

ALFRED NOBEL UNIVERSITY
DEPARTMENT OF GLOBAL ECONOMICS

Master's Thesis

Globalization of production and Ukraine's participation in it

Student: Kate Koshelenko

Group: МЕВаНГЛ 20м

Specialty: 292 International economic relations

Supervisor: Magdich Alisa, PhD in economics

Dnipro 2022

The Master's thesis assignment Template

ALFRED NOBEL UNIVERSITY DEPARTMENT OF GLOBAL ECONOMICS

Second (master) level

Specialty 292 International economic relations

Approved by:
Head of the Department

(signature, last name, initials, scientific degree, academic status)

“ ” _____ 2022 p.

The Master's Thesis Assignment

Koshelenko Kate
(Student's full name)

1. Title Globalization of world production and Ukraine's participation in it

2. Supervisor Magdich A.S. Professor

(last name, initials, scientific degree, academic status)

Approved with the Order of 01 September 2021

3. Deadline for submission 20.01.2022

4. Aim of the paper Explore globalization

5. Thesis outline:

1. Theoretical foundations of integration and globalization
2. Ukraine in the modern global economy
3. General characteristics of PJSC "NTERPIPE NTZ"

6. Date of issue of the assignment 18.01.2022

7. Thesis schedule

	Stages	The deadline for submission	
		Schedule date	Actual date
1	Chapter 1	01.11.2021	01.11.2021
2	Chapter 2	25.11.2021	25.11.2021
3	Chapter 3	20.12.2021	20.12.2021
3	The whole paper	10.01.2022	10.01.2022

ABSTRACT

Koshelenko KP Globalization of production and Ukraine's participation in it.

The paper analyzes the current state of globalization in the world and economic integration of Ukraine. The review of the main indicators of globalization and openness of the economy of Ukraine has been carried out; the tendencies of economic development of Ukraine during 2008-2020 have been defined. Methodological aspects of estimation of influence of globalization processes on development of economy of Ukraine have been considered. The activity of the company "Interpipe NTZ" on the basis of the analysis of indices of efficiency of foreign economic expansion has been done. The calculations show how the company's performance has changed with access to the world market.

Key words: globalization, strengths and weaknesses of globalization, Interpipe, economic integration, openness of the economy.

АНОТАЦІЯ

Кошеленко К.П. Глобалізація виробництва та участь України в ній.

У роботі проведено аналіз сучасного стану глобалізації в світі та економічної інтеграції України. Проведено огляд основних показників глобалізації та відкритості економіки України, визначено тенденції економічного розвитку України протягом 2008-2020 рр. Розглянуто методологічні аспекти оцінки впливу глобалізаційних процесів на розвиток економіки України. Досліджено діяльність компанії «Інтерпайп НТЗ» на основі аналізу індексів ефективності зовнішньоекономічної експансії. Наведені розрахунки показують як змінювались показники компанії з виходом на світовий ринок.

Ключові слова: глобалізація, сильні та слабкі сторони глобалізації, Інтерпайп, економічна інтеграція, відкритість економіки.

CONTENT

INTRODUCTION	5
1.THEORETICAL FOUNDATIONS OF INTEGRATION AND GLOBALIZATION	6
1.1 The essence of international economic integration	6
1.2 Consequences of international economic integration.....	9
1.3. The state of the world economy at the present stage world economy economy globalization.....	21
2. UKRAINE IN THE MODERN GLOBAL ECONOMY	35
2.1.Ukraine in international rankings as an indicator of the level of its international activity	35
2.2. Analysis and assessment of the level of openness of Ukraine's economy in the context of European integration.....	38
2.3. Methodical aspects of assessing the impact of globalization processes on the development of ukraine's economy	41
3 GENERAL CHARACTERISTICS OF PJSC "INTERPIPE NTZ"	48
3.1. History of creation and development of PJSC "Lower Dnieper Pipe Rolling Plant"	48
3.2 Analysis of the results of production and economic activities of the Company	52
3.3. Analysis of costs for production and sales	67
CONCLUSION.....	73
REFERENCES.....	74

INTRODUCTION

Globalization and integration processes in the world economy are comprehensively studied by economists and sociologists, political scientists and lawyers. This is due to the fact that after the Second World War, centripetal and centrifugal tendencies in the world economy became not only clearly visible, but also have an impact on economic growth.

The experience of the economic development of various states confirms that the effective functioning of the economy largely depends on which tendency in the development of national productive forces prevails at this stage - towards integration or disintegration.

The analysis of theoretical and applied problems of the development of integration is reflected in the works of foreign scientists. However, in the works of both domestic and foreign researchers, the focus is rather on the applied value, without taking into account the mutual influence of the economic, political, social, scientific and cultural spheres of integration. There is an urgent need for a theoretical understanding of the accumulated practical experience, analysis of the patterns of development of integration and globalization in all the varieties of their manifestations.

Despite the increasing interest in integration observed in recent years, the mechanism of the economic union's functioning cannot be called well studied. This is caused not only by the lack of a unified view among economists on many issues, but also by the lack of experience in regulating the economy in the context of globalization that determines the relevance of the study. This determines the relevance of this topic.

The purpose of the work is to provide methodological support for the analysis of resource use and substantiation of measures to improve the resource conservation program in the conditions of PJSC "INTERPIPE NTZ".

1.THEORETICAL FOUNDATIONS OF INTEGRATION AND GLOBALIZATION

1.1 The essence of international economic integration

Before talking about the essence of international economic integration, it is necessary to define the concept of Integration. A large number of definitions of the concept of Integration are presented in the literature; in this work, several definitions will be presented.

Integration (from Lat. Integer - whole) - means the unification of economic entities, the deepening of their interaction, the development of ties between them. Economic integration takes place both at the level of national economies of entire countries, and between enterprises, firms, companies, corporations. Economic integration is manifested in the expansion and deepening of production and technological ties, the joint use of resources, the pooling of capital, in the creation of favorable conditions for each other for the implementation of economic activities, in the removal of mutual barriers.

Economic integration (integration, from the Latin restoration) interaction and mutual adaptation of national economies of different countries, leading to their gradual economic merger. At the interstate level, integration occurs through the formation of regional economic associations of states and the coordination of their domestic and foreign economic policies. The interaction and mutual adaptation of national economies is manifested, first of all, in the gradual creation of a "common market" - in the liberalization of the conditions for the exchange of goods and the movement of production resources (capital, labor, information) between countries.

Currently, international trade has become increasingly complemented by various forms of international movement of factors of production (capital, labor and technology), as a result of which not only finished goods, but also the factors

of its production, began to move abroad. Profit, contained in the price of goods, began to be created not only within national borders, but also abroad. Economic integration has become a natural result of the development of international trade in goods and services and the international movement of factors of production.

Integration features are:

- interpenetration and interweaving of national production processes; on this basis, profound structural changes are taking place in the economies of the participating countries;
- the need for and targeted regulation of integration processes; the emergence of interstate (supranational or supranational) structures (institutional structures).

Integration conditions:

- developed infrastructure;
- the presence of political decisions of the government (creating conditions for integration - the political and economic basis).

Integration levels:

- macroeconomic (state level);
- microeconomic (intercompany - TNK).

Developing countries are creating integration groupings to overcome the problems of industrialization. The number of factions in developing countries is approximately 35 to 40.

An example is MERCOSUR (1991 - Asuncion Agreement), which includes Argentina, Brazil, Paraguay and Uruguay. The group's goals are to reduce the budget deficit and overcome the crisis [1].

The goals of international economic integration are:

- Taking advantage of economies of scale by expanding the size of the market, reducing transaction costs.

- Creation of a more stable and predictable environment for mutual trade, as well as a favorable foreign policy environment, i.e. strengthening mutual understanding and cooperation of the participating countries in the political, military, social, cultural and other non-economic areas.
- Creation of a block of countries to participate in multilateral trade and other negotiations.
- Assisting in the structural restructuring of the economies of countries implementing deep economic reforms, by connecting them to regional trade agreements with countries at a higher level of market development.
- Support of young branches of the national industry, for which in this case a wider regional market arises.
- Achievement of the highest production efficiency.
- Possibility of regulation of socio-economic processes at the regional level.
- Saturation of the market with goods.
- Ensuring economic and political consolidation and international military security.

Benefits of economic integration:

- Increasing the size of the market - action across the scale of production (for countries with a small capacity of the national market), on this basis it is necessary to determine the optimal size of the enterprise.
- The struggle between countries is growing.
- Providing the best trading conditions.
- Expanding trade in parallel with improving infrastructure.
- Dissemination of new technologies.

Disadvantages of economic integration:

- For more backward countries, integration leads to an outflow of resources (factors of production), there is a redistribution in favor of stronger partners.
- Oligopoly collusion between TNCs of member countries, which leads to higher prices.
- The effect of losses from an increase in the scale of production at a very strong concentration[2].

1.2 Consequences of international economic integration

Modern economic science is not yet able to determine the full effect of the implementation of integration processes at the global level. This is explained not by the complexity of calculating the results of integration, but by the multiplicity of the consequences of this process in time and space. Therefore, in studies of this kind, it is customary to distinguish between static and dynamic effects of integration.

Static effects determine the economic consequences of international integration obtained immediately after the implementation of measures to consolidate the economies of two or more countries.

Dynamic effects assess the economic consequences of international integration in the future, manifested at the later stages of the functioning of the customs union. As a rule, the calculations of the static effect are reduced to comparing the results of consumer reorientation in one country in connection with the purchase of a product or a factor of production from a more effective participant in the integration link in another country.

This takes into account the effect of the presence or absence of a customs union or any other integration form. In calculations of this kind, it is necessary to take into account the negative consequences of international integration. It is

especially important to consider negative results for the future. It is in the future that the import of goods from another country may adversely affect, for example, the problem of employment in this country[3].

The models, despite their great specificity, and often unique features and characteristics, are based on common phenomena, which, despite the integration "boundaries", are still international in nature, which, by the way, allows competing systems to find a compromise, resolve the brewing contradictions between them, etc. That is why it would be a mistake to absolutize the model of any integration system without noticing general trends in its evolution. The characteristics of the existing basic models in the world integration processes are:

1. Models of political and economic integration (taking into account social aspects): - European Union (EU).

- Andean group (Latin America).
- Caribbean Common Market (Latin America).
- Association of Southeast Asian Nations (ASEAN).

2. Models of trade and economic cooperation:

- European Free Trade Association (EFTA).
- North American Integration (USA, Canada, Mexico).
- Organization of Arab Petroleum Exporting Countries (OAPEC).
- Organization of the Petroleum Exporting Countries (OPEC).

3. Models of international economic nongovernmental organizations that regulate trade and tariff policy:

- General Agreement on Tariffs and Trade (GATT).
- Organization for Economic Co-operation and Development (SECD).
- United Nations Conference on Trade and Development (SCAD).

4. Models of political alliances and military blocs:

- European Council.
- Organization of African Unity (OAU).
- North Atlantic Treaty Organization (NATO)[4].

Globalization as the highest stage of internationalization of the world economy

Globalization represents a higher stage of internationalization, its further development, when quantitative changes that have been accumulating for a long time have led to a qualitative leap. The world is becoming a single market for most TNCs, and moreover, most regions are open to their activities.

Globalization has become the most important real characteristic of the modern world system, one of the most influential forces determining the course of development of our planet. According to the prevailing point of view on globalization, not a single action, not a single process in society (economic, political, legal, social, etc.) can be considered limitedly only as such (such). The globalization of international relations is an increase in the interdependence and mutual influence of various spheres of public life and activities in the field of international relations. It affects almost all spheres of public life, including economy, politics, ideology, social sphere, culture, ecology, security, way of life, as well as the very conditions of human existence.

The processes of global development, within which the structures of national production and finance become interdependent, are accelerating as a result of an increase in the number of concluded and implemented external transactions. Globalization, which has embraced all regions and sectors of the world economy, fundamentally changes the relationship between external and internal factors in the development of national economies in favor of the former. No national economy, regardless of the size of countries and the level of development, can no longer be self-sufficient, based on the available factors of production, technologies and capital requirements. No state is able to rationally

form and implement an economic development strategy without taking into account the priorities and norms of behavior of the main participants in the world economic activity[5].

Although the concept of "globalization" has recently become the most frequently encountered in the economic literature, it is still very far from the complete clarity of this term, both conceptually and practically. Globalization processes are assessed ambiguously. Here are just two points of view.

Professor of Sociology at the University of California (USA) M. Castells defined globalization as a "new capitalist economy", listing its main characteristics as follows: information, knowledge and information technology are the main sources of productivity growth and competitiveness; this new economy is organized primarily through the network structure of management, production and distribution, rather than individual firms, as before; and it is global.

