies in medical practice, such as electronic medical records and telemedicine, has also contributed to improving the accessibility and efficiency of medical services at Mayo Clinic.

– University College London Hospitals (UCLH), United Kingdom, is known for its high quality of medical care and innovative management approaches. One successful case at UCLH is the implementation of the Lean Management program into its practice. This program aims to improve process efficiency and reduce unnecessary costs by addressing previous issues and enhancing workflow processes. This has allowed UCLH to increase productivity, reduce patient waiting times, and improve the quality of medical care.

– Singapore General Hospital (SGH), Singapore, is known for its commitment to innovation and implementing advanced quality management practices. One successful case at SGH is the implementation of the Six Sigma system, which

aims to identify and correct errors and deviations in medical processes. This has allowed SGH to improve the quality of diagnosis and treatment, reduce waiting times, and ensure high levels of patient satisfaction.

These examples demonstrate that successful management of medical services quality is based on a comprehensive approach, including a focus on the patient, implementation of advanced technologies, and innovative approaches to process optimization.

For comparison, here are a few examples of successful cases of quality management in medical services in European Union (EU) countries:

Karolinska University Hospital, Sweden, is one of the leading medical institutions in the EU, known for its high quality of medical care and innovative management approaches. One successful case at Karolinska involves the implementation of the “Integrated Care” concept, which involves coordinating medical, social, and psychological services for patients with chronic diseases. This allows providing patients with comprehensive treatment and improving their quality of life.

Universitair Ziekenhuis Gent (UZ Gent), Belgium – UZ Gent is one of the largest and most prestigious medical centers in Belgium, known for its high quality of medical services and innovative management approaches. A successful case at UZ Gent includes the implementation of e-Health technologies and digital medical records, which improves the coordination of medical processes, ensures the availability of medical information, and reduces the risk of errors in the provision of medical care.

Charité - Universitätsmedizin Berlin, Germany – is one of the largest and most prestigious medical universities in Germany, known for its high quality of medical care and

scientific achievements. The case of Charité includes the implementation of Lean Management and Continuous Improvement systems, aimed at optimizing workflow processes and improving the quality of medical care. This has allowed the university to increase the efficiency of service delivery and meet patient demands.

These examples demonstrate that successful management of medical services quality in European Union countries is based on a comprehensive approach, which includes the use of advanced technologies, coordination of medical services, and continuous improvement of workflow processes.

However, it is crucial to also highlight Ukraine's achievements as our country also has successful cases of quality management in medical services. Here are a few examples:

National Children's Specialized Hospital “OKHMATDYT” – is one of the most prestigious and largest children's hospitals in Ukraine, known for its high quality of medical care and innovative management approaches. A successful case at “OKHMATDYT” involves the successful implementation of electronic medical records and management system, which improves the availability and accuracy of medical data, optimizes workflow processes, and ensures a high level of medical care for children.

“Boris” Clinic for Movement Function Restoration – is a leading clinic in Ukraine specializing in restoring the movement function of patients with various diseases and injuries. A successful case at “Boris” involves the successful implementation of innovative physiotherapy and rehabilitation techniques, allowing patients to recover movement function faster and improve their quality of life.

Mechnikov Hospital in Dnipro – is one of the leading medical institutions in Dnipro and Ukraine, known for its high

quality of medical care and advanced management approaches. A successful case at Mechnikov Hospital includes the implementation of a quality management system according to international standards, which has improved the standards of medical service provision, reduced waiting times, and ensured patient satisfaction.

These examples demonstrate that in Ukraine there are also successful cases of quality management in medical services, based on the implementation of advanced technologies, innovative approaches to treatment, and quality management systems aimed at improving treatment outcomes and patient satisfaction.

Technological innovations in the medical field have enormous potential to improve the quality of healthcare services. Let's consider some of the technological aspects that impact the quality of medical services:

1. Electronic Medical Records (EMRs) - EMRs allow doctors and other medical professionals easy access to patients' medical information, facilitating diagnosis, treatment, and patient monitoring. It also helps doctors avoid errors associated with manual records and ensures the reliability and confidentiality of medical information.

2. Telemedicine – telemedicine enables patients to receive medical consultations and treatment remotely through video conferencing and other communication technologies. This is especially useful for patients living in remote or inaccessible regions, as well as for reducing wait times for consultations and lowering the costs of medical services.

3. Health mobile applications – health mobile apps allow patients to keep an electronic health diary, receive recommendations on nutrition and physical activity, track medications, and record symptoms. This helps patients be more self-aware of their health and contributes to improved

treatment outcomes.

4. Internet of Things (IoT) in medicine – IoT allows real-time collection of patient health data using various medical devices such as sensors and monitors. This enables doctors to obtain a more objective and comprehensive picture of the patient's condition, aiding in making more accurate and effective treatment decisions.

5. Use of Artificial Intelligence and Data Analytics – ail and data analytics enable the analysis of large volumes of medical information and forecasting of diseases, treatment effectiveness, and complication risks. This helps identify trends in medical data, which can enhance treatment effectiveness and prevent complications.

These technological aspects contribute to improving the quality of medical services, reducing waiting times for treatment, increasing diagnostic accuracy and treatment efficiency, as well as enhancing patient satisfaction.

In our subjective opinion, technological innovations in healthcare facility management also play a key role in improving the efficiency, quality, and accessibility of medical services. For example:

1. Electronic Health Record (EHR) systems – implementing electronic systems for managing medical documentation, electronic medical records, and other information systems helps automate and optimize many aspects of management, including patient records, scheduling examinations and treatments, data analysis, and reporting.

2. Enterprise Resource Planning (ERP) systems – using these systems enables efficient management of finances, supplies, personnel, and other resources of the healthcare facility, leading to cost reduction, process optimization, and increased productivity.

3. Data analytics and artificial intelligence (AI) - allow

analyzing large volumes of medical data to identify potential issues in the functioning of healthcare facilities, aiding in making well-founded management decisions.

4. Mobile health and self-monitoring applications for patients – enable patients to keep an electronic health diary, receive recommendations on nutrition and physical activity, monitor medications, and record symptoms, promoting increased self-awareness and activity in managing their own health.

Based on the analysis of factors influencing the quality of medical services, certain conclusions and recommendations can be made:

1. Continuous opportunities for training and professional development should be provided to staff to ensure a high level of medical expertise and professional competence.

2. The implementation of modern medical technologies, such as electronic medical records and telemedicine, can improve the accessibility and effectiveness of medical services.

3. Healthcare institutions should actively work on developing a culture of safety and quality, including regular staff training and the implementation of feedback mechanisms from patients.

4. Healthcare facilities should strive to ensure effective access to medical services and coordination among different physicians and medical institutions.

5. Sufficient funding should be provided to ensure necessary resources and effective financial management to maintain the quality of medical services.

6. Medical institutions should actively engage with patients, considering their needs and implementing feedback mechanisms to continuously improve the quality of services.

7. Healthcare facility management should work on continuous process improvement, identifying deficiencies and

implementing appropriate measures to address them.

A comprehensive approach to ensuring the quality of medical services should be systematic and consider all aspects of healthcare delivery, including medical personnel, technologies, service availability, funding, and patient collaboration.

Understanding and considering the quality of medical services in management is crucial for ensuring patient satisfaction, patient safety, and improving treatment outcomes. To achieve this, research should be conducted and aspects such as:

1. The impact of the quality of medical services on patient satisfaction – studies show that the quality of medical services directly affects patient satisfaction. Patients assess the quality of treatment, communication with medical staff, availability of medical services, and other aspects, which affects their overall impression of the healthcare facility.

2. Patient safety and error prevention – considering the quality of medical services helps prevent medical errors and ensure patient safety. Management should develop and implement quality control procedures and promote a culture of safety among medical staff.

3. Impact on reputation and competitiveness – the quality of medical services is an important factor in shaping the reputation of a healthcare facility and its competitiveness in the market. Patients and stakeholders are increasingly paying attention to the quality of services provided when choosing a healthcare facility.

Costs and efficiency - ensuring high-quality medical services can help reduce treatment costs by reducing the number of complications, repeat visits, and treatment of side effects. Effective consideration of the quality of medical services in management can lead to economic benefits for the

healthcare institution.

Legislative environment and regulation – many countries have legislative norms and standards that require consideration and provision of high-quality medical services. Healthcare institutions must comply with these requirements to avoid sanctions and maintain their financial and reputational standing.

Research results indicate that understanding and considering the quality of medical services in management are critically important for the successful operation of healthcare facilities. Taking this aspect into account will help ensure high-quality medical care and patient satisfaction.

The next step is to implement a quality indicator system developed by the institution's team according to its specific work, periodically updated when it becomes outdated. Quality indicators contribute to improving the level of medical care, allow administration to control, systematize acquired data for further improvement of the institution's work.

The use of quality indicators has long been successfully implemented in European and American countries. Their use is appropriate in healthcare facilities in Ukraine. Quality indicators help avoid so-called leveling in the payment of medical workers' labor and make it possible to pay higher wages to more motivated and qualified employees. However, changes to the collective agreement, indicating such a possibility, are required. Continuous professional education has also been taken from foreign experience. In developed countries, there has long been a redistribution in the provision of medical care between outpatient and inpatient medical care in favor of outpatient care. Therefore, we will also use this experience in our work and gradually optimize the provision of outpatient and inpatient care.

For quality medical care, European countries have long

introduced quality indicators, according to which medical workers' wages are paid, the institution's work is improved, and most importantly, licensing and accreditation of healthcare facilities are carried out. The main dimensions of the quality of medical care include patient orientation, safety during the provision of medical care, effectiveness and timeliness of medical care, rational use of funds, fairness, i.e., respect for patient rights.

International quality management tools include licensing and accreditation of healthcare facilities and standardization using clinical pathways for patient treatment and diagnostic processes.

Regarding the quantitative assessment of the quality of medical services, it is necessary to formulate the most important criteria and determine their weight in the overall assessment. For the convenience of analysis and further ranking, all quality assessment criteria are formulated in the form of a matrix, as presented in Table 1.7.

In quantitative evaluation of the quality of medical services and for a proper understanding of healthcare quality as a universally accepted category, it is important to shift focus from medical care per se and consider healthcare quality in a broader sense.

Assessing healthcare quality involves not only aspects of medical intervention but also other key factors such as accessibility, communication effectiveness, empathy, and other aspects that influence patient satisfaction and outcomes. Successful patient-doctor interaction is determined not only by medical procedures but also by the quality of communication, understanding of patient needs, and the doctor's ability to provide a high level of trust and comfort. Therefore, the evaluation of healthcare quality should take these aspects into account.

Achieving a high level of healthcare quality requires a comprehensive approach, including not only medical skills but also organizational abilities and effective communication. Such an approach contributes to improving patient satisfaction, enhancing safety levels, and overall healthcare quality.

The criteria are divided into five groups depending on their similarity and orientation:

1. Professional criteria – determine the ability of the physician (medical personnel providing treatment) to provide adequate medical care and confirm its level. The quantitative assessment of this group should be conducted by experts in the field.

2. Accessibility criteria for medical services – a group that characterizes the ease and simplicity of “access” for patients to obtain necessary medical services. The assessment of these criteria should be provided by the staff of the medical institution.

3. Service criteria – criteria that determine the level of assistance to the patient. Evaluation of these criteria should be provided by the patients themselves when they receive direct medical care or immediately after.

4. Communicative criteria – typically aspects of acquaintance with the medical institution, selected treatment methods, communication of medical personnel, etc. These criteria are evaluated by patients.

5. Prestige criteria of the medical institution – criteria that shape the institution's image, the level of recognition among other institutions of a similar profile, indicating the novelty and modernity of the hospital (clinic). It is determined by the staff of the medical institution, as they have only the specified information.

**Table 1.13 – Matrix of Criteria for Evaluating the Quality of Medical Services**

| 1. Professional criteria of the doctor | 2. Accessibility criteria of medical services | 3. Service criteria | 4. Communicative criteria | 5. Prestige criteria of the medical institution |
|---|---|---|---|---|
| 1.1. Qualification level | 2.1. Possibility to choose a doctor | 3.1. Absence of queues for appointments with doctors, laboratory tests | 4.1. Friendly attitude from the medical staff | 5.1. Prestige of the medical institution |
| 1.2. Practical experience | 2.2. Convenient location of the reception department | 3.2. Possibility of pre-appointment scheduling and laboratory testing | 4.2. Knowledge of multiple languages | 5.2. Appearance of the medical institution |
| 1.3. Ability to adequately respond in extreme situations | 2.3. Proper interpretation of patients by medical staff regardless of previous diagnosis | 3.3. Provision of departments with communication means | 4.3. Readiness of medical staff to provide medical assistance | 5.3. Presence of awards, recognition |
| 1.4. Ability to choose the correct treatment methodology | 2.4. Possibility to call a doctor for a consultation at home | 3.4. Speed of patient service | 4.4. Ability to provide information in full | 5.4. Range of services provided |
| 1.5. Professional ethics | - | 3.5. Possibility of receiving consultations from specialists of various profiles | 4.5. Presence of a website in the medical institution | 5.5. Availability of modern medical equipment |
| 1.6. Level of personal culture | - | 3.6. Satisfaction of patient expectations | 4.6. Presence of feedback between patients and the medical institution | - |
| 1.7. Understanding the needs of patients | - | 3.7. Completeness of client information | 4.7. Availability of parking space | 1.7. Understanding the needs of patients |

The table depicts different groups with varying numbers of criteria. If necessary, specific requirements and aspects of the medical institution's activities can be increased or decreased, taking into account the peculiarities of certain types of medical care.

They can be applied comprehensively or selectively to assess the quality of medical services.

The first step in obtaining a quantitative assessment of the quality of medical services is the rating provided in the table. Here, it is necessary to determine both the individual level of a criterion within a group and the group of criteria as a whole.

For example, let's consider the “Professional criteria of the doctor” group:

1. Professional criteria of the doctor

– 1.1. Qualification level

– 1.2. Practical experience

– 1.3. Ability to adequately respond in extreme situations

– 1.4. Ability to choose the correct treatment methodology

– 1.5. Professional ethics

– 1.6. Level of personal culture

– 1.7. Understanding the needs of patients

To assess the quality of medical services quantitatively within this group, each criterion (1.1, 1.2, 1.3, etc.) needs to be evaluated individually. Then, the group “Professional criteria of the doctor” as a whole can be evaluated based on the collective performance of all the individual criteria within it.

Similarly, this process should be repeated for each group of criteria presented in the table to obtain a comprehensive quantitative assessment of the quality of medical services.

The stages of assessing the quality level of medical

services can be presented as shown in Fig. 1.5 [12].

It is understood that the stage of assessing the quality level, which involves determining the purpose of the assessment, is not in doubt. Now it is important to determine the nomenclature of quality indicators according to which the assessment of the quality level of medical services will be conducted.

According to the classification, a medical service may include the following individual indicators:

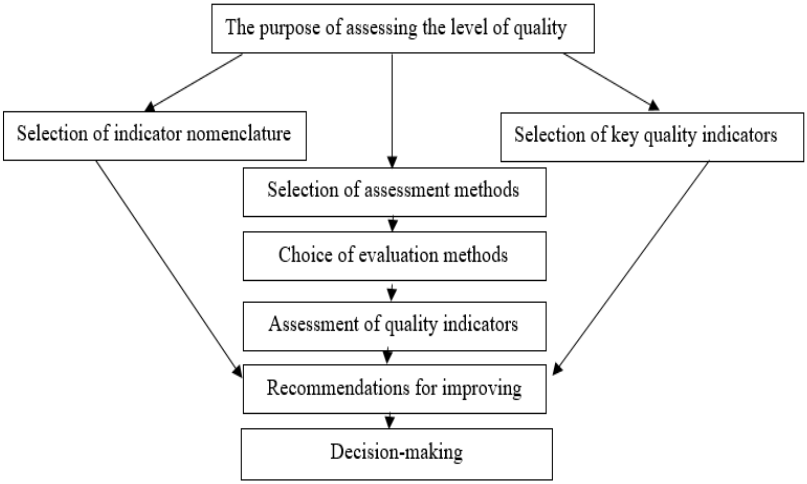


**Figure 1.7 – Algorithm for assessing the quality of medical services**

1. Patient examination: assessment of overall health status, physical examination, medical history, and other parameters determined by the purpose and nature of the medical intervention.

2. Diagnosis with indication of necessary measures for differential diagnosis with diagnostic search algorithms: this

includes determining the disease or condition as well as the necessity of further diagnostic procedures to refine the diagnosis.

3. Diagnosis with justification or justification of reasons why diagnosis cannot be formulated: determination of medical conditions where diagnosis may be difficult or requires additional justification.

4. Recommendations for medications, dosages, regimens, duration of therapy courses: this includes instructions for medicinal products, their dosages, regimens of administration, and duration of therapy courses.

5. Development of an outpatient or inpatient treatment plan: organization of medical interventions for the patient during the treatment process, including outpatient or inpatient treatment.

6. Completion of medical documentation in accordance with established requirements: correct completion of medical records, analyses, reports, and other documents related to the treatment process.

7. Organization of diagnostic, preventive, and sanitary-hygienic measures: ensuring the implementation of various medical procedures and measures for diagnosis and prevention of diseases.

8. Provision of consultations in accordance with established sanitary-hygienic requirements: providing patients with necessary medical consultations and information in compliance with norms.

According to the Concept of Quality Management of Medical Care for the Population of Ukraine, the current approaches to ensuring quality in the healthcare system, based on control principles, should be replaced by an approach based on process management principles.

The basic criteria for assessing the quality of services

should be standardized evaluation criteria. Quality criteria for medical services are limited to two values: the minimum (mandatory level), below which the service should not fall, and the desired level, which may not be achievable due to objective reasons, but achieving it aims to improve the quality of medical services [17].

The presence of two levels of quality criteria in medical care standards, mandatory and desired, is due to the difference between the model and the actual practice in the conditions of the healthcare system in Ukraine. Medical standards are aimed at optimizing the diagnostic and treatment process and are used to assess the activities of doctors at the level of healthcare institutions, insurance medical organizations through comparison and calculation of compliance indicators, quality, defects, etc.

The algorithm for assessing the quality level is a sequence of procedures for analyzing five basic blocks:

- assessment of history and diagnostic procedures;
- assessment of specialist consultations;
- assessment of the treatment plan;
- assessment of medical documentation;
- assessment of the availability of medical services.

The integral quality indicator of medical services (the ratio of the total beneficial effect of providing medical services to the total costs of obtaining it).

When analyzing the quality of medical services, the following elements should be distinguished: analysis of the professional qualities of the doctor, provision of medical equipment and personnel, conditions of organization and financing (structural quality), analysis of medical technologies (process quality), analysis of results (outcome quality).

The main modern trend in improving the quality of medical care is the transition to comprehensive quality

assurance at all stages of medical service provision and assistance (prevention, diagnosis, treatment, further monitoring of patients) as opposed to retail analysis of individual stages and medical interventions.

The leading control function can be found in legislation and regulatory acts regulating the quality management of medical care in Ukraine – the Law of Ukraine "On Amendments to the Basic Legislation on Health Care of Ukraine Regarding the Improvement of Medical Care" (entered into force on January 1, 2012). The law provides for the legal status for accrediting medical institutions.

According to the Administrative Law of Ukraine, control over activities in any field is carried out with public and departmental oversight. Therefore, all these types of control are available in the quality management system of medical care.

The subjects of control include competent authorities outside the medical institution (external control) and heads of departments and structural units directly within healthcare facilities (internal control). The functions of non-governmental control of medical care quality are performed by insurance companies, which have the right to make state decisions by the Prosecutor General's Office of Ukraine and consumer protection authorities based on agreements with medical workers and consumers.

Public organizations and citizens participate in public oversight of the quality of medical services by addressing competent authorities and medical institution leaders regarding the quality of medical services. People's involvement characterizes this type of control.

Approved by the Ministry of Health of Ukraine on September 28, 2012, and registered by the Ministry of Justice of Ukraine, the Department "On the Procedure for Quality Control of Medical Care" External Control 1996/22308 on

September 28, 2012. According to Order № 752 of the Department of Quality of Medical and Pharmaceutical Service of the Ministry of Health of the Autonomous Republic of Crimea, regional, structural units of healthcare in Kyiv and Sevastopol are included. These bodies are responsible for licensing and accrediting medical institutions, standardizing medical services, certifying specialists, handling citizens' complaints, and making public decisions, as well as mandatory instructions and directives.

Internal quality control is carried out by the management of healthcare institutions and medical councils in accordance with current industry standards. The traditional organization practice allows the head of a healthcare institution to delegate supervisory functions to deputies and department heads in certain areas of activity. It also encompasses modern approaches to internal quality control, quality management system audits, and self-assessment.

The nature of the control subject in the quality management system should include the mandatory inclusion (level of self-government) of medical doctors and junior specialists with medical education.

According to the Order of the Ministry of Health of Ukraine dated September 28, 2012, № 752, the structure, procedure, and effective components of the quality system, including specialization of specialists, organization of medical care, implementation of quality management decisions, compliance with standards, medical care protocols, defects, treatment of citizens, negative consequences of complaints, ensuring the rights and safety of patients, studying their health perspectives are outlined.

International experience shows that there is no “universal indicator” that comprehensively measures and characterizes the complex and multifaceted concept of healthcare quality. The

main goal of the healthcare system is not to improve the value of individual indicators but to improve the quality of medical services. In this case, each indicator can provide useful information about specific aspects of medical care.

The description of each indicator should guide its proper calculation, analysis, interpretation, and application:

– Before assessing the quality and reliability of methodologies and input data used in calculating indicators, any comparisons and analyses should be made, and further conclusions drawn.

– Most indicators reflect the results of random processes; fluctuations in indicator values with a small number of observations can be significant but do not demonstrate real differences; it is not always possible to ensure the homogeneity of sets of compared patients, etc. Therefore, appropriate statistical apparatus and methodologies should not be used for analyzing indicator values.

– Indicators should be prepared systematically, and evidence in scientific literature should be combined with the consent of clinical experts.

– Indicators should be harmoniously integrated into the national healthcare standardization system. Structural and technological indicators should be coordinated with approved clinical guidelines and national standards, allowing for measuring and controlling the processes of standard application and achieving the relevant healthcare criteria. However, as mentioned above, the use of indicator systems for direct comparison of indicators and administrative pressure in such measurements should not be allowed, as it leads to a loss of ability to accurately reproduce the picture of healthcare quality.

Consumer sentiment indexes are potentially valuable tools for comparing the results of activities of different organizations, regions, and even countries, provided the

provided information is reliable.

The main modern trend in improving healthcare quality is the transition from fragmented analysis of individual stages and medical interventions to comprehensive quality assurance at all stages of healthcare, including prevention, diagnosis, treatment, and patient follow-up. Therefore, the information support for this concept involves integrating and further analyzing all possible information about technically possible patients using modern communication tools and information technologies.

The first step in this direction is the creation of sectorial medical records, which combine information about patients with specific chronic diseases and provide control over them throughout their lives.

The concept of healthcare information involves creating a national medical patient registry that consolidates all available medical information. Such a registry, provided it is successfully created and provided with the necessary quality of information, should be the basis for developing a new type of healthcare quality indicators.

Some operations to consolidate patient information from different electronic sources are possible thanks to record-keeping technologies using widely used identification information such as name, date of birth, address, etc. The relevant automated technologies required to compare information about one person from different sources, but this is not yet widespread in healthcare practice in Ukraine. Therefore, the application of appropriate indicators in general practice will require additional innovations in the implementation and development of relevant information infrastructure.

In medical practice in European countries, the effectiveness of the following measurement methods has been

proven:

- “Moments of Truth” analysis;
- Critical Incident Technique;
- SERVQUAL model (service quality);
- SERVPERF methodology;
- R-A-P model;
- EUROPEP model.

One of the key ways to assess service quality involves a customer-centric approach, taking into account even the smallest details: interactions with clients, interactions with medical and service personnel. Everything related to the process of providing medical services is studied. In this process, there are several stages involving both the provider and the service consumer.

Karel Rogojnski defines these stages as “moments of truth”. He emphasizes the difference between the service delivery process and the purchase of products. According to Rogojnski, the evaluation of service quality largely depends on the impressions left after contact with the service provider, these same “moments of truth”.

The use of the aforementioned analysis forms the basis for the Critical Incident Technique (CIT), which is based on the analysis of critical events. This method helps identify sources of satisfaction or dissatisfaction among consumers. According to this methodology, each event is so significant that conclusions can be drawn about the personality of the person who created it. Critical incidents, in turn, are defined as events that significantly affect the outcomes or lead to expected consequences. Overall, critical incidents can be described as interactions between clients and the employees of the firm they are served by (in our case – doctors). However, not all incidents are subject to investigation. Analysis is carried out only based on events remembered by clients.

A detailed analysis of critical incidents remembered by clients helps identify weaknesses in the medical institution and identify problems that negatively affect the quality of provided medical services.

The implementation of healthcare management systems in global practice has gone through several stages:

1. Quality control – this model was developed in the industry in the 1920s-1930s. The approach involved adhering to pre-established standards and taking corrective action in case the level of service did not meet expectations. Planning under this model involved advantages of its use at selected control points. Control was carried out by selectively collecting data, considering the frequency of control, and assessing quality. The main goal was to identify and correct discrepancies and poor indicators. However, this approach had limited effectiveness and a short period of application.

2. Quality assurance – this model, widespread in many medical institutions, emerged in the late 1960s. The main goal was not to take corrective action in crisis situations but to prevent problems from arising. The principle of “doing it right the first time” became a priority task. Typically, this model is used for systematic review of processes and treatment outcomes.

The purpose of this model is continuous improvement and quality enhancement based on the participation of all service providers and recipients. Special organizational units are responsible for implementing and implementing quality improvement measures. The system records procedures for data collection and analysis, as well as actions to improve procedures. The goal is to limit the number of errors and losses in both external and internal consumers.

Continuous improvement of the quality management system involves such appointments as quality systems

corresponding to ISO:

– striving to achieve and maintain quality and sustainable development;

– improving the quality of established and predicted activities;

– meeting the needs of clients and other interested parties;

– gaining the trust of management and employees in maintaining and improving quality requirements;

– gaining trust from clients and other stakeholders to meet quality requirements and compliance.

Norms require a medical institution to establish strategic quality goals in the healthcare program it implements. To determine the degree of achievement of these goals, a hospital may use quality indicators proposed by the government or professional organizations, scientific societies. An important condition is that the indicators must be measurable and correspond to the process. Quality goals should be linked to the quality policy, which is understood as a set of everyday rules of conduct and values in the field of quality (e.g., medicines, materials, personnel policy, marketing policy) that ensure confidence that it meets current requirements.

Effective service quality management in the context of Ukrainian medicine requires a radical transformation of the current situation and the development of a program aimed at quality priorities. Although the general belief that the lack of clear goals impedes the achievement of high quality is not always true. There are “non-investment opportunities” to improve the quality of medical services, and in many cases, it is possible to reallocate existing resources to achieve this goal. Patients should be interested in high-quality medical services, but medical institutions must also actively work to improve the level of medical services provided. This will not only allow institutions to improve their positions in the competitive market

but also contribute to increasing the number of potential patients. In every activity, it is important to focus on achieving the ultimate result. Achieving the goal is possible through effective use of available tools, practical skills, and information and communication components. Healthcare is no exception.

Financial support is one of the key components of the activities of medical institutions. This includes providing the medical institution with necessary medical equipment, specialized software, and material resources. The availability of modern high-tech medical equipment is an indicator that the medical institution is oriented towards modern standards and can provide a high level of medical care. It is important for the equipment to meet not only general medical practice requirements but also the specific requirements of the medical institution's specialization. Specialized software also plays an important role in the work of medical institutions. This includes database management systems, programs for processing diagnostic procedure results, specialized graphical programs for conducting surveys, etc. An important argument in favor of using such software is the increased efficiency of staff work and ensuring a high level of processing and storing medical data.

Regarding human resources, not only the skills of employees are important but also their ability to adapt to work in a team and effectively collaborate with other colleagues. It is also important to ensure continuous professional growth and development of medical personnel so that they are prepared for the challenges that arise in the field of medical care.

Uninterrupted, large-scale operation of a medical institution is impossible without proper provision of material resources. However, the existence of all these sources will not allow their use for their intended purpose. An important element that not only unites these resources but also allows

achieving the set goals is active management knowledge. Such knowledge is relevant not only due to the availability of these sources but also considering their characteristics [17].

The availability of material resources aims to ensure the full functioning of the medical institution. Thus, an important aspect is, for example, optimizing these resources through management knowledge.

Effective management in healthcare is an important aspect of modern society. The quality of medical services and competent management are the key to creating high-quality and attractive medical institutions for users. Scientific progress is aimed at solving medical problems as well as supporting the idea of the need for rational and qualified management in healthcare. Specialized information centers equipped with modern computers and staffed with qualified personnel are being created to achieve this goal. This allows managing the program in an automated mode, freeing management from routine tasks and providing an opportunity to focus on strategic issues.

Human health is a valuable resource on which its overall well-being depends. When health is compromised, a person seeks to restore it as quickly and effectively as possible. At such times, they become patients. The patient's interest lies in the quick and effective restoration of health. Doctors strive to meet the needs of patients quickly and qualitatively to ensure the return of patients when necessary. Hospitals, in turn, seek to effectively utilize resources for treating each patient. The main goal of the manager is to ensure coordination of the institution's work in such a way as to satisfy the interests of patients, doctors, and the hospital while maintaining a balance between them.

The issue of improving medical services within the program of the National Health Service of Ukraine today is

extremely important and urgent.

Therefore, ensuring high quality medical services is a necessary condition for the successful functioning of medical institutions and meeting the needs of patients. This requires a systematic approach to management and continuous improvement of processes in the medical field.

The quality of medical services is a key indicator of management effectiveness in medical institutions for several reasons.

Patient Satisfaction: The quality of medical services directly impacts patient satisfaction. When patients receive high-quality and effective medical care, they will be satisfied and feel safe. This contributes to building trust between the patient and the medical institution, as well as ensuring a positive image of the institution in the public eye.

Treatment Outcomes: The quality of medical services directly affects treatment outcomes and patient prognosis. If a medical institution provides high-quality services, effective treatments, and procedures, the likelihood of successful recovery increases.

Patient Safety: The quality of medical services also includes aspects of patient safety. Effective management in medical institutions should ensure high standards of patient safety during the provision of medical care and services.

Resource Efficiency: High-quality medical services allow for the efficient use of the institution's resources, including human, financial, and material-technical resources. Optimal utilization of these resources helps maintain the institution's efficiency and competitiveness.

Thus, the quality of medical services is a key indicator for determining the effectiveness of management in medical institutions, as it reflects on patient satisfaction, treatment effectiveness, patient safety, and efficient resource utilization.

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## 1.5. COMPETITIVE STRATEGIES OF UKRAINIAN ENTERPRISES: ADAPTATION TO THE NEW MARKET REALITIES

Today, Ukraine is experiencing an economic and humanitarian crisis. Russia's invasion of Ukraine causes it great humanitarian, social and economic losses. According to the assessments of the United Nations, the number of Ukrainian refugees in the European Union alone is approaching 8 million people, that is, every fifth Ukrainian has left abroad in the last year. Unfortunately, thousands of our citizens died. The poverty level increased to 24%, 7 million Ukrainians were below the poverty line. According to the World Bank as of January 2024 the volume of direct losses to Ukraine from damage and destruction of infrastructure, is 154 billion US

dollars. Donetsk, Luhansk and Kharkiv regions are the most affected.

Total assessment of damage to Ukraine's infrastructure from damage and destruction as of January 1, 2024 by industry 154.9 USD billion [36]: Residential buildings (58,9); Infrastructure (36,8); Assets of enterprises, industry (13,1); Energy (9,0); Agricultural industry and land resources (8,7); Education (6,8); Housing and communal services (4,5); Forest fund (4,5); Transport (3,1); Health care (3,1); Trade (2,6); Culture, tourism, sports (2,4); Other (1,4).

The housing fund remains in the first place in terms of the amount of losses. As of January, the number of damaged and destroyed residential buildings is more than 250,000, of which 222,000 are private, more than 27,000 are apartment buildings, and 526 are dormitories. Direct damage from the destruction of these objects is estimated at $58.9 billion. Donetsk, Kyiv, Luhansk, Kharkiv, Chernihiv and Kherson regions are among the regions where the most destroyed residential buildings were recorded.

Damage to infrastructure facilities is estimated at $36.8 billion, losses of industry and enterprises - at the level of $13.1 billion. According to the latest data, 78 small, medium and large private enterprises, as well as 348 state enterprises, were destroyed or damaged.

In the first year after the full-scale invasion on February 24, 2022, the Ukrainian economy lost 28,8-30% of GDP (Figure 1). This is the biggest drop in economic activity the

[36] The amount of damage to Ukraine's infrastructure due to the war. Ukrinform. URL: http://surl.li/hvwmwg

country has experienced since independence and will take years to recover from [37].

This had a decisive influence on the formation and implementation of the revenue and expenditure parts of the budget, as well as on the debt policy. During 2022, in the conditions of a full-scale war, the government of Ukraine focused attention on several main priorities in the budgetary sphere, among them:

– provision in sufficient volumes of the needs of the security and defense sector;

– maintenance of social standards at a sufficient level and provision of state aid to those who need it;

– prevention of drastic underfunding of health care and education;

– providing business support, etc.

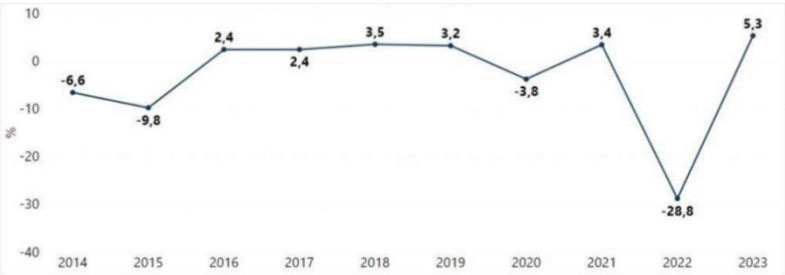



**Figure 1.8 - Change in the real GDP of Ukraine for the period 2014-2023 (in % compared to the previous year), %**[38]

[37] Macroeconomic forecast for the Inflation Report, January 2023. National Bank of Ukraine. URL: http://surl.li/nzaoys

[38] The preliminary estimate of the GDP for 2023 was made. Berzhstat. URL: http://surl.li/ptafhl

In Ukraine, during 2022, compared to 2021, the volume of public borrowing (both domestic and foreign) more than doubled. Throughout 2022, the State Budget of Ukraine was formed and implemented in extremely difficult conditions, but taxpayers and state institutions showed stability in their functioning.

The 2023 budget was even more military than the 2022 budget. In the conditions of the war in Ukraine, the losses concern not only the defense or energy or strategic industrial complex. In the conditions of war, cities and villages, civil infrastructure, churches, kindergartens, schools, hospitals are destroyed. All this affected the state of Ukraine's economy, its budget and the redistribution of the main budget items, which in 2023 was even more military than the 2022 budget. Majority expenses - 61% is for defense, security and law and order and social protection. In general income of the 2023 budget increased by 41%, and expenses by 46%.

The expenditure of budget funds in Ukraine in 2023-2024 is shown in fig. 1.9.

The 2024 budget of Ukraine is another wartime budget. It should be noted that in 2014, Russia began military aggression against Ukraine, but expenses of the Ukrainian defense budget were insignificant in comparison with expenses in 2022. For the past three years, Ukraine has allocated a significant share of the State Budget to defense.Most of the income of the budget will go to defense. Other expenses, for example, pensions, salaries of state employees or education expenses will be financed with the money of Ukraine's partners.

Income items of the state budget are formed by taxes from domestic and import VAT, which is 52% of the total amount income plus military levy, which adds another important 15%. As for the income tax of Ukrainian enterprises, it is only 14.6% of the total income to the budget.

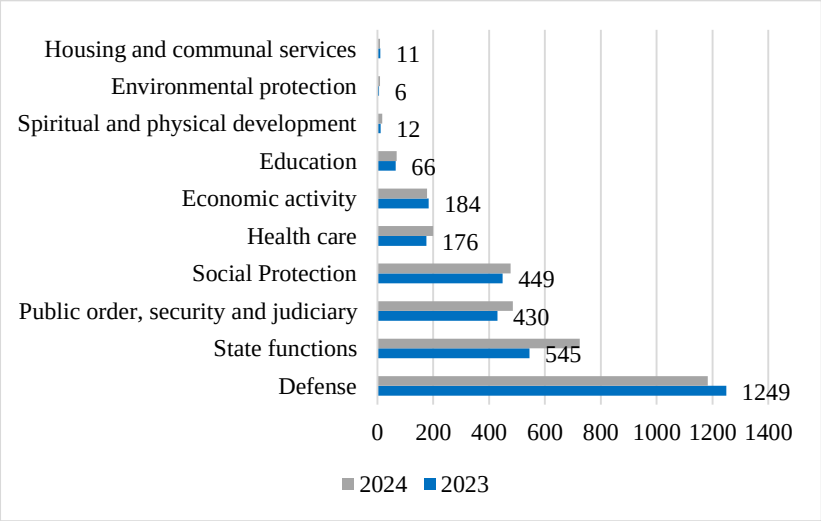



**Figure 1.9 - Expenses budget funds in 2023-2024, UAH bln**[39]

According to preliminary estimates of the World Bank, large amounts of money are needed to restore Ukraine. They will exceed 3 times the GDP of Ukraine. No state can provide such aid. As of today, 486.2 billion US dollars are needed to restore Ukraine**.** Thanks to contributions from donor countries, as of September 2023, the World Bank has already mobilized nearly 38 billion US dollars in needed financing.

In connection with the rapid increase in the level of domestic competition under the circumstances described above, the growth of consumer demands, in the coming decades only the enterprise that will have competitive advantages in accordance with the resource potential will be

[39] Reforms are indispensable: Ukraine's own funds will be enough for only half of the expenses. Economic truth. URL: http://surl.li/vdnzkq

successful. The result of the management of such advantages will be reduced in time and will be reflected in the reduction of costs of the enterprise, improvement of the quality of its products, provision of flexibility, introduction of innovations, increase of knowledge of human resources, etc. Human resources belong to the unique competitive advantages of the strategic level. The knowledge possessed by the company's employees, especially managers, allows them to take a direct part in the formation of the company's competitive advantages and the processes of their strengthening. Other resources of the enterprise, except for human resources, are not endowed with an opportunity for an intellectual form of organization.

Let's present a diagram of the managerial influence of human resources as unique competitive advantages of the enterprise on the formation and strengthening of its competitiveness (Fig. 1.10).

Management of competitive advantages is the most important point in the company's achievement of a stable competitive position in the market due to new competitive advantages. The process of forming new competitive advantages is based on the effective interaction of the company's operating conditions and factors that shape its resource potential (the company's human capital, experience and knowledge, unique skills, competitive opportunities, market achievements, etc.)[40].

[40] Yevtushenko N., Halimon T. (2021). Formation of competitive advantages in the Ukrainian consulting services market: theory and practice. *Baltic Journal of Economic Studies*. Vol. 7. No. 4: 72-84.

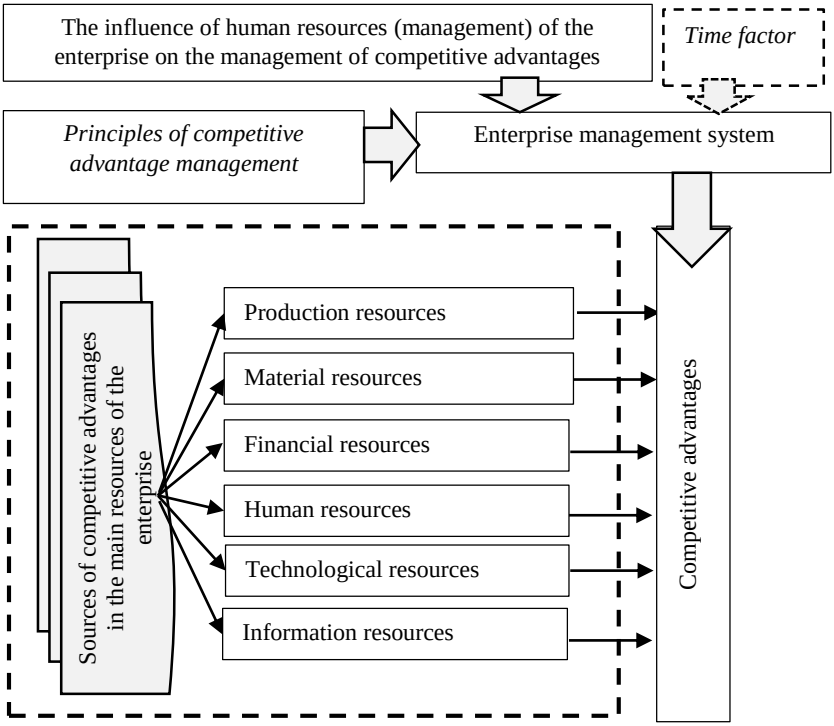



**Figure 1.10 - The influence of the human capital of the enterprise on the formation and strengthening of the competitive advantages of the enterprise [41].**

Making a decision on the formation of a new competitive advantage takes place in the process of monitoring competitive advantages, taking into account demand and the conditions of market functioning.

[41] Korsakov D.O. (2010). Sutnist′ konkurentnykh perevah systemy upravlinnya personalom [The essence of the competitive advantages of the personnel management system]. *Naukovyy visnyk Poltavs'koho universytetu spozhyvchoyi kooperatsiyi Ukrayiny*. № 4 (43).

We agree with the views of scientists regarding the management of competitive advantages and present the stages of developing a strategy for their formation at the enterprise in accordance with the new realities of the market (Fig. 4).

We will analyze the process of formation of competitive advantages in the following stages.

1. Stage. - Preparatory. This stage of preparation is related to the possibility of identifying new competitive advantages based on the analysis of the received information and comparing them with the company's capabilities.

At the preparatory stage, the analysis of the information necessary for the formation of new competitive advantages obtained during the monitoring process takes place:

– Information about life cycles of competitive advantages;

– information about existing market requirements;

– information about the competitive advantages of competing enterprises and their weaknesses

This enables the enterprise to make decisions on creating new competitive advantages that are not yet used by competitors.

One more step in the preparatory stage is the justification of the decision to form a list of new competitive advantages. The sequence of substantiation of the list of new competitive advantages to be formed:

competitive advantages, taking into account adaptation to new market realities

*Source: constructed by the authors*

– making a decision to include this competitive advantage in the list of existing advantages;

– verification of each new competitive advantage for compliance with efficiency and sustainability criteria;

– ranking of the received list according to predicted results;

– formation of a list of new competitive advantages in accordance with the company's competitive strategy.

2. Stage. - Design.

At this stage, a project of a new competitive advantage is being developed, where all involved specialists of the enterprise and their functions in the process of forming new competitive advantages are indicated. Then the expected effectiveness and sustainability of new competitive advantages within the project is evaluated.

As part of the project, a strategic analysis of the enterprise is carried out to clarify the correspondence of the competitive advantage to the capabilities of the enterprise, the internal and external environment. This analysis allows you to identify the strengths and weaknesses and opportunities of the enterprise.

When analyzing the relationship between competitive advantages and the company's competitive strategy, competitive advantages should be considered from the point of view of two
basic strategies proposed by M. Porter [42]: the strategy of low-cost leadership and differentiation.

[42] Porter M. (2019). Competitive translation: Yak dosiahty vysokoho rezultu i zabezbechyty yoho stiikist [Competitive advantage: How to achieve a high result and ensure its sustainability]. Alpina Biznes Buks. 715.

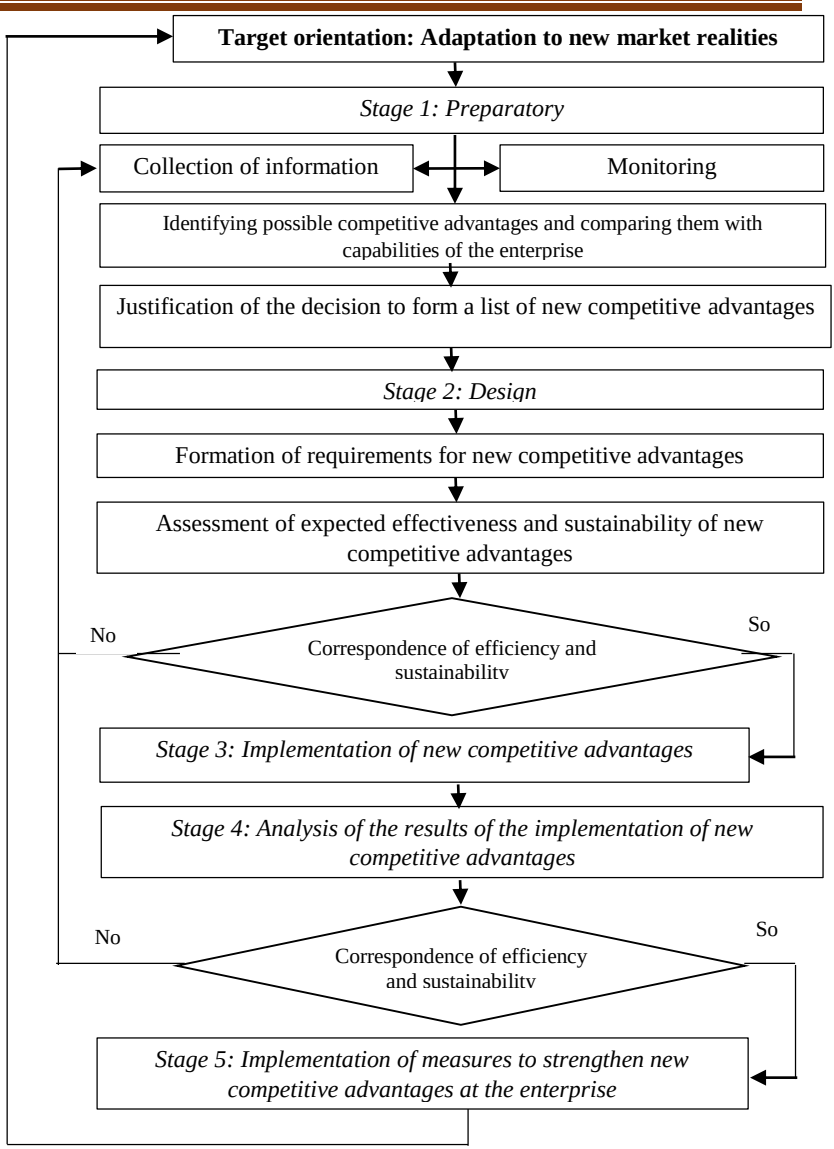



**Figure 1.11 - Stages of developing a strategy for the formation of competitive advantages, taking into account adaptation to new market realities** (*Source: constructed by the authors)*

The goal of a cost leadership strategy is to continuously maintain and strengthen a cost advantage over competitors.