A number of specialists represent globalization as a rather narrow concept: it is the process of convergence of consumer preferences and the universalization of the range of products offered around the world, during which global products are replacing local ones.

The globalization of the world economy can also be characterized as an increase in the interdependence and mutual influence of various spheres and processes of the world economy, expressed in the gradual transformation of the world economy into a single market for goods, services, capital, labor and knowledge.

The globalization process covers different areas of the world economy:

- foreign, international, world trade in goods, services, technologies, objects of intellectual property;
- international movement of factors of production (labor, capital, information);

- international financial, credit and foreign exchange operations (gratuitous financing and assistance, loans and borrowings of subjects of international economic relations, operations with securities, special financial mechanisms and instruments, operations with currency);
- production, scientific and technical, technological, engineering and information cooperation.

Components of the globalization of the world economy

the deepening of the internationalization of production is manifested in the fact that manufacturers from many countries of the world participate in the creation of the final product in different forms and at different stages. Intermediate and semi-finished goods are taking up an increasing share of world trade and inter-corporate transfers;

- deepening of the internationalization of capital, consisting in the growth of international movement of capital between countries, primarily in the form of direct investment (and the volume of foreign direct investment is growing faster than foreign trade and production),
- internationalization of the stock market;
- globalization of productive forces through the exchange of means of production and scientific, technical, technological knowledge, as well as in the form of international specialization and cooperation, linking economic units into integral production and consumer systems, through production cooperation,
- international movement of production resources;
- the formation of a global material, information, organizational and economic infrastructure, ensuring the implementation of international cooperation;
- strengthening the internationalization of exchange based on the deepening of the international division of labor, an increase in the scale and qualitative change in the nature of traditional international trade in materialized goods;

- an increase in the scale of international labor migration. People from relatively poor countries find employment as unskilled or low-skilled labor in developed countries;
- the growing internationalization of the impact of production and consumption on the environment, which causes an increase in the need for international cooperation aimed at solving global problems of our time.
- globalization of the world economy [6].

Consequences of globalization for the world and national economy

It is predicted that in the visible future, globalization will entail:

- intensification of regional integration processes;
- greater openness of the economic systems of states that have not yet fully implemented the liberalization of economic activity;
- Unhindered access for all participants to any markets;
- universalization of the rules and regulations for the implementation of trade and financial transactions;
- unification of regulation and control over markets;
- standardization of requirements for the movement of capital, the investment process and the worldwide payment and settlement system.

Positive consequences of globalization processes.

The positive significance of globalization can hardly be overestimated: the possibilities of mankind are immeasurably multiplied, all aspects of its life are more fully taken into account, conditions for harmonization are being created. The globalization of the world economy creates a serious basis for solving the universal problems of mankind.

The following can be singled out as positive consequences (advantages) of globalization processes:

- Globalization contributes to the deepening of specialization and the international division of labor. In its conditions, funds and resources are more

efficiently distributed, which ultimately contributes to an increase in the average standard of living and the expansion of life prospects of the population (at lower costs for it).

- An important advantage of globalization processes is economies of scale of production, which can potentially lead to lower costs and lower prices, and, consequently, to sustainable economic growth.
- The benefits of globalization are also associated with the benefits of free trade on a mutually beneficial basis that satisfies all parties.
- Globalization, increasing competition, stimulates the further development of new technologies and their dissemination among countries. In its conditions, the growth rate of direct investment is much higher than the growth rate of world trade, which is the most important factor in the transfer of industrial technologies, the formation of transnational companies, which has a direct impact on national economies.
- Globalization contributes to the exacerbation of international competition. It is sometimes argued that globalization leads to perfect competition. In fact, we should rather talk about new competitive areas and about tougher rivalry in traditional markets, which is beyond the power of an individual state or corporation. Globalization processes in the world economy are beneficial, first of all, to consumers, since competition gives them a choice and lowers prices.
- Globalization can lead to increased productivity as a result of the rationalization of global production and the diffusion of advanced technologies, as well as competitive pressures for continuous innovation on a global scale.
- Globalization enables countries to mobilize more financial resources as investors can use broader financial instruments in an increased number of markets.

- Globalization creates a serious basis for solving universal problems of mankind, primarily environmental ones, which is due to the unification of efforts of the world community, the consolidation of resources, and coordination of actions in various fields [7].

The processes of globalization in the world economy are perceived and evaluated in different ways. Modern globalization processes unfold, first of all, between industrialized countries and only secondarily cover developing countries. Globalization strengthens the positions of the first group of countries and gives them additional advantages. At the same time, the deployment of globalization processes within the framework of the modern international division of labor threatens to freeze the current position of the less developed countries of the so-called world periphery, which are becoming objects rather than subjects of globalization.

Consequently, the degree of positive influence of globalization processes on the economies of individual countries depends on the place they occupy in the world economy; in fact, rich countries or individuals receive the bulk of the benefits.

It cites data that only 14.5% of those living in the Western world ultimately benefit from globalization, while such areas as China, India, Southeast Asia and Latin America remain practically unaffected by it. Black holes are also forming in the post-Soviet space, in Africa, in Central and South Asia.

The process of globalization, which has been most active in the last two decades, is fraught with ambiguities and contradictions, and is becoming the subject of heated discussions in academic and business circles. Countries need to adequately respond to globalization processes in order to adapt to new conditions and take advantage of the opportunities provided by the internationalization of the world economy [8].

In the economic literature, there is no common understanding of the terms "world economy", "world economy". Since these terms have a wide range of

applications, researchers emphasize aspects that are important from their point of view. Several approaches can be distinguished in the domestic literature.

The most common understanding of the world economy as a set of national economies, interconnected by the system of international division of labor, economic and political relations.

In this definition, the main constituent parts are nationally separate countries, regardless of whether they are produced for the domestic or foreign market. With this approach, the reasons that determine the relationship, state and prospects of the development of the world economy are obscured.

According to another point of view, the world economy is interpreted as a system of international economic relations, as a general, universal connection between national economies. Many Western researchers adhere to a similar concept, in particular, considering that the international economic system includes both trade and financial relations, as well as unequal distribution of capital resources and labor. In this case, production, which largely determines international economic relations, falls out of the field of view of researchers.

A more complete interpretation of the world economy defines it as a global economic system, self-reproducing at the level of productive forces, production relations and certain aspects of legal and political relations to the extent that the economic entities included in it have a certain compatibility at each of the three named levels. This definition reflects the main components of the economy, including the material base, the implementation of various forms of ownership and a certain procedure for the functioning of reproduction processes [9].

Purposeful economic activity in the world economy is carried out by subjects that determine the state and development of factors of production, as well as ways of combining them. The subjects of the world economy are economic units that have the necessary capital, are able to organize production activities in the international economic space and have certain international rights and obligations. These main economic entities include national states, TNCs,

regional integration economic associations, and international economic organizations.

All researchers recognize that the world economy is a certain system.

The basis for the emergence and existence of the system is its integrity, which presupposes the economic interaction of all components of the system at a fairly stable level. Only in this case is a regular circulation of the produced product possible on a global scale and constant activity, the viability of the system, its self-regulation and development are ensured. Such a unity of the world economy, the circulation of a reproducible product is provided by national and international markets with their inherent commodity-money relations and a plurality of prices.

The world economy is one of the complex systems characterized by the multiplicity of its constituent elements, hierarchy, multilevel, structural, uneven economic development.

Hierarchy assumes that the functioning of the world economic system is primarily to meet the demand of the highest system level. The distribution of economic power in the world is very uneven.

The basis of the system is the international and national production of material and spiritual goods, limited by the framework of individual states, their distribution, exchange and consumption. Each of these phases of the world reproduction process both on a global scale and within individual states, depending on their place and role, as a whole, affects the functioning of the entire world economic system. The latter also has definite directions of its development inherent in it as a whole, but it does not develop outside the national economies.

The system is understood ambiguously. In one approach, it should have a common goal, which acts as the driving force behind its development. Within such a system, there may be separate sectors - subsystems with specific characteristics, but nevertheless subordinate to the organizing goal of the system as a whole. Another understanding of the system comes from the fact that it

consists of a number of separate subsystems with different and even opposite purposes. But the subsystems included in it must be interconnected and mutually affect each other. Such a structure of systems can be of a temporary, transitional nature, since the most resilient subsystems transform or subordinate others to their goals. Otherwise, the system disintegrates.

The world economy as a system has a common goal. Ultimately, its functioning is aimed at meeting needs (demand), but in different subsystems this goal is modified due to different socio-economic conditions. The creation of new businesses cannot be an end in itself. It can be justified if it helps to increase supply and demand, improve living conditions of the population.

The world economy as a system cannot develop without a certain order based on the norms of international public and private law that regulate economic relations between states, economic associations, legal entities and individuals. Compliance with the established conventions and customary norms is ensured by the states themselves and by collective forms of control over the observance of international law, which are engaged in by various international organizations. These rules are specified and revised in accordance with the needs of the development of world productive forces and individual subsystems and elements.

The world economy is a historical and political-economic category. This is due to the fact that each specific historical stage is characterized by a certain scale and level of production, internationalization of economic life and socio-economic structure.[10]

The world economy is a complex economic system, consisting of separate elements, subjects, which themselves are systems with their own inherent regulation.

The relationships between the individual elements of the world economy are levels. Relations between states constitute an international level, which is governed by international rules and norms. The relationships of flows that go beyond national borders form the transnational level - the sphere of activity of

firms and groups with their internal information systems. It is becoming more and more autonomous, less and less amenable to regulation.

The transnational level also includes a network of flows of informal activities: drug trafficking, arms, clandestine migration.

The multitude of elements that make up the world economic system act there simultaneously. Clashes, agreements, associations exist between the centers of power. The features of an oligopoly appear, which extend their strategy either to the whole world or to individual regions.

In socio-economic terms, the world economy is not homogeneous. The leading place in it belongs to the industrially developed Western countries. A special place is occupied by developing countries, which largely retain the dependent nature of their economies from industrialized countries. The East European countries with economies in transition and a number of other states are very specific in their development. In general, the world economy is a complex socio-economic entity.

In production and social terms, the world economy is an arena of contradictions, competitive struggle that unfold both within countries and on a planetary scale. They cover factors of production (productive forces), national entities and economic associations, groups of entrepreneurs, entrepreneurs and labor force.

In the world economy, as in any complex system, there are bottlenecks or attractors with such properties that even weak effects on them can cause significant and sometimes catastrophic changes in the state and behavior of the entire complex system [11].

1.3. The state of the world economy at the present stage world economy globalization

The modern world economy is a system of economic relations between different countries and regions of the world, based on the international division of labor.

There is no longer a world socialist economic system that supposedly formed its own special world market, and there is no so-called third world, which is also supposedly opposed to the West. However, the main role in the system of the world economy, or the world economy, is played by a group of countries where a mature market economy with its mechanism of competition and internal self-adjustment to scientific and technological progress (STP) has already been created. A mature market economy is characterized by a high technological level of production, high labor productivity, production efficiency and the prevailing proportions in the economy, and a high living standard of the population.

The modern world economy functions in the context of globalization, which represents a new level and type of internationalization of production. Today, countries and regions of the world are closely interconnected not only by large-scale commodity and financial flows, but also by international production and business, information technologies, flows of scientific knowledge, close cultural and other contacts. The interdependence of individual countries and regions in the world economy has sharply increased.

A modern mature market economy actually exists primarily in the member countries of the Organization for Economic Cooperation and Development (OECD), which includes 29 states, including the United States, Canada, Japan and Germany.

The growth rates of the economy (or production), its individual industries or sectors are characterized by percentage annual and average annual growth, as well as indices, when the base year is taken as 100. The main macroeconomic

indicator used in the world to determine the rate of economic growth is the gross national product of GNP, or gross domestic product (GDP).

GNP and GDP are the final social product that characterizes the results of social production for the year. The difference between them is insignificant: it is determined in the first case by the inclusion, in the second - by the exclusion of the balance of foreign economic relations. Both indicators are calculated in two ways: by production and by use.

Produced GNP (GDP) is in general terms the sum of the added value of all sectors of production activity, including the service sector and the foreign trade balance. Value added is the sum of wages, profits and depreciation of fixed capital (otherwise: net production plus depreciation).

Used GNP is the sum of capital investment funds, consumption (population and state) and the balance of foreign economic relations. It is the used GNP (GDP) that is most often taken as the main macroeconomic indicator for calculating the rate of economic growth of a country.

For a correct understanding of the issue of the rate of economic growth, it is important to keep in mind the quantitative and qualitative aspects of it. At present, a typical quantitative estimate of the average annual growth rates of the economies of the main capitalist countries is about 3%. Is it a lot or a little? There is no unequivocal answer to this question: it is less and even small compared to the economic growth rates of this group of countries, say, during the 19th century, small compared to the high growth rates of many developing countries (China, India, Indonesia, Malaysia, etc. .), but quite a lot and rather a lot, taking into account the quality content of the rates under consideration.

The growth rates of production in individual sectors of the national economy and industry are very different among themselves. Some industries are growing faster than average, while others are growing more slowly. Therefore, all the time there are changes in the ratio of specific weights, or shares, which are occupied by industries in macroeconomic indicators.

Sectoral proportions represent the ratio of the specific weights of individual industries. They can be used to determine the nature and trends of sectoral structural shifts in the economy. For example, the trend towards a reduction in the share of industries producing primary raw materials, i.e., agriculture and the extractive industry, has clearly manifested itself. Once upon a time, the share of agriculture in the GNP (or GDP) of many countries of the world was not just predominant: its share reached 60-80%. Today, in the developed capitalist countries, it fluctuates between 2-10%. Thus, in the US GNP, the share of agriculture is less than 2%, and at the same time the country produces such a gigantic volume of agricultural products that allows meeting the needs of not only 280 million Americans, but also 100 million more people abroad, since the United States is a major exporter of this product. The share of the extractive industry is also declining. Agriculture and extractive industries form the so-called primary industries.

Secondary industries are manufacturing, power generation and construction that use primary raw materials. The total share of these industries is also decreasing, but not as dynamically as the share of the primary sector. At the same time, only the share of the electric power industry is growing. On the whole, the secondary sector in the sectoral structure of the GNP of the main capitalist countries occupies 28-35%.[12]

And finally, the rest of the industries are in the tertiary sector, which includes not only the usual services sector, including finance, insurance, education, culture, science, health care, business and other services, but also transport, trade, communications. The share of this group of industries has a long-term and stable upward trend. In principle, the needs of society for many types of services are limitless, while its needs for material benefits always run up against some boundaries. For example, it is simply impossible to consume certain food products or purchase certain types of clothing or footwear in unlimited quantities. But it is limitless to satisfy the always rapidly growing needs of people

for new knowledge, discoveries or inventions. The size of the share of the tertiary sector is directly related to the level of economic development of the country. It is not for nothing that the most developed countries of the world today have a post-industrial society, a post-industrial economy, while developing countries are at the industrial level of economic development.

The sectoral structure of industrial production in developed capitalist countries is of great interest.

Here, a special role is played by key industries - mechanical engineering, the chemical industry, and the electric power industry. These industries account for about 50% of all industrial production and 60% of industrial capital investments, and their shares are usually growing. Traditional industries such as light and food, as a rule, account for 15-25% of total industrial production, and their share is usually decreasing. But a special place in the sectoral structure of modern industry in countries with mature market economies is occupied today by new, nontraditional, high-tech industries directly related to microelectronics, computer technology, computer science, biotechnology, etc., or industries of the so-called new economy. The share of these industries, which form a kind of bridge to the structure of industrial production at the beginning of the 21st century, is growing all the time.

The complex of new, high-tech industries now plays the role of not only the generator of the formation of the future structure of industrial production, but also a kind of locomotive of the entire economy. In the 19th and first half of the 20th century. structural changes in production were decisively influenced by one or two leading industries - metallurgy, electrical engineering, automobile industry, which was caused by the construction of railways, the massive replacement of belt drives with electric drives, etc. Today, this function is performed by a complex of new, high-tech industries, production whose products are growing several times faster than the products of traditional industries.

At the same time, one should not underestimate the processes of reconstruction and modernization of traditional industries, where, with the use of high technologies, the process of their adaptation to new conditions is also taking place.

In general, in the process of sectoral restructuring, a relative structural balance of the entire world economy is achieved, that is, the adequacy of the levels of economic development of different industries, levels of management and organization of production in them. The interdependence and adaptation to each other of various industries, sectors and spheres in the economy of the developed capitalist countries is growing. At the same time, a reduction in one production or another does not always mean "worse", just as its growth does not always mean "better". The reduction or even the elimination of outdated, unprofitable production serves only to increase the efficiency of the economy, and, conversely, an increase in the output of unpromising products plays a negative role, which is eventually eliminated by the action of the market mechanism.

The change in the sectoral structure of the economy occurs under the influence of long-term trends that manifested themselves throughout the entire post-war period. The dynamics of the reproduction structure of the economies of the main capitalist countries differs in a number of cases by significant changes in comparison with the past.

Reproduction proportions in an economy are the ratios of different parts of GNP and factors of economic growth. These are the relationships between accumulation and consumption, the wage fund and GNP, material costs and GNP, fixed capital and GNP, as well as between the two divisions of social production.

The proportion between accumulation and consumption is usually determined by the share of the investment fund in GNP. In the USA it is about 17-18%, the rest is personal and government consumption. In Soviet times, it was believed that the higher the share (rate) of capital investment, the higher the rate of economic growth. But life has shown that there is no direct dependence

here. In Japan, the rate of investment is much higher than in the United States. The countries of Western Europe occupy the middle position: here the capital investment rate is 20-28%, and the growth rate of GNP over a long period was lower than in the United States.

It is important to consider the "behavior" of this proportion in the United States from a historically long-term perspective. Studies have shown that at the end of the XIX century. the US capex rate exceeded 22% of GNP and then declined. The growth rates of GNP also decreased, passing from the extensive to the intensive type. However, all this took place on the basis of an increase in the efficiency of capital investments, i.e. accumulation, which was markedly different from Japan, where the growth rate of GNP in the 2000s fell to 1% per year, and the rate of capital investment fell to a much lesser extent. The United States has one of the most efficient proportions between consumption and accumulation in the world.

The second important reproductive proportion is adjacent to the proportion between consumption and accumulation - the share of the wages fund in GNP (labor intensity). This indicator has risen markedly in all developed capitalist countries over the past many decades. In the USA, for example, in the middle of the twentieth century. the share of the wage bill in GNP was less than 60%, at present it is about 80% (in the countries of the former USSR and in modern Russia it is less than 50%). The foregoing completely refutes the well-known Marxist "theory" of the absolute and relative impoverishment of the working class. In fact, the standard of living of the working class has been rising practically since the second half of the 19th century. as a result of an increase in labor productivity and the efficiency of social production, an increase in the cost of labor in connection with an increase in its qualifications, the complexity of labor itself and, of course, scientific and technological progress.

The ratio between the cost of material costs and GNP - determines the material consumption of production. In all developed capitalist countries, it

decreases, especially the energy intensity of production, that is, energy consumption per unit of GNP. The most important factors causing a decrease in the consumption of materials in production are: replacement of some types of natural raw materials with others, more efficient, including artificial ones; deeper and more complex industrial processing of raw materials; the trend towards miniaturization of technology; introduction of material-saving equipment and technology; improving the organization of production; rationalization of labor.

The ratio between the cost of fixed capital and GNP - determines the capital intensity of production. In contrast to the material intensity of production, in relation to which the downward trend is quite unambiguous, the dynamics of capital intensity is distinguished by a certain and regular variability.

World experience shows that at the stage of extensive economic growth, when its relatively high rates were observed, the rate of capital investment increased, the growth of fixed capital outstripped the growth of GNP. And this led to an increase in the capital intensity of production, in other words, to a decrease in the efficiency of using fixed capital. It is quite a different matter when the economy becomes more mature, passes to an intensive type of functioning. Factors such as economy, efficiency and scientific and technological progress are increasing their role here. The rate of capital investment is decreasing, the rate of growth of fixed capital is decreasing. GNP, despite the slowdown in its growth, nevertheless begins to grow faster than fixed capital, capital intensity changes its trend from upward to downward. As a result, the efficiency of the use of fixed capital increases or the capital intensity of production decreases.

What factors determine the turn towards a decrease in the capital intensity of production? After all, the flip side of a decrease in capital intensity is an increase in capital productivity.

The first such factor is the reduction in construction time. The faster buildings are constructed (primarily for industrial or general industrial purposes), the less the volume of unfinished construction ("unfinished"), the faster new

objects come into operation and begin to recoup the costs of their creation and make a profit. The average construction time in the US industry has been declining for many decades and is now 20-22 months. The second factor in reducing the capital intensity of production is the technical and economic improvement of tools of labor, that is, machinery and equipment. We are talking about increasing the speed of machine tools, more economical and rational processing of raw materials, improving the structure of the machine park. In the latter case, attention is drawn to the trend towards an increase in the proportion of automatic machines, semi-automatic machines, machine tools with numerical control, flexible automatic systems, lines and industries in the structure of the machine tool park. All these trends are clearly seen in all developed capitalist countries and reflect the capital-saving directions of scientific and technological progress. Ultimately, they also lead to a decrease in capital intensity, an increase in capital productivity, that is, an increase in the efficiency of the use of fixed capital.

The last decade can be considered the beginning of a new period in the development of the world economy. Compared with the previous period, the degree of formation of international, and in some cases - planetary productive forces has increased, economic interaction and interdependence have increased.

The growth of the economic integrity of the world is ensured by new parameters of socio-economic development. In the Eastern European countries, the processes of formation and folding of economic and political structures close to the Western states took place. The social structure of the Eastern European countries and the former Soviet Union has changed, it has adapted to the existing in Western countries, the world socialist system and the Soviet Union have collapsed. The entry of the world economy into a new phase of socio-economic development was accompanied by an increase in the gaps in the levels of development of individual countries and subsystems.

The world's gross domestic product (GDP) in purchasing power parity is roughly \$ 60 trillion. The US GDP, according to their own estimates, on the eve of the global financial crisis approached \$ 14 trillion (for comparison, Russia's GDP is about \$ 1.3 trillion), and the total US debt, which includes the debts of the federal government, states, municipalities, businesses and households, exceeded \$ 50 trillion, of which the net external debt is \$ 10 trillion. The world economic system is in a situation in which the US debt is approaching the size of the entire annual world GDP. As a result, the American economy is reacting sharply to an increase in the discount rate, which causes a rise in the cost of credit and the cost of servicing it. At the Fed's policy rate, which recently climbed to 5%, the total cost of servicing all debt was \$ 2.5 trillion, or a fifth of US GDP.

One of the main topics actively discussed in the media, which have been in the center of attention of politicians, specialists and ordinary citizens in recent years, is the global financial crisis, which is developing into a global economic crisis. It will have important long-term consequences for the world economy, changes in the balance of power in the world, and will create new, more complex and harsh conditions for the functioning of the Russian economy.

Analogies with past events force us to think about the causes and consequences of the current global economic crisis, to assess who and to what extent is responsible for destabilizing the world financial system, what scenarios are most likely to develop.

The problems faced by most countries are the result of gross mistakes committed by a number of states (primarily America). The share of the American economy and the financial market in the world economy is very large, so the crisis that broke out in the United States rebounded on the economies of almost all countries. In conditions when the US dollar remains the main reserve currency and the main means of payment in international transactions, a sharp decline in the availability of international loans leads to similar processes in national economies. As a result, demand falls, sales markets shrink, capacity utilization

decreases, and worker layoffs occur, causing a new decrease in demand. The implementation of investment programs is suspended, and plans to expand production are postponed. In this light, the last US administration is responsible for the global crisis. It is difficult to disagree with this. The American economy is indeed debt-driven.

Obviously, the financial crisis has more compelling reasons than the erroneous actions of the US administration in the field of financial and monetary policy; they lie in deep structural imbalances of their national economy, quantitative and qualitative discrepancy between the volumes and structure of production and consumption. The high level of consumption in the United States was formed purposefully, in order to demonstrate the advantages of capitalism over socialism. If the US contribution to world GDP is 20-24%, then their share in world consumption is about 40%. The high standard of living of Americans is subsidized almost half by direct loans to citizens, businesses and the population and the overvalued dollar.

Overcoming the fundamental causes of the global financial crisis is impossible without a tough restructuring of the economy of this superpower, but the United States will not be able to voluntarily carry it out without putting the country in front of the threat of a socio-political crisis. If the money supply is limited in the expectation that the market itself will eliminate inefficient producers and consumers, there will be an almost twofold decline in the living standards of Americans, comparable in scale to the events of the 90s in Russia. Eliminating the "weak links" of the US economy will trigger a downturn reaction in other industries. The best way out for the United States is to preserve the existing state of affairs, to preserve the position of the FRS as the main emission center of the world. This requires preventing the dollar from depreciating, maintaining its leading position as the main means of payment in world trade, in order to continue to resort to issuing credit to cover the budget deficit and neutralize the consequences of a passive trade balance. Perhaps this will be one

of the main tasks of the economic policy of the new US administration. But in the long term, this prospect seems to be problematic, since the burden of serving consumption in the United States is becoming an unbearable burden for the countries in which the main share of the world production of goods in the real sector is concentrated today.