The main task of the differentiation strategy is to add one or more distinguishing features to your products. This will help make the product more attractive to consumers compared to competing products.

The main requirements for competitive advantages for each of the variants of the basic strategies are presented in the table. 1.14.

**Table 1.14 - Requirements for competitive advantages when using basic competitive strategies**

| Factors | Requirements for the formation of competitive advantages accordance with the strategy | |
|---|---|---|
| | Cost leadership | Differentiations |
| 1 | 2 | 3 |
| 1 Technical and technological: | | |
| Equipment | – equipment that requires minimal costs;<br>– cheap equipment | – equipment for the production of exclusive products;<br>– equipment for production to order |
| Mechanization of production | – maximum automation of technological processes,manual labor, its use is minimal | – a high share of manual labor for a unique technology |
| 2. Economic: | | |
| Basis of competitive advantage | scale effect | willingness to pay for unique products |
| Sources of funding | availability of loan capital at low interest rates, preferential lending conditions | there are no mandatory requirements, the availability of loan capital is desirable |
| Cost of production | minimal | low cost is not a mandatory requirement |

Continuation of table 1.14

| 1 | 2 | 3 |
|---|---|---|
| Normalization | all operations and elements of the production process are strictly standardized | not standardized |
| 3. Management | | |
| Human capital | cheap labor force with sufficient qualifications | highly qualified specialists, with high remuneration for their work |
| The nature of setting goals and objectives | human capital is given a certain task and the way to solve it is clearly marked | only the goal is set. the responsibilities of human capital include the task of finding a way to solve it (creative work) |
| Work schedule | firm, controlled start and end time of work | flexible. Human capital is responsible for the final result regardless of working hours |
| Control | is carried out constantly at each stage of the production process and for each operation | the object of control is the final results |
| Administrative apparatus | inflated, the number of managers is determined the need for constant control at each stage of production | minimum |
| Management structure of the organization | divided into a large number of units. Each division is narrowly specialized. But at the same time, there is no direct relationship with other units | the management structure is adaptive, the number of divisions is small, all departments work closely together |

At the end of the second stage, a certain basic competitive strategy is chosen. At the same time, each of the

selected cost leadership or differentiation strategies corresponds to its own set of competitive advantages. Each enterprise independently forms requirements for them.

3. Stage. - Implementation of new competitive advantages.

If the requirements are met, the project for choosing a new competitive advantage is accepted for implementation. If the criteria are not met, it is advisable for the company's management to return to the first stage in order to obtain new information based on the results of monitoring competitive advantages. Only then decide on the formation of new ones.

4. Stage. – Analysis of the results of the introduction of new competitive advantages.

The content of this stage consists in determining the results from the implementation of competitive advantage, in the process of which an analysis of the comparison of the planned results with those obtained on the basis of monitoring is carried out.

The result of effective management of competitive advantages consists of the following:

– achieving sustainable growth of profit in amounts sufficient to ensure social and economic development of the enterprise, increasing its economic potential;

– effective organizational structure of enterprise management;

– creation of a positive image of the enterprise and recognition of the corporate brand on the basis of ensuring high product quality, timely fulfillment of business obligations, provision of guarantees;

– production of high-quality and competitive products.

5. Stage. - Implementation of measures to support new competitive advantages of the enterprise.

In order to preserve and maintain new competitive advantages, company managers need to constantly monitor the actions of competitors and track changes in tastes and consumers of products.

Thus, the conducted study proves that even after the war Ukraine will probably experience a serious labor market deficit caused by the exodus of refugees. The memory of the war will also have a long-term impact on the investment attractiveness of the country.

The good news is that Ukraine is capable of recovery.

The management of the competitive advantages of the enterprise should be built on the basis of its own values, which the enterprise possesses, seeks to preserve them or wishes to have in the future. It is appropriate for the managers of the enterprise to form strategic preferences for this and to adapt in a timely manner to the new realities of conducting business and the market.

The proposed stages of developing a strategy for the formation of new competitive advantages will make it possible to systematically approach the definition of the main directions in solving issues related to increasing the level of competitiveness of Ukrainian enterprises.

# SECTION 2. FINANCE, BANKING AND INSURANCE

## 2.1. THE ROLE OF INTERNATIONAL FINANCIAL ORGANIZATIONS IN STIMULATING FOREIGN DIRECT INVESTMENTS

The role of international financial organizations for states is recognized and approved, because with their help, many countries have achieved unprecedented results. There is no consensus among scientists and practitioners regarding the positive results of international organizations. Unfortunately, there are cases when the intervention of international organizations turned out to be the basis for causing and deepening the crisis for specific states. International financial organizations often issue guidance documents, which in the light of modern challenges play an important role in conducting the monetary policy of the states, overcoming poverty, improving the infrastructure, reducing unemployment and increasing the well-being of the population, at the same time, as a source of strong financial resources for the states, they are always considered as a subject of opportunities to realize the state's potential. . Such organizations mainly ensure the process of globalization. The role of international financial organizations is also special for Georgia. Infrastructure projects and various economic and financial programs are financed with their support. The role of international financial organizations is not only manifested in the forms of direct financing or regulation, but often they, as one of the main players in the process of globalization and internationalization, ensure the implementation of such investment and state policy for states, which ensures the improvement and attractiveness of the investment climate, such a role is special for Georgia.

International financial organizations play an important role in the process of globalization, such a feature is also characteristic of foreign investments, therefore, international financial organizations often provide stimulation of foreign investments using various methods and mechanisms.

It should be noted that the formation and development of international financial organizations in today's sense is related to the Bretton Woods Conference, which was held before the end of the Second World War in July 1944 in the United States of America. The World Bank and the International Monetary Fund were established along with the necessary decisions made within the said conference, whose functions included managing the crisis caused after the Second World War, supporting the new financial, tax, currency regime, helping to restore critical infrastructure for the countries participating in the war.

The role of international financial organizations in the modern world is important. Even today, the global world depends on the finances of financial organizations. They play a major role in the accumulation of finance, its availability and distribution, and some international financial organizations help countries to conduct fiscal and monetary policy, which has become an inevitable and necessary component of aid for any country, especially during the Covid-19 pandemic and the Russia-Ukraine conflict. (Beridze, 2022).

A characteristic feature of the current international economic relations is the growth in investment activity. A variety of operations and instruments in the international financial and credit market allows broad investment, regardless of currency and country of origin. Thuswise, the leading place in the investment system belongs to international investments. Without foreign capital, neither structural changes in the national economy nor competitiveness in the world market can be achieved (Aguayo, 2022).

International financial organizations not only financially help states to stimulate investments, but by sharing best practices and offering standards, they try to make states more attractive and safe for investments, for example, the role of international financial organizations in regulating investments can be divided into different directions, namely, the OECD member countries strive to conclude agreements that lay down and protect the rights of investors (Lartey, T., & Danso, A, 2020), whilst the UNCTAD members focus on rules that govern investor obligations (Bernasconi-Osterwalder, 2020).

Long-term practice of international investment has shown that the policy of foreign investment influx stimulation should represent a cohesive system of interrelated actions integral to the national strategy for socio-economic development, rather than a set of single incentives. On the global scale, the key agents regulating the crossborder investment relationships are international financial institutions, which not only contribute to the activation of investment processes by economic means but also set trends for the international investment law.

Main text. As for the classification of investments, it should be noted that the classification proposed by the International Monetary Fund (IMF) is the most common according to the international methodology, according to which the participation of a non-resident person in the enterprise capital of the recipient country is defined, according to which it is distinguished: direct, portfolio and other types (opinion intellectual ) investments. Foreign direct investment (FDI) is when the participation of a non-resident in the enterprise of the host country is higher than 10%, and when the portfolio is lower than 10%, other types of investment give us an indication of investments made in intellectual property.

The methodology mentioned above is used by the National Statistical Service of Georgia and the National Bank of Georgia.

By itself, owning a 10% share in an enterprise does not give rise to any special rights according to Georgian legislation (Law on Entrepreneurs of Georgia), but it is generally accepted that owning more than 10% share gives the investor more opportunities to participate in the management of the company.

The second important division of foreign investments involves the classification of foreign investments according to the object, including real assets, securities and copyright/patent properties. During such division, it is important to take into account the development of mortgage markets and stock markets. and in the patent market. The capitalization of the Georgian Stock Exchange (gse.ge) is only 2,290,025,471 GEL (as of 11.03.2023), and daily trades are very small. As for intellectual investments, the number of patents issued by the relevant service and the possibility of its use are of the utmost importance. In this regard, Georgia does not have much potential. According to the 2020 report (a more recent annual report is not available), only 186 inventions and utility models have been granted patents.

The role of international financial organizations in the regulation of foreign investments is special, moreover, special reports and plans are often developed for some countries and groups of states, for example, the Washington Consensus was specially introduced by the International Monetary Fund (with the World Bank and the US Treasury) for the Soviet Union and Latin American countries. In the form of 10 recommendations, one of the points of which is openness to foreign investments and protection of investors.

There are many examples in the history of the International Monetary Fund and the World Bank, when with the help of such organizations, recipient countries have achieved significant and transformative successes, one such was Vietnam, where the International Monetary Fund and the World Bank

helped Vietnam to carry out economic and financial reforms and attract foreign investment. Within the framework of the "DOI MOI" program, in total, the reforms carried out by the Vietnamese government with the help of the IMF were able to attract up to 12 billion investments of the South Korean giant firm "SAMSUNSG". (IMF, 2023)

The functions of foreign investments are discussed at the macro and micro level, from which several important functions can be distinguished. It can be the sharing of knowledge and innovations, reduction of unemployment, provision of expanded re-production process and competitiveness, improvement of the quality of manufactured products. Of course, the functions mentioned above are not complete and can be expanded, but for Georgia, such functions are of special importance, which is due to the necessary needs.

International financial organizations are the main assistants for the state in the implementation of monetary and financial policy, development and implementation of recommendations, monitoring and control. At the same time, practice shows that a uniform approach on the part of international financial organizations is not justified without considering individualized characteristics.

The role of international financial organizations in stimulating foreign investments can be assessed by a direct and indirect approach, in particular, international financial organizations do not directly finance investment projects, but rather, this is achieved through the formation of state foreign debt for the purpose of financing specific projects, while the state ensures the spending of funds received in this way for public procurement. through and directly serves to stimulate investments, both locally and internationally, for example, construction of critical infrastructure in Georgia, highways, utility infrastructure and others. In such projects, the

involvement of foreign companies is quite high, it should be noted here that according to the data of the month of June 2022, the amount of foreign debt is within 23 billion GEL, of which 17 billion GEL comes from multilateral creditors (multilateral creditors include international financial organizations), and according to the purpose, 11.5 billion are loans supporting investment projects (see table 2.1, 2.2, diagram 2.1).

## Table 2.1 - External debt of Georgia

Million USD/GEL

| | CDEDITORS | CURRENCY | 2022/1 | | 2022/2 | | 2022/3 | | 2022/4 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | USD | GEL | USD | GEL | USD | GEL | USD | GEL |
| | **EXTERNAL PUBLIC DEBT OF GEORGIA** | | **8,082** | **25,065** | **7,907** | **23,158** | **7,576** | **21,479** | **8,346** | **22,550** |
| | *Government External Debt* | | *7,620* | *23,631* | *7,469* | *21,877* | *7,154* | *20,283* | *7,917* | *21,392* |
| | **MULTILATERAL** | | **5,965** | **18,500** | **5,879** | **17,219** | **5,664** | **16,058** | **6,244** | **16,871** |
| 1 | ASIAN DEVELOPMENT BANK (ADB) | USD | 394.0 | 1,221.9 | 395.0 | 1,156.9 | 385.2 | 1,092.2 | 396.2 | 1,070.5 |
| | | SDR | 555.7 | 1,723.3 | 524.6 | 1,536.6 | 484.6 | 1,373.8 | 493.1 | 1,332.2 |
| | | EUR | 910.0 | 2,822.3 | 905.2 | 2,651.2 | 918.6 | 2,604.3 | 1,183.1 | 3,196.7 |
| 2 | EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT (EBRD) | EUR | 228.3 | 708.1 | 221.5 | 648.8 | 212.5 | 602.6 | 237.2 | 640.9 |
| 3 | EUROPEAN INVESTMENT BANK (EIB) | EUR | 801.6 | 2,485.9 | 849.3 | 2,487.4 | 781.5 | 2,215.7 | 919.7 | 2,484.9 |
| 4 | INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT (IBRD) | EUR | 340.1 | 1,054.7 | 334.7 | 980.4 | 332.8 | 943.6 | 395.1 | 1,067.7 |
| | | USD | 884.8 | 2,743.9 | 894.5 | 2,619.9 | 893.4 | 2,533.1 | 909.9 | 2,458.4 |
| 5 | INTERNATIONAL DEVELOPMENT ASSOCIATION (IDA) | SDR | 798.2 | 2,475.3 | 752.2 | 2,203.2 | 694.4 | 1,968.8 | 699.0 | 1,888.8 |
| 6 | INTERNATIONAL FUND FOR AGRICULTURE DEVELOPMENT (IFAD) | EUR | 7.6 | 23.6 | 7.4 | 21.6 | 7.1 | 20.1 | 9.2 | 24.8 |
| | | SDR | 29.9 | 92.6 | 28.6 | 83.7 | 26.9 | 76.2 | 27.8 | 75.2 |
| 7 | INTERNATIONAL MONETARY FUND (IMF) | SDR | 665.6 | 2,064.3 | 632.7 | 1,853.1 | 609.9 | 1,729.1 | 624.2 | 1,686.5 |
| 8 | EUROPEAN UNION (EU) | EUR | 147.9 | 458.8 | 140.0 | 409.9 | 128.9 | 365.5 | 142.0 | 383.6 |
| | | USD | 50.0 | 155.0 | 50.0 | 146.4 | 52.2 | 148.0 | 53.2 | 143.7 |
| 9 | ASIAN INFRASTRUCTURE INVESTMENT BANK (AIIB) | EUR | 144.0 | 446.6 | 136.2 | 399.1 | 125.5 | 355.8 | 142.9 | 386.2 |
| 10 | COUNCIL OF EUROPE DEVELOPMENT BANK (CEB) | EUR | 5.2 | 16.2 | 4.9 | 14.5 | 8.4 | 23.9 | 9.3 | 25.1 |
| 11 | NORDIC ENVIRONMENT FINANCE CORPORATION (NEFCO) | EUR | 2.3 | 7.2 | 2.2 | 6.4 | 1.9 | 5.4 | 2.1 | 5.7 |
| | **BILATERAL** | | **1,616** | **5,010** | **1,526** | **4,471** | **1,411** | **4,000** | **1,601** | **4,325** |
| 1 | ARMENIA | USD | 3.3 | 10.2 | 3.3 | 9.6 | 2.9 | 8.1 | 2.9 | 7.7 |
| 2 | AUSTRIA | EUR | 16.1 | 49.9 | 14.6 | 42.9 | 13.5 | 38.2 | 14.2 | 38.4 |
| 3 | AZERBAIJAN | USD | 3.7 | 11.5 | 3.7 | 10.9 | 3.2 | 9.2 | 3.2 | 8.8 |
| 4 | CHINA | CNY | 0.5 | 1.5 | | | | | | |
| 5 | FRANCE | EUR | 685.4 | 2,125.5 | 672.2 | 1,968.8 | 617.1 | 1,749.6 | 735.8 | 1,988.1 |
| 6 | GERMANY (KfW) | EUR | 666.7 | 2,067.7 | 613.7 | 1,797.6 | 567.2 | 1,608.1 | 626.4 | 1,692.5 |
| 7 | IRAN | USD | 2.7 | 8.4 | 2.7 | 8.0 | 2.4 | 6.7 | 2.4 | 6.4 |
| 8 | JAPAN | JPY | 175.9 | 545.6 | 154.9 | 453.8 | 145.1 | 411.4 | 157.0 | 424.3 |
| 9 | KAZAKSTAN | USD | 4.0 | 12.6 | 4.0 | 11.9 | 3.5 | 10.0 | 3.5 | 9.5 |
| 10 | KUWAIT | KWD | 11.5 | 35.5 | 11.4 | 33.5 | 11.5 | 32.6 | 12.3 | 33.3 |
| 11 | NETHERLANDS | EUR | 0.1 | 0.3 | 0.1 | 0.2 | 0.1 | 0.2 | 0.1 | 0.2 |
| 12 | RUSSIA | USD | 25.4 | 78.9 | 25.4 | 74.5 | 25.4 | 72.1 | 25.4 | 68.7 |
| 13 | TURKEY | USD | 7.2 | 22.5 | 7.2 | 21.2 | 6.3 | 17.9 | 6.3 | 17.0 |
| 14 | TURKMENISTAN | USD | 0.2 | 0.7 | 0.2 | 0.6 | 0.2 | 0.6 | 0.2 | 0.6 |
| 15 | UKRAINE | USD | | | | | | | | |
| 16 | UNITED STATE | USD | 12.8 | 39.6 | 12.8 | 37.4 | 12.4 | 35.1 | 10.9 | 29.3 |
| 17 | UZBEKISTAN | USD | | | | | | | | |
| | **BONDS** | | **500** | **1,551** | **500** | **1,464** | **500** | **1,418** | **500** | **1,351** |
| 1 | EUROBOND | USD | 500 | 1,550.7 | 500 | 1,464.5 | 500 | 1,417.6 | 500 | 1,351.0 |
| | **GUARANTEED** | | **1** | **4** | **1** | **4** | **1** | **3** | **1** | **3** |
| 1 | GERMANY (KfW) | EUR | 1.4 | 4.4 | 1.3 | 3.9 | 1.2 | 3.3 | 1.2 | 3.3 |

(MOF, 2023)

If we look at the table, it turns out that about 80% of the foreign debt comes from multilateral creditors, the volume share of the World Bank and the Asian Development Bank is

especially important, which are distinguished by the financing of various projects, as a rule, the role of such international financial companies is special for countries with transitional and less developed economies Of course, Georgia is also considered, which has difficulty in financing large investment projects, because it cannot finance large state and strategic investment projects, for example, construction of international highways, energy projects, etc., only with its own/budgetary revenues. Based on this, let's evaluate the purpose of funds received by international financial organizations (see table 2.2, figure 2.1).

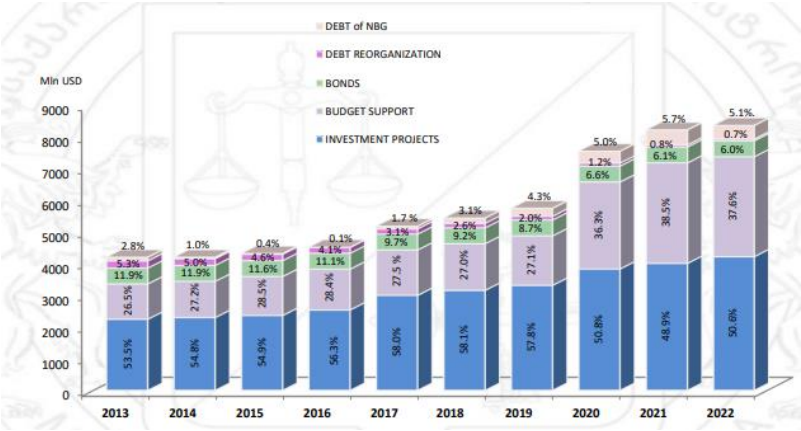
**Table 2.2 - Debt stock by purpose**

Million USD/GEL

| | 2020 | | 2021 | | 2022/1 | | 2022/2 | | 2022/3 | | 2022/4 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | USD | GEL | USD | GEL | USD | GEL | USD | GEL | USD | GEL | USD | GEL |
| EXTERNAL PUBLIC DEBT OF GEORGIA | 7,535 | 24,690 | 8,205 | 25,417 | 8,082 | 25,065 | 7,907 | 23,158 | 7,576 | 21,479 | 8,346 | 22,550 |
| BUDGET SUPPORT | 2,738.1 | 8,971.7 | 3,161.3 | 9,792.4 | 3,089.2 | 9,580.5 | 2,968.2 | 8,693.5 | 2,759.7 | 7,824.3 | 3,141.7 | 8,488.8 |
| INVESTMENT PROJECTS | 3,831.6 | 12,554.6 | 4,009.3 | 12,419.1 | 3,970.2 | 12,312.7 | 3,940.9 | 11,542.6 | 3,837.3 | 10,879.6 | 4,219.9 | 11,402.3 |
| DEBT REORGANIZATION | 92.4 | 302.9 | 66.6 | 206.4 | 60.3 | 186.9 | 60.2 | 176.3 | 56.9 | 161.4 | 55.5 | 149.9 |
| BONDS | 500.0 | 1,638.3 | 500.0 | 1,548.8 | 500.0 | 1,550.7 | 500.0 | 1,464.5 | 500.0 | 1,417.6 | 500.0 | 1,351.0 |
| DEBT of NBG | 373.0 | 1,222.3 | 468.2 | 1,450.2 | 462.4 | 1,434.1 | 437.5 | 1,281.4 | 421.7 | 1,195.7 | 428.5 | 1,157.9 |

(MOF, 2023)

As can be seen from the table and diagram, the main volume of foreign debt is loans supporting investment projects and its composition is 50.6%, and then there are loans supporting the budget, some part of which may also be indirectly related to local and/or foreign investments.




(MOF, 2023)

**Figure 2.1 - Debt stock by purpose**

Also, it should be noted that out of 21,914 million GEL of the 21,914 million GEL of the 2023 plan, 1,888 million GEL comes from donor financing, which mainly serves to finance capital expenditures. According to 2023, donor financing amounts to 8.61%, and according to previous years, it was up to 10% (see Table 2.3). (Donors also include international financial organizations).

At the municipal level, for example, the financing of the communal infrastructure of the city of Batumi is provided by KFW, and the explanatory card of the mentioned local budget has also been approved.

As can be seen from the table, according to the data of 2022, Georgia has signed loan agreements with international financial organizations in the total amount of 1,325 million US dollars, while it is clearly seen that the main part of the loans really supports investment projects and the budget, for example, the purpose of the loans can be easily read from the table , in particular, financing of road infrastructure by IBRD,

implementation of green investment in construction projects by EBRD, it is logical that within the framework of budget financing, a large part of these funds will be subject to investment projects according to the state spending part.

**Table 2.3 - State budget receipts, payments and changes in the balance**

| Name | 2022 plan | 2023 plan | between them | |
|---|---|---|---|---|
| | | | Budget funds | Donor funding |
| **inboxes** | **20,449,048.0** | **21,914,220.0** | **20,025,350.0** | **1,888,870.0** |
| revenues | 16,357,411.0 | 17,619,900.0 | 17,575,350.0 | 44,550.0 |
| Decrease in non-financial assets | 300,000.0 | 200,000.0 | 200,000.0 | 0.0 |
| Decrease in financial assets (excluding balance) | 150,000.0 | 450,000.0 | 450,000.0 | 0.0 |
| Increase in liabilities | 3,641,637.0 | 3,644,320.0 | 1,800,000.0 | 1,844,320.0 |
| **Payments** | **20,186,021.0** | **21,880,117.1** | **19,991,247.1** | **1,888,870.0** |
| expenses | 15,342,926.8 | 16,335,194.2 | 16,153,602.2 | 181,592.0 |
| Growth of non-financial assets | 3,269,486.2 | 3,881,309.9 | 2,619,131.9 | 1,262,178.0 |
| Increase in financial assets (excluding balance) | 486,650.0 | 445,100.0 | 0.0 | 445,100.0 |
| Decrease in liabilities | 1,086,958.0 | 1,218,513.0 | 1,218,513.0 | 0.0 |
| **Balance change** | **263,027.0** | **34,102.9** | **34,102.9** | **0.0** |

(Finance, 2023)

Often, international financial organizations appear as expert evaluators of the investment market, the same IMF and World Bank reports, on the example of specific cases, provide investors with basic ideas in the process of selecting and choosing investment markets, therefore, the cooperation of state structures with such organizations can play a transformative role in creating a favorable environment for attracting investments,

which indirectly by stimulating foreign investments. (finance, 2023)

**Table 2.4 - New External Loan Commitments Signed in 2022**

| Donor | Commitment date | Loan Currency | Loan Amount in USD * | Purpose | Maturity (Year) |
|---|---|---|---|---|---|
| FRANCE (AFD) | 28-01-22 | EUR | 33,584,881 | Budget Support | 20 |
| EBRD | 18-03-22 | EUR | 44,147,909 | Financing of Project (Green Investments in Buildings Project) | 15 |
| IBRD | 30-03-22 | EUR | 396,209,160 | Budget Support | 27 |
| IBRD | 30-03-22 | EUR | 107,976,666 | Financing of Project (Road Infrastructure) | 27 |
| NEFCO | 04-05-22 | EUR | 4,097,758 | Financing of Project (Rehabilitation & Energy Efficiency Improvements in Public Schools in Mountainous Regions) | 11 |
| IMF | 15-06-22 | SDR | 280,214,928 | BOP Support | 5 |
| GERMANY (KFW) | 29-06-22 | EUR | 42,323,425 | Financing of Project (Programme for Energy Efficiency in Public Buildings) | 15 |
| GERMANY (KFW) | 13-09-22 | EUR | 47,653,377 | Financing of Project (Sustainable Urban Mobility) | 15 |
| GERMANY (KFW) | 21-10-22 | EUR | 26,438,659 | Budget Support | 20 |
| FRANCE (AFD) | 01-11-22 | EUR | 59,574,115 | Budget Support | 20 |
| FRANCE (AFD) | 15-11-22 | EUR | 102,911,085 | Budget Support | 20 |
| ADB | 21-11-22 | EUR | 103,967,209 | Budget Support | 15 |
| GERMANY (KFW) | 07-12-22 | EUR | 55,643,804 | Financing of Project (Municipal Infrastructure Batumi-Phase V) | 15 |
| EIB | 22-12-22 | EUR | 21,231,705 | Financing of Project (Georgia-Zemo Samgori Irrigation Project) | 16 |
| | | | **1.325.974.681** | | |

** At the rate of signing date*

(MOF, 2023)

There is no doubt that international financial organizations have a direct and real impact on Georgia's economy and investment attraction, it stimulates the inflow of foreign investments and ensures the implementation of important economic and monetary policy reforms for sustainable development, which makes it the most important object of economic development and stability of Georgia.

**Conclusion**. Despite the uniform practice, it should be noted the positive effects and functions of the IMF. It is particularly noteworthy that the IMF and the World Bank Group

have been playing an active role for about 80 years, both in conducting the monetary policy of specific countries and in providing low-interest loans to the states. Such organizations also play a special role in carrying out economic and financial reforms. The decisions made by such organizations were important in the conditions of the Kovid-19 pandemic and the Russia-Ukrainian conflict and in general during the financial crises that existed and exist in the world, at such times international financial organizations developed additional financing mechanisms and deferred loans. The role of international financial organizations is also special for Georgia. The IMF and other international financial organizations play an important role in stimulating the economy of Georgia. Most of the loans are directed to infrastructural and budget supporting loans. Accordingly, the financing of large-scale infrastructure projects in Georgia is carried out at the expense of loans, and of course, the increase in such expenses will affect the volume of GDP and the level of employment of the population. In addition, the results of the financed projects will be more effective for the state and the population in the future. At the modern stage, the IMF pursues a relatively open governance policy, and the characteristics of the states are taken into account when conducting the monetary policy, because in the background of the crises of the past years, the operation of the Fund was not open to such governance. It should be said about the practice of Georgia as well. Georgia does not have bad practices in terms of debt management. As of 2022, the amount of debt is within 41.3% of GDP. In addition, it remains a challenge for Georgia to effectively implement the projects financed by international financial organizations within the established deadlines, because it is difficult to talk about the effectiveness of projects that have been extended over time. In addition, it is important for Georgia to receive more loans from such organizations for financing

more infrastructural and necessary economic projects or reforms.

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3. Bernasconi-Osterwalder, N. (2020, May 28). Inclusion of Investor Obligations and Corporate Accountability Provisions in Investment Agreements. *Handbook of International Investment Law and Policy*, pp. 1-20.

4. Finance, M. o. (2023, 05 11). *2023 year fiscal budget of Georgia.* Retrieved from mof.ge: https://www.mof.ge/5603

5. finance, M. o. (2023, 05 12). *capital expenditure of 2023 year fiscla budget.* Retrieved from mof.ge: https://www.mof.ge/5603

6. IMF. (2023, 05 11). *IMF*. Retrieved from working together: Vietnam and IMf: https://www.imf.org/en/About

7. Lartey, T., & Danso, A. (2020, October 3). Globalization, free markets and investor protection. *Economics and Business Letters*, pp. 1-3.

8. MOF. (2023, 05 11). *public debt of Georgia, statistical bulletin N19.* Retrieved from ministery of finance: https://www.mof.ge/images/File/2023/biuletenebi/30-03-2023/N19_ENG.pdf

## 2.2. SPECIAL ASPECTS OF THE PUBLIC DEBT SERVICING IN UKRAINE

The economic security of Ukraine depends on the efficiency of the management of the public debt. Overcoming the economic difficulties and instability in the country's economy requires addressing key issues. One of them is to ensure proper public debt management and an effective debt policy. At the same time, in order to achieve the main objectives, it may be necessary to raise significant funds in the form of loans, which constitute public debt.

Therefore, there is a need to study the theoretical foundations and the practical formation and use of public debt, to identify priority areas for improving public debt management and to develop a scientifically sound national debt strategy.

A key element in the system of strategic priorities for the implementation of the state policy in the area of public debt is to ensure the competitiveness of the national economy and its sustainable growth. At the same time, it makes it possible to ensure Ukraine's socio-economic growth, which is impossible without efficient and effective public debt management.

It should be noted that the existence of public debt is an integral part of the development of any country and its financial system. On the other hand, large amounts of debt and increased debt servicing and repayment costs may lead to a sharp decline in financial independence and an increase in the level of Ukraine's debt vulnerability.

The country's ability to identify clear and effective sources of financing for the budget deficit in a timely manner is undoubtedly a positive trend that affects the level of debt. One of the main indicators of a country's financial stability is the timeliness and fulfilment of its financial obligations to repay

and service public debt in full. This allows the government to acquire the status of a reliable borrower and leads to an improvement in its investment attractiveness and a positive impact on its business image.

This issue has been the object of academic debate for many years. However, in contrast to various economic studies in the past, current theories of public debt have evolved considerably. However, in all modern concepts, public debt is often linked to macroeconomic regulatory policies. It is seen as a source of additional financial resources or as a factor of macroeconomic stabilisation[43,44]

In view of this, the causal relationship between macroeconomic policy and public debt has its own specific features in each historical period. The theory of public debt has developed gradually, incorporating the views of economists from different schools of thought. Classical English political economy, for example, was categorical about public borrowing.

A classic of the British school of economics, A. Smith, noted that "nations, like individuals, began to borrow against their personal credit and did not create any special fund to secure the payment of the debt. They resorted to loans secured by special funds when this method failed"[45].

At the present stage, the global economic system is increasingly dependent on international financial capital, which is becoming a determining factor in its resource allocation system. When the state uses external borrowing due to lack of

[43] Lyuty O. I. State credit and debt policy of Ukraine: monograph / O. I. Lyuty, N. V. Zarzhevska, O. D. Rozhko. K.: TsNL, 2008. 352 p.

[44] Slav'yuk N. R. External state borrowing and economic development of the country. Kyiv: NaUKMA, 2019. 172 p.

[45] History of economic students: Study guide / P. I. Yukhymenko, P. M. K. Leonenko: Znannia-Press, 2005.583 p.

its own financial resources needed for domestic investment, covering the state budget deficit, social and economic reforms and meeting debt obligations[46]

At the beginning of the sixteenth century, this concept was first used by mercantilists in its modern sense and positively assessed the inflow of financial resources into the national economy. The main source of income was considered to be credit financing[47].

The mercantilists were opposed by the physiocrats. For them, agriculture was the source of wealth for the state and the people. In their view, an increase in foreign debt would divert resources from the main productive sectors of the economy[4].

According to Art. 2 of the Budgetary Code of Ukraine, "Public debt is the total amount of debt obligations of the state to repay received and outstanding loans (credits) as of the balance sheet date arising from public borrowing"[48].

Modern scholars define different interpretations of the nature of "public debt". In particular, according to I.O. Liutyi, this concept is defined "as the state's debt on foreign loans and unpaid interest thereon"[1]. The same vision is shared by Makohon Y.V., who defines it as "debt obligations to residents and non-residents of the state to repay borrowed funds (principal) and interest thereon"[49].

Yuriy S.I. and Fedosov V.M. give the following definition "Public debt is the sum of all issued and outstanding debt obligations of the state to domestic and foreign creditors,

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[46] Customs encyclopedia: in 2 volumes/I. H. Berezhnyuk (rep. ed.) and others. Chm.: PP Melnyk A. A., 2013. Vol. 2: M. Ya. 536 p.

[47] Mercantilism. Ukrainian small encyclopedia: 16 books: in 8 volumes / prof. E. Onatsky. Buenos Aires, 1961. Vol. 4, book. VIII: Letters of MeNa. p. 962.

[48] Finance: Textbook / Ed. SI. Yuriy, V.M. Fedosova K.: Znannia, 2008. 611 p.

[49] Makogon Yu. V., Pakhomova O. A. External debt of Ukraine at the current stage of the economic crisis. Economic bulletin of NTUU "KPI": a collection of scientific papers. 2016. No. 13. P. 108.

as well as interest on them (including guarantees for loans granted by foreign borrowers to state-owned enterprises)"[6].

Scholars such as Artus M.M. and Khyzha N.M. define it as "the amount of debt obligations arising from the state's borrowing on the domestic and foreign markets of the state"[50]

According to O.I. Baranovsky, "the debt policy of the state should be implemented taking into account the situation in the field of obtaining, using, servicing and repaying all types of loans". According to him, the policy of public borrowing is a key component of the financial policy of the state and the directions of its improvement[51].

N. R. Slaviuk notes that "in world practice, the classification of public borrowing as external is determined in three ways. The first is based on the currency in which the public borrowing is made". The second is officially accepted by many compilers of official statistics, in particular by the International Monetary Fund (IMF) in "Public Debt Statistics: A Guide for Authors and Users" and is based on the residence of the creditor. The third definition is based on the place of issue and the legislation governing the debt contract[2].

After analysing and summarising the different views of scholars, a general definition can be given: "A country's public debt is, on the one hand, the sum of its debt obligations incurred as a result of borrowing on the domestic and foreign markets; on the other hand, those incurred in the course of economic relations between the State, foreign citizens, governments and international financial organisations

[50] Artus M.M., Khizha N.M. The budget system of Ukraine. Study guide / K.: Evrp edition. university, 2005. 220 p.

[51] Baranovsky O.I. Financial security in Ukraine (assessment methodology and security mechanisms): monograph. K.: KNEU, 2004. 759 p.

(IFOs)"[52]. The impact of external borrowing was studied by E. Borenstein, who used economic and mathematical modelling methods to prove the existence of a negative impact of the debt burden on domestic investment and economic growth of the state due to the use or increase of external borrowing[53].

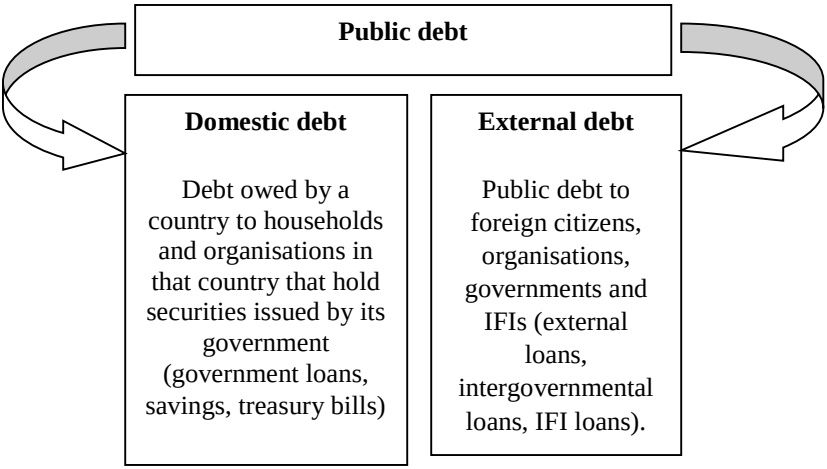


**Figure 2.5 - Classification of public debt by sources of financial resources[54]**

C. Burnside and Dollar believe that attracting foreign loans will have a rather positive impact on the relevant economic processes in the country only if an effective macroeconomic policy is implemented at the same time. The

[52] N. Khrushch. Ensuring the stability of public finances in the conditions of socio-economic instability / N. Khrushch, L. Nyanko // Bulletin of the Khmelnytskyi National University. Economic sciences. 2023. № 2. pp. 59-64.

[53] Borenstein E. Debt Overhang, Credit Rationing and Investment. Journal of Development Economics. 1990. Vol. 32, No. 2. P. 315-335.

[54] Fedorov V. A. Debt function of the modern state: monograph. Odesa: "Helvetika" Publishing House, 2017. 176 p.

researchers proved their hypothesis using mathematical methods[55].

Depending on the system of borrowing, public debt is divided into domestic and external debt. The structure of public debt is shown in Fig. 2.5.

The main components of debt (internal and external) are shown in Figure 2. It should be noted that public debt has an impact on the government budget, both directly and indirectly, as it is an integral part of public finances. On the other hand, it affects the monetary and currency system, inflation, foreign investment, etc.[56].

The economic essence of public debt is manifested in its inherent functions. Function (from the Latin functio - performance, realisation) is an external manifestation of the properties of an object in a given system of relations[57].

The academic literature distinguishes between fiscal and regulatory functions of government debt.

1. The fiscal function is the raising by the state of the necessary funds for the financing of public expenditure[58].

2. The regulatory function is the adjustment of the money supply through the mechanism of buying and selling government securities by the country's central bank[18].

3. The monetary and financial function is the replenishment of international currency reserves through external borrowing[59].

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[55] Burnsode C., Dollar D. Aid, Policies and Growth. American Economic Review. 2000. No. 90. P. 847-868.

[56] Kozyuk V. V. Public debt in the conditions of market transformation of the economy of Ukraine. Ternopil State. Technical University named after Ivan Pulyuy. T.: Mole blanche, 2002. 238 p.

[57] McConnell R., Brew S. Analytical Economics: Principles, Issues, and Policy. Part 1. Macroeconomics / translated from English. Lviv: Prosvita, 1997. 672 p.

[58] Kornev V. Debt paradoxes and benchmarks of state borrowing. Ukraine economy. 2000. No. 6. P. 30–37.

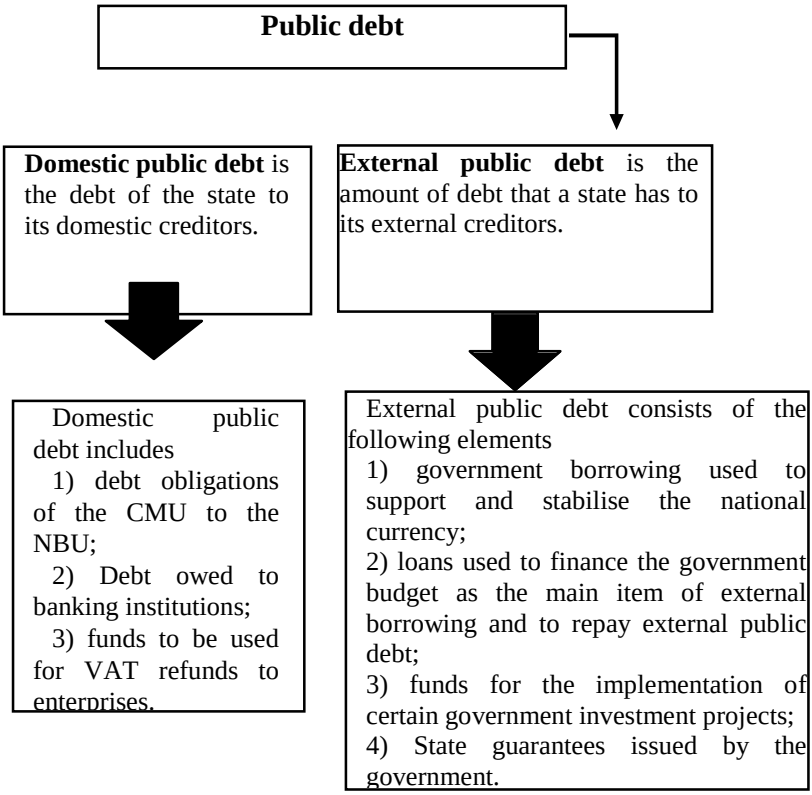



**Figure 2.6 - Main components of external and internal public debt**

***Source:*** *compiled by the author based on*[60,61]

[59] Vakhnenko T. P. State debt of Ukraine and its economic consequences. K.: Alterpress, 2000. 152 p.

[60] Lyuty O. I. State credit and debt policy of Ukraine: monograph / O. I. Lyuty, N. V. Zarzhevska, O. D. Rozhko. K.: TsNL, 2008. 352 p.

[61] Slav'yuk N. R. External state borrowing and economic development of the country. Kyiv: NaUKMA, 2019. 172 p.

4. The redistributive function is the redistribution of capital between the private and public sectors and the redistribution of capital between financial market sectors[19].

5. The function of economic stabilisation is to influence macroeconomic parameters through government measures. These measures are financed by state loans. The policy of stimulating the economy with the help of the deficit is possible if its actual level does not exceed 1-2% of GDP. The growth of public debt and interest payments negatively affects the economic situation and can lead to a financial crisis[62]

6. The function of optimal resource allocation is to use public debt as a lever of distributional influence. Public debt is a means of distributing the wealth of future generations, who will pay through taxes for the projects and programmes of the present, financed by public borrowing. Public debt is the result of the lack of resources needed by the state to carry out its functions, including economic regulation, social policy, ensuring the country's defence capability, maintaining the prison system and international activities. As a result, the State is forced to mobilise additional financial resources to cover the expenditure required to ensure its operation and fulfil its functions.

According to the Budgetary Code of Ukraine, public debt has the following classification features: by type of creditor and by type of debt obligation [14]. At the same time, according to V. Kucher, it is advisable to determine the factors influencing the efficiency of public borrowing[63] (Figure 2.7).

[62] Dudchenko V. State debt as an object of regulation. URL: https://biem.sumdu.edu.ua/images/stories/docs/K_ME/Dudchenko_5.pdf

[63] Kucher H. V. Effectiveness of the public debt management system in Ukraine. Finances of Ukraine. 2012. No. 6. pp. 44-57.

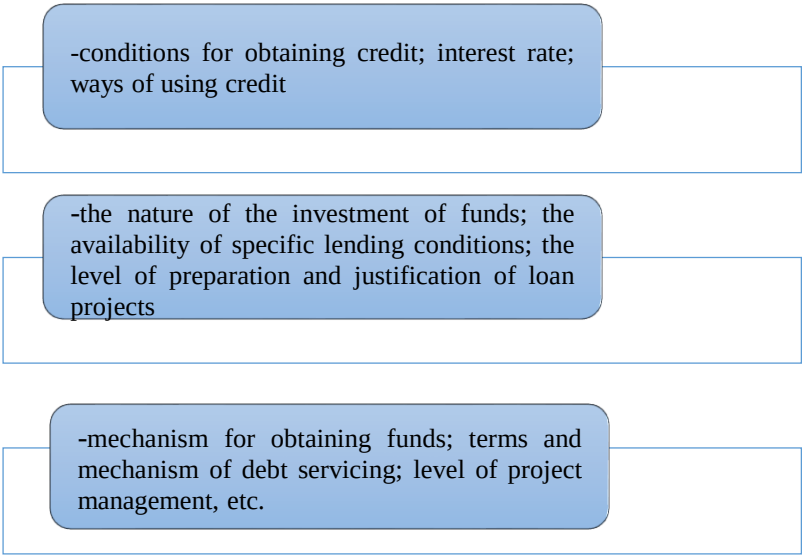



**Figure 2.7 - Key factors influencing the level of public borrowing**

***Source:*** *compiled by the author based on* [21]

In order to get a deeper insight into the causes of public debt, it is advisable to identify the factors influencing its formation.

Thus, N.V. Zrazhevska divides the factors influencing the emergence and growth of public debt into the following groups[64]:

- fundamental - a systematic impact on the whole set of financial flows of the state budget or a significant part of them (persistent budget imbalance, changes in the political situation

[64] External public debt in the financial system of Ukraine: autoref. Dis... Cand. economy Sciences: 08.04.01/ Nataliya Viktorivna Zrazhevska; Kyiv National University named after Taras Shevchenko. K., 2006. 20 p.

in the country, dynamics of the main macroeconomic indicators);

- local - systematic impact on a small group of usually interdependent financial flows of the state budget (price dynamics of key exported goods, changes in tax rates, exchange rate policy of the state, etc.); and

- random - the nature of their impact on the financial flows of the state budget is unstable and often unpredictable, as well as phenomena whose impact on the state budget is irregular. Domestic public debt are shown in Figure 2.8.

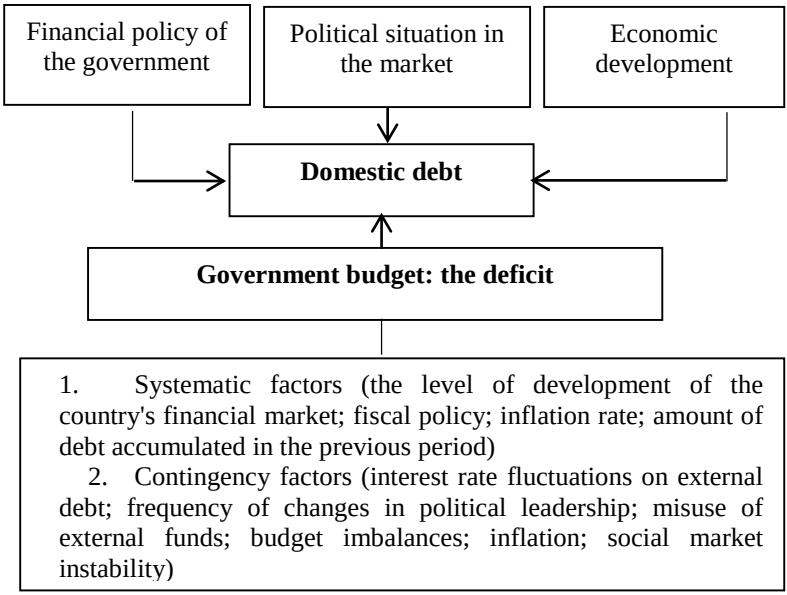



**Figure 2.8 - Factors influencing the amount and structure of domestic public debt**

***Source:*** *compiled by the author based on*[65]

[65] Regional transformations in world and Ukrainian dimensions: a monograph / M. Bogdanova, K. Borsekova, V. O. Brigadyr [and others] for science. ed. A. I. Krysovaty, E. V. Saveliev. Ternopil: TNEU, 2016. 388 p.