The structural cause of the crisis lies in the fact that the West, represented by the United States and Europe, brought a significant part of its production to Asia, turning into a center for the emission of money and a concentration of consumption. Economic growth in Asia was spurred on by the Federal Reserve's credit issue, dollars were returned back in the form of borrowings from the American state and foreign investments in American "valuable assets", or were stored in the form of surplus foreign exchange reserves of Japan, China, Russia and other countries.[13]

As a result of the financial crisis, the scheme for supporting global economic growth (production in Asia, consumption and emissions in the United States) has been destroyed. Falling consumption in the United States will lead to a significant decrease in production in Europe, China, Japan, India and other Asian countries, which have turned into a global factory for the production of information technology and consumer goods for the United States. The crisis reduces the need for raw materials and drives down world oil and gas prices, reducing consumer and government demand in the Arab world and in the Russian Federation. A sharp contraction of the world market will lead to an increase in protectionism and an increase in trade contradictions between the United States and the European Union, China, Japan, India, Russia, Islamic countries and Latin American countries, which will cause the WTO crisis and strengthen integration processes within regional unions and their economic structures.

Trends in the development of the world economy at the beginning of the XXI century

The processes of the functioning of the world economy make it possible to single out a number of clearly defined trends and patterns of its development.

The globalization of the world economy, which, on the one hand, embodies the quantitative results of the action of the development trends discussed above, and on the other, reflects qualitatively new phenomena in the world economy and includes:

- Involvement in world economic processes in almost all countries of the world;
- Creation of global markets for goods, services, technologies, capital, labor;
- Creation of a global infrastructure of world economic relations (transport, information, banking, communications, etc.);
- Dominance of external requirements over internal in the process of economic development of countries;
- Delegation of an increasing number of economic functions of national governments to international economic organizations;
- Recognition by all countries of market principles of management, as the most effective form of economic development;
- Universalization of the rules of economic life and international economic relations;
- The emergence of international production based on productive global forces, focused on the consumption of any country in the world at the level of the standard of living of a citizen of an industrial country;
- The global nature of international competition and international cooperation.

It should be noted the process of internationalization of economic life in almost all countries, which means the convergence and interpenetration of national economies at all stages of their reproduction process. If at the first stages

of the development of the world economy, the object of world economic relations was mainly the surplus of marketable products that exceeded the domestic demand of the national market, as well as goods that were absent or unproduced in the country, at present, not only the results of national production, but also their factors are involved in the orbit of world economic relations. - capital, technology, labor, as well as the production process itself. In the modern world economy, international specialization and cooperative production, the exchange of technologies are intensively developing, the processes of international migration of capital and labor force are intensifying. Economic relations between countries have turned from a purely commercial activity into an important and necessary condition for ensuring the national reproduction process.

Liberalization of foreign economic relations as a trend in the development of the world economy means an increase in the degree of opening of national economies to the outside world, both from the point of view of national and foreign participants in world economic relations. Customs duties on the path of international division of goods are being reduced, a favorable investment climate is being created to attract foreign investment, and the state migration policy is becoming less rigid.[14]

Regional economic integration of countries is the process of economic and political unification of countries based on the development of deep stable ties and the international division of labor between national economies, the interaction of their production structures at various levels and in various forms. To date, these processes have covered all continents of the globe without exception. The most significant integration associations of the modern world economy are the European Union, which unites Western European countries, the North American Free Trade Area, which includes Canada, the USA, Mexico, the Common Market of the Southern Cone Countries, which unites Argentina, Brazil, Paraguay, Uruguay, the Association of Southeast Asia and others. It should be noted that the influence of integration processes on the development of international

economic relations in the world economy is contradictory: on the one hand, they deepen and intensify them within integration associations, and on the other hand, they inhibit the development of world economic relations of member countries with third countries. As a result, we can talk about the regionalization of the world economy.

The process of transnationalization of capital and production is the creation by individual national companies that combine capital, representatives of several countries of economic units outside their countries. Unification of the rules of economic life and the creation of a system of interstate regulation of world economic relations in the world economy. The modern world economic order covers the regulation of international currency, settlement, credit, trade relations, serves as the basis for transactions in the field of international exchange.[15]

2. UKRAINE IN THE MODERN GLOBAL ECONOMY

2.1. Ukraine in international rankings as an indicator of the level of its international activity

The acceleration of integration processes due to the globalization of the economy has significantly affected all spheres of life in modern society, increasing the interdependence of economic entities. In the conditions of information imperfection the problems of estimation of parameters of economic processes are actualized, ratings become an important tool in the decision of which.

The term "rating" comes from the English "rating" - assessment, order, classification and means the ranking of a phenomenon on a certain scale. In order to constantly monitor the state and trends of development of countries in the world in the context of globalization, the relevant ratings of these countries are made on almost all aspects of global transformations (economic, social, innovative development, etc.). Multidisciplinary research in the field of rating still remains insufficient in the field of methodological issues of rating calculation, which requires further development in this area.

As a comprehensive assessment of the state of the object, the rating integrates a set of many indicators, summarizing the most important properties of complex socio-economic phenomena that are not subject to direct measurement. It is possible to estimate them only indirectly, aggregating sets of various basic indicators into one integral estimation.

Information sources for the calculation of international ratings are official statistics, specialized databases of international organizations (UN, OECD, WTO, IMF, World Bank, etc.), the results of business surveys and expert assessments.

The rating methods of different international agencies differ

both on basic indicators and on methodological approaches to aggregation of these indicators. Rating systems have, as a rule, a hierarchical structure consisting of several levels, at each of which the next level of indicators is formed according to the basic indicators of the previous level by standardization and aggregation.

As a result, the final rating score is obtained at the last level. The sequence of the rating calculation procedure consists of the following stages: "defining the concept of the rating, specifying its goals and objectives; substantiation of the structure of the rating system and the list of basic indicators; organization of primary information collection; unification of the scales on which the basic indicators were first measured, which is a necessary condition for their aggregation; substantiation of information convolution algorithms (aggregation and weighing) at all levels of the rating system hierarchy; calculating ratings and ranking items based on those ratings. "

Among the most important indicators of the country's integration into the international economic space are the indices of globalization and the level of economic freedom.

The Globalization Index shows the degree of global ties of the country, the level of its integration and independence in various fields - economic, social, technological, cultural, political and environmental. The index is determined annually by the rating company A.T. Kearney together with the journal Foreign Policy and the Swiss Institute for Business Cycle Research (KOF). The difference in the method of its definition is the number of variables involved in the calculation (14 and 24 indicators, respectively), which are grouped into blocks (groups) in the areas of global integration.[16]

According to the methodology of the Swiss Institute, globalization indicators are grouped into three groups:

* economic (volumes of foreign trade, foreign investment income; level of trade barriers, etc.);

* social (number of international, tourist trips, international telephone calls, postal items, money transfers, Internet providers, Internet users, periodicals and other publications, etc.); political (membership in international organizations, participation of the country in UN Security).

The sum of the above components, taking into account the weighting factors (36%, 39% and 25%, respectively) and is the Index of the level of globalization, which is the rating of the country among other countries (Table 2.1)

Table 2.1

Index of the level of globalization

Country	Rating	Index	Indicator of economic globalization	Indicator of social globalization	Indicator of political globalization
Netherlands	1	92,84	93,06	90,71	95,41
Ireland	2	92,15	94,65	90,99	90,47
Belgium	3	91,75	90,08	90,34	95,79
Austria	4	90,05	85,50	90,62	95,15
Switzerland	5	88,79	82,76	91,13	93,40
Denmark	6	88,37	85,76	87,54	92,84
Sweden	7	87,96	85,48	84,66	95,56
Great Britain	8	87,26	82,99	85,83	94,67
France	9	87,19	79,41	87,11	97,29
Hungary	10	86,55	88,75	81,16	90,94
Ukraine	45	70,24	68,42	61,05	84,90

According to table. 2.1 shows that the leaders in this indicator are small countries - the Netherlands, Ireland, Belgium, Austria, Switzerland, Denmark, Sweden. The country's place in the globalization ranking according to 2020 data is 45th [17].

2.2. Analysis and assessment of the level of openness of Ukraine's economy in the context of European integration

The index of economic freedom is used to analyze the nature of the openness of the economy. It characterizes the degree of non-interference of the state in the production, distribution and consumption of goods and services. This index reflects the degree of liberalization and openness of the economy. The figure is calculated annually by the Wall Street Journal and the Heritage Foundation Research Center in most countries. Experts from the Heritage Foundation define economic freedom as "the absence of government interference or impediment to the production, distribution and consumption of goods and services, except for the protection and maintenance of freedom as such." The index of economic freedom is based on 10 indices, measured on a scale from 0 to 100, with an indicator of 100 corresponds to the maximum freedom, and 0, respectively, the minimum.

According to the level of economic freedoms in 2010, Ukraine ranked 162nd out of 179 countries. At the same time, experts, analyzing the indicators of Ukraine, note a number of positive changes. In particular, the state "implemented a number of important structural reforms, trying to strengthen its economic base and over the past 5 years has achieved annual growth of 5%," the report said. Among the positive steps taken by Ukraine were the improvement of tax norms and accession to the WTO.

Ukraine's export quota in the early 1990s was 26-27%. A significant increase took place in 1994-1995 - from 35 to 47%, and in 2000. the figure reached a maximum of 62%. Since 2003 stability shows a downward trend in export quotas. In 2008 this figure dropped to 41%. And in 2015, this figure became 52.8% (Fig. 2.1).

The value of the import quota in the period 1990-1993 remained at the level of 26-29%, and in 1994. increased to almost 39%, and a year later was 50% [18].

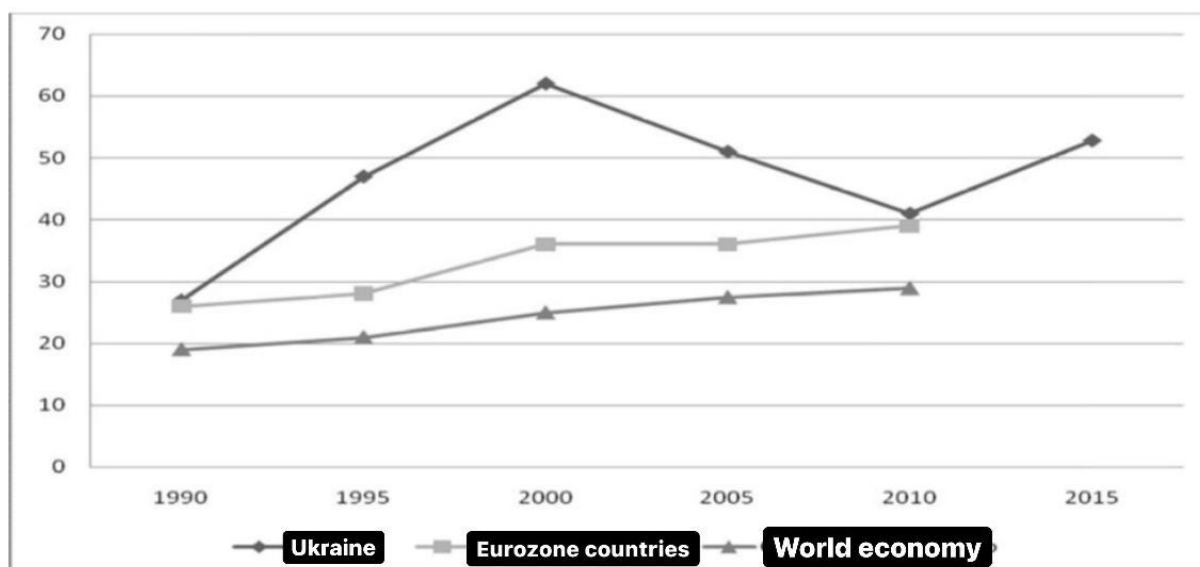


Fig. 2.1. The value of the export quota of Ukraine, the Eurozone and the world economy in 1990-2015

The maximum of the import quota in the period 1990-2008 was 57% in 2000. It should be noted that since 2003 the share of imports in Ukraine's GDP has been declining from 55% to 48%. In 2015, the value of the import quota was 54.8% (Fig. 2.2)

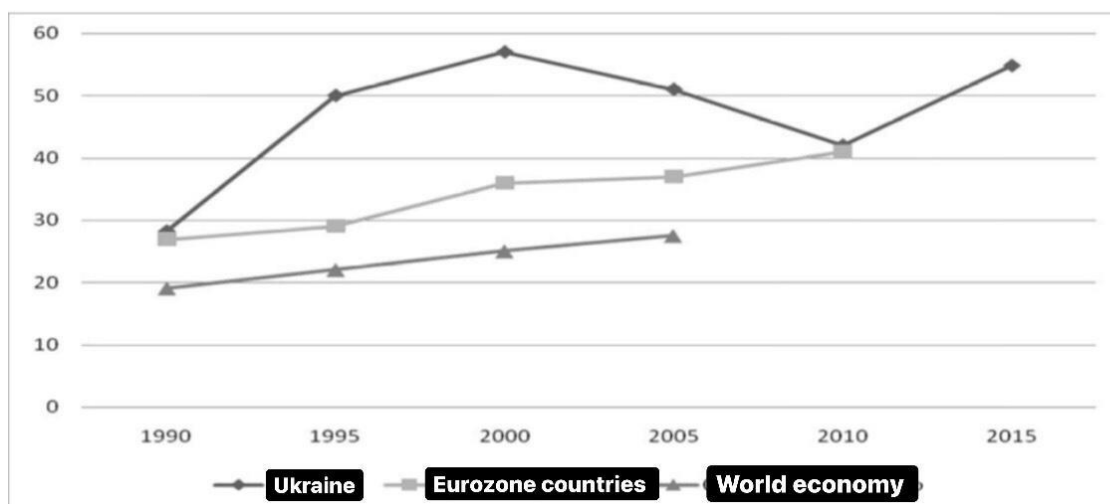


Fig. 2.2. The value of the import quota of Ukraine, the Eurozone and the world economy in 1990-2015

We can observe that the dynamics of imports and exports are interdependent.