V. V. Panchenko believes that the factors of public debt formation can be divided into external and internal ones[66]:

- internal - need to issue national currency, need foreign currency for settlements, regulating exchange rate;
- external - the imposition of loans to other countries and international financial organisations.

The factors that influence the amount and structure of domestic public debt are shown in Figure 4.

It is quite obvious that there are a number of factors that influence the size and structure of external public debt. They are presented in Fig. 2.9.

In general, we can distinguish between objective and subjective factors in the formation of external public debt. The former include an unfavourable investment climate, a negative trade balance, a transformation of the composition of production and a narrowing of the tax base on this basis, an insufficient level of modernisation of the technological base and physical depreciation of fixed capital, slower rates of expanded reproduction, etc.

Subjective factors are formed and based on situational miscalculations regarding the tactics of reform implementation and the actual absence of a strategy in the field of financial market development[67]

[66] Panchenko V.V. The essence and factors of the formation of external public debt. Economic space. 2014. No. 88. pp. 5–17.

[67] Slav'yuk N. R. State debt of Ukraine: trends and consequences. Scientific notes of NaUKMA. 2018. Economic Sciences, 3(1), pp. 101–106.

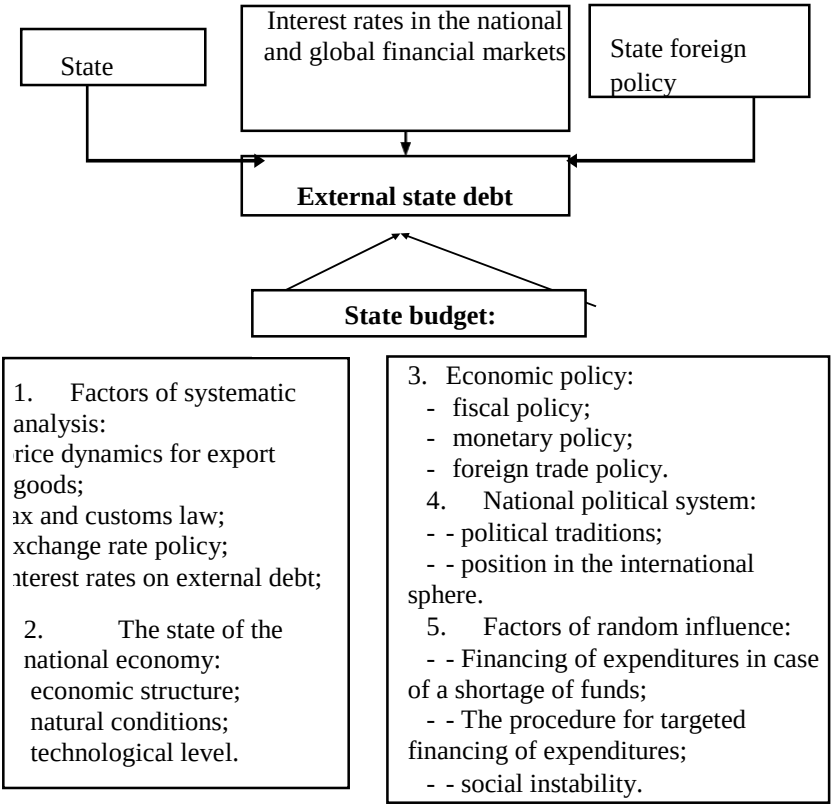



**Figure 2.9 - Factors influencing the size and structure of external public debt**

***Source:*** *compiled by the author based on*[68,69,70]

[68] Slav'yuk N. R. External state borrowing and economic development of the country. Kyiv: NaUKMA, 2019. 172 p

[69] Budget Code of Ukraine dated July 8, 2010 No.2456-VI as amended. URL: http://zakon4.rada.gov.ua/laws/show/2456-17

[70] O. Romankova. Study of the current state and structure of the state debt of Ukraine. Economy and society. 2021. Issue 25

As foreign experience shows, there are a number of methodological approaches, principles and objectives for external debt management policies. The most important ones are shown in figure 2.10.

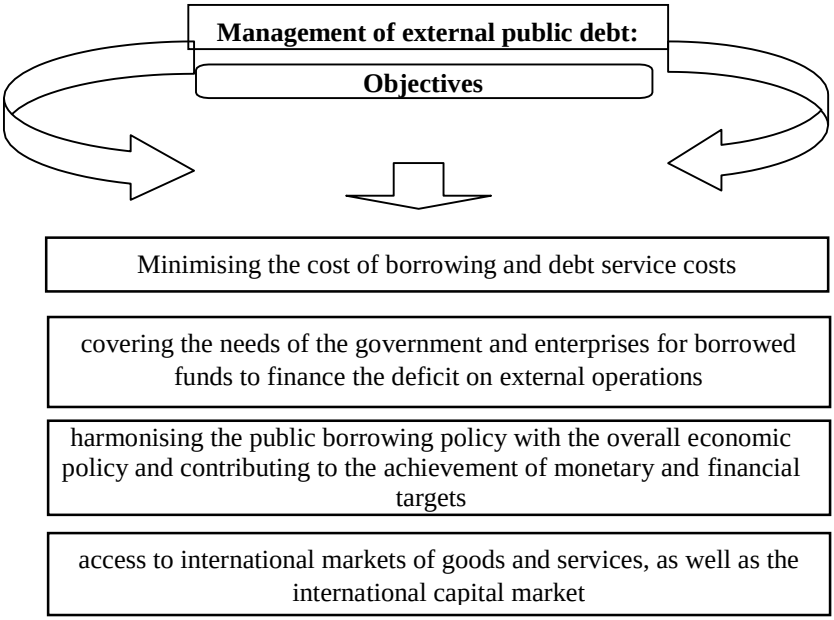



**Figure 2.10 - Target orientations of the public debt management policy***

***Source:*** *compiled by the author based on* [71]

Taking into account the works of leading domestic and foreign scholars, we note that the standard methodology for assessing a country's debt sustainability consists of the following stages (Figure 2.11):

[71] Yermolenko O. A., Kokovikhina O. O., Lysyonkova N. M. Debt sustainability of Ukraine: theoretical and practical components. Economic space. No. 185. 2023. pp. 32-36. URL: http://prostir.pdaba.dp.ua/index.php/journal/article/view/1262/1215

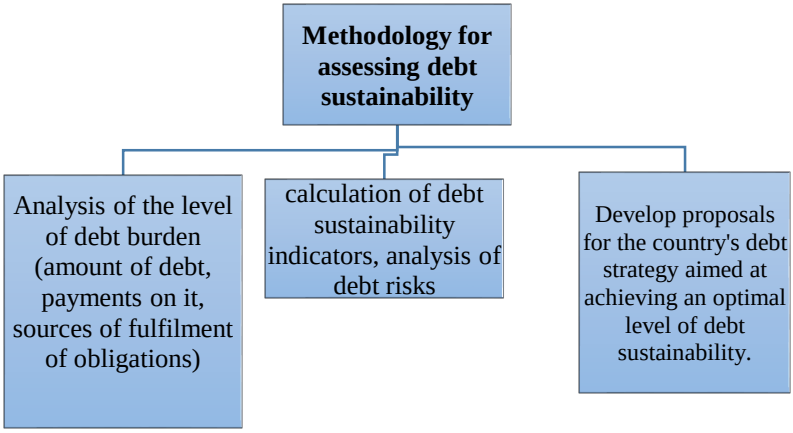



**Figure 2.11 - Methodology for assessing debt sustainability**

***Source:*** *compiled by the author based on*[72]

As a result of the significant increase in public debt, it is necessary to develop reasonable approaches to the formation of an optimal debt burden in Ukraine. Turning to foreign experience, we note that a fairly common methodological approach and practical tools used to assess debt sustainability are the use and calculation of debt security indicators. The most important ones are shown in Figure 2.12.

The system of these indicators is a tool for assessing the ability of a country's financial system to meet its debt obligations without requiring debt relief or accumulation. Their threshold values are the so-called ‘cut-off points’ that serve to identify potential threats.

[72] Slav'yuk N. R. State debt of Ukraine: trends and consequences. Scientific notes of NaUKMA. 2018. Economic Sciences, 3(1), pp. 101–106.

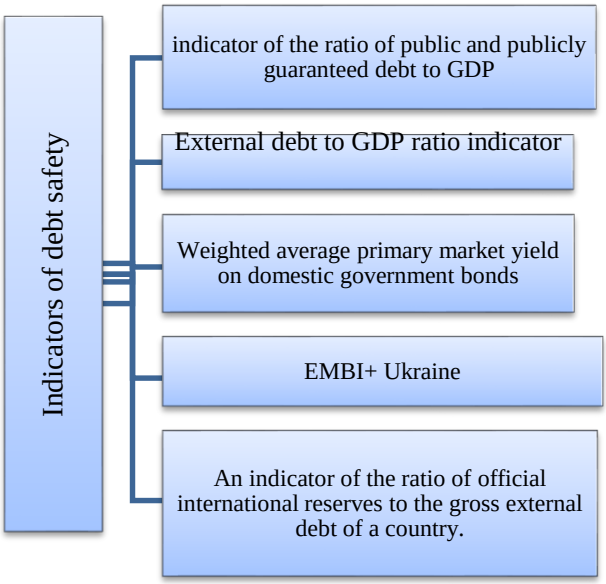



**Figure 2.12 - Indicators of debt safety**
***Source:*** *compiled by the author based on*[73]

As can be seen from Figure 8, the debt security indicators include the following[74]:

1. the indicator of the ratio of public and publicly guaranteed debt to GDP - the current legislation stipulates that the critical level of the debt to GDP ratio should not exceed 60% (in line with international practice);

2. the indicator of the ratio of external debt to GDP (the optimal value for this indicator is 40% and the critical value is

[73] Kolyada T. A., Bench L. Ya., Rybina N. D. Borgova, a component of ensuring the stability of public finances of Ukraine: state and development trends. Business Inform. 2021. No. 7. pp. 178-186.

[74] Shylo Zh. S. Analysis and assessment of indicators of state debt security in the context of financial and economic security management. Bulletin of the NUVHP. Series "Economic Sciences". 2020. Issue 1(89). pp. 219-229.

70%);

3. the weighted average yield on domestic government bonds in the primary market;

4. EMBI + Ukraine index (data for this index have not been calculated since 2014, as it is currently impossible to assess the impact of the integrated debt securities indicator for Ukraine);

5. indicator of the ratio of official international reserves to gross external debt (the optimal value of the indicator is 50% and the critical value is 20%).

Thus, in view of the above, we note that public debt is a set of debt obligations of the state that arose as a result of the state's borrowing on the foreign and domestic markets. They arose in the course of economic relations between the state, non-residents, business entities, governments of other states and IFIs. At the same time, it is an indisputable part of public finances, which is formed under the influence of both subjective and objective factors and directly affects various economic processes of the present and the prospects of future generations.

In the current conditions of organisation of economic relations, an important aspect of the state's financial policy is its ability to ensure the main directions of current and strategic development. In this regard, the level of provision of financial resources accumulated through the state budget is important. The effectiveness of the state budget policy is characterised by such indicators as revenues, expenditures, deficit and public debt.

The revenues of the state budget of Ukraine directly depend on the efficiency of the use of fiscal instruments and their further allocation. The most significant indicator of the effectiveness of the budget policy is the level of the state

budget deficit. The dynamics of the state budget deficit in Ukraine is shown in Figure 2.13.

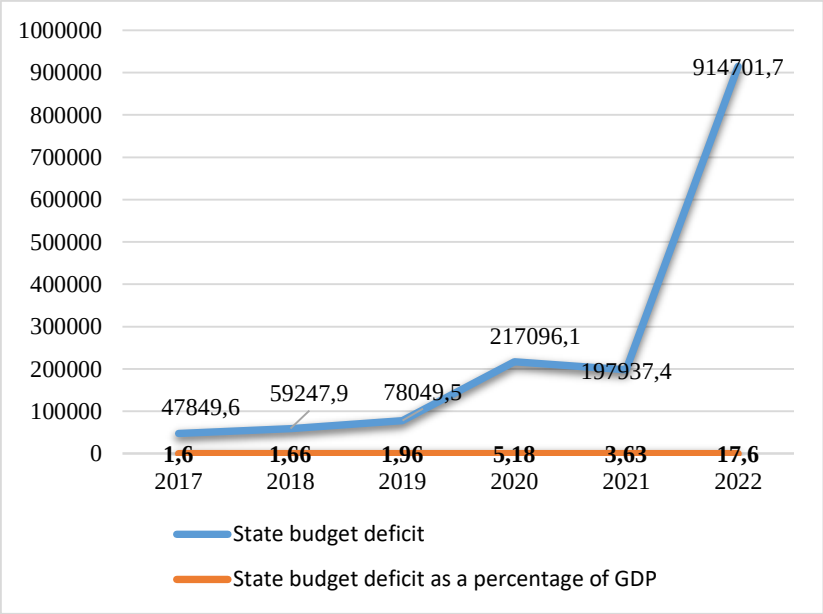



**Figure 2.13. Dynamics of the state budget deficit in Ukraine from 2017 to 2022**

***Source:*** *compiled by the author based on*[75][76]

Since 2017, the level of the state budget deficit of Ukraine has been growing annually, with a relative increase of 453% in 2017-2020 (absolute value of UAH 169246.5 million). During 2020-2021, the state budget deficit of Ukraine decreased by UAH 19158.7 million and amounted to UAH

[75] Official website of the Ministry of Finance of Ukraine. URL: https://mof.gov.ua/uk/borgova-politika

[76] State budget of Ukraine. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/budget/gov/

197937.4 million. However, already in 2021, the budget deficit reached UAH 914701.7 million.

The growth of the state budget deficit is due to objective and subjective factors. Given the negative dynamics of Ukraine's state budget deficit in the pre-war period, the following factors are worth noting:

- inefficient budget policy
- imperfection of the existing taxation system
- insufficient level of economic development
- consequences of the COVID 19 pandemic
- increased spending on education and social protection
- cyclical fluctuations in the economy, etc.[77].

In this case, the share of the state budget deficit in the value of the gross domestic product (GDP) is indicative. In 2017-2020, the deficit grew as a percentage of GDP, which indicates not only the deficit of the state budget of Ukraine, but also the insufficient growth of GDP in nominal terms.

The state budget deficit prompts the search for sources to cover it. The most common source of additional financing of budget expenditures is debt financial assets accumulated by the state in the domestic and foreign markets through the issuance of debt securities. As a result, public debt is formed within the state budget, with residents and non-residents acting as potential creditors. The dynamics of Ukraine's public debt is shown in Table 2.5.

In the total volume of debt assets, the largest is the external public debt. The main borrowers in this case are the International Monetary Fund, the European Bank for

[77] Stefan L.B. Analysis of the budget deficit in Ukraine and its social and economic consequences. Economy and society. 2022. Issue 41. URL:https://www.economyandsociety.in.ua/index.php/journal/article/download/1573/1514

Reconstruction and Development, governments and foreign banking institutions.

**Table 2.5 - Debt burden of the state budget of Ukraine 2017 - 2022, billion UAH**

| **Indicators** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | Absolute deviation |
|---|---|---|---|---|---|---|---|---|
| Public debt, including: | 1650,8 | 1833,7 | 1860,5 | 1761,4 | 2259,2 | 2362,5 | 3715,1 | 2064,3 |
| external | 980,2 | 1080,3 | 1099,4 | 931,9 | 1258,5 | 1299,9 | 2325,4 | 1345,2 |
| domestic | 670,6 | 753,4 | 761,1 | 829,5 | 1000,7 | 1062,6 | 1389,7 | 719,1 |
| Government-guaranteed debt, incl: | 278,9 | 308,0 | 308,1 | 237,0 | 292,7 | 309,3 | 356,6 | 77,2 |
| external | 259,8 | 294,7 | 297,8 | 227,3 | 260,4 | 260,3 | 285,5 | 25,7 |
| internal | 19,1 | 13,3 | 10,3 | 9,6 | 32,3 | 49,0 | 71,1 | 52 |
| Total amount of public debt | 1929,7 | 2141,7 | 2168,6 | 1998,3 | 2551,9 | 2671,8 | 4071,7 | 2142 |

***Source:*** *compiled by the author based on*[78] [79]

The structure of the state's debt assets is divided into public debt and guaranteed public debt. The Government of Ukraine is the principal spending unit for public debt. Debt assets are used in full for specific purposes or current financing of public needs. For further research, it is relevant to consider the structure of Ukraine's public debt (Figure 10). In the total amount of public debt, other than guaranteed, there is a positive trend in the growth of external debt financing. Between 2017 and 2022, the external public debt increased by UAH 1345.2 billion, meaning that external financing increased by 2.4 times compared to the initial period of analysis. This situation was caused by the following factors:

[78] Annual reports on the implementation of the Consolidated Budget of Ukraine for 2016-2021 State Treasury Service of Ukraine. URL: https://www.treasury.gov.ua/ua

[79] State and state-guaranteed debt of Ukraine in 2022. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/debtgov/2022/

1. sources of external financing (creditors) have greater financial potential;

2. external financing allows attracting credit resources for specific purposes of state development. For Ukraine, this is manifested in the form of financing the main areas of preparation for European integration and bringing domestic standards in line with European norms. In addition, the Government has attracted significant amounts of funding to combat the coronavirus infection;

3. external debt assets are provided in foreign currencies, which are more significant compared to the domestic exchange rate, etc.

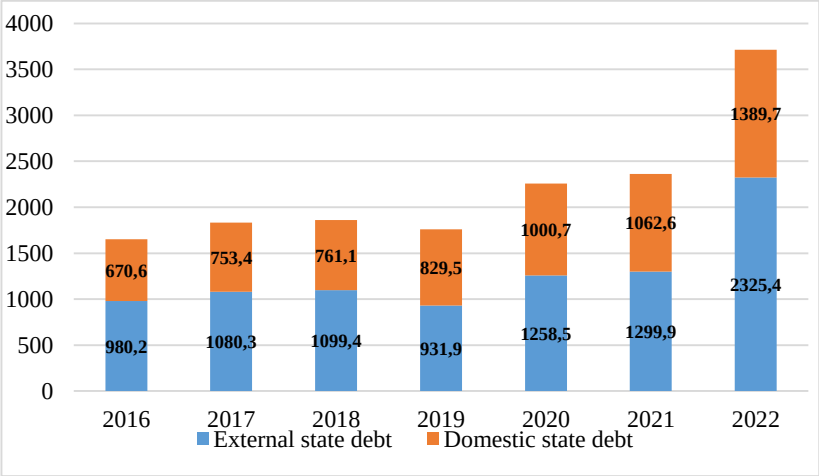



**Figure 2.14 - Structure of Ukraine's public debt excluding guaranteed debt, UAH billion**

***Source:*** *compiled by the author based on*[80,81]

[80] Annual reports on the implementation of the Consolidated Budget of Ukraine for 2016-2021 State Treasury Service of Ukraine. URL: https://www.treasury.gov.ua/ua

[81] State and state-guaranteed debt of Ukraine in 2022. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/debtgov/2022/

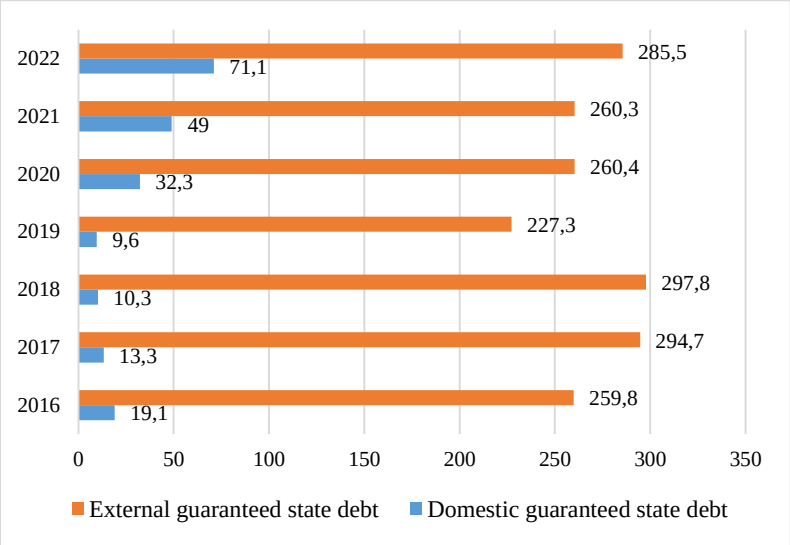
The global practice of debt formation shows a tendency to increase the volume of domestic debt assets. Thus, during the period under review, the volume of domestic public debt increased. From 2016 to 2019, the volume of domestic debt financing increased by UAH 158.9 billion. Despite the decline in economic activity in 2019, the volume of public debt increased by 1.3 times from 2019 to 2021 (in monetary terms, this increase amounted to UAH 233.1 billion).

The hostilities have affected the structure of the guaranteed public debt. The peculiarity of this debt obligation is that the user of debt resources is a public or private institution that has received a loan. An exception to the rule is local governments, which cannot raise debt resources with the help of guaranteed public debt. In case of default on the loan agreement, the government is liable for the amount of the debt. The low growth rate of the guaranteed public debt compared to the public debt is explained by the more complex mechanism of attracting financial resources and the existence of risks of default on debt obligations. The dynamics of Ukraine's guaranteed public debt is shown in Figure 11.

External guaranteed public debt is characterised by uneven growth rates. From 2016 to 2018, the total increase was UAH 38 billion. In 2019, the amount of external publicly guaranteed debt was the lowest compared to the entire study period, amounting to UAH 227.3 billion. From 2019 to 2022, the amount of external publicly guaranteed debt grew annually, but as of 2022, it stopped at a level lower than in 2017-2019.

Domestic publicly guaranteed debt is smaller in volume and has a lower growth rate compared to external debt. In 2022, external publicly guaranteed debt will be four times higher than the amount of domestic debt. For a thorough analysis, there is a lack of analytical information on the areas of spending the borrowed funds guaranteed by the state.

However, despite this, it is worth noting the negative trends in the rate of growth of Ukraine's debt obligations and their




volume.

**Figure 2.15 - Structure of guaranteed state debt from 2016 to 2022**

***Source:*** *compiled by the author based on*[82,83]

The growth in the volume of debt on the domestic market suggests that the yield on debt securities sold on the domestic market is high enough for a potential investor. To prove this hypothesis, it is worth comparing the yields on domestic government bonds and the lending rate as of 2023 (Table 2.6). The main source of domestic public debt is government securities traded on the stock market within the country.

[82] Annual reports on the implementation of the Consolidated Budget of Ukraine for 2016-2021 State Treasury Service of Ukraine. URL: https://www.treasury.gov.ua/ua

[83] State and state-guaranteed debt of Ukraine in 2022. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/debtgov/2022/

Among these debt securities, the main place belongs to domestic government bonds (OVDPs). Zamkova N., Hnydiuk I. note that the growth of domestic public debt is due to the high yield of domestic government bonds in the primary market. As a result, there is a crowding-out effect, according to which financial and credit institutions prefer to invest in this type of securities, while reducing the level of lending to the real sector of the country's economy[84].

**Table 2.6 - Comparing domestic government bond yields and borrowing rates to 2023**

| Period | Weighted average yield of bonds denominated in hryvnia on the primary market, in % | | Weighted average interest rates on new loans to non-financial corporations, %. | |
|---|---|---|---|---|
| | **2022** | **2023** | **2022** | **2023** |
| January | 12,06 | 18,64 | - | 17,2 |
| February | 11,62 | 19,11 | - | 17,1 |
| March | 10,96 | 19,47 | - | 17,2 |
| April | 10,92 | 19,27 | - | 18,4 |
| May | 1075 | 19,31 | - | 18,5 |
| June | 22,57 | 18,91 | 15,6 | 17,3 |
| July | 23,06 | 19,04 | 15,2 | - |
| August | 22,84 | - | 16,3 | - |
| September | 24,69 | - | 16,0 | - |
| October | 23,03 | - | 16,5 | - |
| November | 20,72 | - | 17,1 | - |
| December | 20,84 | - | 16,6 | - |

***Source:*** *compiled by the author based on*[85, 86]

[84] Zamkova, N., Hnydyuk, I. Public debt of Ukraine during the large-scale crisis. Scientia Fructuosa (Bulletin of Kyiv National University of Trade and Economics). 2022. 144 (4). pp. 110–121.

[85] State and state-guaranteed debt of Ukraine in 2022. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/debtgov/2022/

In addition to the obvious yield of domestic government bonds in the primary market, an equally important factor in this case is the low default rate on this type of securities. In other words, domestic government bonds can be considered a stable and reliable investment that allows you to preserve your available capital with minimal risks compared to lending. In this regard, we can highlight the advantages that debt securities have in the domestic market compared to credit transactions:

1. Low probability of default, as the issuer of the securities is the state.

2. Accessibility, i.e., closer to individuals. Individuals can purchase military government loan bonds through the Diia app.

3. Interest received from transactions with this type of securities is not subject to personal income tax and military duty.

4. Bonds can be sold at any time on the secondary securities market. Unlike domestic government bonds, a deposit cannot always be closed early without losing income.

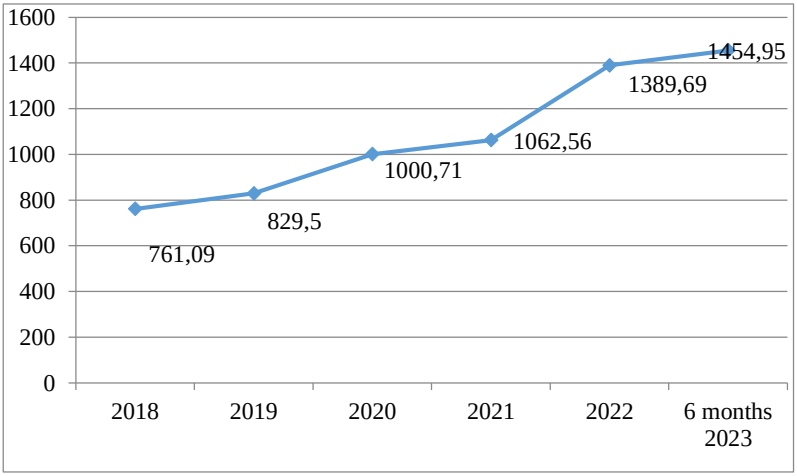
5. The state guarantees 100% payment on securities. In the event of a bankruptcy of a banking institution, the deposit guarantee fund reimburses deposits only up to UAH 200,000.

The above advantages led to an increase in the volume of domestic public debt, which was mostly driven by securities sold on the domestic market (Figure 2.16).

The current growth in public debt is driven by the needs of martial law in Ukraine. In view of this, an important step in the further development of the state is to improve the processes of public debt management and servicing in the medium term.

[86] Zamkova, N., Hnydyuk, I. Public debt of Ukraine during the large-scale crisis. Scientia Fructuosa (Bulletin of Kyiv National University of Trade and Economics). 2022. 144 (4). pp. 110–121.

Public debt affects all spheres of public life. Its growth leads to negative processes that are subsequently reflected in the country's development. That is why the processes of managing and servicing public debt are an important stage of




debt policy.

**Figure 2.16 - Dynamics of the growth of domestic public debt in Ukraine, in UAH billion**

***Source**: compiled by the author based on*[87]

State debt management is an integral part of the financial policy of developed market economies. One of the most important criteria for public debt management is the determination of its acceptable level. Traditionally, such limits are set in accordance with the Stability and Growth Pact, which sets the public debt limit at 60% of GDP. It should be noted that governments may not comply with this standard due to economic or legal factors.

[87] State budget of Ukraine. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/budget/gov/

C. Cecchetti, M. Kaner, and T. Grennes in their studies found that the maximum percentage of the ratio of public debt to gross domestic product for the vast majority of countries should be 77%. However, the correlation that exists between economic growth and public debt varies depending on the time periods and the country in which the study is conducted[88].

Given the military operations on the territory of Ukraine, the government is actively acquiring debt assets to finance current expenditure and ensure the continuous provision of military needs. In 2022, the public debt-to-GDP ratio exceeds the thresholds and reaches 71.6% (Figure 13). To manage public debt, the IMF's rule of thumb should be applied: 'the risk premium (yield) increases by four basis points for each percentage point of public debt to GDP ratio percentage point of the public debt ratio above 60%"[89].

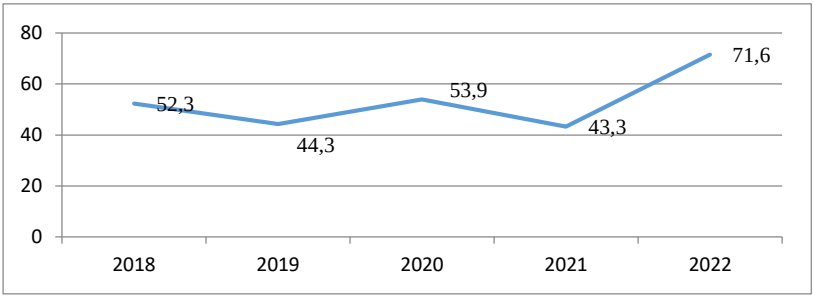



**Figure 2.17 - The ratio of public debt to GDP in Ukraine**
***Source:*** *compiled by the author based on*[90]

[88] Trofimchuk M., Trofimchuk O. Peculiarities of managing the state debt of Ukraine in the conditions of war. Bulletin of the economy. 2023. Issue 3. pp. 198–211. DOI: https://doi.org/10.35774/visnyk2023.03.198
[89] Kornev V. Debt paradoxes and benchmarks of state borrowing. Ukraine economy. 2000. No. 6. pp. 30–37.
[90] State and state-guaranteed debt of Ukraine in 2022. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/debtgov/2022/

Until the end of the war in the country, the dynamics of the public debt-to-GDP ratio suggest that the level of public debt will continue to rise. It should also be noted that GDP growth rates in the future will be significantly lower than in previous periods.

Public debt management and servicing are essential elements of the government's fiscal policy. The quality of public debt service indicators makes it possible to assess the following parameters of the government's fiscal policy

- - the effectiveness of budgetary policy, which is reflected in the planning of budgetary indicators and their subsequent implementation

- - the rational use of debt resources. In times of peace, the attraction of such financing should be accompanied by an increase in economic development or an increase in the efficiency of the real sector of the economy.

- - Positive dynamics of public debt payments can be a sign of prudent state financial policy aimed at increasing the country's potential. Analytical information on the level of public debt service in Ukraine is presented in Figure 14.

The largest share of public debt payments falls on 2016, with 47% of expenditures. It is worth noting that during the period under review, the share of public debt payments in the structure of expenditures was unevenly distributed: from 2014 to 2016, the share in the structure of expenditures increased from 23% to 47%, and in 2017, this indicator fell to the level of 2014. From 2018 to 2019, the share of public debt in the structure of budget expenditures increased by 10.7%. In the period from 2020 to 2022, there is a downward trend in this indicator, with a decrease of 16.1% over the last three years of the study. Given the situation in the country, it is safe to say that the share of public debt payments in expenditures will decline in the medium term.

The ratio of interest payments on public debt to GDP grew at an increasing rate from 2014 to 2016, with a total increase of 2%. The average annual growth rate was 1.1%. From 2016 to 2022, this indicator will fall from 4.4 to 3%. Analytical information shows a negative trend in the growth rate of interest payments. This, in turn, indicates a gradual increase in the state's debt activity in the domestic and foreign debt capital markets.

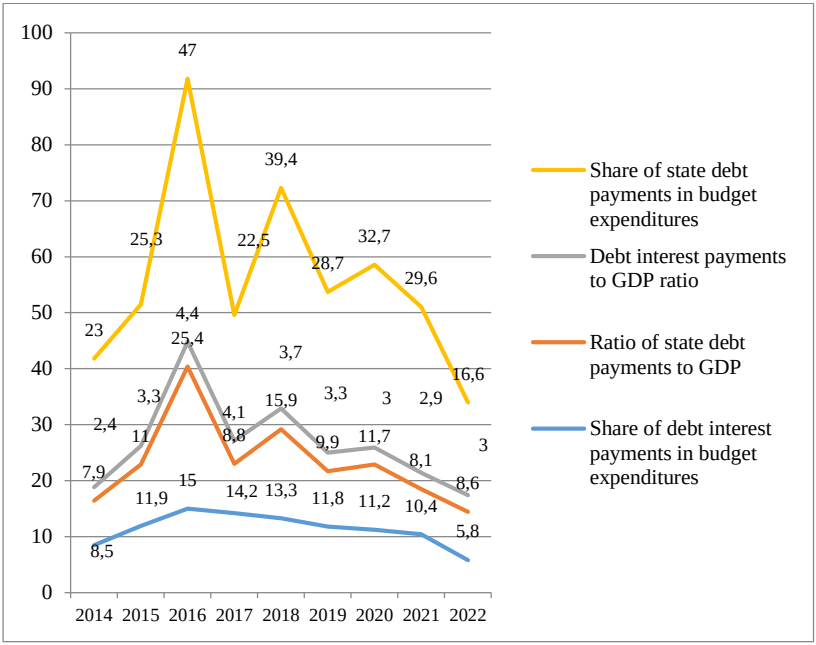



**Figure 2.18 - Expenditures on repayment and servicing of Ukraine's public debt from 2014 to 2022, %**

***Source:*** *compiled by the author based on*[48]

The ratio of public debt payments to GDP increased from 7.9% to 8.6% during the period under review. However, this

increase is characterised by an unstable nature, so it is difficult to predict this indicator for the future. The share of interest payments on debt in budget expenditures from 2014 to 2016 was characterised by positive growth rates, with the value of the indicator increasing from 8.5% to 15%. From 2017 to 2022, this indicator has been declining annually, with the percentage falling from 15 to 5.8%.

Raising financial assets in the capital market always involves a number of risks that may be objective or subjective. Regardless of the investor's financial capacity and the type of security, risk and return are the starting points for making a decision. The state, as an active participant in the national and international stock markets, is also exposed to a number of risks. The main types of government risks related to debt policy are shown in Table 2.7.

**Table 2.7 - Risks of Ukraine's debt policy in wartime**

| ***Risk*** | ***The direction of risk minimisation*** |
|---|---|
| *1* | *2* |
| Risks related to refinancing | Improving the domestic securities market by creating new debt instruments<br>Attracting global creditors<br>Intensify state debt management operations |
| Liquidity risks | Creating preconditions for improving the credit rating at the international level<br>Deepening cooperation with international lending institutions |
| Currency risks | Increasing the share of state debt in the national currency<br>Use of currency hedging instruments<br>Diversification of the state debt portfolio |
| Interest rate risks | Formation of a part of the debt with a floating interest rate<br>Reduction of interest rates on domestic government bonds |

Continuation of table

| *1* | *2* |
|---|---|
| Budgetary risks | Ensuring fiscal consolidation<br>Implementation of budget planning in the medium term<br>Extension of debt maturity |
| Other types of risks | Reduce the share of state ownership in the banking sector |

***Source:*** *compiled by the author based on*[91,92]

It should be noted that the risk assessment performed by the Ministry of Finance of Ukraine is based only on direct state debt. The budget risk is formed based on the probability of underperformance of the planned indicators of the state budget revenues, which may lead to an increased need for the use of debt resources.

The main criteria of this group include:

- the ratio of state debt to GDP;
- the ratio of state debt repayment and servicing payments to state budget revenues or GDP;
- quotes of the most profitable Eurobonds, etc.

Liquidity risks relate to the ability of the government to mobilise its own assets to repay current liabilities. Such risks are exacerbated by factors such as an increase in public debt, a decline in the level of economic activity and negative economic growth. The chronic nature of the above factors leads to the need to declare a default.

Default as an economic phenomenon is associated with the need for the state to recognise its own inability to pay its debt obligations. In fact, it is a declaration of bankruptcy by the state. The consequences of such a decision may include

[91] Vakhnenko T. P. State debt of Ukraine and its economic consequences. K.: Alterpress, 2000. 152 p.

[92] Vakhnenko T. P. State debt of Ukraine and its economic consequences. K.: Alterpress, 2000. 152 p. URL: https://biem.sumdu.edu.ua/ images/stories/docs/K_ME/Dudchenko_5.pdf

- increased distrust among creditors in the international market;
- downgrading of the credit rating;
- a slowdown in economic activity;
- limited levers of economic growth.

One of the methods of delaying default in global practice is the use of long-term debt assets or the rollover of existing debt instruments. Based on the results of its strategy for 2023, the Ukrainian government has planned to form public debt with a focus on long-term financial assets (Figure 2.19).

According to the forecast calculations of the Ministry of Finance of Ukraine, the structure of debt instruments in the debt portfolio will have the following elements: long-term assets - 57.5%, medium-term instruments - 37.9%, and short-term assets - 4.6%. It should also be noted that in the current environment, preference is given to fixed-rate debt instruments. In 2023, the Bank plans to use 58.4% of fixed-rate instruments and 41.6% of variable-rate debt.

The Ministry of Finance of Ukraine has identified a number of fiscal risks inherent in Ukraine's public debt with a certain level of threat probability:

1. budget risk - moderate level;
2. currency risk - significant level;
3. interest rate risk - low level;
4. liquidity risk - moderate level;
5. refinancing risk - significant level.

In order to minimise these risks, the Ministry of Finance of Ukraine plans to take the following measures

- ensure further development of the domestic market for government securities;
- attract more funding in the form of long-term credit instruments;

- active operations with public debt to minimise budget expenditures, etc.

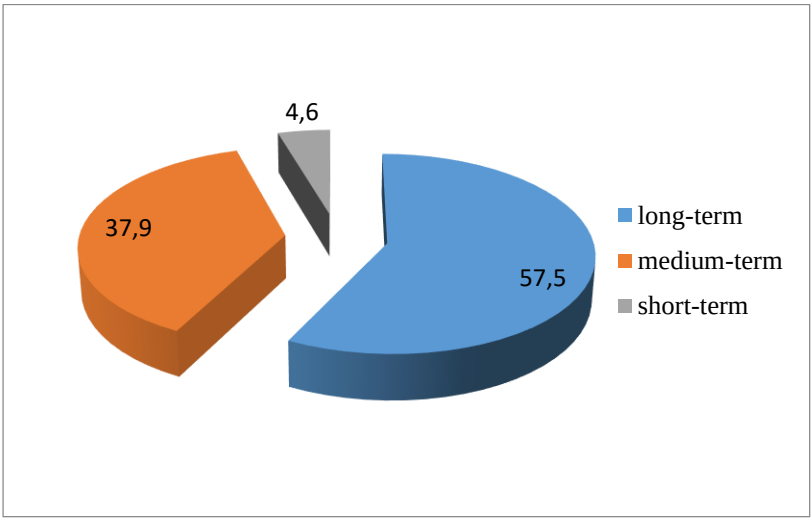



**Figure 2.19 - Planned structure of government debt in 2023 by type of debt instrument**

***Source:*** *compiled by the author based on*[93]

According to the Public Debt Management Programme for 2023 approved by the Ministry of Finance of Ukraine, 'the government plans to manage currency risks by diversifying foreign currency borrowings and prioritising domestic currency borrowings to ensure the rollover of hryvnia-denominated domestic government bonds'51. According to the management programme, the volume of total public debt payments in 2023 is shown in figure 16.

[93] State and state-guaranteed debt of Ukraine in 2023. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/debtgov/2023/

As of 2023, payments to repay Ukraine's public debt have been approved in the following amounts UAH 316.05 billion for payments on the country's domestic public debt (76.2%) and UAH 99 billion for payments on the external public debt (23.8%). The amount of payments for the repayment of the domestic public debt may be increased by the issue of short-term domestic government bonds maturing in 2023.

The process of public debt management requires a transparent implementation mechanism and a sustainable rate of economic growth. In order to assess the effectiveness of management processes in practice, SWOT analysis is used to systematise the strengths and weaknesses of the object under study. In addition, it can be used to forecast potential opportunities for further development of a phenomenon or object. The results of this analysis are summarised in Table 4.

In the context of military operations on the territory of Ukraine, it is important to highlight the advantages that characterise the strengths of Ukraine's public debt management: the use of European approaches to budgetary policy, budget planning, experience in debt restructuring, etc. The disadvantages listed in Table 4 are mostly caused by military operations in the country.

The disadvantages listed in Table 4 are mostly due to the military operations in the country. The disadvantages of the pre-war period include, first of all, inefficient fiscal policy, which was manifested in the growth of budget expenditures without taking into account the fiscal capacity of the state, the lack of long-term budget planning that would ensure the efficient allocation of budget resources, etc.

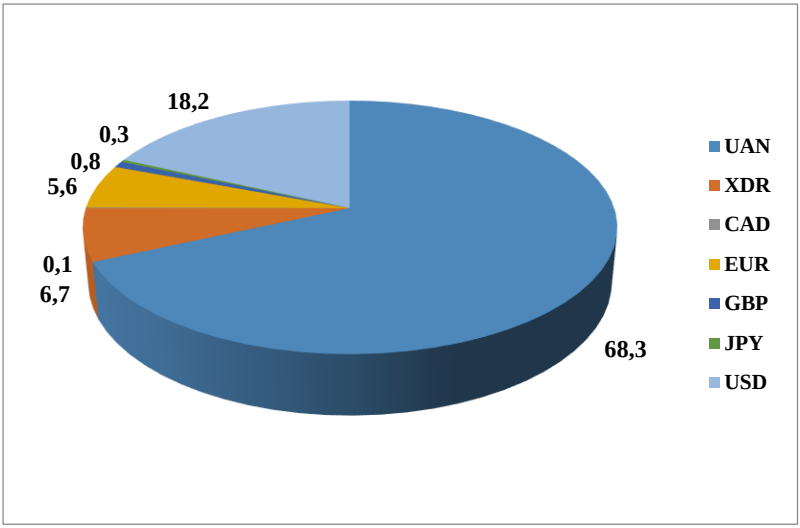



**Figure 2.20 - Structure of repayments of total general government debt by currency of payment, in %**

***Source:*** *compiled by the author based on*[94]

In wartime conditions, it is difficult to predict the extent of the increase in the state's debt obligations and the sources of its servicing, there is no possibility of short-term forecasting, and there is a high degree of dependence on debt financing.

According to the analysis in this section, Ukraine has few alternatives in the process of managing and servicing public debt. The growing need to finance military expenditures limits the search for alternative ways to optimise this process. Given the growth of public debt, special attention should be paid to finding additional sources of financing for current and military expenditures.

[94] State and state-guaranteed debt of Ukraine in 2023. Official website of the Ministry of Finance of Ukraine. URL: https://index.minfin.com.ua/ua/finance/debtgov/2023/

**Table 2.8 - SWOT analysis of the public debt management system in Ukraine**

| Advantages | Disadvantages |
|---|---|
| Availability of budgetary planning tools and debt levels<br>Compliance with European requirements in the formulation of fiscal policy<br>Prevalence of long-term debt<br>Restructuring in 2015 (20% of public debt written off and deferred) | Lack of long-term debt strategy<br>Use of borrowed funds to cover current expenditure<br>Imbalances in the structure of the debt portfolio<br>Lack of a transparent mechanism for raising and using debt resources |
| **Opportunities** | **Threats** |
| Search for alternative sources of state budget revenues<br>Development of the stock market and expansion of the state's loan portfolio<br>Debt restructuring or securitisation | Rising risks<br>Threat of default<br>Inflation and devaluation<br>Economic crisis<br>Rising public debt/GDP ratio |

***Source:*** *compiled by the author based on*[95]

The growing state budget deficit, public debt, and increased expenditures lead to a number of threats that could cause significant deviations in the country's economy in the long run. In particular, we are talking about the economic crisis, which may affect the economic and social components of society. A decline in economic activity and lack of support for the real sector of the economy may have a number of negative consequences

- Slowdown in economic development
- liquidation of medium and large businesses

[95] Vakhnenko T. P. State debt of Ukraine and its economic consequences. K.: Alterpress, 2000. 152 p.

- increase in unemployment
- Decrease in business activity, etc.

The above consequences, in turn, are a prerequisite for an increase in state budget expenditures and an increase in debt financing.

The increase in the ratio of public debt to GDP is inevitable, as the bulk of government spending is on defence and current social payments. In this context, economic growth is slowing down, leading to a decline in GDP growth. In addition, the military aggression in the country has led to the destruction of companies' production facilities, which in turn has a negative impact on the formation of the value of GDP.

Inflation at this stage of Ukraine's development is triggered by the fact that in order to increase the volume of state budget revenues, the National Bank issues the national currency and purchases government debt securities, which can also be considered as issue income. Since the nature of inflation lies in the lack of money supply in terms of available goods and services, we believe that the most appropriate option is to support the real sector of the economy and prevent a decline in economic activity in the country.

Given the threats posed by the armed aggression, special attention should be paid to the process of managing and servicing the public debt in order to optimise it. To this end, it is necessary to identify the main problems that affect the management and servicing process and to formulate the necessary recommendations for improving these processes.

- In order to improve the situation in the area of public debt management and servicing, it is necessary to define the main provisions of the public debt policy:

- Ensure the creation of a new medium-term debt strategy that clearly provides for the following instruments:

1. Ways to reduce the debt burden - restructuring, write-offs, freezing.

2. Instruments to optimise the management and servicing of public debt, taking into account the cost of servicing debt obligations and the risks they pose to the economy.

- Coordination of fiscal and monetary policies in order to respect the rules of payment and fiscal discipline, the balance of the State budget and the potential size of the budget deficit. In addition, with regard to budgetary policy, attention should be paid to the transition to medium-term budgetary planning in order to ensure the optimisation of budgetary relations.

- Apply a series of measures aimed at maintaining an optimal ratio of public debt to GDP. Above all, it is necessary to apply the means that can ensure positive economic growth rates in order to create a competitive national economy. Economic growth can reduce the impact of the state budget deficit, while generating a certain amount of budget surplus to reduce the debt burden.

- Optimisation of the country's public debt structure. This includes diversifying sources of financing to ensure an optimal debt structure, taking into account the risks and costs of debt servicing.