The analysis allows us to conclude that Ukraine's economic system is open, as it belongs to the countries with a high rate of export quota ($> 45\%$) and import quota ($> 45\%$) [19].

A necessary area for assessing trade and financial openness is to study the level of openness of national borders for the free movement of services, goods and factors of production.

It should also be noted that American economists E. Warner and J. Sachs believe that the lack of very high import and export duties, as well as the availability of accepted conditions for currency conversion determine the degree of openness of the economy as a whole.

If we compare the arithmetic average rate of the current import tariff with the tariffs of some WTO member countries, we can say that today in Ukraine it is lower than the rates of some WTO member countries. This also suggests that the level of openness of Ukraine's economy is quite high. Thus, it makes it possible to state that at present the tariff protection of the domestic market of Ukraine is at the same level as in those countries that have recently joined the WTO.

According to decisions taken by the WTO before 2000, the average level of customs tariffs in industrialized countries fell to 3.8%. At the same time, the share of those industrial goods that will be imported into the countries without customs duties has almost doubled and ranges from 20 to 44%. For the countries of the European Union, the average customs tariff of 125 groups of different goods is 13%. Despite the fact that in the 1950s it was 25-30% in the world. These changes have significantly increased the openness of many countries. The aim is to intensify international trade, which should ultimately lead to an increase in openness in the world economy as a whole. It also allows us to conclude that in the early stages of industrialization, most countries follow a policy of "closed

doors", and as they develop, they begin to pursue a more liberal policy at the expense of open national economy. First it concerns the market of industrial goods, then - the goods of the agricultural sector, and then the national financial markets.

It is also necessary to pay attention to the distinction between the concepts of small and large open economies. Large open economies usually include countries whose economies due to their scale, participation in the international division of labor, available resource and economic potential, as well as the degree of influence on world markets have a significant impact on the formation and regulation of basic parameters of world economy: supply and demand for some of the most important goods; price levels and inflation; the state of the world's financial markets; policy in the field of determining international norms and rules governing foreign economic relations; interest rate movements, etc. Thus, the analysis of the level of openness of Ukraine's economy compared to the European Union as the main strategic partners in trade, investment, innovation, credit and financial cooperation shows significant opportunities for further deepening European cooperation [20].

2.3. Methodical aspects of assessing the impact of globalization processes on the development of ukraine's economy

Globalization at the level of an individual country is characterized by the degree to which its economy is interconnected with the world economy as a whole. Despite the growing globalization of the world economy, not all countries are equally integrated into it. The degree of integration of the country's economy into the global economy can be determined using the following indicators:

1) the ratio of exports (imports, foreign trade) to GDP:

$$k_1 = Ex/GDP * 100\%. \quad (3.1.)$$

If $k_1 < 25\%$, it indicates a low level of globalization of the economy in the world economy, if $25\% < k_1 < 50\%$, it indicates a medium level of globalization and if $k_1 > 50\%$, then it indicates a high level of globalization and its dependence on world markets.

In the table. 3.1. the change in the volume of gross domestic product (GDP) of Ukraine, export and import quotas during 2008-2020 is presented.

Table 3.1

Change in GDP, export and import quotas during 2008-2020

Year	Volume of GDP, mill.dollars	Export quota,%	Import quota,% 2
2008	86142	51,5	50,6
2009	107753	46,6	49,5
2010	142719	44,8	50,4
2011	179992	46,9	54,9
2012	117228	46,4	48,1
2013	136419	47,1	51,1
2014	163160	49,8	56,4
2015	177810	35,4	56,4
2016	183310	42,9	52,2
2017	131805	48,6	52,1
2018	90615	52,7	54,8
2019	93270	49,3	54,1
2020	95228	47,5	53,9

As these figures mostly exceed 50%, it can be concluded that Ukraine has a high level of globalization and is highly dependent on world markets.

2) the ratio of foreign direct investment (FDI) to GDP:

$$k_2 = \text{FDI/GDP} * 100\%. \quad (3.2.)$$

If $k_2 < 5\%$ is a low level of globalization in the international investment market, if $5\% < k_2 < 20\%$, then it indicates a medium level, and if $k_2 > 20\%$, it is evidence that the country is very closely integrated into the world capital market.

According to this indicator, Ukraine has a low level of globalization in the international investment market, but in 2007 and 2010 there was a significant increase in FDI attracted to Ukraine (Table 3.2.).

According to Lukyanenko, the most important manifestations of globalization today are the development of the world and national economies, which is reflected in the growth of GDP of each country and gross world product as a whole. He also sees the development of new connections between countries and their groups, which are largely integration in nature, as another manifestation of globalization processes [21].

Table 3.2

Volume of PI involved in Ukraine during 2008-2020

Year	Volume of GDP, mln. \$	FDI volume, net flow, mln. \$	FDI volume, net flow, % from GDP
2008	86142	7808	9,06
2009	107753	5604	5,20
2010	142719	10193	7,14
2011	179992	10700	5,94
2012	117228	4769	4,07
2013	136419	6451	4,73
2014	163160	7207	4,42
2015	177810	8175	4,60
2016	183310	4509	2,46
2017	131805	847	0,64
2018	90615	3050	3,37
2019	93270	3284	3,52
2020	95228	2202	2,31

J.M. Stolyarchuk also adds internationalization to the list above. world trade, especially trade and financial flows, which is reflected in the growing degree of the country's involvement in world trade. The author considers the growth of export and import quotas as one of the factors of GDP growth. The deepening of the international division of labor plays a significant role in the quality and volume of production, so it deserves special attention. Over time and the intensification of globalization processes have increased the ability of the population to visit other countries and even parts of the world, which manifests itself in some form of tourist travel and in the form of labor migration, etc. To study the impact of globalization on the development of Ukraine's economy. It is advisable to use econometric analysis and build an econometric model.

Thus, on the basis of theoretical and logical analysis in the econometric model as an effective variable Y denote the volume of Ukraine's GDP as an indicator of national economic development. Then the variable x_1 will be the volume of exports of goods and services% of GDP (export quota), x_2 -the volume of imports of goods and services in% of GDP (import quota), x_3 -the volume of foreign direct investment (million USD), x_4 -the number of citizens , who left Ukraine (million people), x_5 -number of foreigners who entered Ukraine (million people).

Econometric analysis calculations should be performed using the Statgraphics statistical analysis package. As a result of the calculation, a multiple regression was obtained with the parameters and the corresponding criteria for checking their significance:

$$y = -651271,1 + 1.07x_1 + 1,73x_3 + 1.05x_5 \quad (3.3.)$$

The most significant in the model volume of exports of goods and services in% of GDP, the volume of foreign direct investment and the number of foreigners who entered Ukraine. At the same time, the volume of imports of goods and services in% of GDP and the number of citizens leaving Ukraine were excluded from the model. The regression coefficient of 1.07 indicates that if the

export quota is increased by 1%, the volume of GDP will increase $b_1 = 1.07$ million US dollars. Increase in foreign direct investment by \$ 1 million. The United States will increase GDP by \$ 1.73 million. USA, as in $b_3=1.73$. The regression coefficient $b_5=1.05$ indicates that with an increase in the number of foreigners entering Ukraine by 1 million people, GDP will increase by \$ 1.05 million. To check the overall quality of the multiple regression equation, it is necessary to compare the estimated value of Fisher's F-test with tabular, since $F_{\text{estimated}}=7,48$, and $F_{\text{tabular}}=4,07$, the hypothesis of insignificance of equation is rejected.

The next step is to test the hypothesis about the significance of the parameters of the multiple regression equation. Since all the remaining factors in the model have -statistics greater than the tabular value ($t_{\text{tabular}}=2,306$), the hypothesis of insignificance of these factors will be rejected-all factors are significant. The value of the coefficient of determination is 73.72%, so 73.72% variation With the help of paired correlation coefficients, the data included in the model should be checked for multicollinearity (Table 3.3).

Table 3/3

Matrix of paired correlation coefficients

	Y	x1	x3	x5
Y	1,0000	-0,4663	-0,5017	-0,4028
x1	-0,4663	1,0000	0,3881	0,6713
x3	-0,5017	0,3881	1,0000	0,2401
x5	-0,4028	0,6713	0,2401	1,0000

Since all paired correlation coefficients are $|r|<0,7$ At the same time, the value of the export quota and the number of foreigners coming to Ukraine have a

smaller impact on Ukraine's GDP than foreign direct investment. 3D 1.73 and falls into the zone of uncertainty ($dl=0.66$, $du =1.86$) can be seen to draw a conclusion about the presence of autocorrelation of residues and the unsuitability of this model for forecasting. To determine the rating of the impact of factors on the level of GDP of Ukraine, it will be appropriate to write the model in standardized variables and analyze its β - coefficients. The calculated coefficients have the following values: $\beta_1= 0.000108$, $\beta_3 = 0.485507125$, $\beta_5 = 0.000104403$. So, we can say that the biggest rating has a factor of x_3 - the volume of foreign direct investment (million USD), while the value of the export quota and the number of foreigners who entered Ukraine are lower.

By comparing alternative models, we chose the model, y

which is the largest $R^2= 8.85\%$. As a projected variable x_1 - the volume of exports of goods and services of Ukraine, and as an independent variable - time t . The forecast was conducted for 2021-2022. The equation of the model is:

$$x_1 = (6.7119 + 0.389274 / t) ^ 2$$

A coefficient of determination of 8.84967% shows the proportion of variation

x_1 under the influence of t . The correlation coefficient is equal to - 0.297484, which indicates a weak relationship between variables. The standard regression error is 0.355554.

As a result of the forecast on the basis of multifactor linear dependence, in 2019 the expected volume of exports of goods and services of Ukraine will be 45.23%, in 2020 this figure will decrease to 45.09% and in 2020 the volume of exports of goods and services of Ukraine will be equal to 44.95% of Ukraine's GDP. Thus, in the next three years, the volume of exports of goods and services of Ukraine will decrease.

With a confidence interval of 95% in 2019, the volume of exports of goods and services will be in the range from 39.23% to 52.14%, in 2020 - from 38.60% to 52.66%, and in 2021 - from 37.99% to 53.18% of Ukraine's GDP.

Based on the study, the author developed recommendations on the impact of certain factors on GDP by econometric analysis. To do this, the dependence of GDP on factors such as exports, imports, foreign direct investment and migration was analyzed. Therefore, it is natural at present to address the issue of globalization in the context of forming a new point of view of the international community to change the vector of development of the world economy - from globalization to regionalization and nationalization.