- Changing the structure of the country's external debt to reduce the amount of debt denominated in foreign currency. This will reduce the rate of depreciation of the national currency in the short term.

- Finding ways to refinance the public debt. This can be done by refinancing, writing off and rolling over debt obligations, etc. Reaching agreements with partner countries to include Ukraine in the list of countries eligible for debt relief under the HIPC and MDR initiatives.

- Agreements with external public debt creditors on discounts on the nominal amount of debt obligations or on the discounted value of current debt payments.

- Creation of a debt restructuring programme: review of the terms of debt obligations, maturities and interest rates. With regard to debt restructuring, it is worth looking at Poland's experience in the 1990s. Under the supervision of the IMF, the Polish government carried out the restructuring in two stages: in the first stage, 80% of the debt was written off, and in the second stage, the debt was reduced by 10% through the mechanism of converting the debt into special funds.

- Identify possible initiatives to use debt swaps for the post-war reconstruction of the country.

Thus, in order to ensure the situation in the field of management and service of the state debt, it is necessary to determine the main provisions of the state debt policy, namely: to ensure the creation of a new debt strategy in which all elements are clearly defined (methods of reducing the debt burden - restructuring, write-off, freezing; optimization tools management and servicing of public debt from the point of view of the cost of servicing debt obligations and the risks they create for the country's economy); coordinate fiscal and monetary policy; apply a number of measures aimed at maintaining the optimal ratio between the amount of public debt and GDP; optimization of the structure of the country's public debt; changing the structure of the country's external debt in order to reduce the volume of debt obligations in foreign currency; search for ways to refinance the state debt; reaching agreements with creditors for external state debt regarding discounts for the nominal amount of debt obligations or taking into account the discounted value of debt payments at the moment; create a loan restructuring program: revise the terms of debt obligations, repayment terms and interest rates.

## 2.3. ROLE AND PLACE OF FINANCIAL CONTROL IN CONTEXT OF NATIONAL INTERESTS OF STATE

The formulation and conceptualisation of national interests is an important task for any country. Ukraine, as a sovereign state, must take care of its national security. It is also necessary to strengthen Ukrainian statehood. The tactical forms and objective conditions for the realisation of national interests determine the essence of the problem of ensuring national security by the state.

In other words, in the process of comprehensive development of any country, the issue of ensuring national security in the face of modern challenges is extremely acute. Our country is no exception and must also take care of its national security. The main components of national security of any country are economic, political, international, social, technical, financial, investment, fiscal, environmental, medical, food and information. Current trends in globalisation processes summarise the requirements and parameters of effective economic development of individual global economic actors[96]. It is important to understand that all components of national security are closely interrelated, and sometimes it is impossible to draw a clear, specific line between them. Therefore, only positive dynamics of each of the above-mentioned components of national security of the country can ensure positive dynamics of the entire world economy. In our opinion, the problem of national security and safeguarding the country's national interests has arisen due to modern changes in the paradigm of global civilisation and national development.

[96] Shevchenko O. Yu. Theory of financial security: innovative approaches. Scientific Bulletin of the Academy of Municipal Management. Series ‘Economics’. 2009. Issue 6. pp. 188-195.

National security, under the influence of various destabilising factors, is in a bifurcation zone and its further development is difficult to predict - the system can either neutralise these factors and enter a new stage of development or be destroyed, or these factors can destabilise the system without its final destruction[97].

National security should be seen as a complex, multi-level system with its own structure, in which all elements are interrelated. Effective national security is possible only if each component is able to perform its functions properly. The main components of national security are: food, political, military, economic, energy, social, information, financial, environmental and technological security.

Maximising the protection of the state's national interests is achieved primarily through the correct positioning of national security and its components. Therefore, it is important to consider what exactly is meant by national interest. According to the Small Encyclopedia of Ethnostate Studies, national interest is defined as the real reason for the actions of a nation and a state aimed at their survival, functioning and development. It is also a set of national goals and core values that play an important role in national security strategy and tactics.

It should be noted that national interests cover not only internal but also external aspects, including international relations, diplomacy and global economic integration. It is also important to bear in mind that national security is a dynamic system that must adapt to changes in the global environment, technological innovations and new challenges such as cyber

[97] Cherchyk O.M. The problem of dynamic stability and stability of the national security system. Economic Security and Problems of Economic and Political Transformation of Socio-Economic Systems: Proceedings of the International Scientific and Practical Conference, Poltava, 15-16 May. 2009 Poltava. 2009. pp. 233-235.

security and climate change. Ensuring national security therefore requires a comprehensive approach involving coordination between different sectors and levels of government, as well as the active participation of civil society[98].

According to the Law of Ukraine "On the Fundamentals of National Security of Ukraine", national interests are defined as "vital material, intellectual and spiritual values of the Ukrainian people as the bearer of sovereignty and the sole source of power in Ukraine, the defining needs of society and the state, the realisation of which guarantees the state sovereignty of Ukraine and its progressive development"[99].

According to the famous public administration researcher A. Kuzmenko, the national interest is a determining source of formation of the strategic goal, strategic tasks, object of directions and directions of the nation's development, methods and forms of their implementation, which is aimed at survival and progressive development, and, to some extent, leadership of the individual, society and the state[100].

In our opinion, the Ukrainian researcher Y. Makar provides the most meaningful definition of "national interest". In particular, the researcher identifies the main groups of national interests that are characteristic of Ukraine[101]:

- strategic and geopolitical interests related to ensuring Ukraine's national security and protecting its political interests;

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[98] Small Encyclopedia of Ethnostate Studies. Edited by Y.I. Rymarenko. Kyiv: Dovira; Genesis, 1996. 942 p.

[99] On the Fundamentals of National Security of Ukraine: Law of Ukraine of 19.06.2003, №. 964 - IV. URL: http://zakon.rada.gov.ua/laws/show/964-15

[100] Kuzmenko A. The problem of compliance of the strategy and system of ensuring the security of Ukraine with national needs. Yurydychnyi zhurnal. 2008. №10. URL: http://www.justinian.com.ua/article.php?id=2432

[101] Makar Y. Ukraine's foreign policy: intentions and realities. Ukraine - Europe - World: Collection of scientific articles. 2008. №6. pp.191-198.

- economic interests related to the integration of the Ukrainian economy into the world economy;

- regional, sub-regional and local interests related to meeting various specific needs of Ukraine's internal development.

The main national interest is to ensure the economic security of the state. After all, the economy is the very foundation of society, as the production, distribution and consumption of material goods are of primary importance for other spheres of life and determine the level and degree of vital activity of society. We are convinced that it is not appropriate and correct to study the issue of national interest separately from the concept of national security.

For example, scholars F.M. Medved, V.J. Diego Donoso and I.S. Rzaev in their work "National Security and National Interests of Ukraine in a Changing World" argue that national security is a kind of synthesis of the interests and needs of all social actors. They note that ensuring national interests and economic security are the most important functions of the state, the implementation of which should strengthen the country's external position[102].

Thus, we can say that both economic and national security of a country characterise the degree of protection or satisfaction of the country's national and economic interests. Similarly, the economic security of a country depends on the economic independence of the state. It is clear that the concept of national security is broader than the concept of economic security.

[102] Medvid F., Diego Donoso V.H., Rzaev Ilham Sahib Ogly. National security and national interests of Ukraine in the changing world. Scientific works of MAUP. 2011. Vol. 3. pp.42-45.

The concept of national security of Ukraine clearly defines economic security as the state of the national economy and the credit and financial system, which allows to[103]:

a) to ensure the economic development of the State on the basis of the achievements of scientific and technological progress

b) to maintain or rapidly restore production in the event of disruption of external supplies or internal emergencies;

c) to ensure the stable functioning of its monetary system and to meet the needs of society under adverse internal and external conditions.

The Ministry of Economic Development and Trade of Ukraine by its Order No. 1277 of 29.10.2013 approved the Methodological Recommendations for Calculating the Level of Economic Security of Ukraine. According to these guidelines, economic security is a state of the national economy that allows maintaining resistance to internal and external threats, ensuring high competitiveness in the global economic environment, and characterises the ability of the national economy to achieve sustainable and balanced growth[104].

Another regulatory document provides us with an understanding of the economic content of the economic security of the state as a state of the national economy that allows it to remain resilient to internal and external threats and is able to meet the needs of the individual, the family, society and the state[105].

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[103] Conceptual principles of development of the system of national security of Ukraine: analytical supplement edited by O. Reznikov. Kyiv: NISS, 2015. 58 p.

[104] Mykytiuk I.S. The system of state financial control in Ukraine: PhD thesis: 08.00.08. Kyiv, 2009. 20 p.

[105] On Approval of the Methodology of Calculating the Level of Economic Security of Ukraine: Order of the Ministry of Economy of Ukraine from 02.03.2007 № 60. URL: http://zakon.nau.ua/doc/?code=v0060665-07

As we can see, the above definitions from regulatory sources are reduced to a certain state of the national economy with more or less disclosure of opportunities.

At the present stage, a number of views on the definition of "economic security" have been formed. Among the scientific elite studying the questions revealing the essence of economic security, it is worth mentioning lawyers - jurists V.T. Bilous and S.G. Gordienko, who understand the category of economic security as "reliable protection of national interests in the field of economy from real and potential internal threats, and first of all - from direct and indirect losses"[106] [107].

The concept of economic security, developed by experts of the Institute of Economic Forecasting under the leadership of Valeriy Heits, states that economic security is a leading component of national security, it reflects the cause-and-effect relationship between the economic power of the country, its military and economic potential and national security[108].

Another Ukrainian scholar and lawyer, M.M. Pendyura, notes that the economic security of the state is not only one of the most important components of the integral system of national security as a complex of protection of national interests, but also a crucial condition for the observance and realisation of national interests[109].

Among the coryphaeus of economists, it is worth mentioning Professor of the Kyiv Economic Institute of Management H.A. Pasternak-Taranushenko, who believes that

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[106] Bilous V.T. Coordination of the fight against economic crime: a monograph. Irpin: Academy of the State Tax Service of Ukraine, 2002. 449 p.

[107] The essence and content of the concept of ‘state security’. Strategic panorama. 2003. № 2. pp. 114 - 120.

[108] The concept of economic security of Ukraine. Institute for Economic Forecasting. Project manager V. Heets. Kyiv: Logos Publishing House. 1999. 56 p.

[109] Pendyura M. M. National Security of Ukraine in the Context of Modern European Geopolitical Transformations: Candidate of Law Sciences: 12.00.01. Kyiv, 2005. 212 p.

economic security is a state of the state that provides the possibility of creating and developing conditions for the fruitful life of its population, the prospective development of its economy in the future and the growth of the welfare of its inhabitants[110]. As we can see from this definition, economic security has a crucial role to play in the system of national security.

Thus, from the above definitions of the nature of economic security, we can conclude that there are many approaches to this definition, which is associated with such economic categories as "security", "stability", "capacity", "threats", "needs", "safety", "guarantee". In other words, the economic security of the state is a kind of security, a guarantee of independence, sustainability and stable development in the long term. At the same time, economic security is not only the protection of national interests, but also the willingness and ability of state institutions to create mechanisms for the implementation and protection of national interests in the development of the domestic economy and the maintenance of social stability.

According to the American scholars H. Mahowsky and O.W. Handel, economic security must fulfil two main conditions. In particular, it is about preserving the economic independence of the country, its ability to make decisions in its own interest regarding the development of the economy as a whole; and preserving the already achieved standard of living of the population and the possibility of its further improvement[111].

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[110] Pasternak-Taranushenko G.A. Economic security of the state. Statics of the process of ensuring: a monograph. Edited by B. Kravchenko. Kyiv: Condor, 2002. 302 p.

[111] Machovski H. East-West trade: development, interests. Prospects. From Politics and Contemporary History. 1985. Vol. 5 pp. 39-44.

Another American scholar, H. Machowski, expressed a similar understanding of economic security. In his view, economic security should ensure a sufficiently high degree of independence from strategic partners, i.e. those who could potentially influence political decisions that would be unacceptable from a commercial point of view[112].

According to Y.A. Zhalila, economic security is "a complex multifactorial category that characterises the ability of the national economy to expand reproduction in order to meet the needs of its own population and the state at a certain level; to counteract the destabilising effects of factors that pose a threat to the sustainable balanced development of the country; to ensure the competitiveness of the national economy in the world economic system"[113].

Economic security as an instrument for the realisation of national economic interests affects the entire complex of economic relations: production, distribution, exchange and consumption of material goods. On the other hand, as the basis of the national economic system, economic security is the most important condition that determines the nature of development of the entire complex of economic relations[114].

Based on a substantive analysis of the definition of ‘economic security’, the article forms goals, tasks and functions of state structures, develops criteria and indicators of economic security of the state, as well as measures of legal,

[112] Murdoch C. Economic factors as objects of security: Economics secutity&vulnerability / K. Knorr, F. Trager. Economics interests& national secutity. Lawrence. 2001. 867 p

[113] Zhalilo Y.A. Strategy of ensuring economic security of Ukraine. Priorities and problems of implementation. National Security Strategies of Ukraine in the Context of the World Community Experience. Kyiv: Santisaga Publishing House. 2001. 224 p.

[114] Cherchyk O.M. The problem of dynamic stability and stability of the national security system. Economic Security and Problems of Economic and Political Transformation of Socio-Economic Systems: Proceedings of the International Scientific and Practical Conference, Poltava, 15-16 May. 2009 Poltava. 2009. pp. 233-235.

economic and administrative action taken by both state and public institutions in the process of ensuring economic security.

The state's role in ensuring economic security has become much more complicated in the context of the global financial crisis. At the present stage, the main potential threats to Ukraine's economic security are gradually turning into real ones. The main threats to the state's economic security include: a significant decrease in gross domestic product; a decrease in investment activity and scientific, technical and technological potential (brain drain); a decrease in research in strategically important areas of innovative development; a weakening of the system of state regulation and control in the economy, including the state's financial policy.

Therefore, the main strategic objectives of our country to ensure and protect economic security are to prioritise the development and maintenance of a course to protect, eliminate and localise existing and potential threats to economic security in the country.

As we have already noted, in the context of the current challenges there are a significant number of risk factors, dangers, potential threats and other possible disruptive circumstances that may affect the quantitative and qualitative results of the State's fiscal policy. Depending on the current development conditions, the importance and probability of certain factors may vary significantly. All probable risk factors, hazards and threats to the economic security of the state can be grouped according to various classification criteria, in particular, foreseeable threats arise under certain conditions. Foreseeable threats have been historically formed and are known to mankind from the results of the implementation of state economic policy in the past, and can be identified and generalised by economic science in a timely manner. As for

unforeseeable dangers and threats, their occurrence cannot be prevented because they arise unexpectedly. They are usually associated with unforeseen actions, force majeure and are irrelevant, i.e. independent of the decisions taken.

However, they need to be recognised and a balanced policy should be pursued to ensure that they are taken into account in management decisions. In general, the classification of possible threats to the economic security of the state by risk factors is multifaceted and diverse.

Based on the substantive analysis of the definition of "economic security", the objectives, tasks and functions of state structures are formed, as well as the relevant legal, economic and administrative measures taken by state and public institutions in the process of ensuring economic security.

The factors of threats to economic security are: the level of welfare and quality of life of the population, the purchasing power of the population, the supply of services produced and consumed in a given territory, the balance of migration of the population, the competitiveness of enterprises both on the domestic and foreign markets (dependence on imports of key products), the amount of taxes collected and the level of employment of the population.

According to the main directions of the state policy on economic security of the state, the activities of all state bodies should be directed to forecasting, timely detection, prevention and neutralisation of external and internal threats to national security, development of the country's economy, ensuring constitutional rights and freedoms of man and citizen, improving the system of state power, strengthening law and

order and maintaining social and political stability of society, ensuring transparency in the activities of state organisations[115] .

Public finances have a direct impact on all economic and social processes through the performance of government functions. The system of public finance includes[116]:

- state budget;
- state debt;
- state credit and public procurement;
- reserve fund;
- finances of state extra-budgetary funds;
- finances of state-owned enterprises;
- public finances of the state;
- public finances of local governments.

The essence of an economic category is manifested in its functions. Most economists[117,118] consider finance to have three functions: distribution, control and regulation. At the same time, the literature suggests that finance has other functions: operational, stimulative, redistributive and reproductive.

The essence of financial control, as the leading function of finance, is to verify the exact observance of financial legislation, the timeliness and completeness of the fulfilment of financial obligations to the budget system, the tax service, the credit and banking system, as well as the mutual obligations of enterprises in relation to settlements and payments[22]. In our

[115] Slobodianyk Y. B. State audit as a tool for strengthening the economic security of Ukraine. Economic security and problems of economic and political transformation of socio-economic systems: a collection of materials of the international scientific and practical conference, Poltava, 15-16 May. 2009 Poltava. 2009. pp.128-130.

[116] Klyuchka S.S. Planning of internal audit in central executive bodies. Black Sea Economic Studies. 2016. №5. pp.158-162.

[117] Simonenko V.K., Baranovsky O.I., Petrenko P.S. Fundamentals of a unified system of state financial control in Ukraine (macroeconomic aspect) : monograph. Kyiv: Znannya Ukrainy, 2006. 280 p.

[118] Shutov M.I., Babenko V.A., Stoyanova N.M. State financial control in Ukraine (theory and practice): monograph. Odesa: Legal literature, 2004. 136 p.

opinion, financial control is aimed at ensuring sustainable, progressive development of public and private production in the face of modern challenges. The main purpose of financial control is to ensure the successful implementation of the state financial policy, to improve the state of legality in the process of formation and use of financial resources in all spheres of economic activity[119].

Financial control exists in every society because of the need to regulate economic, distributional, financial, budgetary, fiscal and other relations. Financial control can be carried out in various ways.

State financial control is an objectively necessary element of the economic mechanism in any mode of production, a function of public administration, a manifestation of the control function of finance, through which financial relations are implemented[120] (figure 2.21).

Analysing financial control as a function of the state aimed at the formation and efficient distribution of budgetary and extra-budgetary funds, savings, as well as the use and acquisition of state property, it can be stated that it is a key element in ensuring the economic and financial security of the country.

In recent years, there has been a downward trend in the level of state control over financial transactions in the nonstate sector of the economy. This indicates that the state is not paying enough attention to this issue. In addition, there is a weakening of state financial control over state and municipal organisations and enterprises, as well as budgetary institutions.

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[119] Mykytyuk I. S. The system of quality management of state financial control. KNTEU Bulletin. 2008. №3. pp.41 - 48.

[120] Klyuchka S.S. Planning of internal audit in central executive bodies. Black Sea Economic Studies. 2016. №5. pp.158-162.

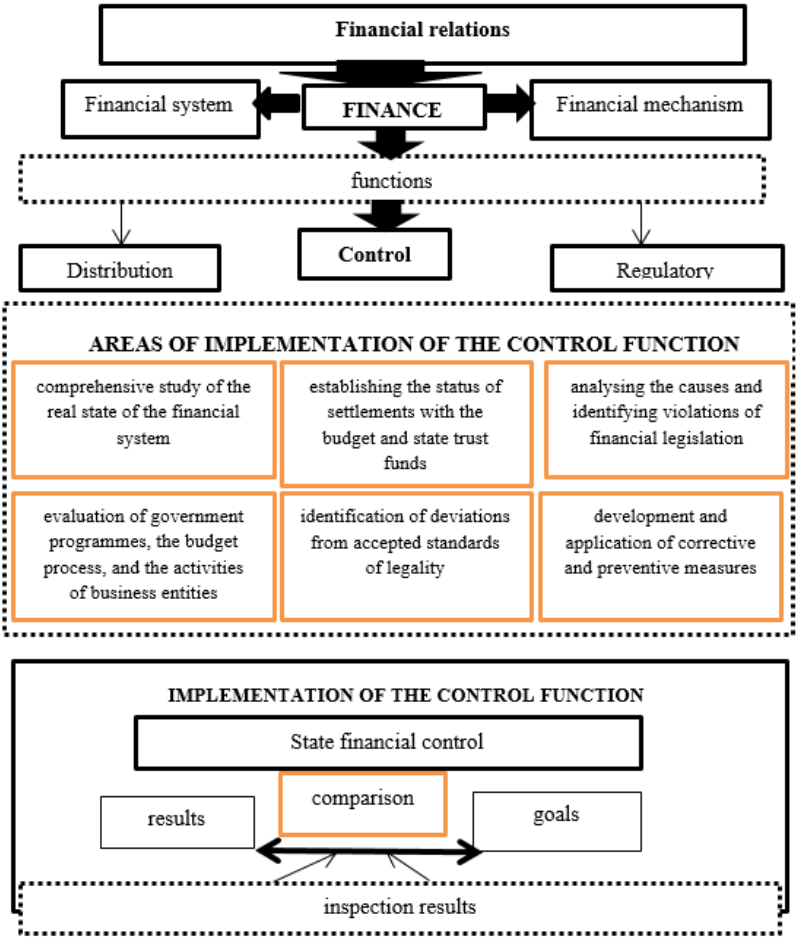


**Figure 2.21 - The place of state financial control in the system of financial relations***

*Source: compiled by the authors based on* [121,122]

[121] Pikhotskyi V. F. System of state financial control in Ukraine: conceptual foundations of theory and practice : monograph. Lviv: Lviv Polytechnic Publishing House, 2014. 334 p.
[122] Shevchenko N. V. Reforming the system of state financial control in Ukraine: problems and prospects. Bulletin of the Ukrainian Academy of Banking. 2010. № 2. pp. 34-39.

It should be noted that effective financial control is not only a means of ensuring transparency and accountability in the use of public resources, but also a tool for preventing corruption and financial abuse. The lack of proper control can lead to significant financial losses for the state, a decrease in public confidence in state institutions and a deterioration in economic stability.

To increase the effectiveness of financial control, it is necessary to introduce modern monitoring and auditing technologies, develop the legislative framework and ensure proper training of staff.

It is also important to create conditions for the active participation of civil society in the processes of control and monitoring of financial transactions, which will help to increase the transparency and accountability of public authorities.

In other words, the state has effectively lost its coordinating and guiding role in shaping policy on the control of public financial resources and property.

We can confidently state that there is a complex of threats in the financial and credit sector due to the failure to take into account the role of state financial control in ensuring the economic security of the state. These threats include[123]:

- loss of the state's coordinating role in the system of state financial control;
- a significant shortfall in the budget of taxes, duties, mandatory payments and non-tax revenues, as well as revenues from the lease of real estate;

[123] Cherchyk O.M. The problem of dynamic stability and stability of the national security system. Economic Security and Problems of Economic and Political Transformation of Socio-Economic Systems: Proceedings of the International Scientific and Practical Conference, Poltava, 15-16 May. 2009 Poltava. 2009. pp. 233-235.

- leterioration of financial and budgetary discipline and its approach to critical levels;
- increase in the scope and volume of financial irregularities;
- weakening of financial and budgetary responsibility.

The identified threats can be systematised according to certain criteria in terms of their relation to the analysed system, duration of the action period, probability of occurrence, suitability for managerial influence and scope of occurrence[124]. Based on these approaches, all these threats are internal to the economic system, temporary in nature and most of them have been around for a long time. The threats identified are real and have analytical, scientific and practical justification.

At present, the threats we have identified are at the level of possible controllability by the public administration system. Therefore, it is necessary to create an appropriate system of counterbalances to the existing threats to the economic security of the state[125,126].

State financial control is a regulatory instrument that can ensure the normal functioning of the country's financial system at the state level. After all, independent control of the state's financial resources is a sign of a democratic, civilised society.

This means that ensuring the economic security of the state should be an integral function of all branches of power: legislative, executive and judicial, and should be ensured by clear coordination of all actors in the field of economic security through mechanisms of control over the dynamics of economic processes and the use of public finances.

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[124] Dmytrenko G. V. Financial control in Ukraine: problems and ways of development : monograph. Kyiv: K.I.S., 2010. 374 p.

[125] Baranovskyi O. I. Financial security: a monograph. Kyiv: Phoenix, 1999. 338 p.

[126] Security of economic transformations: a collection of roundtable materials. Edited by Ya. A. Zhalilo. Kyiv: NISS: ‘Altepress, 2000. 386 p.

## 2.4. THEORETICAL FOUNDATIONS OF THE CERDIT MARKET FORMATION IN UKRAINE: TRANSFORMATION OF THE CREDIT POLICY OF THE STATE IN THE CONTEXT OF THE POST-WAR RECOVERY OF THE NATIONAL ECONOMY

The loan is a necessary tool for maintaining the continuity of financial turnover of operating companies and establishing the process of selling goods, which is especially important in the market economy. Without credit support, it is impossible to ensure rapid and cultured development of farms and small and medium-sized enterprises, as well as the introduction of other types of business activities in the domestic market and foreign economic space. The state can use crediting to support capital investment, housing construction and commodity exports. As an integral attribute of the commodity production, credit resolves the discrepancy between the time of production and the time of distribution, and relative contradiction between temporary accumulation of funds and the need to use them in the national economy [16].

The need for crediting in the market economy is closely linked to the peculiarities of the individual capital cycle. Loans are also needed to set up new small and medium-sized enterprises and to introduce new equipment and technologies. Funding reduces the time it takes to meet the needs of businesses and individuals. Creditors can obtain additional funds by transferring certain available funds to the borrower.

Economic science has proved that the loan is a universal means of distributing and redistributing national income, financial, material and labour resources, levelling corporate

profits through capital transfers and promoting gradual structural changes in the national economy [1-3][127].

There are two approaches to defining the essence of the loan.

The first is to equate the credit with the value transferred by the economic agent to another as a loan. This approach focuses on the credit itself, i.e. its legal form, and leads to the removal of its main content from the credit [8];

The Financial and Credit Dictionary states: "Credit is a loan of money or goods that is repayable and usually carries interests [122].

Another definition is that credit is "a form of the movement of borrowed capital" [17], as a "reverse paid form of loans" [2], as "the provision of goods, services or money in exchange for a promise of payment in future" [39] and etc. For example, the Economic Encyclopaedia edited by L. Abalkin defines a credit as "a type of economic transaction in which one partner lends money or real estate to another partner on the fixed-term and repayable terms" [1, 2, 3].

In my opinion, this understanding of the loan in market relations is somewhat narrow. In addition, the concept of crediting is broader than the concept of a loan, as it implies not only the fact of granting the latter, but also the relationship between the parties arising from the subsequent repayment.

Second, the identification of the credit with certain economic relations that are formed in society. This approach allows for a deeper exploration of economic aspects of credit, economic drivers of its existence, as well as fundamentals and patterns of the credit flow. Therefore, this approach dominates

[127] Alekseenko L.M., Yurkevych A. I. Economic dictionary: banking, stock market (Ukrainian-English explanatory dictionary). K.: Publishing House “Maksymum”; Ternopil: “Ekonomichna dumka”, 2000. 592 p.

the current literature and is the basis for covering the nature of the credit [88].

This approach allows for a deeper exploration of economic aspects of crediting, fundamentals and patterns of its movement. The credit is an economic relationship between different partners that arise when real estate or money is transferred for temporary use.

The credit is an economic category that accumulates temporarily available funds from the budget, centralised extra-budgetary state funds, business entities and the population, and provides them to borrowers (the state, legal entities and individuals) based on the following principles of repayment, maturity, payment, intended use and real estate collateral, and is provided to borrowers (the state, legal entities and individuals) based on the following principles [31].

However, the following definition of the credit by leading domestic scholars deserves special attention: Professor A.M. Mozov defines the credit as "an economic relationship between a lender and a borrower based on a loan in cash or in kind, repayable within a specified period of time and, as a rule, with interest" [23]; Professor B.S. Ivasif - "Economic relations arising between creditors and borrowers regarding the mobilization of temporarily available funds and their use on the repayment and payment basis" [17];

Some scholars define relationships and economic relations in more detail. Thus, M.I. Savchuk considers credit as "social relations arising between economic entities regarding the mutual transfer of fee funds (value) for temporary use based on the reciprocity, payment and voluntariness" [3636].

In our opinion, the essence of the credit is most directly expressed through credit relations, credit functions and forms of credit. The nature of the credit is indirectly affected by its types.

The main features of credit relations that reveal the essence of the credit as an economic category in modern conditions:

– all participants in credit relations must be economically independent;

– credit relations based on economic equity involve relations between different economic entities in which funds are lent as a form of economic sale of assets, and compensation is paid in the form of interest. In general terms, these subjects are the lender and the borrower, and the object is a part of assets of a credit institution attracted in the form of deposits from individuals and legal entities;

– credit relations closely interact with relevant elements of commodity-money relations. As a result, both money and goods are lent (which is a form of transfer of credit relations). Thus, credit relationships are value-based, as they arise in connection with the value transfer (money or tangible assets);

– credit relationships do not change the ownership of the asset from which they arise. The lender remains the owner of the borrowed value, while the borrower receives it only for temporary use and must return it to the owner;

– the fact that the credit relationship is a paid means that the borrower returns more value to the lender than he receives from it. Therefore, the statement of some scholars that a credit is granted "in principle at interest" seems strange;

– credit relations are characterised by the attraction of the borrowed capital [1616][128].

Borrowed capital is valued added, i.e. the capital. Money becomes a special commodity and acquires the ability to generate additional valued in the form of a special consumer

[128] Ivasiv B.S. Money and credit: Textbook. Edited by B.S. Ivasiv. K.:KNEU, 2001, 404 p.

value, i.e. interest. Thus, the value of money as a medium of the borrowed capital is expressed through interest, a specific form of surplus value. Thus, by lending money, the leveraged capital alienates the value of money as capital (rather than goods or money).

The essence of the category of the "credit" is best manifested in the functions it performs. Modern economists distinguish three main functions: redistribution, emission and management [36].

The redistribution function of the credit is to redistribute money between entities of the national economy based on repayment and payment. This function is implemented both in the process of mobilising temporarily free funds by economic agents, and in the process of placing them in the debt capital market. Thus, this function is used to concentrate the borrowed capital in the most priority areas of the economic activity.

The issuing function of the credit is the ability to create additional means of payment using the credit. This function became particularly important in the transition from the use of the real money to the introduction of credit instruments. Every issue of money is the result of the credit transaction. Granting credits increases the amount of money in circulation, while repaying credits decreases the amount of money in circulation [3737].

Therefore, as a result of the skilful use of the credit in this function, governments receive an effective means of regulating the economy.

The control function of the credit is to ensure control over the compliance with the terms and principles of lending by the subject of the credit agreement in the financing process. As a result, the credit significantly strengthens control processes in the national economy, increases the efficiency of

the use of funds and stimulates the expansion and reproduction [20].

Based on the nature of the credit and its functions, the role of the credit can be defined. In the market economy the role of the credit is most clearly manifested in optimizing the pace of social reproduction. This way, credit mechanisms help achieve self-regulation of the economic system, level the rate of return in different sectors of the economy, etc. The credit promotes capital concentration and accumulation.

The credit plays a major role in ensuring scientific and technological progress and preparing the innovation process. The credit is an important source of financing the capital investment. Credit relations have led to the emergence of a credit mechanism that includes the principles of lending, credit planning and credit management, lending terms and conditions, and methods of the quantitative credit regulation.

On the one hand, independent functions are not equivalent to the credit essence, but reflect only some of its essential features; on the other hand, functions are specific manifestations of the essence as a general phenomenon. In case of economic categories, a function means demonstration of their essence in action, i.e., a specific way of expressing the inherent quality of the category. The analysis of definitions of credit functions in the economic literature shows that there is no single view of their essence. Differences in the number and content of credit functions are caused not only be differences in the interpretation of the essence of this category, but also by the lack of a common methodological framework for its analysis [37][129].

[129] Savluck M. I. Money and credit: Edited by M. I. Savluk. K.: KNEU. 2006. 744 p.

The credit has two forms, namely: monetary and commodity. At the same time, the monetary and commodity credits are value, equivalent, interchangeable and internally related.

In the commodity form, the credit is provided for lease of real estate, repayment of the interstate debt, lease of goods and sale of goods on the deferred payment terms.

Cash loans are provided by banks, governments, and international financial and credit organisations.

In the market economy, the credit also acts as an elastic mechanism for moving capital from one sector of the economy to another to achieve a fair rate of return and to overcome the limitations of the individual capital. By equalizing the rate of return in different industries, the credit affects the sectoral structure of the economy. Temporarily released resources are redistributed in favour of industries that bring higher profit [36, p.38-40].

The credit is based on contracts and represents the relationship between the lender and the borrower. It is used to accumulate free capital of enterprises, private companies and the state, convert it into the loan capital and transfer it for a fee for temporary use.

The credit always been and remains an important lever for stimulating the production development. It accelerates the process of the capital circulation at both the macroeconomic and microeconomic levels. The credit helps increase the profitability of production and return on capital. In the context of the economic recovery, the credit acts as a growth factor that provides the enterprises with additional resources by redistributing large amounts of capital and goods.

At the present stage, this role of the credit is not fully used. This is hindered by the imperfection of the market relations in the domestic economy. In particular, the process of

forming the credit capital market has only just begun, the process of demonopolization and decentralization of the economy is incomplete, and the activities of commercial banks with credit portfolios do not yet meet the market principles [1].

The regulatory role of the credit is also complicated by the economic crisis and rising inflation. High inflation encourages commercial organizations to engage in trade, intermediary activities, and projects that guarantee rapid capital turnover and high rates of return, i.e., to invest in industries that are likely to lose investment. On the one hand, it reduces the quality of credit portfolios of banks and increases the share of risky credits, and on the other hand, it provides business entities with the opportunity to easily compensate for high interest rates on borrowed funds if the project is successful. Under such conditions, the movement of the credit capital on the basis of free competition is significantly complicated and does not contribute much to equalizing the rate of return between industries. In addition, large amounts of loans to finance the state budget deficit violate the rational balance between the accumulated and consumed funds.

Based on the above definitions of the functions and forms of the analysed credits, as well as the essence of the credits granted by various authors, we can formulate our own definition of this category.

Thus, the credit is a separate part of economic relations related to the transfer of the credit capital, carried out in cash or in kind between the lender and the borrower based on the loan agreement.

The role of the credit in ensuring scientific and technological progress and promoting the innovation process is very important [12].

The credit is an important source of financing for capital investments. Long-term financing of production processes is a form of investment in the domestic economy.

Consequently, the priority is given to financing projects that stimulate the STP. However, in the context of inflation, the potential of credits that stimulate the STP is sharply reduced, as opportunities for the introduction of new equipment are narrowed due to significant increase in prices. The payback period for capital investments is significantly shorter than the payback period for capital investments [12].

Credit activities of the bank cover the entire range of credit products for the main business needs of legal entities and consumer need of individuals. It is characterized by high profitability and a fairly high level of risk. As a rule, each credit service of a commercial bank is a completely separate product, with the exception of standardized consumer loans. Almost all existing and potential segments of the bank's customers may require credit products [23][130].

Credit services are organized credit relations in which banks provide funds to borrowers on the terms of repayment and payment of interests. Such services usually provide the bulk of the bank's income and are the most important item on its balance sheet [23].

The type of credit services offered by banks depends on the legislative regulation, a competitive environment in the banking sector, specifics of the banking policy and internal factors affecting the structure of lending (adequacy of the bank's credit portfolio, low credit risk).

[130] Moroz A.M. Banking encyclopaedia: Edited by A.M. Moroz. K.: Elton 2003. 327 p.

Short-term credits are provided for a period of up to one year. They are the most common in the Ukrainian banking practice.

Medium-term credits are loans for 1-3 years, while long-term loans are credits for a period of more than three years. Since there is no significant difference between medium-term loans, Ukrainian banks do not distinguish between them, while in Western countries banks distinguish to a certain extent [41].

Short-term credits differ from medium- and long-term loans not only in their maturity, but also in their source of investment and repayment. Short-term loans are used to form the working capital of producers. They are mainly mediated by current activities of the borrower, and the source of repayment is the funds released from the proceeds from the sale of the loan object, that is, the current cash flow.

Long-term credits are used to reproduce fixed capital and mediate investment activities of the borrowers. The source of repayment of such loans is the benefit from the implementation of the financed measures, that is, their economic effect.

Depending on the collateral criteria, there is a distinction between the secured or pawnshops credits and unsecured or blank credits [15]. A significant number of bank credits are provided against certain collateral. Security is one of the principles of bank lending. The main forms of securing a bank credit are movable and immovable property of the borrower.

Unsecured loans account for a small share of the credit portfolio of the bank. Unsecured loans are granted when the bank has a high degree of confidence in the borrower. Their size is usually limited to the bank’s equity. In many cases, blank credits are provided to bank’s insiders [16].

Bank credits can be standard or high-risk, depending on the level of risk. Standard loans are credits granted to the

borrowers who are in a good financial condition and are able to repay previous loans and interest on them on time and in full.

High-risk loans are credits provided by banks to the customers who are unsecured, financially unstable, and violate loan maturities and interest payment on them [19, p.210 215][131].

Depending on the method of financing, bank credits are divided into temporary, permanent and guaranteed. The bank makes a decision on granting or not granting the individually for each loan based on the client's application and other documents. Loans are provided by banks to customers as needed within the existing credit limit. Loans are usually granted by paying for the client's settlement documents (for example, purchase orders, checks) directly from the credit account, without the bank agreeing on the loan amount and its registration documents [21, p.228-231].

There are two types of guaranteed credits:

– the issue date is agreed in advance;

– with delivery if required.

The essence of a guaranteed credit transaction is that the bank undertakes to provide the client with a loan if the client needs a certain amount of money for a certain period of time (usually a quarter).

Regarding the method of repayment, the loans are distinguished as they can be paid back, i.e.:

– gradually (in instalments);

– at the same time, that means in a lump sum payment at the end of the term;

[131] Kolesnichenko V.F. Money and credit. Textbook Kharkiv: Published by KHNEU.2008.370p.

– according to peculiar terms provided in loan agreements;

– on the creditor's demand;

– with regression of payments [37, p.638].

For long-term loans and credits that are permanently financed in accordance with the credit line established by the borrower, a phased repayment (instalment plan) is established.

One-time payments are made to repay one-time short-term credits that mediate current production activities of the entrepreneur. In Ukrainian banking practice, this is the most common way to repay debt to banks.

Special repayment conditions are established when applying certain types of credits, such as counterparty credits, overdrafts, and credits secured by promissory notes. A special feature here is that the credit repayment is initiated not by the borrower, which is a general norm, but by the bank. The bank deposits current funds directly to the credit account.

At the request of the creditor, the loan is withdrawn if the client violates the principles of lending, in particular the terms of the loan agreement regarding the purpose of the credit, maturity date or submission of the bank reports, or other mandatory documents [31, p.603].

Loans issued based on guarantees, securities or other obligations of third parties are repaid in payment regression.

Depending on the maturity date, bank loans can be divided into the following categories:

– terminal;

– on demand;

– overdue;

– deferred (extended) [411][132].

[132] Chaikovsky Ya. I. Banking system of Ukraine today: main problems and perspectives of development. Finances of Ukraine. 2009. No.8. P.42-45.

A terminal credit is a loan granted by a bank for the period specified in the loan agreement. Most bank credits are terminal.

On-demand credits are perpetual loans granted by banks for an indefinite period of time. Customers are required to repay such loans if the bank requires them to do so. If the bank does not require repayment, the loan is repaid at the client's discretion.

Credits are considered overdue if the repayment period stipulated in the loan agreement between the bank and the borrower has expired and the funds have not been repaid to the bank. Such loans are recorded in a separate account, and the client is required to pay additional commission.

Deferred payment credits are loans for which the bank has postponed the repayment period to a later date. This requires a reasonable request from the borrower. The extension of the loan term is formalised by an additional agreement and provides for a higher interest rate.

Bank credits can be classified according to the nature of the interest rate:

– with fixed interest rates;

– with floating interest rate [21].

Fixed interest rates are applied by the agreement between the parties (the bank and the borrower) and are typical for the stable economy and short-term lending.

Floating rates are means of reducing the risk of losses for banks in the unstable economy, high inflation and long-term lending. In such circumstances, in accordance with the loan agreement, the interest rate is periodically reviewed and, in principle, is linked to the central bank discount rate, taking into

account conditions in the credit market. Conditions of the credit market are taken into account.

Bank credits are differentiated by the payment method on interest on:

– with interest being paid as the borrowed funds are used (conventional rate);

– with the payment of interest simultaneously with the receipt of borrowed funds (discount credit) [22][133].

For most bank credits, interest is paid after a certain period of time (usually one month) after the loan is disbursed. This is a common lending process. In contrast, discounted loans deduct (discount) interest at the same time the loan is disbursed. An example of such credit is an accounting loan, where a bank buys a bill of exchange from the bill holder's customer and extends a loan.

Bank credits can be broken down by the number of lenders as follows:

– are provided by one bank;

– are syndicated (or consortial);

– are parallel [22].

Syndicated credits are provided by a consortium, one of the banks acts as a manager, collects the amount of funds required by its clients from the participating bank, enters into a loan agreement with the borrower and provides the loan. The manager bank also distributed the interest income from the loan transaction to the participating banks. The bank manager

[133] Leonov S.V. Innovation packet of services as a tool of anti-crisis management by banking institutions of Ukraine. S.V. Leonov, O.O.Kotenko. *Journal of SumDU. Series Economics. 2011. No. 1. P. 174-179. URL: http://www.nbuv.gov.ua/portal/Soc_Gum/VSU_ekon/2011_1/11lsvbuu.pdf*

receives appropriate fees for its services in respect of such credits.

Several banks participate in parallel lending, but each bank provides individual loans to clients on the same agreed terms and conditions [19].

The most promising types of lending services offered by banks today include factoring, forfaiting and leasing.

The term “factoring” comes from the English word “intermediary, agent”. The Law of Ukraine “On Banks and Banking Activities” defines factoring as a banking transaction involving the acquisition of a monetary claim to fulfil the obligation in cash for goods delivered or services rendered, assumption of the risk of fulfilling such claim and receipt of payment. Factoring transactions that are not the acquisition of the monetary claim include:

1) credits in the form of prepayment of debt claims;
2) maintain the supplier’s accounting records;
3) collection of receivables from suppliers;
4) insurance of the credit risk of the supplier.

In practice, the essence of factoring is that the bank receives from the supplier the right to collect the buyer’s receivables and, after providing all necessary documentation, transfers 70-90% of the value of the shipped products to the supplier. Upon confirmation of payment from the buyer, the bank transfers the balance (30-10%) to the seller after deducting interest and fees for factoring financing.

Fees for factoring services vary depending on the type of factoring, the borrower’s financial condition, the size and structure of the business and level of the client’s confidence. The fee for factoring services includes interest on the credit and the average turnover of the bank’s funds in settlements with the buyer.

Bank factoring services for business have certain advantages and disadvantages. The disadvantages include the following ones [42]:

1) there is a greater guarantee of debt collection for receivables;

2) providing short-term financing to the seller;

3) reducing credit risk for the seller;

4) payment for the goods by the bank within two or three days after signing of the factoring agreement, which allows the seller to quickly improve its financial position.

The disadvantage of factoring for business is that it is more expensive than a conventional credit [42].

The next promising type of credit service is forfaiting. It occupies a special place among the lending methods and is defined as a banking transaction to purchase a commercial obligation of the borrower (buyer) to the lender (seller). The essence of “forfaiting” operations is similar to “factoring” operations. However, there are certain differences, such as the fact that forfaiting is a one-off transaction related to the collection of funds based on the acquisition of rights to goods and services.

Characteristics of forfaiting operations are as follows [42]:

1) interrelated with foreign trade operations;

2) forfaiting contracts are mainly concluded in freely convertible currencies;

3) bills of exchange (promissory notes and bills of exchange) are main documents used in forfaiting operations;

4) crediting the exporters is carried out by purchasing bills of exchange or other debt claims on a discounted basis;

5) credits are granted on a medium-term basis, usually for a period of six months for five years, and in some cases-up to seven years;

6) discounting is based on a fixed interest rate;

7) in most cases, confiscation is related to the sale of machinery, equipment or other investment instruments.

Forfaiting operations, like factoring, have certain advantages and disadvantages. From the export's point of view, advantages of forfaiting are as follows:

a) ability to receive cash immediately upon shipment of goods or provision of services, which improves the liquidity of exporters;

b) a fixed discount rate is applied when purchasing promissory notes. This means that the discount is a fixed amount and does not fluctuate over the life of the loan, despite changes in interest rates in the capital market;

c) risk-free. The exporter sells the right to claim the debt to the assignee on the irrevocable basis, i.e., without recourse;

d) there is no need to spend money or time on debt management or debt payment arrangements;

e) simplifying documentation and speeding up the execution of the transaction.

The disadvantages of forfaiting for exporters are high costs, the possibility that the exporter will not be able to find a guarantor that would meet the requirements of the forfeiter, and the need to prepare documentation in such a way that the exporter will not be recourse to the guarantor in the event of the guarantor's bankruptcy.

The advantages of forfaiting operations for the forfeiter are simplicity and efficiency of documentation, higher interest margin that in the case of lending, the possibility of selling the acquired assets in the secondary market, while the disadvantages are the lack of recourse in case of default, the need for the importer to know the laws of his country, the need to bear the risk until the bills are repaid, and the responsibility

for checking the creditworthiness of the guarantor or avalist [411].

Leasing is another relatively new type of financial service offered by banks. This is a business transaction whereby a lessor transfers the right to use a tangible asset to another business entity (lessee). Leasing operations can be viewed as a type of the long-term credit provided in the form of property and repaid in instalments [22].

The simplest scheme of leasing operations is:

– submission of an application indicating the leased object, its characteristics and the desired term of the agreement;

– analysis of documents and decision-making on entering into a leasing agreement;

– transfer of the leased object.

Lease payments include depreciation, resource costs, lease margin and risk premium.

Each party to the lease has its own advantages. For example, if the bank is a lessor, it has the following advantages:

1) the range of banking services is expanded, increasing the number of customers and improving the bank's image;

2) the risk of losses due to insolvency is reduced;

3) the bank's income will increase;

4) the bank will be able to depreciate its leased assets faster.

The advantages of leasing from the perspectives of the lessee are as follows:

a) 100% financing of the acquisition of fixed assets;

b) access to new equipment and other assets that can be leased without significant one-off capital expenditures;

c) the risk of obsolesce of the leased object is reduced;

d) it is easier for an enterprise to lease property than to obtain financing for its acquisition, as the leased asset serves as collateral;

e) leasing provides lessees with greater flexibility in making lease payments;

f) leasing is more cost-effective for the lessee;

g) lease payments are deductible, which reduces the taxable income of the lessee;

h) leased assets are not included in the balance sheet of the enterprise;

i) the lease object is not included in the balance sheet of the enterprise

j) the lessee has the right to purchase the property at the end of the lease term at the residual value;

k) the lessee has the right to receive additional services from the lessor.