In order to increase exports of goods and services of Ukraine, it is necessary to open new markets for Ukrainian business abroad, in particular in the EU, which is fully consistent with the current strategy of economic cooperation between Ukraine and the European Union.[21]

3 GENERAL CHARACTERISTICS OF PJSC "INTERPIPE NTZ"

3.1. History of creation and development of PJSC "Lower Dnieper Pipe Rolling Plant"

PJSC "Lower Dnieper Pipe Rolling Plant" is the oldest metallurgical enterprise. Founded by German industrialist Bernard Gantke. In 1909 he bought the territory of the Franco-Russian workshops for the repair of railway cars on the left bank of the Dnieper. The established enterprise was named "Plant of the Russian Railway Industry Society". It specialized in the production of nails, wire, bolts, nuts, crutches for fastening rails. On the territory of the plant there were shops: wire with pickling and galvanizing departments, press, nail, crutch, blacksmith - stamping and others.

During 1911-1913, the first stage of the pipe-rolling shop was built with two Bride-type machines and a small machine, which marked the beginning of the development of pipe-rolling production at the plant. In 1922, the plant was named after the German revolutionary Karl Liebknecht.

The second birth of the plant is associated with the period of industrialization of the country, in 1925 the pipe rolling shop was restored. From 1931 to 1935, five open-hearth furnaces were built and put into operation, the first in the country and the largest in Europe for the production of all-rolled railway wheels, a new pipe rolling shop and a number of auxiliary shops.

During the Great Patriotic War, the plant's shops were completely destroyed. Its restoration began immediately after the liberation of Dnepropetrovsk from Nazi invaders in 1943. At the same time, a radical reconstruction of the equipment was carried out, new production facilities were introduced, which determined the specialization of the plant.

As early as 1947, the open-hearth furnace produced metal. In the same year, the largest wheel-rolling shop in Europe was restored and put into operation. In 1948 a pipe-rolling shop came into operation, and in 1949 five open-hearth furnaces. In 1956, in addition to the reconstructed shops, a pipe-electric welding shop was built, and in 1962 a shop for the production of ball-bearing pipes was put into operation. In cooperation with Hungarian specialists, in 1968 the largest mill in Europe with a pilgrim installation "5-12" for the production of oil pipes was put into operation. In 1972, the wheel-rolling shop was reconstructed with the introduction of a new rolling line and an increase in production.

In 1975, a unique pipe rolling unit 140 was built and put into operation. In 1988, a new ring bandage shop was put into operation, equipped with modern equipment and advanced technology for the production of railway and ring products from carbon and alloy steel grades for mechanical engineering. Simultaneously with the increase in production capacity, auxiliary production shops were expanded and modernized, which increased the service life of equipment parts and rolling tools, as well as improved the quality of products.

The plant's products are used by numerous enterprises not only in Ukraine but also in other CIS and foreign countries.

During the independence of Ukraine, the wheelchair became a base for research institutes. Together with scientists, the technology of production of 23 standard sizes of wheels was mastered, including for subway trains, cast iron trucks, slag trucks, and diesel locomotives.

Currently it has the following production shops: wheel-rolling, ring-bandage, three pipe shops, foundry, CRMP, CRMO, block of mechanical shops and auxiliary shops.

PUBLIC JOINT STOCK COMPANY "INTERPIPE LOWER-DNIPRO PIPE ROLLING PLANT" is the largest manufacturer and supplier of wide range of steel pipes in the south-eastern part of Europe.

The plant produces and supplies more than 120 sizes of steel pipes with a diameter of 10 to 377 mm, including:

- seamless hot-deformed steel pipes;
- casings and couplings to them;
- steel seamless cold-deformed steel of general purpose, and also high and especially high accuracy;
- bearing pipes.

The plant also manufactures more than 100 sizes of all-rolled railway wheels of various configurations for freight and passenger cars, high-speed express trains, electric trains in the size range of external diameters from 650 to 1225 mm, locomotive tires, subway cars, trams and others. including:

- solid-rolled railway wheels;
- railway bandages;
- railway axles and wheelsets.

In addition, the plant manufactures blanks of traction gears for electric locomotives, wheel centers and other products for railway and municipal transport.

Modern technologies and equipment, quality control system and product testing ensure the supply of pipes that meet the technical requirements of consumers and fully meet the requirements of national and international standards.

Application of new methods of plant management, expansion of the product range with the use of new technologies and modernization of equipment,

qualified personnel allow the plant to occupy a leading position in the production of steel seamless pipes and railway wheels.

The main type of economic activity is the production and sale of metal pipes, solid wheels, ring products and tires.

The main purpose of the plant is to organize efficient business activities for profit.

The strategy of PJSC "INTERPIPE NTZ" is aimed at developing and maintaining a leading position in the market through work to improve technology, expand the range, tight control over significant cost items and implementation of resource saving programs (metal, gas, electricity, etc.), which will compete successfully with Ukrainian and foreign manufacturers.

The strategic goal of PJSC "INTERPIPE NTZ" in the field of quality is to achieve a leading position in the markets for the production of high quality products that fully meet the requirements and expectations of consumers, through strict compliance with agreed requirements. Therefore, PJSC "INTERPIPE NTZ" consistently implements a strategy of technical and economic development, which aims to increase the competitiveness of products and strengthen the plant's position in key markets. Its main directions are the introduction of new developments, modernization of equipment, expansion of the product range, further improvement of its quality, operational and consumer properties.

Today the plant is a modern company, one of the largest in the industry in Ukraine, has modern equipment, technologies, methods of ensuring and quality control of steel pipes, wheels, tires, ring products, and for the production of some products - the only one in Ukraine. [22]

3.2 Analysis of the results of production and economic activities of the Company

In 2018, the Company's assets increased by UAH 3.9 billion compared to the beginning of the year. (26%), their value amounted to UAH 19.1 billion. The main increase was due to the growth of current assets, including inventories and receivables.

Table 3.4

Structure of receivables

Receivables	Amount, thousand UAH			Growth rate, %		Specific weight, %		
	2019	2020	2021	2019 -2020	2020 -2021	2019	2020	2021
Total	7681406	10387989	13630317	35,2	31,2	100	100	100
For goods, works, services	5826187	9541160	12651366	63,8	32,6	76	92	93
According to calculations with the budget	85225	273023	219453	220,4	-19,6	1	3	2
On advances issued	717562	432371	601564	-39,7	39,1	9	4	4
Other debt	1038940	141435	157934	-86,4	11,7	14	1	1

Accounts receivable for 2021 increased by 31% and amounted to UAH 13,630,317 thousand as of January 1, 2022. The largest share of 93% in the structure of receivables is the debt for goods, works and services. During the reporting period, it increased by UAH 3,110,206 thousand. Accounts receivable according to the calculations with the budget on 01.01.2019 decreased by 53 570

thousand UAH and amounted to 219 453 thousand UAH. Debts on advances issued for the analyzed period increased by 39% or by UAH 169,193 thousand.

The most important part of receivables - is the debt for goods, works and services.

Since 2019, inventories have increased by 57.5%, today their value is UAH 1,342,215 thousand. The largest share in inventories is work in progress, semi-finished products, finished products, goods - 63%. These are the most liquid assets compared to other items of inventory.

In 2021, the amount of accounts payable for goods, works and services increased by UAH 1.07 billion. At the same time, the share of this debt as of January 1, 2022 increased by 5% compared to January 1, 2020. This is due to the increase in production and, consequently, the increase in purchases of raw materials, basic and auxiliary 8 materials. During the reporting period, accounts payable on received advances increased by 26%. The availability of received advances (UAH 6,986,775 thousand) indicates the stable position of the Company in the market, and indicates the ability of the Company to receive prepayment for its products, which indicates its competitiveness.

In 2021, the Company's equity increased by UAH 1.025 billion (1160%) due to retained earnings, which amounted to UAH 202,689 thousand as of January 1, 2022, which indicates an improvement in the Company's financial condition.[23]

The main financial instruments to achieve the strategic goal of the Company are trade receivables and payables, interest loans, cash and cash equivalents. The purpose of these financial instruments is to finance operating activities. The risks that arise in connection with the above financial instruments are exchange rate risk, liquidity risk, credit risk and the risk associated with changes in interest rates on loans.

1. Exchange rate risk.

The company operates mainly in the following currencies: Ukrainian hryvnia, US dollar and Russian ruble. Sales of own products are carried out in the markets of Europe, the Middle East, Africa, America and the Customs Union. Procurement of materials is carried out both in the country and abroad. As a result, the Company is exposed to exchange rate risk from exchange rate fluctuations, which is partially offset by major sales in US dollars and euros.

2. Liquidity risk.

One of the main goals of PJSC "INTERPIPE NTZ" is to maintain the flexibility of financing activities, both through the management of receivables, and through compliance with deferred payments on accounts payable. To this end, the Company analyzes the maturities of its liabilities in relation to the expected cash inflows. In case of excessive availability of liquidity or its insufficiency, the Company redistributes resources accordingly.

3. Credit risk.

The Company's financial instruments, namely bank deposits, trade receivables and payables, are the main sources of credit risk. According to the risk management policy, credit risk is monitored on an ongoing basis. Assessment of the solvency of counterparties is carried out for all counterparties before granting a deferral of payment. As a rule, the Company does not ask to ensure the fulfillment of obligations by counterparties, as the main sales take place to customers with a good credit history and payment statistics.

In view of all the above, the potential effect of credit risk should not significantly exceed the recognized provisions for receivables. The maximum amount of credit risk is limited by the amount of financial assets in the balance sheet.

4. Interest rate risk.

The Company has interest rate risk in connection with floating interest rate loans. This risk is mitigated by attracting and balancing the effects of fixed and floating rate borrowings.

5. Risk of capital management.

The company considers equity and debt as the main source of funding. Management is carried out to ensure business continuity in order to maximize benefits for all stakeholders, as well as to ensure operational activities and financing capital expenditures. Achieving the optimal capital structure with the lowest value, the maximum possible flexibility of financing and access to external borrowing markets is the main guideline. [24]

The Company's financial strategy is aimed at achieving three goals:

1. Providing the Company with the necessary funds for its stability and liquidity;
2. Ensuring its profitability and maximizing profits;
3. Satisfaction of material and social needs of its employees.

The volume of production and sales, improving its quality directly affect the cost, profit and profitability of the Company.

The main indicators of production in kind and cost characteristics of marketable products, as well as production costs are shown in table3.5.

Table 3.5

Production volume for 3 years (including products for own needs)

Name	The amount of thousand t			Growth rate, %	
	2019	2020	2021	2019 -2020	2020 -2021
Seamless hot-formed pipes for high-pressure boilers	0,373	0,390	0,527	4,5	35,2

Seamless hot-formed bearing tubes	0,055	0,058	0,081	7,2	38,6
Seamless hot-deformed steel pipes	100,993	88,975	118,903	-11,9	33,6
Casing pipes and couplings to them	43,297	101,315	143,523	134,0	41,7
Pipes are seamless cold-deformed bearing	0,290	0,325	0,113	12,1	-65,2
Pipes seamless steel cold-deformed	8,607	6,495	16,792	-24,5	158,6
Pipes steel seamless cold-drawn high-precision for submersible electric pumps and submersible electric motors	0,258	0,260	1,192	0,6	358,8
Wheels	105,298	107,160	133,92	1,8	25,0
incl. by toll form of work	17,215	12,989	43,185	-24,5	232,5
Bandages	2,582	1,948	3,122	-24,5	60,2
Axles for wheelsets	7,945	4,812	7,535	-39,4	56,6

According to this table, we see a comparison of the production of the 2021 report with the previous two years. As you can see, every year the production grows, especially in the production of finished products, where it increased significantly in 2021. (compared to 2019). Especially casings and couplings to them that have increased more than 3 times. This situation was created due to increased sales to new markets. It is observed that, after 2017, casings remain the leaders in production. Until 2016, the first were steel seamless hot-deformed, and today's leaders took second place.

Table 3.6

Sales of the plant are characterized by the data given in table 3.6. [24]

Name	The amount of thousand t			Growth rate, %	
	2019	2020	2021	2019 -2020	2020 -2021
Total factory	5052,24	10423,28	13664,54	106,3	31,1
Wheel rolling shop, including	1540,93	3439,68	4447,95	123,2	29,3
wheels	1522,44	3364,01	4349,73	121,0	29,3
rings and bandages	18491,21	75,67	98,22	309,2	29,8
Pipes - total, including	2945,46	6108,04	8446,30	107,4	38,3
Trumpet №3	412,36	916,21	1040,47	122,2	13,6
Trumpet №4	2179,64	4825,35	6159,28	121,4	27,6
Trumpet №5	353,45	366,48	1246,60	3,7	240,2
Repair and mechanical shop, including	272,82	312,70	346,18	14,6	10,7
axles for wheelsets	166,42	178,24	193,98	7,1	8,8
wheel pairs	106,40	134,46	152,19	26,4	13,2
Ancillary implementation	202,09	396,08	413,60	96,0	4,4
Social sphere	90,94	166,77	10,51	83,4	-93,7

According to the information in the consolidated report, the share of the Company's products sold in the regions of the Far and Near Abroad in 2021 amounted to 54.3%. Due to this, we see a continuous increase in sales.

To conduct a detailed analysis of production, the wheel was chosen rolling shop, due to the availability of more detailed production information.

The initial data for the analysis of the production of CPC are given in table 3..7.

Table 3.7

Performance indicators of the CPC

№	Indicator	2019	2020	2021
1	Calendar time, hour	8760	8760	8760
2	Nominal time, hours	8090	8218	8351
3	Current downtime, h	1527,00	1350,3	1006,00
4	Actual time, hours	6563,00	6867,70	7345,00
5	Hourly productivity t / h.	128,2	138,4	159,3
6	Production (wheels), thousand tons	105,298	107,160	133,92

Let's analyze the dynamics of the volume of wheel production on the example of the CPC for 2019-2020. [25]

To do this, calculate the chain rate of dynamics.

In 2019 compared to 2020 the pace of dynamics will be:

$$K^1Q =$$

Q₂₀ - volume of production in 2020

Q₁₉ - volume of production in 2019

$$K^1Q = 1,017 (1.8\%)$$

That is, in 2020. compared to 2019 rental sales increased by 1.8%

Similarly, we calculate the chain growth rate of dynamics in 2021 compared to 2020

$$Q =$$

Q - the volume of output in 2021

Q₀₉ - volume of production in 2020

$$Q = 1,249 (25\%)$$

That is, in 2021 compared to 2017 wheel production increased by 25%

The general trend in the dynamics is given by the average annual growth rate, which is calculated as the geometric mean of the chain growth rates.

$$Q =$$

- chain growth rate of dynamics in 2020

- chain growth rate of dynamics in 2021

$$Q = = 1.127 (12.7\%)$$

During the period under analysis, the production volume tended to grow by an average of 12.7% per year.

But the volume of production is an effective indicator, it depends on the average hourly productivity of the equipment and the actual operating time of the equipment.

Therefore, we will analyze the dynamics of these indicators to explain why there is an increase in production.

To do this, calculate a certain trend in the dynamics of the average hourly productivity and actual working time.

To do this, calculate the chain growth rate of equipment productivity in 2019 and 2020

$$K^1P =$$

P20 - hourly productivity for 2020

P19 - hourly productivity for 2019

$$K^1P = = 1.07 (7.95\%)$$

As you can see, the growth rate of equipment productivity in 2020 and 2019 increased by 7.95%.

Similarly, we calculate the growth rate of equipment productivity in 2021 and 2020

$$K^2P =$$

P21 - hourly productivity for 2021

P20 - hourly productivity for 2020

$$K^2P = = 1,151 (15.1)$$

As you can see, the growth rate of equipment productivity in 2021 and 2020 increased by 15.1%

The general trend of the average annual rate of increase in productivity of equipment is calculated by the formula

$$P =$$

K_{1P} - growth rates of equipment productivity in 2020 and 2019

K_{2P} - growth rates of equipment productivity in 2021 and 2020

$$P = 1,109 (11\%)$$

During the period analyzed on average, the productivity of the CPC tended to increase by an average of 11% per year.

In the same way we will analyze the dynamics of the actual operating time.

To do this, calculate the chain growth rate of actual working time for 2020 and 2019

$$K^1T =$$

T_{20} - the growth rate of actual working time in 2020

T_{19} - growth rate of actual working time in 2019

$$K^1T = 1,046 (4.6\%)$$

As we can see, the growth rate of actual working time in 2017. and 2016 increased by 4.6%.

Similarly, we calculate the growth rate of actual working time in 2021 and 2020

$$K^2T =$$

T_{21} - growth rates of actual working time for 2021

T_{20} - the growth rate of actual working time in 2020

$$K^2T = 1,069 (7\%)$$

It is clear that the actual working time for 2021 compared to 2020 increased by 7%.

The general trend of the dynamics of the actual working time is determined by the average annual growth rate, which is calculated by the formula:

T =

K1T - growth rates of actual working time in 2020 and 2019

K2T - growth rates of actual working time for 2021 and 2020

T = 1.118 (11.8%)

During the period under analysis, the actual working time tended to increase by an average of 11.8% per year.

Then the balance of factors is calculated by the formula:

$$P * T = Q$$

P is the general trend of the average annual growth rate of equipment productivity.

T is the general trend of the average annual growth rate of actual working time.

$$P * T = 1,109 * 1,118 = 1,239 = Q$$

The general tendency to increase the volume of production is due to the fact that the average hourly productivity and actual working time increased by an average of 11% and 11.8%, respectively.

Both factors acted differently, but the effect of the extensive factor was more significant, which ensured the general growth trend.

After finding out the general trend, we calculate the absolute change in production and the influence of factors on this change. So the change in the volume of this production in 2020 compared to 2019 amounted to:

Calculate by the formula:

$$\Delta Q_1 = Q_{20} - Q_{19}$$

Q20 - volume of production in 2020

Q19 - volume of production in 2019

$$\Delta Q_1 = 107.16 - 105.29 = 1.87 \text{ (thousand tons)}$$

The change in production due to changes in productivity of the equipment is calculated by the formula:

$$\Delta Q_1 (P) = (P_{20} - P_{19}) * T_{20}$$

P20 - hourly productivity for 2020

P19 - hourly productivity for 2019

T20 - the growth rate of actual working time in 2020

$$\Delta Q_1 (P) = (138.4 - 128.2) * 7005.54$$

The change in production due to changes in actual operating time is calculated by the formula:

$$\Delta Q_1 (T) = P19 * (T20 - T19)$$

P19 - hourly productivity for 2019

T20 - the growth rate of actual working time in 2020

T19 - growth rate of actual working time in 2019

$$\Delta Q_1 (T) = 1 * (-) = 39062.54$$

The balance of factors is calculated by the formula:

$$Q_1 (P) + Q_1 (T)$$

$Q_1 (P)$ - change in production due to changes in equipment productivity.

$Q_1 (T)$ - change in production due to changes in actual operating time.

$$Q_1 (P) + Q_1 (T) = 7005.54 + 39062.54 = 46\,068.08 = Q_1$$

Similarly, we calculate the change in production in 2021. compared to 2020 which amounted to:

Calculate by the formula:

$$\Delta Q_2 = Q21 - Q20$$

Q21 - the volume of output in 2021

Q20 - volume of production in 2020

$$\Delta Q_2 = - = 26.76 \text{ (thousand)}$$

The change in production volume due to changes in the productivity of equipment is calculated by the formula:

$$\Delta Q_2 (P) = (P21 - P20) * T21$$

P21- hourly productivity for 2021

P20 - hourly productivity for 2020

T21 - growth rates of actual working time for 2021

$$\Delta Q_2 (P)) = (-) * = 153510.5$$

The change in production as a result of the actual working time is calculated by the formula:

$$\Delta Q_2 (T) = P20 * (T21 - T20)$$

P20 - hourly productivity for 2020

T21 - growth rates of actual working time for 2021

T20 - the growth rate of actual working time in 2020

$$\Delta Q_2 (T) = 138.4 * (-) = 66058.32$$

The balance of factors is calculated by the formula:

$$Q_2 (P) + Q_2 (T)$$

$Q_2 (P)$ - change in production due to changes in equipment productivity.

$Q_2 (T)$ - change in production as a result of the actual operating time.

$$Q_2 (P) + Q_2 (T) = 153510.5 + 66058.32 = 219\,568.82 = Q_2$$

As we can see, production volumes have increased significantly over the years under review. The results were summarized in one table, see table 3.7.

Table 3.8

Summary of the results of the factor analysis

Name Deviation	2020/2019	2021/2020
actual operating time	+46 068,08	+219 568,82
productivity	+39062,54	+66 058,32
equipment per hour	+7005,54	+15 3510,5

Production resources of the enterprise and the efficiency of their use

One of the main resources in any enterprise is labor resources.

Labor resources at the enterprise are the object of constant care by the heads of the enterprise. The role of labor resources increases significantly during market relations. The investment nature of production, its high knowledge intensity, priority of product quality issues have changed the requirements for the worker, increased the importance of creative attitude to work and high professionalism. This has led to significant changes in the principles, methods and socio-psychological issues of personnel management of enterprises. [26]

Skillfully selected workforce - one of the main tasks of the entrepreneur. It should be a team of like-minded people and partners who are able to understand, comprehend and implement the plans of the company's management. Only it is the key to the success of entrepreneurial activity and prosperity of the enterprise. [27]

Like any large enterprise, PJSC "INTERPIPE NTZ" has a large number of staff, the dynamics of which in terms of major categories are presented in Table 3.8.

Table 3.8

Dynamics of personnel in the main areas of PJSC "INTERPIPE NTZ"

Indicator	Average number of persons			Absolute deviation, persons (+ -)		Growth rate,% (+ -)	
	2019	2020	2021	2019 -2020	2020 -2021	2019 -2020	2020 -2021
The total number of plants	5242	5231	4793	-11	-438	-0,2	-8,4
The number of PVP	4881	4870	4491	-11	-379	-0,2	-7,78

including: workers	4034	3993	3779	-41	-214	-1	-5,36
leaders	377	368	339	-9	-29	-2,4	-7,9
specialists	450	492	358	42	-134	9,3	-27,2
employees	20	17	15	-3	-2	-15	-11,8
The number of non- industrial personnel	361	361	302	0	-59	0	-16,3
including: workers	95	93	96	-2	3	-2,1	3,2
leaders	25	25	18	0	-7	0	-28
specialists	181	181	144	0	-37	0	-20,4
employees	60	62	44	2	-18	3,3	-29

Analysis of the data in the table shows a steady increase in the number of staff (up to 28%), due to the sharp increase in production due to entering new markets.

In the total number of plant personnel over 90% are industrial and production personnel. The largest part of it (about 80%) is occupied by the category of "workers". This staff structure reflects the specifics of large industrial enterprises.

Natural resources are potentially suitable for production natural forces and substances (gifts of nature), among which there are exhaustible and inexhaustible resources, and in the latter - renewable and non-renewable. Natural resources are land, minerals, plants and animals, water richness, natural and climatic conditions, etc.

Energy resources are all available for industrial and domestic use sources of various types of energy: mechanical, thermal, chemical, electrical, nuclear [28].

Non-renewable energy resources include various types of mineral fuels: oil, natural gas, coal, oil shale, peat, other caustobiolites (combustible fossil rocks of organic origin) of oil and coal series, as well as radioactive (mostly uranium) ores. They are used in the modern world economy as fuel and energy raw materials and are therefore widely called and therefore often called "traditional energy resources", ie energy sources for traditional energy (heat, hydropower, nuclear energy). In principle, all these energy resources are renewable, but the timing of their recovery is measured in geological time.

Renewable energy resources ("single crop" resources) include: solar energy; wind energy; energy of water flows. [29]

The dynamics of the use of natural and energy resources of one of the leading shops of PJSC "INTERPIPE NTZ" can be observed in Table 3.9.

Table 1.9

Dynamics of use of natural and energy resources of the enterprise per 1 ton of pipes in TPC-4, UAH

Resource	2019	2020	2021	2021	
				% to 2019	% to 2020
Natural gas (thousand m3)	698,60	703,99	804,27	15,13	14,24
Electricity (kWh)	169,85	183,09	175,46	3,30	-4,17
Steam (Gcal)	114,86	157,18	91,36	-20,46	-41,88
Fresh water (thousand m3)	3,24	12,24	6,26	93,21	-48,86
Technical water (thousand m3)	55,45	48,52	66,67	20,23	37,41

Water hydraulic	54,27	59,48	0,00	-100,00	-100,00
Compressed air (thousand m3)	40,22	53,08	74,34	84,83	40,05
Total energy consumption (thousand UAH)	437,89	513,58	414,09	-5,44	-19,37
Total redistribution costs (thousand UAH)	2779,29	2857,02	3704,48	15,13	14,24

As you can see, during the analyzed period there is no clear trend. For some of them we have an increase in costs (natural gas, compressed air), for others - an increase in 2019 compared to 2020 and a decrease in 2021 compared to the previous year.

In the total amount of redistribution costs, the share of fuel and energy resources ranged from 30-40% and above, reaching a minimum in 2021 and the highest - in 2020. Especially high costs for technological purposes have natural gas, the share of which in the amount of fuel and energy resources reaches two thirds.

This situation makes it important to develop measures for fuel conservation, which may or may not require capital investment. [30]

3.3. Analysis of costs for production and sales

For the analysis of financial results and expenses of sections 3.2.5 -3.2.6 the data of the form №2 of the official financial reporting, explanatory notes, etc. were used.