Increased accumulation of money capital under capitalism led to the development of credit markets. Borrowed capital moves under the influence of supply and demand. Accumulated capital in the form of money is directly converted into borrowed capital.

E.F. Zhukova believes that the credit market as an economic category expresses socio-economic relations determined by the laws of the capitalist economy, which ultimately form its essence, namely its connections and relations both within the market itself and in its interaction with other economic categories.

Money capital is released in the process of reproduction. It comes there in the form of borrowed capital through the market and then returns to lenders (banks and other financial institutions).

The nature of credit markets does not depend on whether they use their own or other people's capital. In other words, it

does not matter whether the bank operates solely on its own capital or on the borrowed capital.

The content, nature of use and patterns of development of credit markets are determined by the socio-economic relations of the capitalist mode of production.

C. Maslova presents the credit market as a mechanism through which the relations are established between companies and individuals in need of funds and organizations, and individuals that can provide necessary funds under certain conditions. In addition, researchers present the credit market as a specific area of economic relations, where the object of transactions is capital that is lent on certain conditions. She believes that the credit market should be seen as an integration of different means of payment, namely the money market and the debt market [7, p. 9, 11-12].

In the interpretation of the category in the "Encyclopaedia of Banking in Ukraine", M. Savruk uses the concept of the credit capital market and defines it as a types of money (financial) market, where supply and demand for funds provided on credit are formed. Further, the researcher examines the credit market from a functional and institutional perspective as follows [37, p.79-80].

Credit markets facilitate the growth of production and trade, movement of capital within a country, transformation of monetary savings into capital investment, implementation of the scientific and technological revolution and the renewal of fixed assets. In this sense, markets meditate different stages of reproduction and support the material sphere of production, from which it attracts additional financial resources.

V. Sheludko describes the credit market as a specific component of the credit products market, which reflects the relationship between the issuer and the investor principle, is associated with the payment of income to the investor for the

loan granted to the issuer. The credit products market is defined as credit instruments and debt securities [5].

The economic role of credit markets lies in their ability to pool small, dispersed amounts of money for the benefit of capitalist accumulation as a whole. This allows the market to have a positive impact on the concentration and focus of production and capital. An important feature of credit markets is their growing influence on the internationalism of the global economy by facilitating capital flows. In addition, credit markets play an important role in the structural adjustment of capitalist economies, especially in developed countries such as the United States, Western Europe and Japan.

A review of the definitions of credit markets shows that this economic category is multifaceted. Indeed, since it is very difficult to characterise all aspects of credit markets with a single definition, it is necessary to consider credit markets from two perspective. Namely, as a specific area of financial and monetary markets and as a certain mechanism of interaction between market participants.

First, the credit market is a specific area of the monetary and financial market where funds borrowed in kind or in cash are circulated, supply and demand for such funds are formed, and the principles of payment, repayment and maturity are observed.

Second, the credit market acts as a permanent mechanism for establishing relations between credit market participants in the process of accumulating free funds and adapting them to the needs of social development and personal needs of the population.

It is well known that available cash resources are not always at the disposal of individuals and legal entities and are not always where they are needed. Iindividuals and legal entities do not always have them at their disposal. In such

situations, it is necessary to take various measures to find free funds or to use them. This creates a credit market that enables legal entities and individuals who agree to lend funds free of charge for a fee to meet the needs of those who need money and are willing to pay a certain price [411].

These are lenders, who freely lend money on various terms, and borrowers. Participants of the credit market are legal entities and individuals that enter into credit relations with each other. These are enterprises, organisations, institutions, government agencies, households, citizens and the state.

Here, the banks play a particular role. First, the banks raise funds from other entities and then lend them to their clients.

Financial institutions also play an important role in the credit market. These include credit unions, investment funds, financial, leasing and factoring companies, pawnshops and trust companies. These institutions focus on certain small segments of the credit market, working for specific clients or providing a relatively narrow range of credit services.

Both domestic and foreign companies and individuals can participate in the credit market. In the loan agreement, the parties to the loan relationships are always the lender and the borrower. They acquire this status voluntary based on the agreement. This ensures that the different needs are fully met and the interests of each party are protected.

Credit markets as an economic category are not only internal, but also actively interact with other processes in the external environment, economy and social sphere, exerting a significant influence on them. The main direction and mechanism of this influence is determined by its individual functions [40].

The concept of the function refers to the credit market as a whole, not to a specific type of the credit market. The only

function can be the impact on the external environment that all types of credit markets have. Thus, the functions of credit markets contribute to the integration of credit markets as a holistic phenomenon and their division into categories independent of their economic phenomena. The function of the credit market as a manifestation of its impact on the surrounding economic environment characterises its social purpose, i.e., the "work" it performs in society. Scholars identify three main functions: pooling despite cash savings, transforming funds into borrowed capital, and lending for expenses. [77, p. 11-12][134].

It is also important to consider the functions of credit markets through the prism proposed by O. Savvina [3]. The author proposes to divide functions into three groups: market functions, financial functions and specific functions.

The first group (market functions) includes the functions inherent in all markets, the second group includes functions of the financial market that are also inherent in credit markets, and the third group includes the functions inherent only in credit markets.

Market functions of credit markets include price, information and distribution functions. These functions are inherent in all market mechanisms, i.e. market for goods and services, including credit markets.

The price function is manifested through the formation of prices for credits and other credit services under the influence of supply and demand. Prices in the credit markets inform their participants about the surplus or shortage of resources.

The information function of credit markets is crucial. Both actual and potential participants receive and analyse

[134] Vovchak O., Mogylynytska M: Credit in the macroeconomic equilibrium system. Journal of the NBU. 2011. No. 2. p .31-33.

information here. The information provided by the market is used to make decisions, such as whether to engage in lending and deposit transaction or to wait for a more favourable time. The information provided by the market is accumulated, summarised, systematized and analysed by information, rating and analytical agencies and transformed into a specific instrument – a credit instrument that is purchased by participants of the credit market. It is transformed into a specific instrument- a credit instrument purchased by participants of the credit market. These are analytical reviews and forecasts containing data on current and future market indicators, statistical bulletins, ratings of banks and other financial institutions, data on mergers and acquisitions, etc.

The distribution function of the credit market is guided by business interests, such as maximizing revenues (profit), minimizing costs and optimizing investment risk, as well as by the objective ability to allocate resources in the best possible way. Market participants invest their funds in the most profitable way by taking out loans or buying securities. The financial function of credit markets is the function of accumulating, investing or saving money [100, p. 54][135].

The credit markets provide for the accumulations of monetary resourcess, which are formed by the capital of banks and financial institutions and balances of current and term deposits of legal entities and individuals. This function is key because the accumulated resources are the basis for investment activities of participants of the credit market. Thanks to this

[135] Gnativ O.A., Kotovska R.R. Role of the credit for the economy development in Ukraine. Socio-economic research in the transition period. Financial-economic systems: transformation and integrations (Collection of scientific works) / NAS of Ukraine. Institute of Regional Research; Ed. Col.: Respon. editor E. I. Boiko. Lvivi, 2007. Issue 1(63). 505 p.

function, the credit market is the driving force behind the development of the Japanese economy.

The investment function of the credit market naturally follows from the accumulation of resources. Long-term investment projects in various sectors of the economy, investments in real estate, securities (bonds) of Ukrainian and foreign issuers, creation and development of new businesses are all carried out by market participants. Market participants are an important area of banking operations. As the capital of banks and other financial institutions largely consists of customer accounts (debt), their investment activities are strictly regulated by the state. This means that a financial institution is necessary to maintain financial stability of financial institutions and, therefore, the safety of customers' funds [5][136].

The accumulative function of credit markets is that participants of the credit market accumulate and reproduce working capital.

Specific functions of the credit markets include the conversion of funds and expenditure lending.

The function of converting cash into borrowed capital provides a source of financing for the material production of the national economy. By accumulating the surplus funds of some market participants and lending them to others, banks and other financial institutions transform both the conditions, volumes and risks of money capital [5].

The function of financing expenditures is to provide loans to state institutions and households to address such important issues as covering the state budget deficit and financing various social programmes.

[136] Vaskis O.P. Banking system of Ukraine: current stage and perspectives of development. Journal of the Academy of labour and social relations of the Federation of trade unions of Ukraine. 2008. No.2. P .77.

Credit markets are controlled by the state, which regulates their activities and acts as a borrower in the national and international markets. At the same time, the state performs both regulatory and other functions in the credit markets, mainly through the central bank [4, p.16-18].

The bulk of money capital is made up of household savings, the size of which plays an important role in shaping in the national rate of real accumulation, the ratio of capital investment to gross national product.

The role of credit markets is determined by their nature and the role they play in the capitalist economic system, as by their task of reproducing capitalist production relations.

Thus, by reflecting the accumulations and movement of money capital, credit markets are organically linked to the movement of value in money through the formation and use of various money funds in the form of credit resources and securities. Markets perform the following functions that help measure and determine the movement, quantity and directions of money funds used for the development of capitalist social reproduction [100, p.398-399]. Recent developments in the global and Ukrainian economy have led to significant changes in the credit market. Lending by banks and other institutions (credit unions) declined. The situation is further complicated by the fact that Ukrainian banks are engaged in external lending, with most of these funds being used for consumer lending, which leads to the increase in the Ukraine's external debt. The imposition of martial law also had a negative impact on external processes and factors that destabilised the financial and credit market [1414]. During the martial law period, the NBU supports the activities of all participants in the credit market without exception and does not take measures against all market participants that do not comply with certain regulations, the main ones being:

– reporting deadlines are set out in the Regulation on the Development and submission of reports to the National Bank of Ukraine by non-banking participants of financial services market, approved by the NBU Resolution No.123 dated November 25, 2021.

– financial statements for 2021, interim financial statements and interim consolidated statements for 2022 are developed in accordance with the taxonomy of financial statements under international standards in a single electronic format and submitted to the Financial Reporting Centre of the National Securities Commission.

– requirement referring the available own capital.

– requirement to submit documents and provide information to the regulator is set out in a number of NBU regulations, in particular in the Regulation on Licensing and Registration [6].

When assessing a bank's lending activity, as many factors as possible should be taken into account including dynamics, as well as their interdependence and interconnection.

Current development of the Ukrainian economy is taking place in an unstable environment. The economy is constantly affected by external, political and economic factors. The analysis of numerous factors affecting the lending activities of banks provides the most complete information on the current state of banks and enables forecasts to be made about the bank's functioning [14].

In 2019-2020, the Ukrainian banking system showed a downward trend in lending to both businesses and households (Table 1). In addition, the indicator of total lending in the Ukrainian economy (calculated according to the World Bank

Methodology in 2018) is quite low - 50.6% of GDP, which is 2.7 times lower than the global level (139.1% of GDP) [35][137].

The analysis of bank lending in Ukraine shows the following trends in the credit system: "long" credit resources in the country's economy are declining (Table 2.9).

As of January 1, 2021, the share of credits of non-financial corporations with maturities of more than five years was 15.84%, and the share of retail credits was 11.34%, while the share of short-term (up to one year) credits to legal entities increased to 47.8% and short-term (up to one year) credits to individuals increased to 43.07%. The share of foreign currency credits remains significant (Table 2.10). The Table shows that the share of foreign currency credits received by companies remained well above 40% throughout the analysed period [25].

**Table 2.9 - Dynamics of credits issued to non-financial corporations by Ukrainian banks by maturity in 2018-2022 [25, 35]**

| Indicators | 01.01.2018 | | 01.01.2019 | | 01.01.2020 | | 01.01.21 | | 01.01.2022 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | UAH billion | % | UAH billion | % | UAH billion | % | UAH billion | % | UAH billion | % |
| Total, including: | 829,93 | 100 | 859,74 | 100 | 744,64 | 100 | 723,30 | 100 | 752,32 | 100 |
| Up to 1 year | 354,98 | 42,8 | 413,66 | 48,1 | 375,32 | 50,4 | 372,29 | 48,8 | 415,52 | 55,2 |
| From 1 to 5 years | 288,95 | 34,8 | 278,12 | 32,4 | 235,42 | 31,6 | 250,95 | 32,9 | 242,41 | 32,2 |
| More than 5 years | 185,99 | 22,4 | 167,92 | 19,5 | 133,89 | 18,0 | 139,7 | 18,3 | 94,39 | 12,5 |

Credits to businesses are underfunded due to suboptimal distribution in some sectors critical to the country's

[137] Annual Report 2020. The National Bank of Ukraine. URL: https://bank.gov.ua/admin_uploads/article/annual_report_2020.pdf?v=4. (access date 08.06.2023)

economic development (Annex A). As of January 1, 2021, the share of loans to the trade sector was 37.1%, significantly outstripping industry (23.7%), and agriculture (8.4%) [6].

**Table 2.10 - Dynamics of credits issued to non-financial corporations by Ukrainian banks, in terms of currencies [25,35]**

| Indicators | 01.01.2018 | | 01.01.2019 | | 01.01.2020 | | 01.01.2021 | | 01.01.2022 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | UAH billion | % | UAH billion | % | UAH billion | % | UAH billion | % | UAH billion | % |
| Total, including | 829,93 | 100 | 859,74 | 100 | 744,6 | 100 | 723,3 0 | 100 | 752,32 | 100 |
| -in UAH | 455,09 | 54,8 | 464,02 | 54,0 | 426,51 | 57,3 | 414,0 7 | 57,3 | 484,06 | 64,5 |
| -in oreign currency | 374,83 | 45,2 | 395,71 | 46,0 | 318,13 | 42,7 | 309.2 3 | 41,7 | 268,26 | 35,5 |

While the sectors that could drive economic recovery (construction, transport, information technology and telecommunications) are experiencing acute shortage of credit, the manufacturing industry is gradually degrading in terms of credit support. This is confirmed by the structure of loans granted to these companies, with the increasing share of food production and chemicals, while the share of metallurgy and transport is decreasing.

The systematic reasons that are currently holding banking lending in Ukraine are as follows:

– the lack of trust of borrowers is explained by objective macroeconomic conditions (quarantine restrictions, a large number of unprofitable enterprises, a decrease in demand for exporters' products on the world market) and low payment discipline of enterprise;

– interest rates on bank credits are high, as the NBU pursues a tight monetary policy;

– the NBU's criteria for assessing the quality pf the bank's credit portfolio are subjective, which significantly reduces the likelihood of borrowers receiving loans;

– the Ukrainian credit system is characterised by a high share of problem loans in the banking system. According to the World Bank, the value of the indicator "non-performing bank loans as a percentage of total loans" in Ukraine in 2018 was 52.9% (this is the penultimate place in the ranking of countries). [38].

**Table 2.11 - Dynamics of credits issued to non-financial corporations by Ukrainian banks, in terms of currencies [25, 35]**

| Indicators | 01.01.2017 | | 01.01.2018 | | 01.01.2019 | | 01.01.2020 | | 01.01.2021 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | UAH billion | % | UAH billion | % | UAH billion | % | UAH billion | % | UAH billion | % |
| Total, including: | 822,11 | 100 | 829,93 | 100 | 859,74 | 100 | 744,64 | 100 | 723,30 | 100 |
| - in UAH | 417,43 | 50,8 | 455,09 | 54,8 | 464,02 | 54,0 | 426,51 | 57,3 | 414,07 | 57,3 |
| - in foreign currency | 404,68 | 49,2 | 374,83 | 45,2 | 395,71 | 46,0 | 318,13 | 42,7 | 309,23 | 42,7 |

This figure for other countries is as follows: Hungary has a level of 2.5%, Georgia – 2.7%, Slovakia – 3.1%, Turkey – 3.7%, Poland – 3.9%, Romania – 5.0%, and Bulgaria – 7.8%. [40]

The analysis of changes in the distribution of non-performing loans (NPLs) shows that the state-owned banks face large volumes of non-performing corporate loans. This phenomenon is associated with a large number of illegal economic transactions in Ukraine (according to the Ministry of Economy - 28% of GDP in 2019), which makes it difficult for

a significant part of potential borrowers to access bank credit services.

– In recent years, banks have changed their strategy, reducing the relative share of the resources allocated to lending to enterprises, and increasing investments in government bonds and NBU certificates. These investments bring a lot of income and have a very low level of non-return of funds;

– the funds raised have an unsuitable structure, which leads to a deterioration in credit conditions. Most bank liabilities are short-term and include a significant share of foreign currency funds. For example, only 2.8% of the funds of legal entities are accounted for by long-term deposits (over 2 years), while long-term deposits of the population amount to 1.0%;

– the pace of recovery of the bank capitalization is slow due to crisis events in 2014-2016 and the withdrawal of many banks from the market, which led to the reduction in the size of the regulatory capital of the banking system. For example, as of 01.01.201 its size was UAH 205 billion, and as of 01.06.2020 – it was reduced to UAH 172 billion.

Negative phenomena in the banking system of Ukraine forced the National Bank of Ukraine to develop a program "Resumption of lending". The implementation of this program in 2020 led to a reduction in the cost of bank loans, strengthening the protection of borrowers and lenders ' rights, introducing a credit register and improving access to reliable and transparent information for making credit decisions. There was also an expansion in the use of a popular instrument on the market - interest rate swaps. The share of non-performing loans (NPLs) in Ukrainian banks decreased from 48.4% as of 01.01.2020 to 41% as of 01.01.2021.

The National Bank of Ukraine has established requirements for managing distressed assets of banks, which

allowed us to start resolving issues related to non-performing bank loans. Each bank has developed its own NPL management strategy, which defines approaches to solving distressed assets. In 2020, clear criteria were also set for determining the amounts of assets that are most likely not to be returned and that can be written off.

The measures taken have led to the improvement in the quality of credit portfolios of almost all banks, especially state-owned ones. State-owned banks have developed long-term plans (for three years) to settle non-performing loans (NPLs), which have been approved by the Financial Stability Council. According to the approved plans for 2020, state-owned banks have written off debts in the amount of UAH 30.6 billion on loans in UAH and 3.1 billion in dollar terms on loans in foreign currency. After implementing these measures, in 2020 state-owned banks reduced the share of non-performing loans from 63.5% to 57.4% [111, 34].

Banks with foreign capital (with the exception of banks with the Russian Federation) are actively implementing measures to clear their balance sheets of non-performing loans. As a result of these measures, the share of non-performing loans (NPLs) in their balance sheets fell from 16% to 12.3% by the end of 2020. Foreign banks use various methods, such as write-offs, sales, and search for voluntary agreements to settle the debts on credit loans of their customers. Ukrainian banks also reduced the share of non-performing loans in their balances from 18.6% to 14.6% by the end of 2020. To reduce non-performing loans, they used a variety of methods, including writing off and selling assets. It is planned that by the beginning of 2023, the share of non-performing loans will be reduced to 24%, and with a significant increase in the volume of loans issued to enterprises, the NPL level will decrease to less than 20%. Currently, non-performing loans do not have a

negative impact on the capital of banks and their profitability, since the reserve level is 98%. However, such a high share of non-performing loans affects the investment attractiveness of banks [24].

So, modern development of bank lending requires its modernization. This means creatin conditions for improving the access of enterprises to credit resources, using modern banking and non-banking and information technologies, simplifying and expanding lending tools for enterprises, and preventing illegal activities of credit institutions.

Current bank lending in Ukraine is restricted by a number of systematic reasons, including insufficient reliability of borrowers, which is due to objective macroeconomic conditions and a low level of payment discipline of the enterprise. In addition, high bank loan rates are a consequence of the tight monetary policy of the National Bank of Ukraine. Regulation of lending processes is characterised by excessive regulation. In addition, the domestic credit system has a large share of problem credit debt to banks.

Participants of the credit market constantly face possible various risks arising during the implementation of credit activities. These risks can arise both due to external factors of the economic environment and due to internal differences in their relations.

It should be borne in mind that the more effectively entities of the credit market use their assets, the more likely credit risks are to occur during credit activities.

The main risks in the credit market include possible non-repayment of loans by borrowers, restriction of the access to credit resources to meet the needs of borrowers, changes in legislation that may complicate lending activities, deterioration of the economic situation in the country, insufficient assessment of the collateral property assets and insufficient

control over the financial condition of borrowers, insufficient credit policy, incomplete protection of the creditors' interests in the current legislative system, reduced demand for credit services and other similar factors.

Credit risk is an essential part of any credit agreements, regardless of the parties entering into it, starting from the moment of conclusion of the agreement. This risk can be reduced due to timely payments on credit obligations, or increased due to the influence of various external and internal factors that can lead to negative consequences for all participants in credit relations.

It should be remembered that credit risk affects all participants in the credit market of the country, including lenders. This risk applies to all participants due to the economic situations in Ukraine and changes in legislation. Banking institutions also face operational risk, liquidity risk, interest rate risk, currency risk, management risk, and other risks. While non-bank financial and credit institutions do not have currency risk, since they do not provide foreign currency loans.

It is important to note that banking institutions, as the main participants in the credit market, have the highest levels of credit risks. This is due to the fact that these institutions accumulate a significant amount of credit risks, since they have a large concentration of financial sassets in their loan portfolio.

The volume, structure and quality of the loan portfolio of banking institutions have a significant impact on its size. The National Bank of Ukraine has introduced new rules for assessing credit risks, which are aimed at building confidence in banking information and requires banks to display realistic data.

These Regulations on the credit risk assessment are designed to address significant shortcomings in current

regulations that have allowed banks to significantly underestimate the percentage of non-performing loans and the amount of credit risk on assets. The National Bank of Ukraine has adopted a regulation on working with distressed assets.

According to these regulatory documents, in 2020, banking institutions developed their own strategy for managing distressed assets for the next three years. In this strategy, banks should set realistic goals to reduce the level and volume of their non-performing assets, as well as the alienated property they hold on their balance sheets.

There are criteria that allow you to quantify the degree of risk that is acceptable to the bank. Such criteria, in particular, are economic standards defines by the National Bank of Ukraine, which are mandatory for all banking institutions. It is important to note that violation of the established credit risk standards can lead to financial difficulties for banking institutions.

According to the Resolution of the National Bank of Ukraine "On Approval of the instruction on the procedure for regulating the activities of banks in Ukraine, credit risk standards include standards as follows: S7, S8 and S9. The purpose of establishing each of these standards is regulated by the instruction on the procedure for regulating the activities of banks in Ukraine [30][138].

Banks form reserves for credit operations to ensure the reliability and stability of the banking sector and to cover possible losses that may arise as a result of credit activities. This must be done in accordance with the requirements of the National Bank of Ukraine, which sets standards for credit

[138] Pavlenko L.D. System of the state anti-crisis management of the banking system as a basis of stable functioning of the domestic economy. L.D. Pavlenko, V.P. Semenets. Investments: practice and experience. 2019. No. 2. P. 48-55.

operations. These reserves help banks ensure financial stability and readiness to cover possible losses that may arise in the event of non-repayment of loans or changes in the financial condition of borrowers.

Non-bank financial and credit institutions inevitably face credit risks when providing loans. Pawnshops are characterised by a relatively low level of credit risks among non-bank financial and credit institutions. This is due to the fact that their peculiarity in the field of the credit activity is to provide consumer loans secured by the property, which leads to minimizing the risk in relation to problem loans.

The main risk when obtaining a pawnshop loan is possible loss of the collateral item. However, if the borrower's liability is limited to the value of the pledged property, the client becomes less vulnerable to possible late payment and non-payment of interest on the loan, despite high interest rates and penalties.

It is important to take into account that a significant credit risk that exists in the banking system can acquire signs of a systemic threat and cause crisis consequences, as shown in Figure 3.

The relationship between the prerequisites, sources, factors and consequences of the systematic risk of the banking system, which is shown in Fig. 3, confirms that the accumulation of major financial risks in the banking sector (in particular, credit risk) may become systematic. This can lead to financial imbalances (which are considered as a systematic risk factor) and, as a result, to systematic bank crises. These crises can manifest themselves in the unprofitability of the banking sector, the mass withdrawal of banks from the market and their nationalization, as well as in the inability of banks to perform their main functions.

It should be noted that leasing and factoring companies operating in the credit market are characterised by a low level of risk; their problem accounts payable are at the acceptable level, which indicates that they are engaged in lending activities with a fairly minimal credit risk.

| **PRECONDITIONS FOR THE EMERGENCE OF SYSTEMATIC RISK IN THE BANKING SECTOR** | | |
|---|---|---|
| **Cyclicity of the banking sector development** | **Specifics of the bank state regulation** | **Specifics of the banking activity and behaviour of banks** |
| **Components (sources) of the system risk, which form financial instability** | **Factors of system risk** | **Consequences of the system risk implementation** |
| ***credit risk*** | **Accumulation of disbalances in the banking sector:** liquidity, excessive credit expansion, etc. | **system bank crisis** |
| ***insolvency risk*** | | |
| ***liquidity risk*** | **shock event** or contagion effect | **formation of disproportions in the banking system of the country** |
| ***interest risk*** | **emergence of monetary disbalances** due to ineffective state regulation | |
| ***currency risk*** | | **crisis phenomena in other sectors of the economy** |

**Figure - 2.22 - Scheme of preconditions, sources, factors and consequences of systematic risk in the banking sector of Ukraine [44]**

However, when analysing the activities of financial, leasing and factoring companies, it is important to take into

account that these credit market institutions do not publish information on the amount of problem loans.

It is important to note that among all non-bank financial and credit institutions, credit unions have the highest-level risk. This is due to the fact that their lending activities cover a wide range of borrowers and include significant amounts of loans issued. Together with external and internal factors, this can lead to the possibility of non-performing loans and deterioration of the quality of the loan portfolio of credit unions. The need to reduce, avoid and repay non-performing loans in credit unions implies taking appropriate measures.

Overcoming credit risks is possible when implementing the proposed measures, such as improving credit policy, effective management of the loan portfolio, diversification and restriction of loans, restructuring of loans, changing the principles of the reserves formation and setting bank standards, as well as the development of the market for derivative credit instruments, etc.

To overcome the consequences of credit risks, the measures can be taken, such as the settlement of problem loans, sale of assets, as well as the introduction of state programs to write off problem loans.

Expanding the base of the Credit Register increases the effectiveness of the credit risk assessment by banks. This has a positive impact on the resumption of lending and creates conditions for honest and reliable borrowers to receive loans, contributing to their financial reliability.

The application of the improved legislation regulating the activities of the credit market will certainly help clear it of problem or non-performing loans to optimize its functioning. To achieve this goal, you need to take several of the following measures and conditions:

– improving the efficiency of the system for identifying potentially unproductive entities in the credit market;

– rationing and improving the effectiveness of regulatory tools for the interaction with inefficient participants of the credit market on part of regulators;

– improving the efficiency of credit risk management processes, including collateral management, which are used by regulators during the rehabilitation or withdrawal of inefficient market participants, and providing an opportunity to apply practical aspects of the accumulation of non-specialised assets in the specialised management funds;

– development and improvement of a set of tools for stabilizing the payment discipline of debtors on distressed assets.

Financial and economic measures to improve the credit market should have a positive impact on the financial performance of all market participants and help increase their financial stability.

In the context of unstable financial and economic situation in the country, the key tool for improving the efficiency of bank lending is to improve the credit risk management system in the banking system.

Modern banks choose to expand only those loan programs that have an acceptable level of risk. Given the operational riskiness of long-term investments, banks prefer short-term investing. Both investment and mortgage loans are considered high-risk, and therefore interest rates on them increase significantly.

Therefore, today, to ensure effective functioning of the credit market in Ukraine, it is important that banking institutions implement a wide range of risk management measures. These measures should include improved credit

policies, effective credit portfolio management that takes into account diversification, limiting, reserving, structuring, scoring, assets securitization, and other methods.

So, it is proposed to integrate the financial security system into the bank's management system, which will allow us to constantly monitor the systematic credit risk of banks to make timely and informed decisions. This system should be based on the principles of flexibility and caution, ensuring stability, absence or crises and efficiency in the bank's activities. In the future, it is planned to conduct research on other systematic risks of banking.

The modern financial sector of Ukraine requires radical changes in both the legal and organizational fields. The functioning of the credit market of Ukraine at the present stage requires the development of optimization strategies for further development and improvement. Since the credit market is now dominated by short-term transaction, special attention should be paid to long-term lending to meet investment needs of manufacturing enterprises.

In the context of economic and financial uncertainty of the unknown future, it is very important to develop a set of measures to optimize and improve the functioning of the country's credit market. The main goal is to resume lending to the real sector of the economy. At the same time, there are positive changes that contribute to the optimization of the credit market in Ukraine. For example, in 2018, the Law of Ukraine "On amendments to certain legislative acts of Ukraine regarding the resumption of lending" was adopted, which effectively corrected shortcomings in the legislation that could be used to evade repayment of debts by borrowers or avoid liability for their non-repayment [224].

In particular, this Law has reduced the risks of creditors when performing credit operations. Now the rights of mortgage

lenders are guaranteed and protected. The institution of guarantor is now legally established. And banks have access to important information about borrowers, which is of great importance for credit relations. Alienation of the mortgage object without the consent of the lending bank is now impossible. The possibility of avoiding credit obligations in the event of inheritance of the borrower's property has also decreased, and out-of-court settlement mechanisms have been improved.

Thus, thanks to this legislative act, banks have greater confidence in the legal protection of their rights. This means that they can set less stringent requirements for potential borrowers. This helps increase lending volumes, reduce the cost of credit resources, and facilitate access to banking products for businesses and households.

To improve the credit market in Ukraine, the Cabinet of Ministers of Ukraine has issued recommendations to the National Bank of Ukraine on the implementation of specific measures (Fig.2.23).

The National Bank of Ukraine, which plays the role of a regulator of the financial system, considers non-banking lending as an alternative to bank lending. This can become an additional source of financing, with a particular focus on the activities of financial companies. Lending through financial companies has its advantages, including increasing the number of loan agreements concluded through the use of advanced technologies. This process is possible remotely by quickly identifying customers and transferring funds to their credit cards. All this contributes to the expansion of the credit market in Ukraine.

**Measures on the problems liquidation in the credit market of Ukraine**

1. Initiate the issue of harmonizing the taxation of interest income on deposits with other types of passive income of individuals.
2. Identify priority sectors of the economy, the development of which will contribute to the increase in exports, and develop programs to support them (including credit) and measures to stimulate such sectors with fiscal incentives.
3. Intensify the mechanisms for using trade finance from international financial corporations, the Export Credit Agency of Ukraine, and funds from international financial organizations.
4. To increase lending and boost investment, update mechanisms of all forms of public-private partnership in Ukraine.
5. Develop measures to restore mortgage lending (introduce government programs to support mortgage lending) and regulate the primary residential the real estate market.
6. In order to create transparency in business and ensure the reliability of financial reporting, take measures to simplify the structures of business groups, making it impossible for large and medium-sized businesses to use the sole proprietorship model, presenting them a single economic unit; take measures to de-offshore the business-groups.

**Figure 2.23 - Measures on the problems liquidation in the credit market of Ukraine [3333]**

The expansion of lending through financial companies occurs through the provision of small loans to individuals for a short period of time to meet their consumer needs.

Based on the analysis carried out, it becomes clear that it is important to supplement the measures indicated above by the Cabinet of Ministers and the NBU with the following:

1.4.National measures:

– improving credit issuance procedures for greater efficiency;

– simplification of the credit system for the convenience of customers;

– creation of reliable collection organizations based on Ukrainian banks;

– implementation of the legislative control over the situations of non-repayment of loans;

– expansion of the credit default risk insurance system;

– expanding the range of banking services and introducing new credit forms;

– continued development of the latest technologies and innovations in the banking sector.

2. Incentives to improve bank lending:

– implementation of effective state investment and industrial strategies, with the clarification of the main directions of economic development and purposeful investment of financial resources;

– development of the infrastructure for investments focusing on the risks decrease connected with long-term projects;

– increasing the attractiveness of enterprises and organisations for investors by optimizing, modernizing and improving their activities to attract bank investments;

– introduction of the targeted credit policy with the government regulation of interest rates on loans. These measures are designed to redistribute financial flows to the real sector of the economy and support production;

– implementation of the state support measures aimed at stimulating the investment activity of banks.

The proposed measures will help increase the volume of long-term lending in the banking system. This will undoubtedly lead to positive changes in the work of domestic enterprises and organizations, as well as contribute to the economic growth of Ukraine as a whole.

3. Measures on optimization of mortgage lending include:

– organization of separate accounting of mortgage loans for their separation from other assets of the issuer;

– increased monitoring of the issuer's performance, including an independent audit of mortgage coverage, helps increase investor confidence and reduce expectations of possible early payment of bonds;

– development of mortgage programs for various social categories of citizens, in particular those who find themselves in a difficult financial position;

– assistance in attracting investors to the housing mortgage securities market through establishment of state guarantees and sureties for these securities;

– strengthening the information campaign on mortgage lending for population and improving the regulatory framework to update the mortgage system.

To improve the efficiency of the credit market, it is necessary to take a number of organizational measures that will improve the quality of the market environment as a whole and increase the efficiency of credit activities of all subjects of the credit market, namely:

– improve macroprudential supervision;

– promote the development of the credit market instruments;

– publish rating assessments of financial institutions, including banking and non-banking organizations;

– improve the system of providing and interpreting public information in reporting;

– introduce increased qualification requirements for employees who directly issue loans in retail establishments and take part in the selection of bank borrowers;

– start creating official structures of credits cooperation, such as stabilization funds. The main purpose of these funds is

to provide financial support to credit unions to reduce the number of distressed credit unions.

Such institutional and organizational measures will contribute to creating a favorable environment for the development of modern lending methods. They will also improve mechanisms for protecting the rights of both lenders and borrowers. It is necessary to focus on the use of social and marketing strategies for the credit market development. These strategies should not be downgraded, especially in times of crisis, when confidence of the population in a country's ability to solve its problems with domestic resources and capacity can lead to significant positive changes.

So, the proposed strategic directions provide for the development of the credit market of Ukraine through the improvement of regulatory, institutional and organizational, financial, economic and socio-marketing impact. These measures, which will comprehensively be processed, implemented, will help optimize the credit market and all its segments, based on the new legislative regulation and restore public confidence.

After analyzing the state and development of the credit market of Ukraine in recent years, we can conclude that there is no clear state credit policy. The role of the state in this context is manifested only through the program "Affordable loans 5-7-9", and this role is limited. The National Bank of Ukraine makes a small contribution to the implementation of the state credit policy and the development of the credit market. Monetary policy focused on inflation targeting leads to a narrowing of the credit market and inefficient distribution of credit resources in the economy.

Therefore, taking into account the need to stimulate economic development during the war and after the restoration of the state, the government, together with the National Bank

of Ukraine, should develop a clear state credit policy. The main goal of this policy should be to effectively manage the distribution of credit resources and create conditions for infrastructure restoration, compensation for losses of enterprises due to the war, support the development of small and medium-sized businesses and strategic sectors of the economy with a high level of added value.

In order to implement the effective state credit policy, the National Bank of Ukraine and the Cabinet of Ministers of Ukraine are expected to choose specific goals of this policy. The goals of the credit policy should be determined based on the analysis of the current situation and a forecast of losses caused to the Ukrainian economy due to the war. According to the Kyiv School of Economics, as of August 8, 2022, the infrastructure losses from the war with the Russian Federation amount to 110.4 billion US dollars. Approximately half of these losses are accounted for by residential buildings, which are estimated to be worth 4 47.8 billion. Businesses and industry as a whole lost assets for USD 8.8 billion in assets, while agriculture lost USD 4 4.3 billion. Energy and utilities lost USD 1.8 billion and USD 1.3 billion, respectively [9].

The information data obtained on the losses of the Ukrainian economy from the war with the Russian Federation indicate that the restoration of the infrastructure, in particular housing, should be a top priority for the state and its credit policy. Although at the level of the state leadership and the Cabinet of Ministers of Ukraine, the possibilities of creating the Fund for the restoration of Ukraine are being considered, the funds of which will be used for the restoration of housing, it is important to take into account that the accumulation of resources for this Fund will take time, and among the Internally Displaced Persons there are those who want to build housing in other localities, but do not have sufficient financial

opportunities. Therefore, it is worth considering the possibility of introducing a state mortgage program that will provide preferential mortgage loans not only to individuals, but also to construction companies. This will encourage the development of the construction industry and provide affordable housing for Ukrainian citizens.

One of the key goals of the state credit policy is to finance projects to restore the production capacity of the enterprises that have suffered the losses or need relocation, as well as the construction of new factories, enterprises and farms. It is important to take into account that for new building and production, it is necessary to use domestic materials and technologies, as well as import high-tech equipment and machinery in order to be competitive in the international market.

The development of small and medium-sized businesses is a justified goal of the state credit policy under the martial law. The provision of soft loans to individual entrepreneurs and medium-sized enterprises is necessary to ensure smooth operation of businesses during the crisis and to create financial stability for further expansion after the war. It is also important to note that supporting small and medium-sized businesses has an important security aspect, as small businesses are harder to destroy than larger businesses. In addition, this support promotes self-employment and job creation at the local level, which has a positive impact on the well-being of the population, financial health of local budgets and the development of the regional economy.

When formulating a goal for the development of a processing industry with a high share of added value, it is important to take into account the experience of the Republic of Korea and Taiwan, as well as analyse historical aspects of the domestic economy. It is necessary to pay attention to the

low level of participation of the banking system in lending to the real sector, which is only 13% relative to GDP at the beginning of 2022. The above-mentioned goals should be achieved through close cooperation between the National Bank of Ukraine and the Cabinet of Ministers of Ukraine. However, it is extremely important that both bodies perform their responsible tasks at a high level in order to ensure the effective implementation of the state credit policy.

Regarding the role and measures of the National Bank of Ukraine in implementing the credit policy, it is important to review the interest rate policy. The current high rate on certificates of deposit limit banks in providing loans and contribute to the effective allocation of banking resources in the economy. High rates force banks to attract deposits at low interest rates, which they then place with the National Bank, without providing them in the form of loans. High rates force banks to attract deposits at low interest rates, which they then place with the National Bank, without providing them in the form of loans. One of possible ways to solve this problem is to establish an asymmetric corridor of interest rates on assets and liabilities of the National Bank. In particular, the rate on certificates or deposits can be determined based on the demand for tloans in the banking system, and not on the dynamic of inflation, which is currently based on supply. This will help use liquidity more efficiently and encourage lending in the real sector of the economy.

An important task of the National Bank of Ukraine regarding the credit policy is the transition to the credit easing policy. Quantitative measures, which include various tools for anti-crisis regulation, can be effective in Ukraine due to the lack of a developed stock market. This means that it is important to turn to more flexible and strategic methods of managing credit policies.

The credit easing policy, which has been implemented by the world's leading central banks, in particular the Bank of Japan, is aimed at supporting credit markets and restoring their functioning [43][139]. When implementing this policy, central banks change the structure of their portfolio of financial assets, instead of increasing the banks' reserves, as in the case of quantitative easing (see Fig. 2.24).

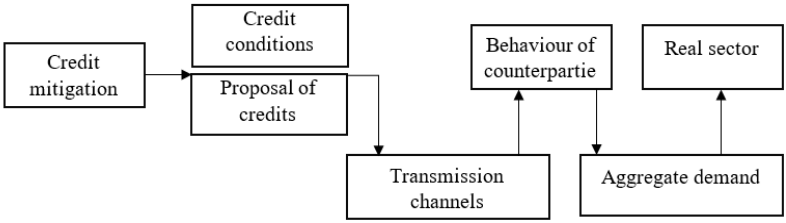


**Figure 2.24 - Transmission mechanism of credit mitigation [15]**

Among credit easing measures we should highlight certain programs that were implemented by the Federal Reserve System. For example, the CPFF (Commercial Paper Funding Facility) program, which was in effect from October 2008 to January 2010, and the program to buy out direct obligations of the federal mortgage agencies "Fannie Mae" and "Freddie Mac", as well as secured mortgage-backed securities (MBS) issued under the guarantee "Fannie Mae", "Freddie Mac" and "Ginnie Mae", which the Federal Reserve implemented in 2008. After the 2007 crisis, the bank of England also introduced credit easing measures. One example is the SLS (Special Liquidity Scheme) program, which was launched in April 2008.

[139] Bernanke, B. (2009). The Crisis and the Policy Response. Speech at the Stamp Lecture, London School of Economics, London, 13 January.

The ECB is most actively using credit easing measures. These include, for example, the ECB's targeted long-term refinancing operations programs (TLTRO-I and TLTRO-II), which were conducted from June 2014 to March 2017 [18, p. 47].[140] By purchasing private assets and issuing loans to special financial institutions, the central bank forms its portfolio in financial structures, influencing supply and demand in the financial market. The impact, not just the policy rate, determines the parameters of the credit market, such as market interest rates and banks' risk assessment of borrowers. These changes in credit conditions for households and businesses contribute to stimulating demand and economic growth.

To implement the quantitative easing policy, the National bank of Ukraine can simplify the requirements for assessing the creditworthiness of borrowers by reducing permissible values of credit risks coefficients. This can help expand the range of economic agents who can get a bank loan. In addition, it is important to cooperate with government structures of the credit market, which it is advisable to create in Ukraine (this will be discussed in more detail later in the text).

Another key initiative of the National Bank of Ukraine for the development of the credit market and the implementation of the state credit policy is the development and implementation of long-term preferential programs for public and private commercial banks. These programs can participate in financing of the government programs for the national economy development. Providing long-term loans to enterprises at low rates, as opposed to non-refundable monetary assistance in the form of government subsidies, can encourage enterprises to improve efficiency and adhere to the

[140] Vovchak, O. D. Credit and banking: textbook / O. D. Vovchak. K. : Znannia, 2008. 564 p.

basic principles of crediting: timeliness, reimbursement, target direction and security. This mechanism has been successfully used in the Republic of Korea and has contributed to high economic growth and reduced unemployment.

The role of government under martial law in the development and implementation of the state credit policy is to create new state development institutions, formulated targeted state programs, identify priority strategic sectors of the national economy and implement the policy of compensation of interest rates on bank loans within the framework of state credit initiatives.

In the developed world, the creation of new state development institutions was a necessary step to overcome economic crisis and restore economic development. For example, during the Great Depression, the institutions such as the Bank Deposit Insurance Corporation, the Agricultural Regulatory Administration, the Commodity Credit Corporation, the National Recovery Administration, and others were established in the United States. After the 1961 military coup, the Korean Development Bank, and other institutions were founded in the Republic of Korea. In China, the Agricultural Development Bank of China and the Construction Bank of China, and later the Development Bank of China, were established in the 1950s. These banks on development exist in most the G20 countries, with the exception of Australia.

Taking into account the need for significant investments to restore the national economy during and after the war with the Russian Federation, our opinion is that the key participant in the Ukrainian credit market should be the Bank on State Reconstruction and Development. This bank should focus its activities on providing profitable long-term and significant loans to finance big projects to restore the national economy. In addition, the Bank on State Reconstruction and Development

should specialize in providing profitable long-term loans to big enterprises to restore production capacities, financing relocation processes or the construction of new factories and enterprises.

Among important steps under martial law is the creation of a specialized bank, namely the Bank on the Development of small and medium-sized businesses. This becomes especially relevant due to the serious threat of enemy shelling of important facilities and large enterprises. Providing credit support to small and medium-sized businesses will help ensure uninterrupted production of goods that are crucial for economic development, and maintain the necessary level of employment.

Both banks – the Bank on State Recovery and Development and the Bank on the Development of small and medium-sized businesses should allocate a significant part of their loans for the implementation of special state targeted programs aimed at the development of key sectors of the economy. The development of strategic industries and programs for the development of the Ukrainian economy is the responsibility of the Cabinet of Ministers of Ukraine in the field of the state credit policy. Under martial law, the main focus should be on the energy sector, including production of electricity, natural gas and fuel. The second priority should be the development of agriculture, as it ensures food security and is an important export industry.

However, it is worth paying attention to processing agricultural activities as the main area of financing. This is important because of the higher level of added value in the processing industry and the ability to quickly deliver the finished products to consumers. The allocated loans should finance processing agricultural complexes for the production of cereals, flour, pasts, bakery products, feed and other products. In addition, low-cost agricultural sectors such as animal

husbandry, horticulture and greenhouses should be supported by providing loans to family farms and small farms specializing in animal husbandry. This will help increase the capital intensity of the agricultural sector, increase wages and income from the export of livestock products.

The third important direction among the strategic sectors in the national economy should be directed to the metallurgic and chemical industries due to their large losses because of war and the need for complete modernization to ensure competitiveness in the world markets. Credit programs for enterprises in all sectors should be created by the analogy with the experience of the Republic of Korea, where a mandatory condition for obtaining a loan was to use it for the construction of new factories to produce domestic goods.

The fourth important direction can be identified for the mechanical engineering industry, which is engaged in the creation of machine tools, high-tech equipment and industrial machines. The development of this sphere is critically important for our state due to the thirty-year period of deindustrialization of the national economy.

The fifth main direction, which is important for the development of our country – is construction, because after the war, our state will need the largest investment in its infrastructure. Even now, the scale of losses in the housing sector is extremely large, and it is possible that grant assistance will not be enough to restore more than 130 thousand residential buildings, including about 16 thousand multi-apartment buildings.

Of course, under martial law and during the implementation of various state programs for the credit market development, as well as when the requirements for the creditworthiness of borrowers are not so high, there is a significant probability of credit risks. Why it is important to

establish mechanisms for distributing these risks between the state and banks. One of the possible measures is the creation of a State Guarantee Fund, which will provide guarantees for bank loans in strategic sectors of the economy and for small and medium-sized enterprises. This means that in the event of bankruptcy of the borrower of significant losses due to martial law, banks will be able to receive compensation from the state. In addition, the possibility of creating a state-owned asset management company based on the bridge bank or hospital bank principle should be considered. This company will promptly buy back problem loans from domestic public and private banks, reducing the pressure on the bank's balance sheet and losses of the bank associated with the formation of reserves in case of the borrowers' insolvency.

The creation of new state development institutions and implementation of the state credit policies can play a key role in the country's recovery after the war. However, if there is no will in political circles for radical changes in the monetary strategy of the National Bank of Ukraine or in the fiscal and debt policy of the government, it is possible to review the work of existing state-owned banks without large financial, managerial and political costs.

Operating state-owned banks in Ukraine, such as Oshchadbank, Ukreximbank, Ukrgasbank and Privatbank, offer almost the same range of services for small, medium and corporate businesses. In addition, in our opinion, the general terns of lending are unsuitabke for most enterprises in Ukraine, since interest rates on various programs (for replenishment of working capital, purchase of agricultural machinery, motor transport, import of agricultural machinery, purchase of housing) range from 25% to 35%, which is significantly higher than the profitability of enterprises. As of the beginning of 2022, profitability was: in industry – 0.9%, in construction – (-

7.6) %, in agriculture – 20.1%. In addition, the loan programs themselves are short-term in nature, with a maximum term of up to 5 years for business development and investment programs, as well as 15-20 years for housing lending [26; 27; 28; 29, 32][141].

At the same time, if state-owned banks organize their activities effectively, they can perform the function of the development banks. For example, Oshchadbank, which has the widest network of branches in Ukraine, can become a key player in lending to housing construction and energy-saving programs. However, it is important to take into account the limited resources of the domestic banking system. In this context, there is a need for monetary policies similar to quantitative easing programs used in the USA and the EU. These programs provide additional liquid funds to support housing construction through the promotion of affordable loans. It would seem that based on the experience of Oshchadbank over the past three years, energy-saving programs of the state have been successful both for the bank (increasing liquidity, the customer base, confidence) and for its customers (saving through energy saving). Therefore, it is advisable to consider continuing these programs. So, taking into account the above, it is important to nor that successful experience of implementing an effective credit policy for the recovery and development of states after the war in the world can be successfully applied in Ukraine. However, this requires strong political will and commitment to implementing

[141] Official website of JSC "Oshchadbank". URL: www.oschadbank.ua. On amendments to certain legislative acts of Ukraine on the responsibility related to the bank of individuals: Law of Ukraine of 02.03.2015 No. 218-VIII. URL: http://zakon2.rada.gov.ua/laws/show/218-19/paran64#n64

domestic macroeconomic policies that are in the country's national interests.

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## 2.5. TRENDS IN THE DEVELOPMENT OF CRYPTO-FINANCIAL INSTRUMENTS IN THE DIGITAL ECONOMY

The global financial crisis of 2008-2009 was a period of significant instability in the financial system. During this period, confidence in the US dollar declined, and the proposal was made to create new currencies, including regional ones. At this time, the Bitcoin payment system, based on the peer-to-peer payment model and developed by Satoshi Nakamoto, appeared, leading to the emergence of the term "cryptocurrency." This concept was first proposed in 1998 by

Japanese researcher Wei Dai, who considered cryptocurrency as an alternative payment system.

The global pandemic has accelerated the digitalization of society, especially in the financial sector. Thanks to the development of information technology and simplified access to markets, the popularity of electronic currencies has increased, as they can quickly adapt to changes in the virtual payment market. In the process of computerization, large centralized data warehouses, such as archives, accounting and statistical information, and deposit money, were digitized. At the same time, the appropriate infrastructure (Internet) and logistics (SWIFT) were created to ensure safe, reliable, and efficient financial transactions. This opens up historically unique opportunities for managing banking multiples and financial flows in general.

The subsequent stage of the financial sector's cryptoization, which was theoretically established at the end of the 20th century and is associated with the introduction of cryptoassets, consisted of two key innovations: digital analogues of transactions (SMART contracts, 2013), which led to the significant emergence of crypto-financial instruments, including cryptocurrencies, as well as means for their storage and transactions due to the transition from centralized to distributed and hierarchical databases.

It is important to note that the term "cryptocurrency" derives from the use of cryptography to maintain records of the issuance and circulation of this form of money. The fundamental principles underlying cryptocurrencies are the blockchain mechanism and the "proof-of-work" data protection technology, which provide a high level of resilience to external influences and cyberattacks. This digital register of transactions and other information is reliable due to the distributed database between network participants and decentralized management.

Blockchain technology enables the storage of the complete history of all cryptocurrency transactions on all computers in the system. Each record in a block is linked to the previous one, forming a chain of references. This allows for the verification of any transaction, as each subsequent block contains a reference to the previous one. The process of cryptocurrency mining can be carried out by any user of the system who makes their computer available for complex computations[142].

The emergence of cryptoassets is an example of an innovation that was ahead of the law. Consequently, the official acquisition (creation) and use of cryptocurrency as an accounting object remain legally unregulated[143]. Furthermore, focusing on the technical aspects of cryptocurrency, such as its extraction (mining) and use, prevents a deeper study of its economic essence.

It should be noted that there is currently no established, unanimous opinion on the essence of the definition. Table 2.12 presents the main definitions of the concept of cryptocurrency.

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## Table 2.12 - Definition of "cryptocurrency"

| № | *Institution, scientist, source* | *Definition of "cryptocurrency"* |
|---|---|---|
| *1* | *2* | *3* |
| 1 | Draft Law of Ukraine "On Cryptocurrency Circulation in Ukraine"[144] | A program code (a set of symbols, numbers and letters) that is an object of property rights that can be used as a mine, information about which is entered and stored in the blockchain system as accounting units of the current blockchain system in the form of data (program code) |
| 2 | The official website of Bitcoin[145] | A digital currency that employs cryptography to guarantee the security and authenticity of transactions conducted on its network |
| 3 | The concept of state regulation of operations with cryptocurrencies[146] | A virtual asset in the form of a token that functions as a means of exchanging or storing value |
| 4 | Investopedia, L.L.C.[147] | A digital or virtual currency that employs cryptography to guarantee security (thus rendering counterfeiting difficult) |
| 5 | Wikipedia | A type of digital currency that is issued and accounted for using asymmetric encryption and a variety of cryptographic security methods, including proof-of-work and proof-of-stake. |
| 6 | Zheluk T., Brechko O.[148] | A stable universal instrument for global financial payments and, at the same time, a financial instrument with high capitalization represents a competitive form of international capital flows. |

[144] Draft Law No. 7183 of 06.10.2017 "On the circulation of cryptocurrency in Ukraine" URL: http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=62684

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*Table 2.12 (Continued)*

| *1* | *2* | *3* |
|---|---|---|
| 7 | S.V. Vasylchak, M.V. Kunytska-Ilyash[149] | A virtual currency protected by cryptography, an innovative payment instrument |
| 8 | Dudchenko M.M., Pavlenko T.V.[150] | A decentralized virtual payment system that employs cryptographic methods for protection |
| 9 | Ustenko S.V.[151] | A type of digital currency that is issued and accounted for using asymmetric encryption and a variety of cryptographic security methods, including proof-of-work and proof-of-stake |
| 10 | Zavada T.Y.[152] | A public digital asset that employs cryptography to guarantee the security of transactions and regulate the issuance of virtual units, which is not subject to direct control by the state, thereby presenting potential risks of terrorist financing and tax evasion |
| 11 | Drachov O.V.[153] | A program code in which accounting and operational processes are based on encryption and the use of various cryptographic protection methods |
| 12 | Lubenets I.[154] | A type of digital currency based on complex calculations of a certain function that can be easily |

[149] Vasylchak S. V., Kunytska-Ilyash M. V., Dubyna M. P. The use of cryptocurrencies in modern economic systems of Ukraine: prospects and risks. Scientific Bulletin of the LNUIVMBT named after S. Z. Gzhytskyi. 2017. T. 19. № 76. P. 19-25.

[150] Duchenko M. M., Pavlenko T. V. Features of the formation of the cryptocurrency market in Ukraine. Effective economy. 2018. NO. 12. - URL: http://www.economy.nayka.com.ua/?op=1&z=6786.

[151] Ustenko S.V., Zagorovsky I.V. Opportunities and prospects of cryptocurrencies and Blockchain technology. Modeling and information systems in the economy. 2019. № 97. P. 229-240.

[152] Zavada T. Definition of the concept "Cryptocurrency market" in the financial and legal aspect. Scientific notes of Lviv University of Business and Law. Economic series. Legal series. Issue # 35. 2022. P. 264-272.

[153] Drachov O.V. Legal Essence of Cryptocurrencies: Genesis, Functions and Prospects. Yurydychna Ukraina. 2018. № 11-12. P. 44-52.

[154] Lubenets I. Overview of digital cryptocurrencies. Blog of experts about finance. 2014. URL: http://www.prostoblog.com.ua/lichnye/byudzhet/obzor_tsifrovyh_kriptovalyut

*Table 2.12 (Continued)*

| *1* | *2* | *3* |
|---|---|---|
| | | verified by reverse mathematical operations. The main scheme of this currency is based on the principle of proof-of-work |
| 13 | Soslovskyi V., Kosovskyi I.O.[155] | A means of payment that does not have a tangible form but exists in the form of a program code using cryptographic security methods, the issuance and accounting of which is often decentralized and known to the participants in the settlement; as well as a payment system formed by a unit of payment and transactions with it |
| 14 | Goncharova A.V.[156] | Digital currency, or virtual currency, is a unit of account, or coin, that is issued on a network according to certain cryptographic principles. It is designed to support transactions and to control the creation of new coins |
| 15 | Molchanova E., Solodkovsky Y.[157] | A fiduciary digital currency is defined as a currency whose exchange rate is determined by a free float regime, which is a system of market forces that sets the value of a currency in response to supply and demand in the foreign exchange market. This system is distinct from a system of central bank control, which is characterized by the ability of a central bank to influence the supply of currency in a given market |
| 16 | Kraus K.M., Rosokhatska M.O.[158] | A distinctive type of digital currency, its operational framework is predicated on a distributed system of issuance and circulation. It is a sophisticated network of information and technological processes, underpinned by cryptographic security protocols that authenticate owners and record transactions |

[155] Soslovskyi V.G., Kosovskyi I.O. Cryptocurrency market as a system. Financial and credit activity: problems of theory and practice. 2016. P. 236-246.

[156] Goncharova A.V., Vereshchaka Y.V. Peculiarities of cryptocurrency circulation in Ukraine. Journal of East European Law.2018.№ 58. P. 38-44

[157] Molchanova E., Solodkovsky Y. Global service nature of modern cryptocurrencies. International Economic Policy. 2014. № 1. P. 60-79.

[158] Kraus K.M., Rosokhatska M.O. Cryptocurrency as it is: "Economic bubble" or "digital gold". European scientific journal of Economic and Financial innovation. 2022. №1(9) [Electronic resource] . P. 105-114. DOI: https://doi.org/10.32750/2022-0109

*Table 2.12(Continued)*

| *1* | *2* | *3* |
|---|---|---|
| 17 | Tanklevska N.S., Petrenko V.S., Karnaushenko A.S.[159] | a universal, virtual, decentralized and convertible digital currency that can be used to make payments for real goods, works, services, and is protected by a cryptographic code, which can be issued by anyone, while maintaining the anonymity of the issuer. |
| 18 | Belinska Y.V.[160] | A decentralized currency with protection against reuse, based on the achievements of modern cryptography |
| 19 | Graydon C.[161] | Cryptocurrency is a means of exchange, like ordinary currencies, but intended for the exchange of digital information made possible by certain principles of cryptography (used to support transactions and control the creation of new coins) |
| 20 | Kovalchuk T., Palyvoda K.[162] | A virtual source of fictitious capital |
| 21 | Gurina N.V.[163] | A type of financial asset that exists in the form of computer code and can be used as a medium of exchange or as a means of payment for goods or services acquired |
| 22 | Petruk O.M., Novak O.S.[164] | A financial instrument may be classified as a long-term or current financial investment, depending upon the terms of the investment by business entities |

[159]Tanklevska N.S., Petrenko V.S., Karnaushenko A.S. Economic essence and types of cryptocurrency in the world. Business Navigator. 2017. Issue 4-2. P. 133-138.

[160] Belinska Y. V. Phenomenon of cryptocurrency: essence, mechanism of occurrence, problems of use. Economic Bulletin. Series: Finance, accounting, taxation. 2018. Issue 2. P. 11-20.

[161] Graydon C. What is cryptocurrency? [Electronic resource] CryptoCoinsNews. 2014. URL: https://www.cryptocoinsnews.com/cryptocurrency/

[162] Kovalchuk T., Palyvoda K. Digital currency as a virtual source of fictitious capital. Banking business. № 1-2. 2014. P. 3-11.

[163] Gurina N.V. Economic essence of cryptocurrency as a methodological prerequisite for its reflection in accounting. Economic Bulletin. Series: finance, accounting, taxation. 2020. Issue 5. P. 42 - 51. URL: https://core.ac.uk/download/pdf/328113906.pdf

[164] The essence of cryptocurrency as a methodological prerequisite for its accounting reflection. Bulletin of ZSTU, Series "Economic Sciences". 2017. № 4(82). P. 48-55.

*Table 2.12 (Continued)*

| *1* | *2* | *3* |
|---|---|---|
| 23 | Kutsevol M.A., Shevchenko - Naumova O.A.[165] | A type of electronic money that operates on a decentralized mechanism of issuance and circulation and is a complex system of information and technological procedures based on cryptographic security methods |
| 24 | Sokolenko L., Ostapenko T. et al.[166] | is not a form of electronic money, but certain features of accounting for foreign exchange transactions are also characteristic of accounting for transactions with cryptocurrency. When digital currency is used as a means of payment, cryptocurrency is part of monetary items |
| 25 | Goncharenko N. I., Bulgakova O. O., Psyota T. V.[167] | An innovative tool for international settlements that facilitates countries' access to global financial resources |
| 26 | Oliynyk A.A., Denkova I.M.[168] | Virtual gold represents a potential tool for the establishment of a stable global payment service |
| 27 | Rysin V.V., Rysin M.V., Fedyuk I.V.[169] | A financial instrument with a decentralized nature |

[165] Kutsevol M.A., Shevchenko - Naumova O.A. The concept and economic nature of cryptocurrency. Youth Economic Digest [Electronic resource]. 2015. №4. P.79-85. URL: http://ir.kneu.edu.ua:8080/bitstream/2010/16391/1/79-85.pdf

[166] Sokolenko L., Ostapenko T., Kubetska O., Portna O. Cryptocurrency: economic essence and features of accounting. Academy of Accounting and Financial Studies Journal. 2019. No. 23 Issue 2. P. 1-6.

[167] Goncharenko N. I., Bulgakova O. O., Psyota T. V.. Cryptocurrency as an innovative tool for international settlements in the context of global financialization. BusinessInform. 2018 № 11. P. 441 - 448. . URL: file:///C:/Users/MSI/Downloads/kriptovalyuta-yak-innovatsiyniy-instrument-mizhnarodnih-rozrahunkiv-v-umovah-globalnoyi-finansizatsiyi%20(1).pdf

[168] Oliynyk A.A., Denkova I.M. Cryptocurrencies as a new instrument in international financial markets: opportunities and challenges for the global economy. Economy and Society. 2023. Issue 56. URL: file:///C:/Users/MSI/Downloads/2962-%D0%A2%D0%B5%D0%BA%D1%81%D1%82%20%D1%81%D1%82%D0%B0%D1%82%D1%82%D1%96-2866-1-10-20231115%20(1).pdf

[169] Rysin V. V., Rysin M. V., Fedyuk I. V. Legal status of cryptocurrency as a financial instrument. Effective economy. 2018. NO. 11. - URL: http://www.economy.nayka.com.ua/?op=1&z=6647 DOI: 10.32702/2307-2105-2018.11.7

*Table 2.12 (Continued)*

| *1* | *2* | *3* |
|---|---|---|
| 28 | Naumenkova S.V., Mishchenko V.I., Mishchenko S.V.[170] | A digital unit of account, defined by a set of mathematical algorithms based on the use of blockchain technology, representing decentralized electronic databases accessible to all system participants |

** systematized by the actor*

It thus appears that a significant body of scholarship views cryptocurrency as a specific type of electronic money. In essence, electronic money is an issuer's monetary obligations in electronic form held by the user, and it must satisfy a number of criteria. In particular, cryptocurrency must be recorded and stored on an electronic medium. It is issued by the issuer upon receipt of funds from other persons in an amount not less than the issued monetary value, and accepted as a means of payment by persons other than the issuer.

At the same time, the scientists drew attention to the following characteristics of cryptocurrencies:

- decentralized nature: new cryptocurrency units are created through the efforts of millions of participants united in a peer-to-peer network without a central server. The entire process of accounting and storing transaction history is also distributed among all participants;

- anonymity of payers: identification of owners and recording of changes of ownership is based on modern cryptographic protection that cannot be hacked or bypassed by modern technical means;

[170] Naumenkova, S. V., Mishchenko, V. I., Mishchenko, S. V. (2018). Digital currencies in the context of public confidence in money. Financial and Credit Activity Problems of Theory and Practice, 2(25), 305-316. https://doi.org/10.18371/fcaptp.v2i25.136869

- technically, cryptocurrencies are a code encrypted by a special program that is recorded, stored on an electronic medium and accepted as a means of payment;
- they have no real collateral.

A review of the literature on financial science and accounting reveals three key characteristics that define the classification of cryptocurrencies as intangible assets, cash (electronic money), and financial instruments (Fig. 2.23).

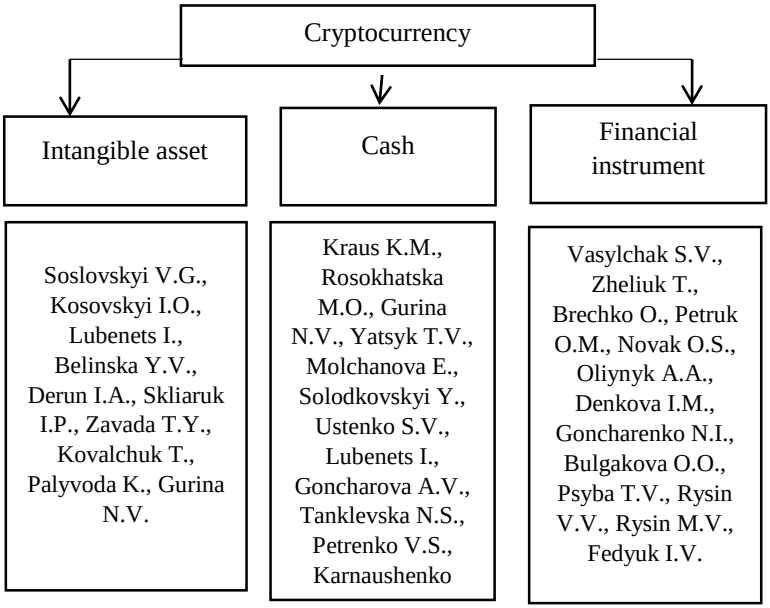


**Fig. 2.23 - Cryptocurrency as an object of research***

** systematized by the actor*

We concur with the viewpoint of those scholars who regard cryptocurrency as a financial instrument. We posit that cryptocurrency serves as an intermediary financial instrument for international financial settlements, protected by a

cryptographic code with a high level of capitalization and competition.

Bitcoin, the most developed cryptocurrency in existence, is the most popular globally and is utilized in settlements and accepted as a means of payment by numerous business entities, primarily in the realm of e-commerce. The recognition of bitcoin as a financial instrument, the formation of its value in relation to the dollar, as well as the attempts of certain governments to regulate the use of bitcoin as a payment instrument, leads to the acquisition of clear characteristics of fiduciary money. In Ukraine, there is no specific regulatory framework governing the use of bitcoin. Rather, it is regarded as a "monetary surrogate" with no intrinsic value.

The majority of cryptoassets are generated through the mining process and subsequently exchanged in a decentralized manner via blockchain technology. This presents a potential threat to central bank monopolies and the sovereignty of countries due to the significant energy costs involved. In particular, annual bitcoin mining exceeds the electricity consumption of the entire country, which is currently an extremely problematic issue for Ukraine. The preceding comparative analysis indicates that a single bitcoin transaction necessitates a markedly greater expenditure of energy than would be required for hundreds of transactions utilizing alternative payment systems, such as Visa, or even for the duration of a single video on YouTube. Nevertheless, an alternative exists in the form of Central Bank Digital Currency (CBDC), which is an electronic obligation of the monetary regulator.

In our opinion, the most attractive feature of blockchain technology is its security system based on the distribution of data and its accessibility to all network participants. This feature stimulates interest in the use of blockchain technology

in various spheres of public life. First of all, the financial sector, in particular the banking sector, is actively implementing blockchain technology. The use of blockchain can significantly improve the processes of making payments, assessing the creditworthiness of customers, and the overall functioning of information systems of banking and financial institutions. This approach can solve the problems of lack of trust, high transaction costs and fraud that exist in the modern banking sector.

In the context of the global financial system, cryptocurrencies represent an intermediary financial instrument for international financial settlements. They are protected by a cryptographic code with a high level of capitalization and competition. It is possible that cryptocurrencies will become a new financial instrument for international financial transactions, minimizing financial obstacles and enhancing financial stability in international markets.

# SECTION 3. FINANCIAL SECURITY AND DIGITAL TECHNOLOGIES

## 3.1. CONCEPTUAL FRAMEWORK FOR MODERNISING UKRAINE'S FISCAL POLICY

The modernisation of fiscal policy should be comprehensive, integrated, resource- and institutionally supported, but above all, based on a unified system of views, approaches and nationwide implementation mechanisms. At the same time, the modernisation of fiscal policy requires consistency and legitimisation at the level of the legislative and executive branches of government. It should be noted that in the previous paragraphs of the thesis, the author analysed the state, dynamics and structure of fiscal policy, identified the main problems that hinder its modernisation, proposed ways of optimisation, developed strategic directions of development, etc. All this creates preconditions for the formation of conceptual foundations for the modernisation of Ukraine's fiscal policy in the context of financial decentralisation.

We propose to develop the conceptual framework for the modernisation of Ukraine's fiscal policy on the basis of the results of the SWOT analysis, which is a popular and effective methodology in scientific research. It is based on the division of factors and phenomena into 4 groups: Strengths, Weaknesses, Opportunities and Threats[171]. Let's build a SWOT-analysis matrix of Ukraine's fiscal policy in the context of financial decentralisation (Figure 1), which will be used to position the main conceptual foundations of its modernisation with a comprehensive consideration of the main strategic

[171] Jyothi B. N., Babu G. R., Murali Krishna I. V. Object oriented and multi-scale image analysis: strengths, weaknesses, opportunities and threats. *A Review Journal of Computer Science*. 2008. Vol. 4(9). P. 706–712. URL: https://thescipub.com/pdf/jcssp.2008.706.712.pdf

| SWOT analysis matrix | *Opportunities:*<br>1. Simplification of inter-budgetary relations.<br>2. Increase in the share of local budget expenditures in relation to GDP (over 15%).<br>3. Increase in the share of local budget revenues in consolidated budget revenues (over 50%).<br>4. Progressive taxation of personal income.<br>5. Real growth of personal income.<br>6. Strengthening the financial autonomy of local budgets. | *Threats:*<br>1. Non-transparent budget decision-making.<br>2. Budget deficits at all levels.<br>3. Centralisation of fiscal policy.<br>4. Disparities in regional development.<br>5. Emigration of labour force.<br>6. Tax evasion. |
|---|---|---|
| *Strengths:*<br>1. Ukraine's high rank in the "Paying Taxes" rating.<br>2. Financial decentralisation reform.<br>3. Reduction of the single social contribution rate.<br>4. Financial clustering of regions and the capital.<br>5. Integral assessment of the level of financial decentralisation.<br>6. The presence of the Dupuit-Laffer effect. | "1", "2", "5" ↔ "1"<br>"2", "3", "4", "5" ↔ "2"<br>"2", "3", "4", "5" ↔ "3"<br>"1", "3", "6" ↔ "4"<br>"3", "6" ↔ "5"<br>"2", "4", "5" ↔ "6" | "1", "2" ↔ "1"<br>"2", "3", "5", "6" ↔ "2"<br>"1", "2", "5" ↔ "3"<br>"2", "4", "5" ↔ "4"<br>"2", "3" ↔ "5"<br>"1", "2", "3", "6" ↔ "6" |
| *Weaknesses:*<br>1. Dependence of local budgets on official transfers.<br>2. High level of fiscal (tax) burden on the national economy.<br>3. Low share of local taxes and fees in local budget revenues.<br>4. The predominance of indirect taxation over direct taxation.<br>5. Dependence of the state budget on external debt sources.<br>6. Low level of welfare and social protection of the population. | "1", "3", "6" ↔ "1"<br>"1", "3", "4", "6" ↔ "2"<br>"1", "3", "4", "6" ↔ "3"<br>"2", "6" ↔ "4"<br>"1", "6" ↔ "5"<br>"1", "3", "4", "6" ↔ "6" | "2", "4", "5" ↔ "1"<br>"1", "4", "5" ↔ "2"<br>"1", "3", "4" ↔ "3"<br>"1", "3", "4", "6" ↔ "4"<br>"1", "6" ↔ "5"<br>"2", "4", "6" ↔ "6" |

**Figure 3.1. Matrix of SWOT-analysis of the modernisation of Ukraine's fiscal policy in the context of financial decentralisation**

*Source: Author's development.*

characteristics – existing advantages (strengths) and disadvantages (weaknesses), objectively existing opportunities and threats.

Figure 3.1 shows a SWOT analysis matrix based on the author's previous research. The four quadrants of the matrix are formed by pairwise combining each group of indicators, with the strengths and weaknesses of the modernisation of Ukraine's fiscal policy in the context of financial decentralisation placed vertically and the opportunities arising from the modernisation and objectively existing threats placed horizontally. Let us consider in more detail each quadrant of the SWOT-analysis matrix shown in Figure 1.

*"Strengths vs Opportunities" Quadrant*. Ukraine's high ranking in the Paying Taxes ranking in recent years ("1"), the financial decentralisation reform aimed at increasing the financial independence of local governments ("2"), and the proposed methodology for integral assessment of the level of financial decentralisation ("5") as an effective monitoring system create conditions for simplifying intergovernmental relations and reducing the dependence of local budgets on official transfers from the state budget. The reform of financial decentralisation ("2"), reduction of the unified social tax rate ("3"), financial clustering of regions and the capital ("4") and the proposed methodology for integral assessment of the level of financial decentralisation ("5") create opportunities for an increase in the ratio of local budget expenditures to GDP of more than 15% ("2") and an increase in the share of local budget revenues in consolidated budget revenues of more than 50% ("3"). Ukraine's high rank in the "Paying Taxes" rating ("1"), reduction of the unified social tax rate ("3"), and the

presence of the Dupuit-Laffer effect[172]; [173] in personal income taxation (“6”) provide prerequisites for progressive personal income taxation (“4”). The reduction of the unified social tax rate (“1”) and the existence of the Dupuit-Laffer effect in personal income taxation (“6”) create opportunities for real growth in personal income (“5”). The reform of fiscal decentralisation (“2”), financial clustering of oblasts and the capital (“4”), and an integrated assessment of the level of fiscal decentralisation (“5”) contribute to the strengthening of financial autonomy of local budgets (“6”).

*“Strengths vs Threats” Quadrant*. The risk of non-transparent budgetary decision-making is reduced by Ukraine’s high ranking in the Paying Taxes rating and the implementation of the financial decentralisation reform. The threat of budget deficits at all levels is mitigated by the implementation of the financial decentralisation reform, reduction of the unified social tax rate, introduction of an integrated assessment of the level of financial decentralisation, and the presence of the Dupuit-Laffer effect in taxation. Ukraine’s high ranking in the Paying Taxes ranking, the implementation of the fiscal decentralisation reform and the introduction of an integrated assessment of the level of fiscal decentralisation make it possible to reduce the centralisation of fiscal policy. The implementation of the fiscal decentralisation reform, the financial clustering of oblasts and the capital, and the introduction of an integrated assessment of the level of fiscal decentralisation will help reduce the imbalances in regional development. It is hoped that the financial

[172] Dupuit J. On the measurement of the utility of public works. *Readings in Welfare Economics* / translated and reprinted in K. J. Arrow and T. Scitovsky (eds.). 1969. Issue 12. P. 255–283.

[173] Laffer A. B. The Laffer Curve: Past, present, and future. *Backgrounder*. 2004. No. 1765, P. 1–16. URL: http://s3.amazonaws.com/thf_media/2004/pdf/bg1765.pdf

decentralisation reform and the reduction of the unified social tax rate will reduce the migration flow of skilled labour. Ukraine's high ranking in the Paying Taxes ranking, the implementation of the financial decentralisation reform, the reduction of the unified social tax rate and the presence of the Dupuit-Laffer effect in taxation create preconditions for preventing tax evasion.

*"Weaknesses vs Opportunities" Quadrant*. The possibility of simplifying intergovernmental fiscal relations makes it possible to reduce the dependence of local budgets on official transfers, increase the share of local taxes and fees in local budget revenues, and contribute to the growth of public welfare and social protection. Achieving a ratio of local budget expenditures to GDP of 15% or more, as well as ensuring that local budget revenues account for at least 50% of consolidated budget revenues, will reduce the dependence of local budgets on official transfers and increase the share of local taxes and fees in local budget revenues, increase the role of direct taxation in budget revenues, and create preconditions for income growth and social protection[174]. The possibility of progressive taxation of personal income, on the one hand, increases the level of fiscal (tax) burden on the national economy, and on the other hand, improves the welfare and social protection of low-income households. Real growth in household incomes leads to an increase in local budget revenues from personal income tax, which reduces the dependence of local budgets on official transfers and, of course, increases the welfare and social protection of the population. Creating the preconditions for strengthening the financial autonomy of local budgets minimises the weaknesses

[174] Vinnytska O. A., Korniienko T. O., Chvertko L. A. Local taxes as a source of local budget revenues. *International Scientific Journal "Internauka". Series: "Economic Sciences"*. 2021. No. 11. DOI: https://doi.org/10.25313/2520-2294-2021-11-7675

of fiscal policy modernisation, in particular, it reduces the dependence of local budgets on official transfers, increases the share of local taxes and fees in local budget revenues, promotes the role of direct taxation, and stimulates the welfare and social protection of the population.

*"Weaknesses vs Threats" Quadrant*. The lack of transparency in budget decision-making is accompanied by an increase in the fiscal (tax) burden on the national economy, deepens imbalances in revenues from direct and indirect taxes, and leads to a growing budget deficit and, consequently, to increased dependence on external debt sources. Budget deficits at all levels are a constant threat, which exacerbates such weaknesses of fiscal policy modernisation as the dependence of local budgets on official transfers, imbalances in tax sources, and the dependence of the state budget on external debt sources. The threat of centralisation of fiscal policy is accompanied by the dependence of local budgets on official transfers, the low share of local taxes and fees in local budget revenues, and the predominance of indirect taxation over direct taxation. The threat of imbalances in regional development increases the dependence of local budgets on official transfers, reduces the share of local taxes and fees in local budget revenues, increases imbalances in tax sources, and reduces the level of welfare and social protection of the population. Emigration of labour leads to a reduction in personal income tax revenues, which increases the dependence of local budgets on official transfers and results in a low level of welfare and social protection. The threat of tax evasion arises from the shadow economy caused by the high level of fiscal (tax) burden, the predominance of indirect taxation over direct taxation, and leads to impoverishment of the population and deterioration of its social protection.

Table 3.1

**Strategic balance of fiscal policy modernisation in the context of financial decentralisation**

| Weaknesses and threats | Strengths and opportunities |
|---|---|
| Dependence of local budgets on official transfers.<br>Budget deficits at all levels.<br>Dependence of the state budget on external debt sources. | Growth in the share of local budget expenditures in relation to GDP (over 15%).<br>Progressive taxation of personal income.<br>The presence of the Dupuit-Laffer effect. |
| Opaque budget decision-making. | Simplification of intergovernmental fiscal relations.<br>Ukraine's high rank in the Paying Taxes rating. |
| High level of fiscal (tax) burden on the national economy.<br>Tax evasion. | The presence of the Dupuit-Laffer effect.<br>Reduction of the unified social tax rate. |
| Low share of local taxes and fees in local budget revenues.<br>The predominance of indirect taxation over direct taxation. | Increase in the share of local budget revenues in consolidated budget revenues (over 50%).<br>Strengthening the financial autonomy of local budgets. |
| Low level of population welfare and social protection.<br>Emigration of labour force. | Reduction of the unified social tax rate.<br>Real growth in household incomes. |
| Centralization of fiscal policy. | Reform of financial decentralisation.<br>Strengthening the financial autonomy of local budgets.<br>Integral assessment of the level of financial decentralisation. |
| Disparities in regional development. | Financial clustering of regions and the capital. |

***Source:*** *Author's development*.

To best match strengths and opportunities to reduce the impact of threats and strengthen weaknesses, it is advisable to build a strategic balance (Table 3.1).

Table 3.1 shows that in the context of financial decentralisation, the most appropriate strategic guidelines for modernising fiscal policy are to strengthen the financial autonomy of local budgets and optimise tax revenues with due regard for the Dupuit-Laffer effect.

This reduces the threat of an increase in the level of fiscal (tax) burden on the national economy and tax evasion, eliminates the centralisation of fiscal policy, imbalances in tax sources of budget revenues, and weakens the role of official transfers from the state budget in intergovernmental relations, etc.

The results of the SWOT-analysis allow us to move on to the formation of the conceptual framework for the modernisation of fiscal policy in the context of financial decentralisation. It should be noted that the main goal of modernising fiscal policy in the context of financial decentralisation is to modernise the mechanisms of public revenue generation, public expenditure financing and inter-budgetary relations in such a way as to provide local governments with financial autonomy for independent community development and macroeconomic growth.

The Concept of Fiscal Policy Modernisation in Ukraine under Conditions of Financial Decentralisation should be based on the following principles: scientific validity; strategic orientation; priority of interests of administrative-territorial units and the state; integral assessment; financial clustering; optimality; result-orientation; and balance of state and local finances.

Summing up the research, it should be noted that fiscal policy is the real activity of the state in the tax and budget

sphere within the framework of the current legislation, so proposals for its modernisation should contain practical recommendations for changes and additions to the relevant legislative and other regulations, methods of calculating planned indicators of budget revenues and expenditures, etc.

On the basis of the conducted research and previous studies of the author[175; 176; 177; 178], the project "Concept of Fiscal Policy Modernisation in Ukraine under Conditions of Financial Decentralisation" was developed.

*Project*

**CONCEPT**
**of Fiscal Policy Modernisation in Ukraine under Conditions of Financial Decentralisation**

The fiscal policy of the state is a system of actions, regulatory measures, and a regulatory framework for the formation, distribution, and redistribution of financial resources through the establishment and payment of taxes to generate public revenues and finance public expenditures, as well as to ensure the financial autonomy of local governments for the independent development of communities and macroeconomic growth.

[175] Martynenko V. V. Assessment of favorableness for the tax system of Ukraine in the international context. *Baltic Journal of Economic Studies*. 2019. Vol. No. 2. P. 124–130. DOI: https://doi.org/10.30525/2256-0742/2019-5-2-124-130

[176] Martynenko V. V. Fiscal policy of Ukraine in the context of financial decentralisation: theory, methodology, practice : monograph. Irpin : University of the SFS of Ukraine, 2019. 390 p.

[177] Martynenko V. V. Macroeconomic factors of modernization of the fiscal policy of Ukraine. *Financial Space*. 2019. No. 1(33). P. 145–152. DOI: https://doi.org/10.18371/fp.1(33).2019.177113

[178] Martynenko V. Predictive approach to the formation of tax revenues of Ukrainian local budgets in the context of decentralization. *Efektyvna ekonomika*. 2019. No. 9. DOI: https://doi.org/10.32702/2307-2105-2019.9.45

Local governments should be given more freedom and opportunities to make important fiscal decisions[179]. Each region should implement fiscal policy at the local level, and not just be the executor of tasks set by the central government. Due to the large territory, geographical features, and a certain structure of the industrial potential of the regions, local authorities should independently determine the objects of taxation that can most effectively ensure the process of filling the country's budgets.

*The Problem that Needs to be Solved*

At the present stage, financial decentralisation plays a key role in the implementation of fiscal policy. The contradictory nature of financial decentralisation shapes possible manifestations of its potential, but does not automatically solve the economic and financial problems of managing budgetary resources.

A prerequisite for financial decentralisation is, at a minimum, to prevent a decline in the achieved level of public finance management and to choose an optimal and balanced model for its implementation. To do this, it is necessary to determine the range of tasks that can be most effectively solved by central authorities and financed from the state budget; to identify tasks that require decentralised solutions. This, in turn, implies a clear distribution of fiscal powers, informed decision-making, and adherence to local priorities by local governments.

*Purpose, Directions and Terms of the Concept Implementation*

The goal of the Concept is to modernise the mechanisms of public revenue generation, public expenditure financing and

[179] Martynenko V. Methodological features of taxation in fiscal decentralization conditions. *Organizational-economic mechanism of management innovative development of economic entities* : collective monograph / edited by M. Bezpartochnyi, in 3 Vol. / Higher School of Social and Economic. Przeworsk : WSSG, 2019. Vol. 1. P. 205–217. URL: https://philarchive.org/archive/BRIOMO

inter-budgetary relations in such a way as to provide local governments with financial autonomy for independent community development and macroeconomic growth. The main means of achieving this goal is long-term planning of fiscal policy performance indicators with the definition of its strategic guidelines based on monitoring the fiscal burden on the economy, assessing the level of financial decentralisation of Ukraine and regions according to financial clustering.

The areas of implementation of the Concept are as follows:

- Modernisation of public revenues – expanding the powers of local governments (communities, cities, rayons, oblasts) to set local taxes and fees;
- Modernisation of public expenditures – ensuring an increase in the share of capital expenditures in the structure of local budget expenditures;
- Modernisation of inter-budgetary relations – reducing the dependence of local budgets on official transfers from the state budget.

The concept is expected to be implemented by 2027.

*Ways and Means to Solve the Problem*

The main strategic prerequisites for the modernisation of Ukraine's fiscal policy are as follows:

- Comprehensive stimulation of gross value added production, primarily in the field of material production, as the basis for economic growth, which will have a positive impact on the growth of output of goods and services, as well as increase revenues from VAT and excise tax to the consolidated budget of the state;
- Ensuring further growth of the minimum wage at the state level and the rollout of social programmes, as well as stimulating the legalisation of shadow incomes of individuals (e.g., tax amnesty) to stimulate incomes of the population in

order to increase personal income tax revenues to the consolidated budget of the state;

- Creation of favourable conditions for doing business by creating a business environment free of corruption, legalisation of shadow income of legal entities (tax amnesty) in order to maximise the pre-tax profit of business entities to increase revenues from corporate income tax to the consolidated budget of the state.

The main strategic effects of the implementation of the Concept of Fiscal Policy Modernisation in Ukraine under Conditions of Financial Decentralisation will be:

- Annual increase of Ukraine's rank in the rankings devoted to tax policy;
- Achievement of a share of local budget expenditures in consolidated budget expenditures of at least 50%;
- Simplification of inter-budgetary relations and reduction of the dependence of local budgets on official transfers from the state budget (the share of inter-budgetary transfers in total local budget revenues is less than 50%);
- Increase in the ratio of local budget expenditures to GDP (15% and more);
- Increase in the share of local budget revenues in consolidated budget revenues (over 50%);
- Increase in the corporate income tax rate to 30% with the expansion of the categories of taxpayers eligible for preferential taxation.

*Amount of Financial, Material and Technical, Labour Resources Required for the Concept Implementation*

The Concept is implemented at the expense of the state budget, investment and other sources.

*Expected Results of the Concept Implementation*

The implementation of the Concept will contribute to the economic growth of Ukraine's economy through fiscal policy

and by ensuring the financial autonomy of administrative and territorial units.

The proposals to declare the share of local budget expenditures in consolidated budget expenditures at least 50% and the share of local budget expenditures and revenues (including transfers) in GDP at least 15% are based on the European practice of financially decentralised unitary states, and are therefore justified in the form of regulation of decentralisation processes through amendments to the Budget Code of Ukraine[180].

The proposals to introduce long-term planning (for 5 years) and a scenario approach in the strategic management of fiscal policy, as well as to introduce monitoring of the fiscal burden on the economy, lay the groundwork for further modernisation of budget planning by introducing appropriate amendments to the annual Budget Declarations and the Methodological Recommendations for the preparation of local budgets for the medium term.

The proposal to develop and approve a new recommendation document – Methodological Recommendations for Calculating the Level of Financial Decentralisation in Ukraine – lays the foundation for modernising fiscal policy in the area of annual (quarterly) monitoring of the level of financial decentralisation in Ukraine.

**Conclusions.** Thus, based on the results of the study, the conceptual framework for modernising the state's fiscal policy in the context of financial decentralisation has been formed, which defines the purpose, basic principles, directions and

[180] Shevchuk O., Martynenko V. An integrated approach to assessing the level of fiscal policy decentralization. *Investment Management and Financial Innovations*. 2020. Vol. 17. No. 1. P. 49–63. DOI: http://dx.doi.org/10.21511/imfi.17(1).2020.05

expected effects[181]. The author substantiates the need to amend the legislation regulating legal relations in the field of fiscal policy and financial decentralisation: assigning 30% of corporate income tax revenues to local budgets; declaring the share of local budget expenditures in consolidated budget expenditures to be at least 50% and the share of local budget expenditures and revenues (including transfers) in GDP to be at least 15%; introducing long-term planning (for 5 years) and a scenario approach in the strategic management of fiscal policy, as well as introducing monitoring of the fiscal burden on the economy; development and approval of a new recommendation document – Guidelines for calculating the level of financial decentralisation in Ukraine.

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2 Dupuit J. On the measurement of the utility of public works. *Readings in Welfare Economics* / translated and reprinted in K. J. Arrow and T. Scitovsky (eds.). 1969. Issue 12. P. 255–283.

3 Laffer A. B. The Laffer Curve: Past, present, and future. *Backgrounder*. 2004. No. 1765, P. 1–16. URL: http://s3.amazonaws.com/thf_media/2004/pdf/bg1765.pdf

4 Vinnytska O. A., Korniienko T. O., Chvertko L. A. Local taxes as a source of local budget revenues. *International Scientific Journal "Internauka". Series: "Economic Sciences"*. 2021. No. 11. DOI: https://doi.org/10.25313/2520-2294-2021-11-7675

5 Martynenko V. V. Assessment of favorableness for the tax system of Ukraine in the international context. *Baltic Journal of Economic Studies*. 2019. Vol. No. 2. P. 124–130. DOI: https://doi.org/10.30525/2256-0742/2019-5-2-124-130

[181] Werner M. Financial process mining – Accounting data structure dependent control flow inference. *International Journal of Accounting Information Systems*. 2017. Vol. 25. P. 57–80. DOI: https://doi.org/10.1016/j.accinf.2017.03.004

6 Martynenko V. V. Fiscal policy of Ukraine in the context of financial decentralisation: theory, methodology, practice : monograph. Irpin : University of the SFS of Ukraine, 2019. 390 p.
7 Martynenko V. V. Macroeconomic factors of modernization of the fiscal policy of Ukraine. *Financial Space*. 2019. No. 1(33). P. 145–152. DOI: https://doi.org/10.18371/fp.1(33).2019.177113
8 Martynenko V. Predictive approach to the formation of tax revenues of Ukrainian local budgets in the context of decentralization. *Efektyvna ekonomika*. 2019. No. 9. DOI: https://doi.org/10.32702/2307-2105-2019.9.45
9 Martynenko V. Methodological features of taxation in fiscal decentralization conditions. *Organizational-economic mechanism of management innovative development of economic entities* : collective monograph / edited by M. Bezpartochnyi, in 3 Vol. / Higher School of Social and Economic. Przeworsk : WSSG, 2019. Vol. 1. P. 205–217. URL: https://philarchive.org/archive/BRIOMO
10 Shevchuk O., Martynenko V. An integrated approach to assessing the level of fiscal policy decentralization. *Investment Management and Financial Innovations*. 2020. Vol. 17. No. 1. P. 49–63. DOI: http://dx.doi.org/10.21511/imfi.17(1).2020.05
11 Werner M. Financial process mining – Accounting data structure dependent control flow inference. *International Journal of Accounting Information Systems*. 2017. Vol. 25. P. 57–80. DOI: https://doi.org/10.1016/j.accinf.2017.03.004

## 3.2. THE MAIN COMPONENTS OF FINANCIAL SECURITY OF AGRICULTURAL ENTERPRISES

In modern conditions, when factors of the external and internal environment affect the activities of enterprises, as well as increasing threats to financial interests from various companies, one of the most important aspects of financial management is ensuring the financial security of enterprises. After all, financial security plays a key role in financial management at any level, contributing to the stable operation of the entire financial system and the implementation of financial policies that ensure the sustainable growth of enterprises. In order to achieve stable results of activity and realize goals that meet the interests of owners and society as a whole, it is necessary to develop and implement your own strategy for managing the financial security of the enterprise.

In our opinion, the financial security of the enterprise is a system of measures and means aimed at ensuring the financial interests of the enterprise and the growth of its market value, timely identification, and levelling of risks to protect against potential threats and increase financial potential by controlling cash flows.

As we can see from the definition, financial security is a complex and heterogeneous concept, which is due to the complexity of the organization of the company's operational activities, especially in the agricultural sector, and the presence of separate, but interconnected elements and structural units that jointly contribute to the achievement of the company's strategic and current goals. Therefore, financial security consists of separate components that, thanks to synergistic interaction, ensure the financially stable functioning of the enterprise. Each of the components must guarantee a high level

of financial security of the enterprise and effectively resist all types of threats.

We believe that the components of financial security at the level of an agricultural enterprise should include the following (Fig. 3.5).

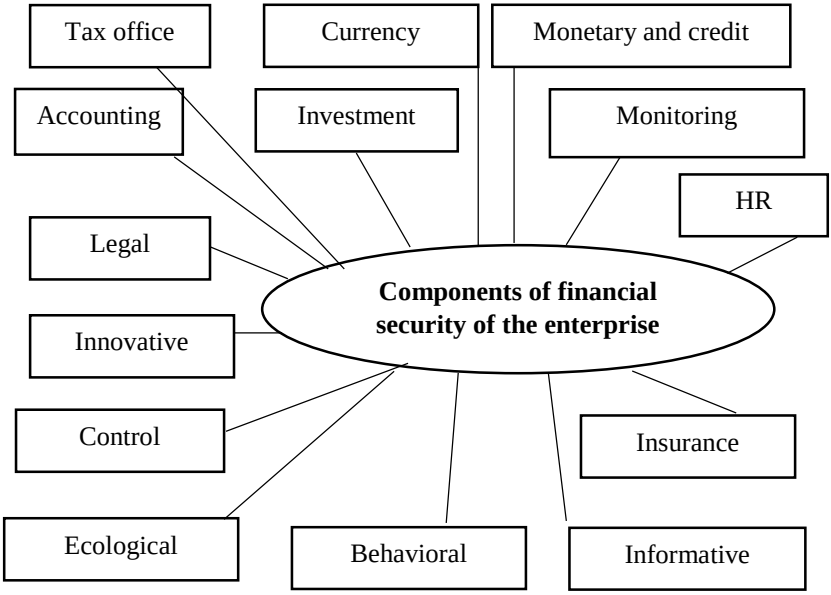


**Figure 3.2. Components of financial security of the enterprise***

**Systematized by the author*

Let's consider in more detail individual components of the financial security of the enterprise.