Production costs by elements and plants of the plant are shown in table 3.10.

Table 3.10

Dynamics of operating costs by elements for 2016-2018

Name of indicators	2019		2020		2021	
	Sum, thousand UAH	Specific weight, %	Sum, thousand UAH	Specific weight, %	Sum, thousand UAH	Specific weight, %
Material costs	3903761	47,2	8501622	62,4	10109205	46,7
Salary expenses	325873	3,9	529487	3,9	256710	2,9
Deductions for social events	117019	1,4	112191	1,9	148120	1,4
Amortization	278239	3,4	316584	6,7	399380	3,6
Other operating expenses	3646767	44,1	2258108	25,0	3627930	45,3
Total operating costs	8271623	100,0	11717992	100,0	14973232	100,0

In this table we see that other operating expenses increase every year as well as their share, for all other cost indicators we see a decline in both the amount and share.

The greatest weight in the cost structure is occupied by material costs, which in general reflects the specifics of the metallurgical industry.

The following is the dynamics of the production cost of products in terms of the main shops of the analyzed period (table 3.11): [31]

Table 3.11

Dynamics of production cost of 1 ton of plant products

	2019	2020	2021	2019-2020	2020-2021
CPC	1544962	2986967	3141321	93	5
TPC-3	300409	322915	832690	7	158
TPC-4	1888289	3794258	4977402	101	31
TPC-5	557903	968746	1457207	74	50
Total	4291563	8072886	10408619	88	29

According to this table, for three years in the CPC, TPC-4, as well as the whole plant, you can see a steady increase in production costs of the plant. Given the overall increase in sales, it can be seen that both TPC-3 and TPC-4 show an increase in the dynamics from 2019 to 2021. [32]

Profit is the main source of financing the growth of working capital, renewal and expansion of production, social development of the enterprise, as well as the most important source of revenue generation of budgets at various levels. The main purpose of financial and economic activities of the enterprise is the production of profitable products, profit and systematic, rational use. Maximizing profits in this regard is the primary task of the enterprise. The amount of profit in production activities is influenced by factors of a subjective nature and objective, independent of the activities of the economic object.

Following the results of work for 2018 the plant and its divisions received 834'255 thousand UAH. gross profit, which is 94.3 million UAH. more than in the previous year.

The directions of use of gross profit for three years of the analyzed period are given in table 1.12.

Table 1.12

Use of gross profit

Feature	2019	2020	2021	growth rate, %	
				2019-2020	2020-2021
Net income from sales of products	5052,24	10339,60	13664,54	105	32
Cost of goods sold	4291,56	8076,65	10408,61	88	29
Gross profit of the plant	760,67	2350,39	3225,92	209	37

Other operating income	2414,37	2161,54	3231,76	-10	50
Administrative expenses	313,21	331,94	308,25	6	-7
Selling expenses	414,48	818,39	1053,09	97	29
Other operating expenses	3228,29	2494,76	3203,25	-23	28
Financial result from operating activities	-780,92	866,83	1923,07	-211	122
Income from equity participation	0,968	0,034	0,35	-96	929
Other income	29,72	38,31	93,63	29	144
Financial expenses	55,18	563,23	657,98	1	17
Costs of equity participation	0	0,968	0	-	-100
Other expenses	7,67	61,11	58,95	696	-4
Financial result from ordinary activities before taxation	-1313,08	279,86	1300,11	-121	365
Expenses (income) from income tax	176,65	33,53	-272,22	-81	-912
Net profit	-1136,42	313,39	1027,88	-128	228

According to Table 3.12, we see that in 2019 the net loss amounted to UAH 1.1 billion, and in the next 2 years the plant received a significant profit, which in 2021 exceeded one billion hryvnias. This was achieved through the expansion of the market, which significantly increased the gross profit of the plant and other revenues.

Accordingly, in relative terms, the company's activities are profitable, as evidenced by profitability indicators (table 3.13). [33]

Table 3.13

Indicators of financial performance of the enterprise.

	Indexes	Years, thousand UAH		
		2019	2020	2021
	Sold products	7673,97	12573,02	16718,06
	The cost of production	8810,40	12347,08	15690,17
	Profit	-1136,42	313,39	1027,88
	Profitability,%	-12,89	2,53	6,55

We calculate the analysis of financial activity from 2019-2021.

Profit for 2019-2021. Calculated by the formula:

$$P = TP - C$$

Where:

TP - the price of marketable products.

3Σ - cost of production.

$$P_{19} = 7,673.97 - 8,810.40 = -1,136.42$$

In 2019, the company earned a profit of 760.67 thousand UAH.

$$P_{20} = 12\,573.02 - 12\,347.08 = 313.39 \text{ thousand UAH.}$$

In 2020 the company received a profit of UAH 2,262.95 thousand.

$$P_{21} = 16,718.06 - 15,690.17 = 1,027.88 \text{ thousand UAH}$$

In 2021, the company earned a profit of UAH 3,225.92 thousand.

Profitability for 2019-2021 calculate the formula:

$$R = * 100$$

$$R^{08} = - 12.89$$

$$R^{09} = 2.53$$

$$R^{10} = 6.55$$

As a conclusion, we see that the volume of production is increasing every year, more and more prevailing over cost. Although the cost of production is also increasing, as we see our company is no longer suffering losses. Every year the number of sold products increases, so the sales revenue increases every year as well. The profitability of the company is increasing every year.

For greater effect, I propose to reduce costs by improving the resource conservation strategy. This will reduce costs and increase sales revenue.

CONCLUSION

Further intensification of globalization processes will exacerbate the problem of national identity, the solution of which many countries see in strengthening state influence on international economic cooperation through the introduction of protectionist measures in trade, migration, investment, which in turn will increase geoeconomic and geopolitical tensions. In these conditions, there is a need to form new foundations of world economic stabilization and development.

Based on the analysis of technical and economic performance and financial condition of PJSC "INTERPIPE NTZ", conducted in the third part of this study, it is established that today the company is profitable. In 2021, net sales revenue increased from UAH 10.3 billion to UAH 13.7 billion compared to 2020 or by 29.2%, while the cost of sales of the enterprise increased by 28.4%, as a result of which the company received gross profit in the amount of 3225.92 thousand UAH, which is 875.52 thousand UAH more than in 2020. The Company's net profit in 2021 amounted to UAH 1,027.88 thousand.

Types of resources, including production, are considered and systematized. The experience of some foreign countries in conducting energy saving policy is presented.

An extensive system of indicators that can be used to assess and analyze production resources is provided. Particular attention is paid to the efficiency of material resources. To this end, a detailed multifactor deterministic model of material consumption is presented as the main generalizing indicator of the efficiency of this type of resources.

According to one of the main shops of the researched enterprise, such an analysis was performed according to several adjusted (simplified) formulas of the general model, given the lack of the necessary initial information.

REFERENCES

1. Бестужева С. В. Глобалізація та світова фінансова криза: прогнозована реальність / С. В. Бестужева // Економічний простір : збірник наукових праць. – No 22/1. – Дніпропетровськ : ПДАБА, 2009. – С. 78–85.
2. Долгов С.И. Глобализация экономики: новое слово или новое явление? / С. И. Дологов. – М.: «Изд-во «Экономика», 1998. – 215 с.
3. Інтрелігейтор М. Глобализация мировой экономики: выгоды и издержки / М. Інтелігейтор // Мир перемен. 2004. – No 1. – С.129.
4. Кальченко Т. В. Глобальна економіка: методологія системних досліджень: Монографія / Т. В.Кальченко. – К.:КНЕУ, 2006. – 248 с.
5. Колодко Г. Глобализация и экономический рост / Г. Колодко // Мир перемен, 2004. – No 1. – С.140.
6. Кочетов Э.Г. Глобалистика. Теория, методология, практика. Учебник для вузов / Э.Г. Кочетов. – М.: НОРМА, 2002 –.601 с.
7. Лук'яненко Д. Г. Глобальна економіка ХХІ ст.: людський вимір: Монографія / Д. Г. Лук'яненко, А. М. Поручник. – К.: КНЕУ, 2008. – 420 с
8. Лук'яненко Д.Г. Глобальна економічна інтеграція: Монографія. – К.: ТОВ «Національний підручник», 2008. – 220 с.
9. Малярець Л. М. Економіко-математичні методи і моделі : навч. посібник / Л. М. Малярець. – Харків : ХНЕУ, 2013. – 154 с.
10. Старостіна А. Суперечливі шляхи економічної глобалізації// А. Старостіна // Економіка України – 2008. – No8. – С.58-65.
11. Столярчук Я.М. Сучасні проблеми глобалізації: Монографія / Я. М. Столярчук. – Сімферополь: Знання, 2008. – 312 с.
12. Тоффлер Э. Третья волна / Э. Тоффлер. – М.: ООО «Издательство АСТ», 2002. – С.517-525.
13. Хохлов, М. Глобалізація економіки в ракурсі еволюції відносин власності / М. Хохлов // Економіка України. – 2004. – No2. – С.65-72..

14. Zgurovsky M. Impact of information society on sustainable development: Global and regional aspects / M. Zgurovsky // Data Science Journal. - 2007. – V.6. – P.137-145
15. Theodore Levitt Globalization of Markets /// Harvard Business Review – 1983 – No5. – P. 25-29.
16. Офіційний сайт Державної статистики України [Електронний ресурс]. – Режим доступу : <http://ukrstat.gov.ua/>.
17. Офіційний сайт Європейської комісії [Електронний ресурс]. – Режим доступу : <http://ec.europa.eu/>
18. Офіційний сайт МВФ [Електронний ресурс]. – Режим доступу : <http://www.imf.org/external/>
19. Офіційний сайт ООН [Електронний ресурс]. – Режим доступу : <http://www.un.org/ru/index.html>
20. Офіційний сайт Світового банку [Електронний ресурс]. – Режим доступу : <http://www.worldbank.org/>
21. Офіційний сайт World Values Survey[Електронний ресурс]. – Режим доступу : <http://www.worldvaluessurvey.org/wvs.jsp>
22. Гетьман О.О., Шаповал В.М. Економічна діагностика: Навч. Посібник для студ. Вищих навч. Закладів. – К.: Центр навч. літератури, 2007. – 307 с.
23. Економічний аналіз: Навч. посіб./ За ред. акад. НАНУ, проф. М.Г. Чумаченка. – К.: КНЕУ, 2007. – 560 с.
24. Экономика сельского хозяйства: учебник для СПО / под ред. Н.Я. Коваленко. – М. : Издательство Юрайт, 2018. – 406 с. – (Серия : Профессиональное образование].
25. Миркин Б.М., Наумова Л.Г., Ибатуллин У.Г. Экология Башкортостана: Учебник для средних профессиональных учебных заведений. Изд. 2-е, дополн. – Уфа.. 2005].

26. Самойлов, М. В. Основи енергозбереження: навч. посібник / М. В. Самойлов, В. В. Палевчік, А. Н. Ковальов. - Мінськ: БГЕУ, 2002. - 198 с.

27. Підприємницька діяльність та економіка підприємства: навч. посіб. / С.Б. Довбня, Т.Б. Ігнашкіна, А.Б. Педько, та ін.; за заг. ред. д-ра екон. наук, проф. С.Б. Довбні.— Д. : ЛПРА, 2016. — 440 с.

28. Сібікін, Ю. Д. Технологія енергозбереження: навч. / Ю. Д. Сібікін, М. Ю. Сібікін. - М.: Форум, 2005. - 348 с.

29. Кадастр природних та енергетичних ресурсів : навч. посіб. / Р. М. Панас, М. С. Маланчук ; за заг. ред. Р. М. Панаса ; М-во освіти і науки України, Нац. ун-т "Львів. політехніка". — Львів : Вид-во Львів. політехніки, 2014. — 436 с.

30. Савчук В.П. Фінансовий менеджмент: Практична енциклопедія. 3тє вид. / В. Савчук. — К.: Вид. дім «Максимум», 2006. 884 с.

31. Ігнашкіна Т.Б. Інноваційно-інвестиційний проект: розробка, документування, фінансування. / Т.Б. Ігнашкіна, О.В. Товкань — Дніпропетровськ: 2012. — 36 с.

32. Адріжієвській, А. А. Енергозбереження та енергетичний менеджмент: навч. посібник / А. А. Адріжієвській. - Мінськ: Вища. шк., 2005. - 294 с.

33. Герасименко, А. А. Передача і розподіл електричної енергії: навч. посібник / А. А. Герасименко, В. Т. Федін. - Ростов н / Д.: Фенікс; Красноярськ: Видавництво. проекти, 2006. - 720 с.