The tax component of the financial security of the enterprise is the financial and economic condition of the taxpayer, which ensures the minimization of tax risks. This is achieved thanks to the timely and full payment of accrued taxes by the enterprise, as well as the provision by the legislative and

executive bodies of the necessary protection provided by law for the enterprise[182]. Thus, the main element of the tax component of financial security is the relationship between the enterprise and the state, which concerns the payment of taxes, fees, and other mandatory payments. These relationships should be built based on legality, transparency, and mutual responsibility, which ensures both the financial stability of the enterprise and income to the state budget.

The formation and development of the enterprise's activity is directly related to investments in its economic, social, and scientific and technical development. Entrepreneurial activity in any organizational and legal form, including the agricultural sector, is impossible without investments: initial start-up capital should be considered as an investment that becomes the material or financial basis of private, collective, or state entrepreneurship[183].

The investment component of the company's financial security plays a key role in ensuring sustainable development and economic stability of the business entity. At the enterprise level, the term "investment security" means the process of creating and maintaining such a state of investment, under which the economic strategy of the enterprise will be able to maintain a sufficient level of investment resources, despite the influence of internal and external threats. This is necessary to ensure sustainable development, economic stability and increase the competitiveness of the enterprise, as well as the well-being of all participants in the production process[184].

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[182] Gaponiuk O.I. Tax security as a component of financial security. Problems and prospects of entrepreneurship development. 2015. №1(1). P. 56 – 61.

[183] Anisimova O.M., Kartecheva O.S. Investment security of the enterprise in the context of economic security: essence, content, assessment and management system. Theoretical and practical aspects of economics and intellectual property. Release 1. Volume 2. P.293-297

[184] Baranovskyi O. I., & Moroz, M. O. Financial and Credit Activity Problems of Theory and Practice. URL: http://fkd.org.ua/article/viewFile/109926/105386

An important aspect of investment security is the company's ability to adapt its investment strategy to changes in the external environment, while ensuring continuous renewal and modernization of the technological base. This allows the enterprise to maintain competitive advantages and respond to market challenges. In our opinion, the investment component of a company's financial security is a key element that determines its long-term stability and success in a dynamic market environment.

When ensuring the investment security of a business entity, the main anti-crisis management measures should be aimed at two key aspects[185]. First, it is ensuring the liquidity and solvency of the enterprise through an optimal combination of own and borrowed sources of financing. Secondly, it is the achievement of profitability and the provision of such a level of profitability that would allow meeting all the needs of the enterprise in the process of the main, investment and financial activities.

Currency security of enterprises is optimally possible under the conditions of the existing legal framework, currency policy of the state, the mechanism of currency regulation, the infrastructure of the currency market, the level of provision of currency funds, sufficient for settlements with the budget system, its counterparties, socio-economic development, and savings[186]. The currency component of the company's financial security reflects the state of the exchange rate, which provides

[185] Karaeva N.V. [Theoretical and methodological foundations of the study of investment security in the system of crisis management]. URL:
http:// www.nbuv.gov.ua/ej ournals/PSPE/2009_1/Kareva_109.htm

[186] Financial Security of Enterprises and Banking Institutions: a monograph / edited by Doctor of Economics, Professor A.O. Epifanov [A.O. Yepifanov, O.L. Plastun, V.S. Dombrovsky, and others] Sumy: State Higher Educational Institution "Ukrainian Academy of Banking", 2009. 295p.

favourable conditions for the sustainable development of domestic exports of agricultural products, the unhindered inflow of foreign investments into the industry, the integration of Ukrainian enterprises into the global economic system, as well as protection against fluctuations in international currency markets.

Currency security of the enterprise protects it from possible risks and threats arising during export-import operations, such as buying and selling currency, obtaining loans in foreign currencies, as well as settlements with consumers and suppliers of products and services[187].

Every foreign trade operation is accompanied by a currency risk, which consists in possible currency losses due to a change in the exchange rate of the foreign currency relative to the national one. Businesses often do not have the ability to independently choose the currency for price transactions, which makes it difficult to manage currency risks. For example, when importing raw materials and materials, the company suffers losses when the exchange rate of the foreign currency increases in relation to the national one. At the same time, a decrease in the foreign currency rate leads to financial losses when exporting finished products. Thus, effective management of the currency component of the financial security of the enterprise is critically important for maintaining its financial stability and competitiveness on the international market.

Monetary and credit security characterizes the state of the monetary and credit system of the enterprise, which is characterized by the stability of the national currency, the

[187] Muchugina M.V. Analysis of currency security as a component of financial security of Ukraine. Effective economy. 2016. №3 URL: http://www.economy.nayka.com.ua/?op=1&z=4854

availability of credit resources and the level of inflation, which contributes to economic growth and increasing the real incomes of all those involved in the activities of the enterprise[188]. To ensure the financial security of the enterprise, it is necessary to be able to receive loans for operational activities, pay wages to employees in a timely manner, settle with suppliers and receive funds from buyers of products and services.

To achieve financial security, enterprises must comply with the following conditions:

-optimal volume of working capital: All enterprises, regardless of the form of ownership, must maintain the volume of working capital at a level that ensures their normal functioning. This allows enterprises to maintain a continuous production process and avoid financial difficulties;

- normative level of payables and receivables: It is necessary to control that payables and receivables do not exceed the established standards. This ensures the stability of financial settlements and prevents the accumulation of debts that may threaten the financial security of the enterprise [189];

- advantage of non-cash payments: Stable growth of non-cash payments is an important indicator of financial security. Businesses should encourage the population to make non-cash payments for goods and services, which contributes to the transparency of financial transactions and reduces the risks of fraud;

[188] Ladyuk O.D. Financial security: characteristics of components. Effective economy. 2016. №11. URL: http://www.economy.nayka.com.ua/?op=1&z=5280

[189] Sytnyk N. S., Nazar N. V. Peculiarities of monetary policy of Ukraine in modern conditions. Young scientist. 2019. № 10(74). URL: https://financial.lnu.edu.ua/wp-content/uploads/2015/10/151-1.pdf

- emission control: The emission of monetary funds must remain within the established norms in order to avoid excessive inflation and preserve the stability of the monetary unit;

- dollarization: The level of dollarization of monetary circulation at the enterprise should not exceed 10% of the total money supply in the national currency. This helps maintain the stability of the national currency and reduces dependence on foreign currency;

- return of foreign exchange funds: It is important to promote the return of domestic foreign exchange funds from abroad. This strengthens the internal financial market and increases the availability of resources for investment;

- balance of income and expenses: Maintaining a balance between monetary income and expenses at the enterprise contributes to economic stability and prevents the occurrence of financial crises;

- financing of working capital: Volumes of loans granted to the economy must ensure financing of working capital of enterprises in the amounts necessary for their stable functioning. This guarantees continuity of the production process and stable development of enterprises [190].

As you can see, ensuring monetary security is a complex process that includes control over the circulation of funds, effective management of credit resources and support of the financial security of the enterprise in a changing environment.

The accounting component is important in the management of the enterprise, ensuring effective interaction between various structural divisions and responding to changes in both the internal and external environment. As noted by S.P. Baranovska, the accounting system collects, processes, and

[190] Kuzenko T. B., Sablina N. V. Financial security of an enterprise: textbook. Kharkiv: Simon Kuznets Kharkiv National University of Economics, 2020. 123 p.

evaluates all types of information used to make management decisions at the macro and micro levels. This allows the management of the enterprise to have true and timely information necessary for strategic planning and operational management [191].

Supporting the point of view of other researchers [192, 193, 194, 195] it can be stated that one of the key areas of enterprise development is the creation of an effective financial security mechanism, an important component of which is accounting. This is justified by the fact that accounting is one of the main management functions aimed at ensuring the financial security of the enterprise. It minimizes the risk of direct embezzlement due to the introduction of legal consequences, creates an information base for monitoring the expediency and legality of the use of resources in preventive, current and subsequent modes, and helps prevent the implementation of threats that can reduce the economic stability of the enterprise.

The accounting component of the enterprise's financial security must accurately and reliably reflect all economic transactions in external and internal reporting, provide users with information about the current and prospective state, development dynamics and financial condition of the enterprise, as well as ensure internal control over the

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[191] Baranovska S.P. Accounting and analytical support as an integral part of enterprise management. Accounting and analysis. 2012. P. 8-11.

[192] Dykyi A.P. Organisation of accounting as a tool for ensuring the economic security of enterprises: PhD thesis for the degree of Candidate of Economic Sciences.: spec. 08.00.09 «Accounting, analysis and audit». Zhytomyr. 2009. 23 p.

[193] Grabchuk I.L., Liakhovych G.I., Vakun O.V. Formation of the accounting policy of the enterprise in the conditions of digitalisation. Effective economy. 2021. № 8. DOI:https://doi.org/https://32702/2307-2105-2021.8.87.

[194] Semion V.S. Accounting policy of the enterprise: domestic and foreign experience. Economics and organisation of management. 2014. № 3-4. p. 243-248.

[195] Vasylishyn S.I. Accounting and analytical support for the management of agricultural enterprises in the system of risks and threats to economic security: a monograph. Kharkiv.: Printing house Madrid, 2020. 419 p.

enterprise's activities. For every enterprise, the development and implementation of a financial security system, considering proper accounting support, is relevant. Such a system will contribute to the sustainable development of the enterprise and ensure the maximum efficiency of its operation.

Proper accounting is the foundation for making informed management decisions, allowing timely detection and response to potential threats, optimizing the use of resources, and increasing the overall efficiency of the enterprise[196]. In addition, it ensures transparency and accountability, which are important aspects for maintaining the trust of investors, partners, and other stakeholders. Thus, the accounting component is an integral component of the company's financial security system, which ensures its stable development and competitiveness on the market.

Monitoring is an integral part of the system of ensuring the financial security of the enterprise. A comprehensive threat monitoring system includes subsystems that control all aspects of the company's financial security.

Monitoring of the external and internal environment is a process of constant tracking, analysis, and evaluation of current and new information. This process includes not only the collection of data, but also the disclosure of the reasons for changes in the studied factors and the forecasting of trends in their development[197]. This approach to monitoring allows you to identify opportunities and threats that may affect the company's activities, thus ensuring proactive risk management.

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[196] Panteleyev V.P. Innovative nature of the accounting policy of an enterprise in the conditions of post-industrial economy.Accounting and Finance. 2020. № P. 39-49.

[197] Zamlynskyy V. A., Voloshyna O. V., Stepanenko S. V. Accounting policy and economic security in the enterprise management system. Ukrainian Journal of Applied Economics and Technology. 2024. V 9. № 1. P. 56 – 61.

Monitoring provides constant detection and assessment of the impact of both external and internal factors on the enterprise. In the monitoring process, information is accumulated and exchanged between the management entity and the environment. This allows timely detection of potential crisis phenomena and situations that may negatively affect the financial stability of the enterprise. The effectiveness of the monitoring component involves the application of regulatory actions aimed at eliminating deviations, failures, and deficiencies in the managed system through the development and implementation of appropriate measures.

In order to ensure the effectiveness of monitoring, it is necessary to use modern information technologies and analytical tools that allow you to quickly process large volumes of data and provide the company's management with reliable information for decision-making[198]. Monitoring should be a systematic and continuous process, which includes periodic checks and assessments of the state of financial security of the enterprise, as well as regular updating of monitoring methodologies and tools in accordance with changes in the external and internal environment[199].

Thanks to the monitoring component of financial security, the company can respond in a timely manner to changes in the market situation, legislation, competitive environment, and other factors affecting its activities. This allows you to reduce risks and ensure stable development, maintaining high financial stability and competitiveness of the

[198] Diagnostics of the financial condition of the enterprise / N.S. Lyalina, R.M. Sheludko, L.V. Sheludko. Sheludko. Bulletin of Kharkiv National Agrarian University named after V. V. Dokuchaev. Series: Economic Sciences. 2014. №6. C.118-124. URL: http://nbuv.gov.ua/j-pdf/Vkhnau_ekon_2014_6_20.pdf

[199] Cheberyako O.V., Kryvovyaz M.A. Structural elements of the system of ensuring financial security of the enterprise. Effective economy. 2015.№ 10. URL.: http://www.economy.nayka.com.ua/?op=1&z=4377

enterprise. Monitoring also contributes to increasing the transparency of management processes, which is important for trust on the part of investors, partners, and other interested parties.

The legal component of the financial security of the enterprise involves the presence of regulatory and legal support, which includes both legislative and normative acts of state regulation, as well as internal acts, orders, instructions, requirements, statutory provisions, and methods developed to ensure financial security at the enterprise itself. All these documents are mandatory for execution at the enterprise and are aimed at regulating financial activities in order to minimize risks and ensure stable development[200].

At the enterprise level, the legal component of financial security includes the development and implementation of own regulatory acts that regulate financial activity. These can be internal orders, instructions, provisions and procedures that determine the rules of accounting, the procedure for carrying out financial transactions, control over the use of financial resources and other aspects of internal financial control. All these documents must be coordinated with the current legislation and ensure compliance of the enterprise's financial activities with legal requirements.

Ensuring the legal component of financial security also includes conducting regular audits and audits of financial activities, which allows timely detection and elimination of violations, as well as prevention of possible financial crimes. Having an effective legal framework allows the enterprise to protect its interests in legal disputes, minimize legal risks and

[200] Melnyk S.I. Methodological bases of management of financial security of enterprises: PhD thesis: 21.04.02. Lviv, 2020. 490 p.

increase trust on the part of partners, investors and other interested parties.

In our opinion, the legal component of the financial security of the enterprise is an important part of the general system of financial security. It provides legal regulation of financial activities, which contributes to the stability and continuity of business processes, protects the enterprise from legal risks and promotes its sustainable development in the conditions of a changing legal environment.

Personnel became an extremely important component of the company's financial security, especially after the full-scale Russian invasion. We may be witnessing an unprecedented migration crisis. As a result of Russia's full-scale aggression against Ukraine, which created threats to the personal safety of citizens, a mass exodus of the population took place abroad. During 2022, almost 8 million people left Ukraine, and almost 5 million became internally displaced persons.

The migration crisis caused by the mass emigration of the population abroad caused a significant reduction in the labour force in Ukraine. This is especially noticeable in industries where citizens who left have traditionally worked. In addition, internally displaced persons often face difficulties in finding work in new regions, which further complicates the situation on the labour market.

Martial law and mobilization affected the availability of labor as many able-bodied men were drafted into the army. This has caused shortages in many industries, especially those requiring manual labor and technical skills. Changes in personnel composition and the specifics of demand and supply in the labour market led to the need for enterprises to adapt to new conditions.

All these factors together have caused serious challenges for the labour market of Ukraine, which requires the

development of comprehensive strategies and measures to stabilize the situation and support the population in crisis conditions.

The personnel component provides for the compliance of the educational and qualification characteristics of employees with the requirements of the positions held. A highly qualified specialist contributes to the optimization of the decision-making process, the conclusion of agreements and the implementation of new projects, which leads to an increase in profits and a decrease in costs of the enterprise, while ensuring its financial security[201] [202].

That is, personnel security is the optimal state of protection of the company's personnel from external threats, as well as the optimal level of economic protection of the company from internal threats that may arise from its employees.

The innovative component of financial security consists in the enterprise's ability to implement the latest technologies and achieve innovative goals, relying on available production and financial resources, as well as qualified personnel. This allows the enterprise to strengthen its competitive advantages in the market and increase the level of financial security.

In her works, Ukrainian researcher S. Lobunska[203] emphasizes the relationship between the level of innovative activity of an enterprise and its financial security. It highlights

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[201] Gerasymenko O.M. Personnel security in the system of economic security of economic entities. Personnel security of economic entities: management by insiders: monograph / edited by Prof. Sidak V.S., Prof. Migus I.P. Cherkasy, 2012. P. 17-37.

[202] Tomanevych L.M. Personnel security of the enterprise as an object of theoretical research. Collection of scientific works of Lviv State University of Internal Affairs. Series: Economic Sciences. 2009. №1. P. 1–8.

[203] Lobunska S. V. Innovative activity of an enterprise as a risk factor and a condition for strengthening its economic security. Bulletin of Lviv Polytechnic National University. UPR: http://ena.lp.edu.ua/bitstream/ntb/15950/1/46_297-304_Vis_725_Ekonomika.pdf

the resource component of innovative potential in the context of functional subsystems, such as production, financial, intellectual, market and organizational potential and emphasizes the level of stability of the enterprise's financial security system, which is determined by its margin of safety.

Ensuring the financial security of the enterprise is based on a systematic combination of control, planning, feedback, and information support functions. Especially important is the control component, which integrates all elements of the system. Control is defined as the process of ensuring that the enterprise achieves its goals. The main tasks of control within the framework of financial security include comparing the achieved results with expected indicators, determining the degree of their deviation, monitoring the performance of other subsystems of their functions, as well as evaluating the efficiency and effectiveness of their activities[204]. The control component significantly increases the efficiency of the company's financial security system.

For the efficient operation of enterprises and ensuring financial security, it is necessary to carry out current and final control. Current control is carried out during the enterprise's activities and the implementation of anti-crisis measures. Its main purpose is to analyse the compliance of actual indicators with the set tasks or normative results, as well as to evaluate the effectiveness and adequacy of measures to ensure the financial security of the enterprise.

The final control is carried out after the end of the reporting period or the deadlines for the implementation of anti-crisis measures. Its purpose is to verify the compliance of actual results with the set tasks or goals, as well as to evaluate

[204] Fuchezhi V.I. Characteristics of the structural elements of financial security of business entities *Effective Economics*. 2014.№12.URL: http://www.economy.nayka.com.ua.

the effectiveness of the adopted measures. Based on this assessment, decisions are made regarding the need to apply additional measures to ensure the financial security of the enterprise.

The main function of the control component is the analysis and assessment of the activity of the financial security system of the enterprise as a whole, as well as the effectiveness of each of its components. The results of this assessment are used to form conclusions and make informed decisions based on the control results.

In term of the insurance component of the financial security of the enterprise, we understand the process of insuring the property of the enterprise, its activities, as well as ensuring the safe work of employees. Insurance is an important, and in some cases even a mandatory condition for obtaining additional financing for an enterprise[205].

Підприємницька діяльність завжди пов'язана з Business activities are always associated with certain risks. One of the main reasons for this is the destructive impact of natural forces and the negative consequences of other extraordinary events, such as fires, explosions, epidemics, injuries, and other events. In order to ensure the continuous and successful operation of the enterprise, it is important not only to prevent, overcome and localize such disasters, but also to compensate for the losses caused. This compensation mechanism is realized through the insurance of specified risks.

Страхування дозволяє підприємству розподілити Insurance allows the enterprise to distribute large-scale losses over time among all interested parties. The more companies and individuals participate in the insurance program, the

[205] Marchenko O. S. Economic security of the enterprise: a textbook. Kharkiv: Pravo,2022. 246p.

cheaper and more effective insurance protection is for each of them. Thanks to insurance, enterprises can minimize financial losses from unforeseen events and ensure the stability of their activities[206].

In addition, property and business insurance is an important element of strategic risk management. This allows enterprises to prepare for possible adverse events and reduce their impact on the company's financial condition. The availability of adequate insurance coverage increases the confidence of investors, creditors, and other interested parties, contributing to the attraction of additional financial resources for business development.

That is, the insurance component of financial security is a key element in ensuring the sustainable functioning of the enterprise. It helps reduce the risks associated with unforeseen events and provides the financial protection necessary for the long-term development and success of the enterprise. Insurance is an important part of the overall system of financial security, which allows enterprises to effectively manage their risks and ensure stable development in a changing market environment.

The environmental component of the company's financial security involves strict compliance with current environmental regulations and standards aimed at environmental protection. This component includes measures to minimize the negative impact of production and economic activity on the ecological state of the region and the country as a whole. The ecological component of the financial security of the enterprise must

[206] Management of the financial security of economic entities: a textbook. Under the general editorship of S. M. Frolov. Sumy: State Higher Educational Institution "Ukrainian Academy of Banking" 2015. 332 p.

guarantee the safety of the society from enterprises that carry out industrial and commercial activities [207].

The main aspects of the environmental component are the introduction of innovative technologies that reduce emissions of harmful substances and pollutants into the atmosphere, water resources and soil. In addition, this component includes the optimization of the use of natural resources, the implementation of a waste management system, as well as the development and implementation of energy saving measures.

The environmental safety component also includes the analysis and monitoring of environmental risks that may affect the financial stability of the enterprise. These are, in particular, risks associated with possible environmental disasters, sanctions for violations of environmental legislation, as well as reputational risks that may arise due to the negative environmental impact of the company's activities.

To ensure the environmental component of financial security, it is necessary to develop and implement an environmental management system that includes regular audits of the enterprise's environmental activities, training, and professional development of personnel in environmental security issues, as well as active interaction with state bodies, public organizations, and local communities[208].

The ecological component of financial security not only ensures compliance with environmental requirements and standards, but also contributes to the sustainable development of the enterprise, increasing its competitiveness on the market

[207] Nusinova O. V. Methodological approaches to assessing the level of environmental safety of mining and processing plants. Bulletin of Khmelnytsky National University. Series: economic sciences. 2011. № 6. P. 232 – 235.

[208] Ilyashenko, O.V., Budryk, O.I. Ecological and economic security of the enterprise: theoretical aspects. Economic strategy and prospects for the development of trade and services. 2017. Ed. 1 (25). P. 72-82.

and strengthening the trust of investors, consumers, and other interested parties.

The information component of financial security is an integral part of the overall financial security system of the enterprise, complementing and supporting the functioning of its other components. It ensures the implementation of information control and protection functions, which are critically important for all aspects of financial security.

For the effective operation of the information component, it is necessary to develop and implement a comprehensive system of information security, which includes measures for the collection, processing, storage, and transmission of information [209]. Such a system should ensure that the information used to ensure financial security at the enterprise is reliable, up-to-date and accessible only to authorized persons.

In particular, the information component should include means of protection against unauthorized access, loss or damage of data. This includes the introduction of advanced encryption technologies, the use of authentication and authorization systems, as well as regular software updates and security policies [210].

In addition, an important aspect of the information component is the monitoring of information flows, which allows identifying potential threats and quickly reacting to them. The monitoring system should be integrated with other elements of financial security to ensure a timely and comprehensive response to possible challenges.

We believe that the information component not only ensures data protection, but also creates conditions for the

[209] Denysenko MP, Kolos I.V. Information support for effective management of the enterprise. Economy and state. 2006. № 7. P.19-24.

[210] Goryacheva K.S. Information and analytical support of financial security of the enterprise. Actual problems of economy. 2003. № 9. p. 43-49.

effective functioning of the entire financial security system of the enterprise. It contributes to the adoption of well-founded management decisions, supports the stability and sustainability of the enterprise in the conditions of a changing external and internal environment, and also increases its competitiveness on the market.

Having processed a significant number of literary sources, we drew attention to the fact that in domestic theory and practice there are no studies on the behavioural component and its impact on the financial security of the enterprise. We believe that in the conditions of modern challenges associated with a full-scale Russian invasion, this component is key. During a war, stress rises, the balance in the brain is disturbed, and the parasympathetic system begins to dominate. It leads to the appearance of changes in human behaviour, changes in the financial behaviour of enterprise managers, which ultimately affects management decision-making and the financial results of enterprises.

Behavioural factors that belong to emotional influence arise under the influence of impulses or intuition. This leads to the fact that financial decisions are made based on feelings, and not on rational calculations. Behavioural factors of emotional influence include irrational components that deny the dominant role of reason in cognition and bring to the fore such human abilities as feeling, instinct, intuition, and contemplation.

The fear of uncertainty is closely related to the fear of losing stable sources of shelter formation at the enterprise. Uncertainty arises due to the possibility of adverse situations and consequences during the implementation of decisions. This

is the lack of clarity regarding the expected dangers, which are perceived at an irrational level[211].

The process of making financial decisions by the head of the enterprise begins with the awareness of the problem and the motives that lead to a certain step, the analysis of the goals and means necessary to achieve a positive financial result. In the conditions of war, this process is often limited in time; according to the opinion of modern scientists, the rational behavior that should determine the choice of a rational decision is not typical for economic agents, especially in conditions of reduced certainty and security. In most cases, managerial and financial decisions are spontaneous, as the consumer cannot consider all the factors affecting the future prospects and consequences of the chosen step.

Especially in the conditions of military instability, every financial decision of the head of the enterprise can have significant consequences not only for a specific person, but also for the economy in general, creating additional imbalances and deficits in the system, which makes irrational steps extremely dangerous. An additional influence is the "crowd" effect, when people make financial decisions intuitively, focusing on events in society and expecting to get the same results as others, but do not consider the objective difference between individual capabilities, goals and means, as well as the uniqueness of economic conditions and decisions of individuals.

Therefore, both employees and company managers do not always act rationally. Although they try to make informed management decisions, considering all the available

[211] Bazetska G. I. Economic behaviour under conditions of uncertainty. Economic theory and law. 2021. № 4 (47). P. 53–68.

circumstances, it is not always possible to implement this in practice. This is explained by the fact that behavioural factors directly affect the process of making managerial decisions, in particular financial ones, which, in turn, has a direct impact on the level of financial security of the enterprise.

It should be emphasized that these components of the financial security of enterprises are closely interrelated. For example, effective management of an innovative component is impossible without a rational approach to decision-making and adequate staffing. At the same time, the control component largely depends on the accounting, monitoring, and information component of financial security, and at the same time it is carried out in a legal context.

## 3.3. INFORMATION SECURITY OF CORPORATE FINANCES

The quality of information and information provision of daily life acquires a driving importance in the era of created historical and economic conditions for doing business within the framework of the third scientific and technical revolution and the transformational transformations caused by it, which began at the end of the 20th century under the influence of the information revolution of the 1970s and 1980s, which is outlined by in his works M. Castells[212] and is gaining momentum in modern times. The information technology revolution has raised the intangible factors of production and business activity to a high level of importance, primarily information and information sources of knowledge resources.

[212] Castells M. Information age: economy, society and culture: Trans. with English under science ed. O.I. Shkaratana - K.: GU HSE, 2000. 608 p.

Economic theory in its development at the turn of the 20th - 21st centuries. is characterized by the recognition of problems in this field. World economic thought, in its neoclassical direction, has been declaring the need for a new economic paradigm, the development of a new methodology for understanding the essence and speed of transformations in economic processes, for the last decades. In our opinion, the new paradigm, along with the institutional-evolutionary direction, should include as an element the informational component, which in the diagnosis of economic processes and social phenomena puts forth the informational factor.

The formation and place of the information paradigm in the history of economic thought was born as early as the 1960s, starting with the research of F. Makhlup[213] (1962) and gained significance in the 1970–90s with the work of M. Porat[214] (1977) and numerous scientific developments on this issue by foreign and domestic economists and sociologists (within the framework of behaviorism) T. Stoneyer [215], E. Toffler[216], D. Bell[217,218], M. Kastels[219], J. Stiglitz[220], A. Chuhno[221], L.

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[213] Machlup, Fritz. The Production and distribution of Knowledge in the United States. Princeton, NJ: Princeton University Press. – 1962.

[214] M. Porat. The Information Economy: Definition and Management.Wash. Government Print Office, 1977.

[215]Stonyer T. Information wealth: profile of post-industrial economy. Novaya teknokraticheskaya wave in the West Sost. and introduction article P.S. Gurevich M.: Progress, 1986. P. 392 - 409.

[216] Alvin Toffler.The Third Wave. A Bantam Book. 1981.

[217] Bell D. Future post-industrial society. Experience of social forecasting. Translation from English - K.: Academia, 1999. - 956 p.

[218] Bell D. Social framework of the information society // Novaya technocratic wave in the West. / Const. and introduction article P.S. Gurevich - M.: Progress, 1986. - P. 330-342.

[219] Castells M. Information age: economy, society and culture: Trans. with English under science ed. O.I. Shkaratana - K.: GU HSE, 2000. - 608 p.

[220] Stiglitz E. Joseph. Information and paradigm shift in economic science. Nobel Lecture December 8, 2001 / World Economic Thought. Through the lens of the ages. In 5 volumes / T. V. In 2 books. Book 2. – K.:

Melnyka[222], V. Muntiyan[223] etc. In the publications of the mentioned scientists, to a greater or lesser extent and using different theoretical and methodological approaches, multi-vector aspects of the formation and functioning of the information society and the post-industrial economy are analyzed.

In our opinion, the theoretical-conceptual and methodological foundations of the development of the theory of information economy in the formation of the information society still require research and systematization. The strengthening of the globalization of the economy and the quality of the information provision of society and the information uncertainty and non-transparency of a number of processes raise a whole layer of questions within the framework of the evolution of the theory of the information economy and the theory of a unified information society. The theory of the information society is, in its economic essence, the methodological base of the theory of the information economy, these theories are interdependent and mutually conditioned in such a way that the theory of the information economy is an important constituent element of the theory of the information society. Therefore, these theories have a common evolutionary source, problems and progressive development, as a response to the socio-economic need of society for its dynamic development.

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Dumka, 2005. – P. 535 – 629.

[221] Chuhno A.A., Leonenko P.M., Yukhymenko P.I. Institutional and informational economics: a textbook under the editorship Academician. NAS of Ukraine A.A. Chuhna. K.: Znannia. 2010. 687 p.

[222] Melnyk L.H. Prerequisites for the formation of an information society.
Socio-economic problems of the information society. Sumy: ITD "Universitetskaya kniga", 2005. P. 60-87.

[223] Muntiyan V.I. Informational paradigm. - Kyiv: "KVITS" Publishing House, 2006. - 632 p

The very emergence of the theory of the information economy is a response and result of the development of society and its economy and finance in its post-industrial cycle and its natural transformation into an information society with a developed information economy. The theory of the information society is a logical step-by-step continuation of the theory of the post-industrial society at the current stage of the evolution of economic relations and society in general.

Since the theory of the post-industrial economy became the prerequisite for the emergence of the theory of the information society and the information economy, we will begin our research with its concept. The methodological basis of the theory of post-industrial economy is the three-sector model of the national economy proposed by the English economist Colin Clark in the works "Economy in 1960"[224] (1942) and "Conditions of Economic Progress"[225] (1950) and the developments of the French scientist social scientist Jean Fourastier presented in the work "The Great Hope of the 20th Century" (1949).

In his works, K. Clark creates the concept of a three-sector structural structure of the national economy, in which "natural" economic development evolves through stages based on the relationship between agriculture (primary sector), processing industry (secondary sector) and the service sector (tertiary sector). This approach became the methodological basis and source for the creation of a number of models and theories within the framework of the theory of the post-industrial, and later information society.

Economist K. Clark and sociologist J. Fourastier formulate the most important methodological foundations and

[224] Clark Colin G. The Economics of 1960, L., 1942.

[225] Clark Colin G. The cjnditions of economic progress. London: Mfcmillan. 1950. P.504

vectors of the theory of post-industrial society - the division of social production into three specific ideological sectors: primary, secondary, tertiary, and views on the variability of the ratio of these components in the direction of significant development and future growth the share of the tertiary sector by the total labor force and by the contribution to the GNP structure.

K. Clarke and J. Fourastier in their works emphasize the dominance of technological features of the organization of social production over the assessment of the class structure, which is translated into the analysis of the economic development of modern societies - this is another fundamental methodological characteristic of the theory of the post-industrial economy and, in the future, the basis of the theory of the information society. These concepts in symbiosis formed a relatively complete system of methodological foundations of the theory of post-industrial and information societies.

Further transformational development covering all aspects of social progress caused by the third scientific research and development in the second half of the 20th - at the beginning of the 21st century contributes to the formation of a post-industrial society in the most economically developed countries. This stage of socio-economic development was reflected in the works of scientists, which we refer to the theory of post-industrial society by D. Bell, A. Turen, and others.

D. Bell[226] continues the structuring of the tertiary sector, highlighting separate elements within it:

- purely tertiary - transport and communal economy;
- quaternary – trade, finance, insurance and real estate;

[226] Bell D. Future post-industrial society. Experience of social forecasting. Translation from English - M.: Academia, 1999. - 956 p.

➢ quinary – health care, education, scientific research, public administration, recreation.

D. Bell does not talk about information and knowledge as non-current assets because the information revolution in its modern manifestation has not yet begun, and there is no information sector of the economy as an independent element outside the tertiary sector.

Almost synchronously with the theory of the post-industrial society, the theory of the information society is born, within which scientific knowledge and technological progress acquire their high role. The transformation of a post-industrial society into an information society in economically developed societies under the influence of the information technology revolution caused a change in the industry structure of production and employment, which led to a change in the social structure of society, and the need for theoretical and methodological justification arose.

The main foundations of the theory of the information society are represented by the works of such scientists as Z. Brzezinsky[227], D. Bell[228], F. Webster[229], E. Toffler[230] and others. There are several view vectors and approaches to their classification. Thus, F. Webster, in his somewhat controversial work "Theories of the Information Society"[18] (1995), in turn outlines five types of the theory of the information society, where each type of the theory of the information society is based on a certain criterion of the same name:

➢ Technological;

➢ Economic;

[227] Brzezinsky Z. Betroeen Two Ages. America`s Role in the Technotronic Era. N.Y., 1970.

[228] Bell D. The Coming of Post industrial Society. A Venture in Social Forcasting. N.Y., 1973.

[229] Webster F. Theories of the Information Society. L.: Routledge, 1995.

[230] Alvin Toffler. The Third Wave. A Bantam Book. 1981.

- Related to the field of employment;
- Spatial or geographical;
- Cultural.

The American economist V. Martin[231], in turn, also cites five criteria of the information society, which ideologically echo F. Webster's typology:

1) economic, where the information sector is considered, firstly, as a movement towards an information society, and secondly, as an integral part of modern economic life;

2) technological, which shows the extent to which technologies penetrate into all spheres of activity of individuals;

3) social, where the emphasis is on changing the social behavior of individuals under the influence of information technologies;

4) political, where a kind of global forum is formed, in which ordinary citizens can directly participate in management;

5) cultural, which shows the interaction and interpenetration of cultures on a global scale.

V. Martin defines the information society - "...a society in which the quality of life, as well as the possibilities of social changes and economic development, increasingly depend on information and its use"[20].

The Ukrainian researcher of the theory of information society O. Marukhovskyi[232] singles out three groups of scientists-researchers of modern society, but without specifying them according to personalities, such as:

1) evolutionary post-industrialists;

2) revolutionary informationalists;

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[231] Martin W.J. The Global Information Society. Aldershot: Aslieb Gower; Brookfield, Vt. USA: Gower, 1995.

[232] Marukhovsky O.O. Information society: theoretical and conceptual foundations: Study guide. K.: KROC University of Economics and Law, 2007. 136 p.

3) moderate post-industrialists-informationalists.

Among the theories of society, some researchers distinguish the following theories into separate subgroups:

- the theory of post-industrial society (D. Bell, A. Turen);
- theories of the information society (E. Toffler, Y. Masuda);
- theories of postmodern society (K. Kumar, F. Jameson, J.-F. Lyotard, Z. Bauman);
- theories of risk society (U. Beck and E. Giddens);
- theories of network society (M. Castells);
- theories of knowledge society (N. Shter).

The criterion of the dynamically growing role of information and knowledge is taken as the basis of this typology.

The emergence of the theory of the information economy as a separate information paradigm can be observed from the end of the 20th century, starting with the researches of scientists of the economic vector in the theory of the information society F. Makhlup[233] and M. Porat[234]. Scientific developments that are of considerable interest in the development of the theory of the information society and are related to the information economy:

– in the technological (or network) direction of E. Toffler[235];

– in theories related to the field of employment - Y. Masuda[236] and D. Bell[237];

[233] Machlup, Fritz. The Production and distribution of Knowledge in the United States. Princeton, NJ: Princeton University Press. 1962.

[234] Porat, Marc.The Information Economy: Definition and Measurement, Washington D.C.:US Department of Commerce, Office of Telecommunications. 1977.

[235] Alvin Toffler.The Third Wave. A Bantam Book. 1981.

[236] Masuda Y. The Information Society as Post-Industrial Society. Washington, 1981.

[237] Bell D. The Coming of Post-Industrial Society. L.: Heinemann, 1974.

– in spatial or geographical theories - M. Castells[238];

– in cultural theories - Zh.-F. Lyotard[239].

The concept of "information society" first appeared in economic literature in the early 1960s, parallel and independent of each other, in the works of F. Mahlup - in the USA, and T. Umesao - in Japan. These scientists became widely known for their research on the dynamics of the development of knowledge-intensive industries. F. Mahlup investigated the role of the knowledge industry in the development of human capital, therefore thanks to this acceleration of the socio-economic development of society. He claims that the production and distribution of information is a separate branch of the national economy of developed countries, which will determine the prospects of economic development in the future.

The development of this theory is carried out by a number of scientists:

– by the American economist M. Porat[240] with works devoted to the information economy (1977-1978);

– Japanese economist Y. Masuda[241];

– by the American economist E. Toffler in the work "Third Wave"[242];

– the British economist T. Stoneyer[243], whose work "Information wealth: a profile of the post-industrial economy" was published in London (1983), etc.

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[238] Castells M. The Informational City. Oxford: Blackwell, 1989.

[239] Lyotard J.-F. The Postmodern Condition. Minneapolis, MN: University of Minnesota Press, 1984.

[240] Porat, Marc.The Information Economy: Definition and Measurement, Washington D.C.:US Department of Commerce, Office of Telecommunications. 1977.

[241] Masuda Y. The Information Society as Post-Industrial Society. Washington, 1981

[242] Alvin Toffler.The Third Wave. A Bantam Book. 1981.

[243] Stoneyer T. Information wealth: a profile of the post-industrial economy. From the book: New technocratic wave in the West. Kyiv: Progress, 1986. P. 392-409.

A special contribution was made by Japanese scientists in the study of the information society - T. Umesao, Y. Masuda, as well as the late works of T. Sakai, where the theory of the information society is considered an element of the post-industrial concept[244].

Some scientists use the terms "post-industrial society" and "information society" as synonyms.

The most famous theory of the information society belongs to Alvin Toffler[31], in which he distinguishes three stages or "waves" in which:

- The "first wave" arose with the agrarian revolution and reached the end of the 18th century.
- The "second wave" was born of industrialization and dates back to the middle of the 20th century.
- The "Third Wave" initiates the principles of a new "super-industrial" or "informational" society.

A characteristic feature of the "third wave", in his opinion, is the transformation of socio-economic development to renewable energy sources and the rapid development of high knowledge-intensive technologies, which caused the destruction of the technologies of industrial society. An important characteristic element of the "third wave" is the diversification of information channels. Means of generating mass information are becoming less and less a universal source of information - the number and variety are increasing, and the content of information is personalized and meets the requirements of certain audiences. The rapid development of information and communication technologies (ICT) provides a variety of choices for users as a source of information. The information flow becomes less systematized and classified,

[244] Masuda Y. The Information Society as Post-Industrial Society / Y. Masuda. – Washington, D.C. : World Future Society, 1981.

does not provide ready-made recipes and conclusions of unified theories and truths, encourages the search, systematization and analysis of alternative information, does not impose a ready-made model of reality on society, but develops the critical thinking of the consumer and the creation of one's own opinion. As a result, the amount of information is growing wildly, because the more complex and diverse society is, the faster and more powerful the information flow.

The theory of E. Toffler logically resonates with the concepts of other theories of the newly created information space, in particular with the concept of D. Bell[245], the theory of information society by Y. Masuda[246], the concept of modern society by F. Ferrarotti[247], the theory of postmodern society by J.-F. Lyotard[248], the theory of late modern society by E. Giddens[249] and others.

For example, Yoneji Masuda, in the work "Information Society as a Post-Industrial Society"[35] (1981), notes that the term "information society" is much better suited to characterize the social changes taking place than "post-industrial society", because in his it is based on the transition of the ideology of the production process from material values to the generation of information values.

If the main idea of industrial technologies was to expand the physical capabilities of a person and mechanize physical labor, then the basis of information technologies is the improvement of the intellectual abilities of labor resources and the facilitation of intellectual work. Thus, information,

[245] Bell D. The Coming of Post-Industrial Society. L.: Heinemann, 1974.
[246] Masuda Y. The Information Society as Post-Industrial Society. Washington, 1981
[247] Ferrarotti F. 1990 Histoire et histoires de vie. Paris: Meridiens Klincksiek
[248] Lyotard J.-F. The Postmodern Condition. Minneapolis, MN: University of Minnesota Press, 1984.
[249] Giddens A. The Consequences of Modernity. Stanford, MA: Stanford University Press, 1990.

intelligence and the product created as a result of their processing become a fundamental factor in the development of society. It is Y. Masuda who outlines the information society as one where informational values become the basis instead of material ones and the economy of such a society values intellectual capital as "knowledge" (knowledge capital) higher than material capital (material capital)[35].

The industrial revolution began with the scientific discovery of the steam engine and the conveyor, which led to the creation of mass production and the development of means of transport that accelerated logistics. Similarly, the information revolution got its start with the scientific invention of the computer, and carries out the mass generation of systematized information, technology and knowledge and leads to the complete objectification of information, the production of cognitive knowledge and the emergence of information networks.

According to Masuda, the information revolution is not a technological improvement of the industrial society, but the case when qualitative changes occur so rapidly that the wave of social changes turned out to be too powerful, which allowed the transition to a fundamentally new type of society and economy, as its elemental component - informative. The replacement of the valuable component of society from the material to the value of knowledge and time is due, in his opinion, to the growth of information productivity. Thanks to the development of computer technologies, the speed of production and processing of prognostic information is increasing.

The development of the theory of the information society in the vector of view from the standpoint of employment issues was developed by D. Bell "The Future Post-Industrial

Society"[34] (1973) and F. Makhlup[250]. Diagnostics of socio-economic changes in the USA in the 1980s. and other countries allowed D. Bell to crystallize the characteristics of post-industrial society as a service society. It records the emergence of new, radical changes in traditional industries and professions, the growth of the gender issue in society as a whole and in its individual spheres of obtaining and processing information, the modification of theoretical knowledge, including fundamental sciences, and the growing importance of these aspects in the innovative process of transforming society. A special role is given separately to the communication system, which allows D. Bell[251] to conclude that modern markets that function in the information society are communication networks that contribute to the rapid growth of both the number of active market subjects, as well as the speed and frequency of execution business operations.

Summarizing the history of the emergence and organic development of the theory of information society, it is necessary to pay attention to the following circumstances. First, this theory gained recognition when there was a rapid jump in technological development and the best results were achieved by countries that not only produced, but also mastered new knowledge and information. Therefore, the understanding that knowledge in itself ensures the creation and self-growth of value has been established. Information, according to P. Drucker[252], is a rapid replacement of human labor with knowledge, and based on this, the "information society" becomes a tool for the "catch-up" development of less

[250] Machlup, Fritz. The Production and distribution of Knowledge in the United States. Princeton, NJ: Princeton University Press. 1962.
[251] Bell D. The Coming of Post-Industrial Society. L.: Heinemann, 1974.
[252] Drucker P. The Age of Discontinuity. New Brunswick, NJ: Transaction, 1992/1968.

developed countries based on the transformation of the intellectual capabilities of the individual in accordance with the growing flow of information. Secondly, a powerful influence on the formation of the concept of Japanese researchers is noted:

- T. Umesao[253] introduces the term "information society" into scientific circulation, which is gaining worldwide recognition
- The term received further ideological development in the book by Y. Masuda[254] "Information society as a post-industrial society" (1981),
- Resounded in a new way and occupies its significant place in the works of T. Sakaya[255].

Instead, European and American researchers emphasize the important role of knowledge as opposed to the importance of information, and this became the impetus for the emergence of new concepts such as "knowledge society", "knowledgeable society", etc. Ukrainian researchers also share these views, bringing the cognitive aspects of social development to the first level before the informational ones.

Therefore, the formation of the theory of the information society, in which the production of an information product is a priority compared to the generation of material values, becomes natural and understandable. Proponents of the theory of the information society position it as the fourth sector of the economy, after agriculture, industry and the service sector. Thus, capital and labor are already positioned as the fifth sector

[253] Umesao T. Jennison R. Japan as viewed from an eco-historical perspective. Review of Japanese culture and society. Vol.1. # 1/ Inaugural issue: Japan & Japanese (October 1986). Pp.25-31

[254] Masuda Y. The Information Society as Post-Industrial Society. Washington, 1981

[255] Sakaya, T.; Osaki, N. The potential of nanocomposite barrier technology. J. Photopolym. Sci. Technol. 2006, 19, 197–202.

and give way to information and knowledge as the basic basis of the information economy and information society as a whole.

The variety of existing new economic theories and theories of social development do not contradict each other, but only complement the spectrum of research with diversity. Summarizing, it can be stated that the theories of post-industrial and information societies and their characteristic concepts of futurology at the end of the 20th - at the beginning of the 21st century. a new formation economy emerged, the information economy, which becomes the basis for the creation of an information and knowledge economy.

The following are the main basic characteristics of the information economy:

1) transforming science into a direct productive force and increasing the value of intangible, in particular, information and knowledge assets;

2) the emergence of a global network of financial capital and the combination of financial capital with high technologies, which ensures their predominant development;

3) strengthening of changes in the sectoral structure of production based on the anticipatory growth of the service sector and its structuring in the direction from the structuring of the purely tertiary sector to the appearance of the quaternary sector outside the tertiary sector, which is due to the increase in demand for information and knowledge;

4) a change in the structure of employment, a decrease in the share of employment in traditional industries, and an absolute and relative increase in employment in the information and knowledge industries of production;

5) decentralization of production management and the transition from a vertical (hierarchical) to a horizontal (network) principle of organization;

6) demassification of production taking into account changes in demand and the inclusion of a cultural element in it;

7) diversification, individualization and fragmentation of work.

Thus, the theory of the information society should be considered as the methodological basis of the theory of the information economy. The provisions proposed during the study of the information economy as a component of the information society significantly deepen our ideas about the trajectory of the development of modern society and which, of course, must be taken into account when developing and implementing the economic policy of Ukraine.

## 3.4. INFORMATION ASYMMETRY IN THE INFORMATION SOCIETY

The very term "information society" was coined by Professor Yu. Hayashi[256] of the Tokyo Institute of Technology (Japan). But still, this concept gained scaling and general recognition after the report "Technology for America's economic growth, a new direction for building economic power" presented by the US leadership in 1993 at one of the conferences. A little later, the leading expert on the theory of the information society, the American sociologist Manuel Castells, in the work "Information Age: Economy, Society and Culture" (1996–1998), argued that the information age marks the emergence of a new society, which is formed by the deployment of a network of information and communication

[256] Y. Hayashi, M. Kashiwagi, K. Yasuda, R. Ando, M. Kanuka, K. Sakai, S. Itohara, Cells of a common developmental origin regulate REM/non-REM sleep and wakefulness in mice. Science 350, 957–961 (2015).

technologies, and in which information flows become a priority.

The "Charter of the Global Information Society", which was adopted at the meeting of representatives of different states, recorded the principles of the entry of countries into the information society in 2000 in the city of Okinawa (Japan). Subsequently, under the auspices of the UN, a world meeting at the highest level on the formation of the information society was organized in Geneva, where the "Declaration of the principles of the construction of the information society" was adopted. This document outlines the construction of the information society as a global task of the new millennium.

Modern science singles out a number of characteristic features of the information society and its economy. They directly affect the financial infrastructure of the economy and are important for understanding the process of their institutionalization. Including:

1. Acquisition by information of the status of a special kind of economic resource, factor of production, factor of creation of added value, informational capital and goods. In the financial infrastructure, this is manifested in the relevance of the development of its information subsystem.

The status of the driving force of society's development is gradually shifting from the production of material products to the creation of information products and the provision of information services, including information products.

In addition, the information capacity of the material product is growing.

For example, the production of raw materials, machines and equipment, as well as the construction of buildings and structures at the modern stage are accompanied by business plans, numerous technical and financial documentation, information exchange, the quality, preparation and

implementation of which form, among other things, the cost of these goods. The share of the information component in the final cost of some goods can exceed tens of percent.

2. The possibility of almost instantaneous communication, exchange of information and the growth of the volume of information exchange thanks to the cross-border information network and the readiness of people to work in it. If from the beginning of the chronology of our era to 1750, the volume of information exchange only doubled, then the subsequent doubling lasted 150 years (1750–1900), and the next one after it – only 50 (1900–1950). In the third millennium, this process became even more rapid, and only during the years 2006–2010, information exchange increased sixfold. These data confirm the process of continuous improvement of information exchange, including financial information, and testify to the undeniable existence of its connection with the evolution of society.

Globalization of information exchange as a result of rapid development of information infrastructure in society. At the same time, the field of finance is the leader of this process. Thanks to the latest information technologies, the global information exchange and the globalization of flows of electronic money capital and the corresponding financial relations have become a reality. That is, the globalization of the economy and finance became a manifestation of the properties and regularities of the functioning of the information resource in global economic relations.

At one time, the famous American scholar of international economic history - Rondo E. Cameron[257] in his work "A Brief Outline of the Economic History of the World.

[257] Cameron R. 1989. A Concise Economic History of World. New York: Oxford University Press.

From the Paleolithic to the present day" (1989), analyzing the role of the financial segment of the economy, wrote that the development of society is accompanied by the growth of banks and other financial institutions, which are necessary to ensure the economic mechanism of society, which is constantly increasing and becoming more complicated.

The British sociologist Frank Webster[258] (Frank Webster) writes about the processes of globalization of information exchange that the main aspect of globalization is:

a) worldwide distribution of information services of banking and insurance corporations;

b) globalization of financial markets and constant growth of the integrated global financial market;

c) the possibility of constant receipt of financial information by economic participants in real time for round-the-clock participation in financial instrument trading;

d) a rapid increase in the volume and speed of international financial transactions and the simultaneous dependence of any national economy on global money markets;

e) impressive scales and speeds of information flows. In the economy of the information society, the institutionalization of the information subsystem of its financial infrastructure - financial accounting - also has a global, cross-border character.

3. A fundamentally important feature of the information society is the increase in user requirements for the quality and usefulness of information. This characterizes the formation of a truly civil society. The development of financial accounting is a direct response to the challenges of civil society and the demands of economic participants regarding the need to

[258] Webster F. Theories of the Information Society. L.: Routledge, 1995.

provide them with open, high-quality and understandable information on the financial infrastructure of the economy.

4. And finally, a sign of the information society and the formation of social institutions adequate to it is the formation of appropriate national and international information law.

Legislative consolidation of this or that system of financial relations is an important feature of the higher stage of institutionalization of such relations. At the same time, the financial infrastructure of the modern economy is already largely fixed in numerous laws and subordinate regulatory documents. But, as noted, the process of developing the institute of the financial infrastructure of the information economy is ongoing, so the old regulations on finance are being revised and new ones are being developed. Financial policy and financial law are changing in accordance with the requirements of the information economy and information society.

With the development of the information society, the question arises as to the quality of information in this space, its primary and secondary nature.

Financial infrastructure ensures the movement of monetary capital, business activities of certain industries and the economy of the country as a whole and affects other spheres of social life. An important aspect of the development of the informational concept of finance is the thesis about its comprehensive socio-economic function. Society's understanding of the informational functions of finance is the key to successful practice in the field of informational economic policy both for the population as a whole and for power structures and business circles. Informational financial support is a tool for quality management of finances at all levels of the social environment.

Decent information accompanies all levels of financial relations, is their content. The value function of finance is implemented simultaneously with informative exchange. Therefore, the duality "value-information" is embodied in the synergism of performing the value and information functions of finance.

The economic essence of the informational function of finance is revealed through the mechanism of financial relations, which contains and is the carrier and generator of information directly related to value (money capital). Information about the movement and formation, distribution, accumulation, investment and use of value (monetary resources); about the price characteristics of capital, its origin and formed structure, sources, origins, directions of cash flow and other aspects of value movement.

The information function of finance contributes to the reduction of uncertainty and risks in matters related to the movement of monetary capital. The informational asymmetry of finance at the current moment of social development is one of the factors that leads to uncertainty in finance.

Finance information is divided into primary and secondary: primary information is an objective element of financial relations, and the human mind and the used technical means perceive and process it and form secondary information. Secondary information appears to us as processed materials in the form of statistical data; accounting, management, financial reports; analytical materials, etc.[259]

The relationship between primary and secondary financial information is manifested by the fact that secondary financial information:

[259] Ryazanova N.S. (2015) A new look at the financial accounting of the information society. Business information, No. 4. P. 244–254.

a) details the primary and depends on it;

b) can be repeatedly transferred to other media without loss of content, multiply and thus does not depend on the primary one;

c) is the primary source of newly created primary information of finance, there is an interdependence of primary and secondary information.

An example of the manifestation of the interdependence of primary and secondary financial information is the new financial relations of a participant in the economy when he attracts the necessary monetary resources (through the issuance of securities or bank lending). But such relations arise under the influence of secondary information, in particular, the work of analysts and consultants, marketers of the financial market, alternative creditors and investors.

At the same time, this participant of the economy is also influenced by the primary information contained in his new financial relations with counterparties.

It is necessary to understand that we conduct all calculations regarding finances precisely on secondary information, which illuminates the properties of primary information and depends on it, but is not it.

We agree with N.S. Ryazanova's statement that society uses secondary financial information in its activities, which is not identical to primary, generating its financial relations, and the level of compliance of the formed secondary information with the primary depends on human knowledge and the ability to perceive primary information[48].

The characteristics of primary and secondary information are related to the information asymmetry of finance. The source of information asymmetry is that secondary information is not identical to primary information. There is also the issue of consumer perception of secondary information, which may

be perceived differently. Also, the human factor can cause the distortion of secondary information by participants in financial relations. Deviation of secondary information from primary leads to distortion of new financial information created on the basis of false data[260]. Losses from such a distortion are experienced by all consumers of secondary financial information.

For example, losses of business entities due to asymmetry:

- competitive advantages;
- distorted market segment;
- growing threats to operational, financial and investment activities and the threat of extraordinary events;
- increasing the share of insider transactions on the stock market;
- growth of investment risks;
- lack of income and net profit;
- increase in transaction costs;
- increasing costs for reducing the level of asymmetry;
- emergence of hidden threats and risks;
- the probability of choosing suboptimal solutions;
- inefficient allocation of resources, etc.

We believe that with digitalization and the further development of the information society, the gap and asymmetry between primary and secondary information in finance will decrease. Already today, the need for openness and general availability of financial information is growing in society at all levels.

The development of information and financial infrastructure is accompanied by the process of increasing the

[260] Stiglitz J. Asymmetry of information – URL:http: // www.day. kiev.ua/uk / article / cuspilstvo / asymmetriya-informaciyi

level of compliance of secondary information with primary information, and the process of financial and information convergence is increasing[261].

The information concept of finance consists of the following provisions:

1) information as a property of finance is divided into primary (original source) and secondary (processed) information, which is the result of human perception of primary information;

2) there are regular connections between primary and secondary information (interdependence);

3) participants operate with secondary information, which is not identical to it;

4) the gap between secondary and primary information leads to uncertainty, which is the cause of various risks in finance. When the secondary information approaches the primary, the uncertainty decreases, and therefore the risks[262].

With the development of the information society, the financial infrastructure of the economy is being improved, and the asymmetry between primary and secondary financial information is decreasing. The information subsystem of finance acquires the greatest relevance and development in Ukraine at the beginning of the 21st century through the effective mechanism of the Institute of Financial Accounting.

In general, K. Arrow drew his attention to the problem of information asymmetry back in 1963, later it was studied by a number of leading scientists of the world level and even Nobel

[261] Lyovochkin S., Oparin V., Fedosov V. (2008) Financial infrastructure of the market economy: conceptual approaches. Ukraine economy, No. 11. P.57-72

[262] Ryazanova N.S., Fedosov V.M. (2016) Financial accounting as an institutional and infrastructural component of the information economy. Finances of Ukraine, No. 3. P. 55–85.

laureates, including J. Akerlof[263], P. Diamond[264], J. Stigler[265], J. Stiglitz[266] and others. The study of the behavior of market subjects within the framework of microeconomic studies was analyzed based on the fact that they operate with complete information necessary for making management decisions; the price is the absolute carrier of information about the product; the functioning of entities takes place in the market of perfect competition where the price is formed by the ratio of supply and demand; market relations provide market subjects with comprehensive information about possible alternatives. However, transaction costs were outside the scope of attention - costs for searching and processing information and its alternatives, for concluding the agreements themselves, etc. Incomplete information is an objective reality of the functioning of market relations. The traditional research paradigm of market processes is not always able to predict negative trends in the world economy. And it is the asymmetry of market information that is the main reason, according to J. Stigler[267]. The peculiarity of market uncertainty is that the subjects of market relations are forced to make decisions in rapidly changing conditions, and the trajectory of these changes is difficult to predict. Since they operate with secondary information, the market uncertainty is permanent and it is not possible to completely eliminate it, therefore, the level of transaction costs tends to increase.

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[263] G.A. Akerlof Behavioral macroeconomics and macroeconomic behavior. The American Economic Review (2002)

[264] Shafir E. Diamond P. (1997) Money illusion. The quarterly jornal of economics. Vol.112. Issue 2. P.341-374

[265] G.J. Stigler The theory of economic regulation Bell J. Econ. Manag. Sci., 2 (1971), pp. 3-21

[266] Stiglitz J. Asymmetry of information – URL:http: // www.day. kiev.ua/uk / article / cuspilstvo / asymmetriya-informaciyi

[267] G.J. Stigler The theory of economic regulation Bell J. Econ. Manag. Sci., 2 (1971), pp. 3-21

Therefore, the phenomenon of information asymmetry is a characteristic feature of any market and the question is only in its degree. Depending on the degree of asymmetry of information provision, negative consequences and the difficulty of establishing market equilibrium are determined. J. Stiglitz[268] claims that fundamental changes will take place in the information economy when the main problem will be the quality of information.

J. Stiglitz[57] proves that economic models can be completely wrong if information asymmetries are not taken into account. And justifies the opinion that perfect competition does not mean an automatic balance of supply and demand, especially under the conditions of monopolistic competition and oligopoly, which are beginning to prevail in modern conditions. J. Stiglitz justifies that rational solutions are not always optimal, as the transaction costs of searching for sufficient information begin to exceed the marginal benefit from achieving the optimum, having analyzed this problem on the example of an insurance case. He developed a mechanism of "reverse market adaptation" in which poorly informed market participants receive information from more informed ones. The influence of asymmetric information on product quality and price was considered in the article "Lemon Market" by the American economist George A. Akerlof [269]in 1970. This work proved that the lack of information about the quality of the product being sold leads to a significant drop in prices for this product. If the buyer does not have complete information about quality, it begins to be determined as a certain average value, which is perceived as some constant.

[268] Stiglitz J. Asymmetry of information – URL: http: // www.day. kiev.ua/uk / article / cuspilstvo / asymmetriya-informaciyi

[269] G.A. Akerlof The market for “lemons”: quality uncertainty and the market mechanism Q. J. Econ. (1970)

Anything higher than this constant is considered a higher quality product and costs much more. J. Akerlof[58] established for the first time in the economic literature that the lack of information on the market leads to the inability of the market to self-regulate with the help of only two driving forces - supply and demand.

The phenomenon described in the aforementioned article, when a buyer buys a lower-quality car because he does not have complete information about this product, is called adverse selection. Asymmetric information in the markets becomes possible due to the fact that no one can separate the market with low-quality and high-quality products. However, agents selling substandard goods actively promote it through advertising and other means, actually forcing most buyers to buy their products.

Asymmetric information covers almost all markets: insurance, financial, labor, etc. Asymmetric information is considered as a distortion of market forces due to the lack of awareness of market subjects. Asymmetric information can exist objectively when the majority of market participants have equal resources for advertising their product and approximately equal forces for its promotion, and also when market segments are almost equally divided between sellers, and a small number of sellers have better quality goods .

Asymmetric information can be created intentionally when a certain seller or a group of sellers, having divided the parts of the market among themselves by prior agreement, promote a lower-quality product, having the necessary funds for this. Such actions lead to the fact that the inferior product will be sold in larger quantities. The main consequences of asymmetric information for buyers are the purchase of a lower quality product at a higher price. The main consequences of the effect of asymmetric information for sellers selling higher

quality goods are a reduction in their sales. Ultimately, when this situation persists in the market long enough, it can lead to the bankruptcy of the best sellers.

The importance of information for making both management and consumer decisions in conditions of various resource limitations (monetary, time, space, etc.) does not require special justification. However, information provision is an extremely complex problem, which at the micro level (of corporate enterprises) refers to one of the main functional areas of modern financial management in general and its analytical function in particular. This is a permanent process that requires proper study and provision. After all, financial information is an expensive resource, the usefulness of which changes rapidly over time. And it makes it necessary to take into account the level of its reliability and objectivity, the pace of its aging and the level of relevance for describing market processes and phenomena. In addition, the information space is oversaturated, so the information that comes to both an individual and an enterprise cannot be fully processed, and a certain part of it will not be properly taken into account and used.

## 3.5. INFORMATION PROVISION OF CORPORATE FINANCES

The information society provides comprehensive filling of the information space, including economic information. One of the key users and generators of information in the information economy is a corporation. Corporate finance in its essence is considered as a certain system of relations carried out, on the one hand, between the corporation and other business entities, and on the other hand, it includes the entire range of intra-corporate relations regarding the formation,

distribution and use of financial resources. The corporation, like any business entity of a commercial nature, lays the principle of profitability as the basis of the organization of finances. Its successful implementation leads to an increase in own financial resources and an increase in the owners' capital due to an increase in the market value of the corporation's assets.

Under the conditions of the rapid development of the processes of informatization of society, in our opinion, financial information regarding corporate finances forms a significant informational segment of economic information. Thus, in the conditions of the information economy, corporate finance provides not only the functions of formation, distribution and use of financial resources, but also information. Financial crises have proven the significant influence of information about corporate finances, their state and trends on economic processes and society as a whole.

In general, the information function of finance, and especially corporate finance, fundamentally changes approaches to information about the activities of corporations and their influence on the reproduction of capital and the formation of the development potential of the economy and society as a whole. Formed information about the field of corporate finance highlights both the change in the value of capital and the peculiarities of its movement[270]. The availability, reliability and comprehensibility of such information, the ability to manage it, makes it possible to mobilize, use and increase significant amounts of financial resources in the corporate sector of the economy of the

[270] Ryazanova N.S. The information function of corporate finance: its understanding in the light of the modern vision of the essence of information // Formation of market relations in Ukraine. Research Economic Institute of the Ministry of Economic Development and Trade of Ukraine. 2013. No. 6. P. 8-15

information society, ensuring economic and technological development.

The generated information of corporate finance makes it possible to form a certain understanding of financial relations, participating entities and the purpose. Information about the form of manifestation and characteristic features of corporate financial relations and their structural characteristics is also important. All these aspects are interesting both from the point of view of concentration, migration, and changes in the physical forms of capital of the information economy as a whole and of a separate corporation.

The financial relations of the corporation involve the formation of a significant mass of information, first of all, regarding capital. It is possible to single out the component information, starting with the processes of capital formation by sources, its value indicators and structure, subjects of these relations and time parameters. Information about the distribution and use of capital, its physical form and much more is also important, including moral and physical aging, innovation of processes, technologies, products, etc. Thus, the information acquires characteristic features (properties) of the corporation's financial relations.

According to the information theory of the economy, the attributive concept of information (information is a property of any matter) world perception proves the objective existence of primary information that cannot be measured. Certain measurements and calculations take place using secondary information, which does not at all prove the measurement of primary information, although there are a number of dependencies between them.

Corporate finance is also characterized by the division of information into primary and secondary. Undoubtedly, primary information is an integral component of corporate financial

relations. Primary information is usually perceived and fixed by a person and/or by technical means, starting the process of forming secondary information by drawing up various operational, statistical, and accounting accounting documents. And in the future, secondary information about the finances of the corporation is grouped into arrays of accounting data, financial reports and analytical materials. The close connection of primary and secondary information is evidenced by the fact that secondary information characterizes the properties of primary information and directly depends on it. Thus, in corporate finance, any actions regarding measurement and calculation are possible only on secondary information.

The bearers of primary information about the corporation's finances are the corporation's financial relationships. Secondary information of corporate finance depends on the primary one because it is formed by fixing the properties of the primary one using various memory media. Such carriers can be: human memory (oral financial agreements / contracts, etc.); paper media (simple recording on paper, execution of financial agreements / contracts, other paper documents); technical media, including computer memory (simple recording or with the help of various systems of financial, management accounting, etc.).

All dependencies between primary and secondary information of corporate finance are similar to those defined by the attributive concept of information. In more detail regarding the formation of dependence of information on corporate finances, we note that secondary information:

– reflects the characteristic properties of the primary information of the corporation and depends on it;

– capable of being transferred repeatedly to other media without loss of content and multiplying, therefore, to a certain extent, it does not depend on the primary one;

– affects, like other primary information, the emergence of new primary corporate financial information. Thus, both pieces of information about corporate finance are interdependent.

Many factors affect the formation of secondary information about corporate finance, its content, degree of detail, grouping, structure, analysis. To a large extent, the nature of the formation of secondary information is determined by the need for it, which depends on its users. These needs change significantly depending on the level of economic development of society, awareness and qualification of information users, their needs in analytical processing and even in financial modeling. To a large extent, the formation of secondary information about corporate finance depends on the consciousness and purpose of its users. The rapid development of technical support has a positive effect on the quality characteristics of the formation of secondary corporate financial information.

Financial and economic relations of corporations are fully filled with all necessary information that is primary and covers all aspects of activity. Although secondary information characterizes the properties of primary information, it is interdependent but not identical. Objectively, the primary has a much larger volume of information, although it does not have the ability to process it through the use of analytical calculations and modeling, etc. Secondary information is well processed, but it is formed only according to the criteria chosen by users and therefore has certain differences with the primary, which is the basis of certain risks. Avoidance of additional

risks is made possible by adequate reflection of primary corporate financial information in secondary[271].

The evolution of society is accompanied by the development of financial and economic relations, including corporate ones. At different historical stages, the extent of discrepancies between primary and secondary information changed, but the process of development of corporate financial relations was always accompanied by the process of their reduction. The gradual approach of secondary information to primary as the primary source of financial and economic relations is an objective regularity. The interdependence of primary and secondary information about corporate finances is personified by the causal process of their formation.

Information support of corporate finances is formed in the process of registration, systematization, accumulation, processing, preparation and analytical processing of financial databases for the user's need for secondary information and further actions with the received information. Expressing almost all primary information about corporate financial relations and the formation of secondary information using a universal measurement parameter (money) makes it possible not only to transfer it to different media, but also to apply mathematical processing methods that form additional quality of secondary information, making it possible to compare the dynamics of processes in spaces and times. It is this property of corporate finance that is unique, which enables the development of various corporate information systems in terms of form and content that work with secondary information, increasing its informativeness. This makes it possible to widely apply control, analysis, financial modeling, forecasting and

[271] Ryazanova N.S. Information subsystem of corporate finance. Securities market of Ukraine. 2012. No. 8. P. 65-72

planning of financial and economic relations of the corporation in the management of corporate finances.

In general, any information will be informative only for a certain person and / or technical means, that is, a system prepared in a certain way, which is able to perceive it according to its characteristics. Therefore, the degree of usefulness of information directly depends on the level of professional training of the information user. The emergence and spread of the latest methods of information processing encourages the constant improvement of both the information systems themselves and the improvement of the qualifications of information users. The development of subsystems of information support of corporate finances objectively takes place in the direction of minimizing discrepancies between primary and secondary information and increasing the informativeness of the latter. The use of infographics makes it possible to present corporate financial information more accessible to the general public, including non-specialists.

Financial and economic relations in the field of corporate finance generate information subject to the laws of information exchange in the information society. The formation of corporate financial information and its exchange is based on a number of principles. Corporate financial relations themselves are built on information that determines their parameters (forms of attraction and use of financial resources, directions and features of their movement, forms of organization: channel or fund, etc.). In the process of management, there is always a need for information interaction with other subjects, which gives rise to new relationships, including financial ones. In particular, attracting new investors in the process of forming the corporation's financial resources on the stock market is made possible by the availability, availability and reliability of information on the financial condition and financial prospects

of the issuing corporation. The investor is also interested in information on the conditions for attracting financial resources by the corporation. Without such input information, the investor has no opportunity to decide on his decision and new economic relations simply will not arise. For an investor, both primary information and secondary information, which he uses to make his own calculations in the decision-making process, are important. Thus, the formation of secondary information on corporate finance is an important resource for its development.

Secondary information practically does not disappear and has the possibility of accumulation, distribution and quality improvement. In market conditions, the quality of processing and the completeness of information become important, therefore the methods of accounting, financial analysis and modeling are constantly being improved. Secondary information also has the property of uneven distribution, although it is known that the more complete the information, the more accurate the conclusions from it and, therefore, the possibility of obtaining financial results. Time is also an important factor, whoever makes a decision and acts sooner will have better results. In the conditions of competition in the market environment, information as a resource becomes important and is a subject of struggle and constant search.

The aggravation of the information struggle in a competitive environment prompts corporations to build high-quality information systems that ensure information security. The information system acts as a component subsystem of corporate finance, the subject of which is the entire range of financial data that users need. That is, the main task of this subsystem is the preparation of the initial information product for the user through registration, accumulation, accounting and analytical processing. Timely collected, qualitatively processed information enables financial management to quickly make

effective financial decisions. Successfully leading the corporation to development, increasing its financial potential, is possible only if the secondary information is complete and close to the primary.

The key role of financial information, both within the corporation and in external relations, is connected not only with the fact that it certifies the formation of its financial resources, but also reflects it in the value measure of other resources. Thus, the corporation's financial information includes information on the movement and value characteristics of: property status, in particular, the ownership or lease of land, fixed assets, intangible assets, stocks; availability and use of labor force in the cost meter as labor resources; provision of services, movement of goods and finished products, etc.

Users of secondary information about corporate finance vary greatly according to their interests in the corporation. Of course, the interests of the state, the stock market, owners, investors, creditors, the corporation's management apparatus, its employees, simple managers, and the public are very different. The state is primarily interested in the amount of taxes and the transparency and reliability of data regarding their determination, compliance with antimonopoly legislation (sometimes forced shredding), the level of financial condition, especially of city-forming enterprises of the corporation, etc.

The public is interested in the corporation's financing of programs related to ecology, important social activities, and for domestic corporations, the financing of frontline aid and social support for victims in the war and post-war period. The stock market requires issuers of securities to provide the information stipulated in the listing conditions. If the corporation is going to make an issue, it must provide the relevant information. The

owner and potential investor are interested in information about the benefits and risks of investing funds in corporate securities.

Creditors are primarily interested in the creditworthiness of the corporation and, in particular, indicators of solvency, availability of collateral, etc. The corporation's management apparatus relies on information about the availability and movement of financial resources, taking into account current and strategic needs. Employees are interested in the results of the corporation's activities, their impact on wages and social benefits, as well as information on the stability of the financial situation, which proves the likelihood of long-term employment.

Thus, all users of information about corporate finances can be divided into three groups according to the degree of influence on the financial and economic activities of the corporation: persons who, through their professional activities, directly influence the activities of the corporation (make financial decisions and manage activities); persons who have a direct financial interest and do not personally participate in the activity; persons who do not have financial interests and do not manage activities. Since the interests of these groups of users differ significantly, the information for them also varies in scope and degree of detail.

Secondary financial corporate information is divided into that to which access is open, it is available to a wide range of users, and that which has certain restrictions on the access regime, to which a limited number of people can join.

In Ukraine, the issue of providing and classifying information is regulated in a certain way by law, and information with limited access is divided into: confidential, secret and official[272]. Limited access to information about

[272] Law of Ukraine "On Information" dated October 2, 1992 No. 2657-XI

corporate finances is determined by the level of its confidentiality. In general, the information provided to different users differs significantly in terms of content, volume, and regularity of provision. Access to it is determined by the owner and the information policy of the corporation.

The formation of sources of secondary information about corporate finances through registration and accounting procedures, depending on its nature and purpose of users, occurs by systematization of data according to a specific purpose. The information subsystem, as a rule, separates the following components: administrative and financial.

The information of the management component of the information subsystem is formed according to the form of data systematization chosen by the corporation's management in order to ensure the adoption of financial decisions in a short time, which significantly increases the efficiency of its activities. The formation of this information is regulated only by internal regulations (statutes, various regulations, provisions, orders and instructions developed and approved by the management of the corporation). According to its content, the management subsystem generates secondary financial information that is specially prepared (registered, accumulated, grouped, analytically processed) for use by the management of the enterprise. This information is confidential, intended for internal use only, with restricted user access. As a rule, only the main owners of the corporation with the corresponding block of shares (the size of the block is determined by the internal regulatory acts of the corporation), members of the Supervisory Board, the Management Board and the top management apparatus have access to such information.

The formation of the financial component of the information subsystem is clearly regulated by tax legislation and accounting regulations (standards). This subsystem

generates secondary financial information about the movement of financial resources of the corporation, which is made public and has a wide range of both internal and external users, that is, it is not confidential. The purpose of the financial component of the information subsystem is to provide the necessary information regarding the implementation of the essence of the corporate finances of this business entity.

Considering the fact that corporate finance is essentially a relationship regarding the formation, distribution and use of financial resources for the purpose of obtaining benefits for their owners, they themselves are quite informatively attractive. The availability of public information on the basis of which users can make decisions about corporate finances significantly affects the increase in the market value of the corporation's assets, and therefore the benefits of its owners.

In this way, the secondary information on corporate finances formed by the information subsystem covers the entire range of data on the corporation's finances.

The financial component of the information subsystem should pay attention to the following functional accents at the enterprise level:

- systematic work with internal sources of information generated in various structural subdivisions and contained in its internal reporting;
- systematic collection of information from the company's personnel using a wide range of methods depending on the degree of urgency of the task;
- systematic study of the activity of counterparties in the chains of consumer value creation with the aim of building mutually beneficial relations;
- systematic study of the best examples of doing business both in a specific industry and outside it based on benchmarking;

- system digitization of processes.

Therefore, the collection and processing of financial information at the enterprise should be carried out continuously, regardless of access to information sources and resources or used methods, especially in conditions of significant budget restrictions and crisis phenomena. The purpose of the built information system is to overcome "information hunger" in modern business conditions.

After all, it is the financial component of the information subsystem of the enterprise that traditionally refers to the functions of collecting, accumulating, processing, interpreting and storing information both about its internal state and about phenomena and processes in the micro- and macro-environment in order to forecast their development in the future, risks and increase the level of information - analytical provision of corporate finances.

## 3.6. DIGITALIZATION OF THE NATIONAL AGRO-INDUSTRIAL COMPLEX: NEW CHALLENGES, REALITIES AND PROSPECTS

The purpose of this scientific article is to diagnose the processes of digital transformation of the national agro-industrial complex in order to substantiate the actualization of digitization of the activities of agro-industrial enterprises for conducting "smart" management" based on the adoption of a set of high-tech solutions in the direction of maximum automation of the industry.

To achieve this purpose, a wide range of research methods was used, the main of which were the methods of generalization and synthesis, scientific abstraction, analytical diagnostics, regulatory and statistical. The application of the

regulatory and legal method made it possible to identify the main elements of the legal field for the use of digital technologies in the activities of enterprises of the agro-industrial complex. The dialectical method of cognition of socio-economic processes, the formal-logical method and the method of system analysis were applied in order to better understand the processes of digitalization, to identify the patterns of their course, as well as the level of influence on the formation and modern development of the national agro-industrial complex.

It is determined that national agro-industrial production is characterized by a huge potential for future development by increasing the efficiency of land, labor and biological resources, the full use of which requires the improvement of high production technologies and the formation of an information management system.

A two-factor model of the genesis of innovative information technologies and innovative business ideas in the agroindustry is built, where there is a clearly pronounced dependence on the influence of the human factor, relatively low yields at a relatively high production cost, and flexible price conditions. The global challenges of digitalization of the agroindustry are defined, and the importance of the network revolution is identifed in the process of radical changes in the cost structure of agribusiness and the mechanism of profit formation.

The importance of the formation of ecosystems of agricultural market participants for making effective digital decisions, cooperation and effective collaboration of entire digital platforms of market participants is substantiated. The key tools and methods of digital development of agro-industrial enterprises and the national agro-industrial complex as a whole are considered.

It is determined that an important indicator of the development of digitalization of the agroindustry is the development of the global landscape of startups and technology companies, and the analysis of the investment volumes in the main digital projects in the agro-industrial complex is conducted. The optimal directions for successful digitalization in the agro-industrial complex have been specified, which should be considered in the form of a three-level development for agricultural holdings and a two-level development for relatively small agricultural producers.

The introduction of modern information and communication technologies is currently taking place at a rapid and dynamic pace. Every day information technologies are increasingly penetrating into all spheres of our lives, causing structural, organizational and transformational changes. The tools and methods of digitalization enable organizations to make optimal decisions for long-term development faster and more efficiently.

At the current stage of development, the level of the economic situation of Ukraine does not meet the modern requirements of rapid information progress for a number of reasons, the key of which are the rapid spread of COVID-19; unfavorable political conditions for the formation of a priority position in the market; low investment volume in the industry; lack of financial resources allocated for the development of the agro-industrial complex; and an increase in inflation.

The digital transformation of the national agro-industrial complex is already underway. Agricultural holdings use digital technologies that enable to manage organizational and economic processes, smart farming systems make it possible to manage farms using a large set of data and high accuracy of all operations, modern unmanned aerial vehicles are effective solutions for field monitoring, crop protection and quality

control of all production processes. It should be noted that the introduction of digital technologies will significantly increase the efficiency of agro-industrial production, increase the turnover of the industry. Therefore, to start the process of intensification of information development, the country needs to choose a real resource-saving way of effective use of information capital.

It should be noted that the national agro-industrial production is characterized by a huge potential for long-term development by increasing the efficiency of the use of land, labor and biological resources, the full use of which requires the improvement of high production technologies and the formation of an information management system. The key feature of such systems is the processing of a large amount of data, the results of processing, systematization and analysis of which will help to achieve high performance indicators, improve technical and technological solutions and strengthen production capacities [6].

The gradual introduction of information and communication technologies (ICT) as a key direction of economic development, the national agro-industrial complex is able to receive potential benefits from international cooperation with other developed countries, developing its own ICT sphere, while increasing the level of competitiveness on a global scale. According to "The Global Information Technology Report-2021" (The Global Information Technology Report) [18], which has been annually published by the World Economic Forum since 2002, the rating of countries in the world by the level of development of information and communication technologies is determined.

One of the most common indicators by which the state and degree of informatization in the countries of the world is assessed is the assessment of the level of development of

information and communication technologies (ICT) by the Networked Readiness Index (NRI), which includes sub-indices "Environment for ICT", "Readiness for ICT", "Use of ICT" and "Impact of ICT" [13, 14]. The top ten countries with the most effective use of information technology in 2021 included: Netherlands, Denmark, Finland, Singapore, Norway, Canada, Australia, Austria, Luxembourg and Ireland [18] (Fig. 3.3).

The genesis of innovative information technologies and innovative business ideas in the agroindustry can be represented as a two-factor development model (see the graph "Evolution of technologies and business models"). The horizontal axis is time, and here we can conditionally distinguish three stages-approaches to doing agricultural business: the traditional way, digital agriculture and ecosystems of market participants. The vertical axis is the complexity of technological development; it is mainly used for selection and seed production as the main drivers of yield growth.

Considering the stages of technological development, we can name several main points. Some of them, like hybrid breeding, selection, agrobiology, GMOs are already widely known in the market.

But there are also those that are just beginning to be used in the agro-industrial complex. In this aspect, the peculiarity of the CRISPR/Cas9 gene editing method is that the body independently, using the natural mechanisms of the immune system, cuts out the wrong DNA section with the help of geneticists. Such changes in the genome of a natural organism can occur (and do occur) as a result of natural evolution. From the result of gene editing, it is impossible to determine whether it was done as a result of human intervention or natural mutation. The CRISPR/Cas9 technique is more efficient than standard genetic modification techniques and is exactly much

more efficient than the archaic methods of "blind" genome modification by selection used in past centuries, as it makes it possible to perform the most accurate DNA editing. Thanks to CRISPR/Cas9, there is no need to select for hundreds of generations to get the desired result - resistance to pests or the desired food parameters [17, p. 128].

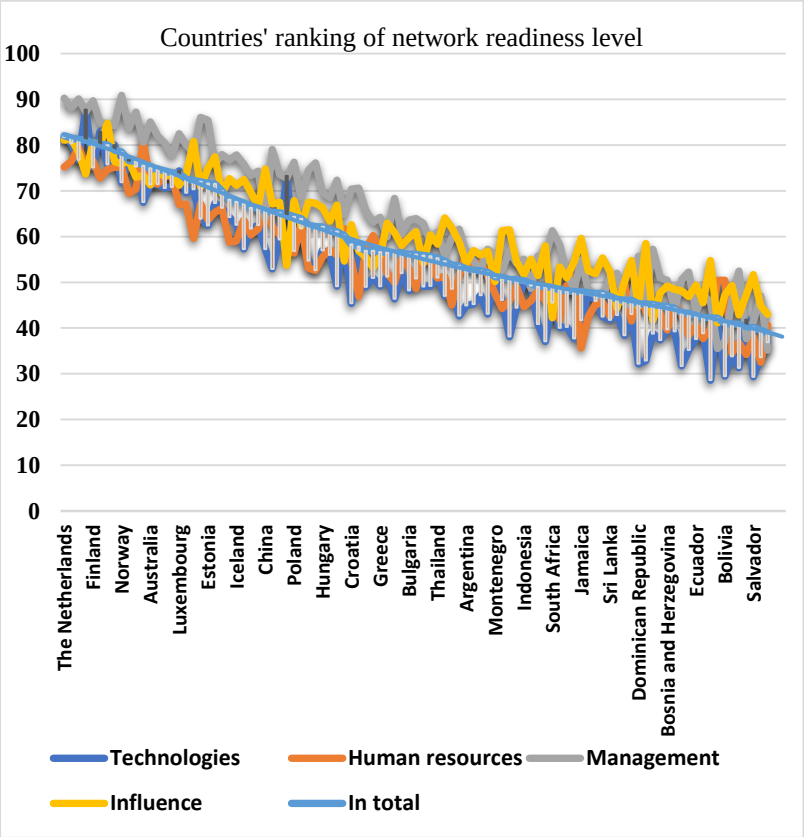


**Fig. 3.3. Country ranking of Networked Readiness Index**

*Source: formed by the author based on sources [18]*

It is well known that Swedish geneticists have recently managed to substantiate the results of their own research on the official non-recognition of genetically modified organisms as genetically modified if they do not contain foreign DNA in accordance with the requirements of the European Union. Thus, CRISPR/Cas9 experiments and the cultivation of genetically modified plants using this method are currently not prohibited in European countries. Similar measures are being taken in our country, namely in the direction of increasing the level of food security, which prohibits the use of genetically modified plants and animals.

Another new technology is RNA interference (RNAi tech). It is used to systematically disable genes in cells and select useful gene functions. Due to this, this method plays an important role in protecting cells from viruses, parasitic genes (transposons), as well as in regulating the development, differentiation and expression of genes in the body. By analogy with CRISPR/Cas9, RNAi seeds can be recognized as non-genetically modified products [19].

It should be noted that the technologies of field work and the following links of the value chain are perpendicular to selection and seed technologies (mathematical approach). In connection with the above, it should be explored and defined the key aspects of investment policy in the development of agri-food startups to form a full-fledged large-scale vision and identify the main success indicators for the digitization of the agro-industrial complex with the aim of effective IT development in the present and future. In this aspect, consider the dynamics of financing agri-food startups from 2012 to 2021.

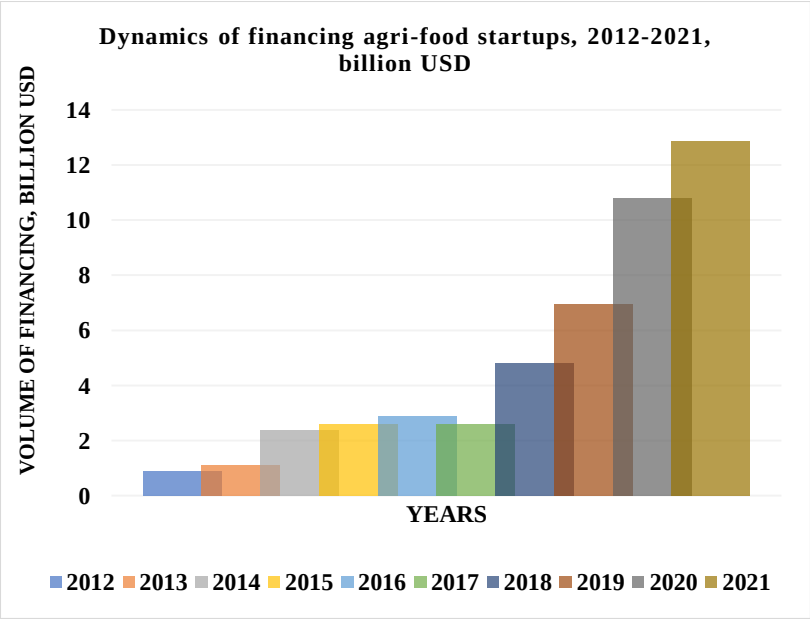


**Fig. 3.4. New challenges of digitalization in the context of business process management**

*Source: formed by the author on sources [16]*

The analysis of the dynamics of financial investments in national agri-food startups indicates the dynamic increase in funding and demonstrates galloping growth. The main focus of investors is online sales channels, as well as biotechnology.

In 2019, the largest amount of investment was attracted in the development of e-commerce and marketplaces, where total investments amounted to USD 6.95 billion, which demonstrates the transition of the national agro-industrial complex from offline to online. The volume of investments in e-commerce shows a positive trend and confirms the importance of solving the issues of efficient production of

products and its fast and high-quality delivery to potential consumers.

The giants in investing in agri-food startups in 2021 were the United States (online food trading, satellite imagery, bacteria production), China (online food trading, Meicai marketplace) and India (online food trading, restaurant marketplace): USD 8.9 billion, USD 5.5 billion and USD 3.4 billion respectively. Europe lags far behind, which is explained by the advantage of these three countries in investment activity and the overall development of the information programming and forecasting market [16; 20].

An important indicator of the development of agro-digitalization is the development of the global landscape of startups and technology companies, which, in turn, should be divided into eight main directions of activity, namely [21]:

– FMS (Farm Management System);
– data collection and aggregation (for precision farming),
– forecasting;
– marketplace;
– robotic equipment and UAVs (drones);
– sensors;
– smart irrigation;
– animal husbandry;
– next generation farms (mainly vertical greenhouses).

Agromarketplaces are still underdeveloped on a global scale, except perhaps for one case of Indigo: a biotechnology company that has organized an agricultural marketplace in the United States, through which deals worth hundreds of millions of dollars are concluded. The situation is that agromarketplaces are created not by agricultural producers themselves, but by other market players. Many countries, including African ones,

such as Kenya, have fairly large electronic platforms for trading agricultural products. In India, an online platform (eNAM) for food trade was launched by the Ministry of Agriculture. At the same time, this is a new trend, as agricultural products, unlike industrial and consumer goods, mostly have fewer clear specifications and pricing methods [24] (Figure 3.5).

On the other hand, marketplaces have other positive effects. For shareholders and top management, this is primarily a potential opportunity to ensure transparency and efficiency of obtaining data on the structure, volume, selling prices, optimization of document flow, and convenience for customers. At the moment, none of the largest national agricultural producers has a full-fledged marketplace, although most of them purchase through their own electronic platforms [17].

Thus, the direction or vector of successful digitalization in the agro-industrial complex should be considered as a three-level development direction for agricultural holdings and a two-level one for relatively small agricultural producers. The first division represents enterprises with efficient business processes, where internal accounting systems must be implemented and fully integrated, as well as a single digital back office. Also, the dashboard should be fully used, which displays the values of the most important business indicators in real time, and, ultimately, the accumulation of a database of production performance indicators.

The second level of development is a fully formed digital technology company that uses innovative technologies such as precision farming, artificial intelligence (AI), computer vision (CV), machine learning (ML) and others [22].

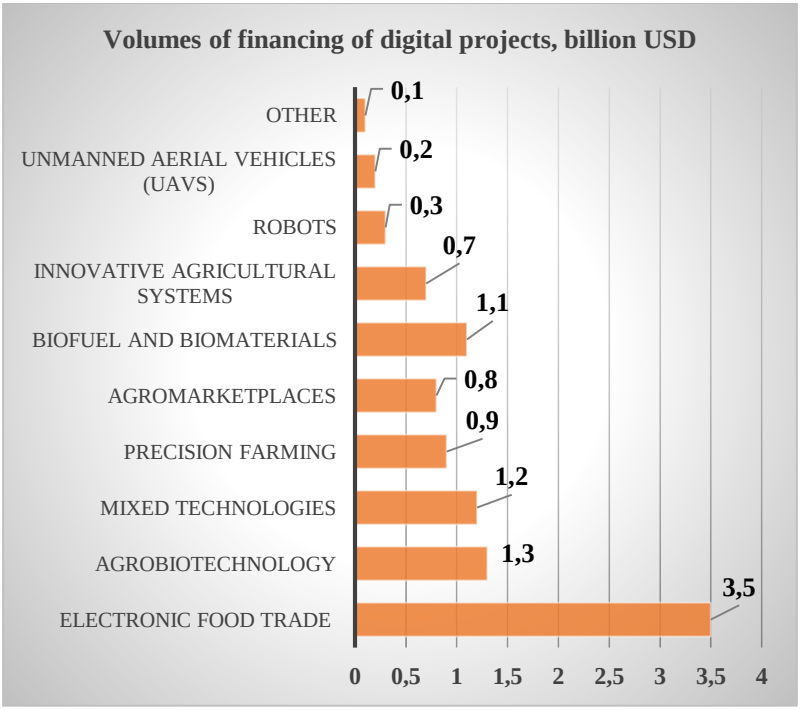


**Fig. 3.5. Volumes of financing of digital projects in the agro-industrial complex, 2021**

*Source: compiled by the author based on the source [17-19]*

The third (high) level of development is the ecosystem of the agricultural holding. A whole infrastructure of innovations has already been built here. Market participants are integrated into a single system based on the digital platform of the agricultural holding, while the sale of optimal digital solutions/services in the agro-industrial complex is positioned as a separate business.

Therefore, given the above, in order to achieve an increase in the level of profitability of the enterprises of agribusiness, in terms of participation in digital transformation processes, it is

necessary to fully master the second level of information development. To achieve leadership positions in the industry in 7-10 years, one should strive to move to the third level.

It should be noted that today most national agricultural companies face the important tasks of the first two levels of development. At the same time, it should be taken into account the fact that not all representatives of the industry are confident in the positive economic effect of the introduction of digitalization tools and methods, without providing thorough and convincing calculations of the inexpediency of using the instrumental and methodological complex of innovative and digital functioning [23].

In this way, the key goals of digitalization of agribusiness are not only to directly increase profits, but also to provide the entire database of necessary, logically and optimally structured information to the main participants in the agro-industrial process ranging from agronomists to business owners.

Therefore, the processes of digitalization of the national agro-industrial complex are now rapidly spreading to all sectors. The legislatively approved programs for the informatization of the industry and the economy as a whole are under consideration of legislation on the digitalization of socio-economic processes in Ukraine in order to radically transform the agro-industrial complex and the national economy as a whole.

The digitalization of the agroindustry contributes to a significant reduction in production and transaction costs and a significant increase in the level of financial affordability of food, ensures the rational use of the potential of natural resources and efficient nature management. The introduction of digital technologies in the agricultural sector is possible only through the application of a program-target approach, as well

as improving the efficiency of industry management at the state level.

The results of the conducted research in the direction of diagnostics of the processes of digital transformation of the national agro-industrial complex in order to substantiate the actualization of the digitization of agro-industrial enterprises lead to the conclusion that the use of digital technologies is a key tool for improving the efficiency of national agro-industrial production, as well as a key success factor for achieving a high level of competitive advantage both in domestic and foreign markets. The core idea of the digital transformation of the production and economic activities of agro-industrial enterprises is the creation of a smart agroindustry, which should be based on the automation of the vast majority of business processes and the management of large databases based on developed digital platforms.

The research results demonstrate the positive digital changes and transformations in the national agro-industrial complex, and, at the same time, the absolute values of the considered indicators are at a low level, which requires more active use of tools and methods to stimulate the intensification of the use of digital technologies in the agroindustry, which in turn can be ensured by the implementation of the following priority tasks:

– development of digital software platforms, scientific and methodological and innovative support of production and sales processes at all levels of management of the business entity;

– development of a methodology for forecasting the volumes of production and sales of products and, on the basis of this, forecasting the level of food security at the state level;

– optimal location of production, taking into account the requirements of rational nature management;

– predictive analytics and monitoring based on large databases with instrumental and methodological complex of a distributed registry, artificial intelligence;

– program-target sectoral planning;

– professional development and provision of digital competencies for specialists in the agroindustry.

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## Monograph

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