ОСОБЛИВОСТІ РОЗВИТКУ СВІТОВОГО ГОСПОДАРСТВА ТА МЕВ

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STRUCTURE AND DYNAMICS OF THE GLOBAL ARMS AND MILITARY EQUIPMENT MARKET

СТРУКТУРА ТА ДИНАМІКА РОЗВИТКУ СВІТОВОГО РИНКУ ОЗБРОЄНЬ ТА ВІЙСЬКОВОЇ ТЕХНІКИ

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Abstract. *In the article, the authors studied the global arms and military equipment market, as well as the level of competition in it, and formulated the trends, challenges and prospects currently observed in the global arms and military equipment market. In modern economic conditions, the global arms and military equipment market remains extremely competitive and dynamic and is characterized by high rates of growth in military spending. At the same time, the sharp increase in military spending against the backdrop of geopolitical conflicts and the growth of investments in military technologies contribute to the positioning of this sector of the economy in the international dimension as an important factor in global security, stability and the world economy. The global arms and military equipment market is determined by the complex interaction of competition and cooperation, where countries strive for both military superiority and strategic partnerships to protect their interests. The future of the global arms trade lies in balancing these forces, using technological advances and promoting diplomatic cooperation to achieve common security goals in a rapidly changing world. Given the current geopolitical situation, economic, technological and political changes, the arms and military equipment market is currently at a stage of significant transformations. Based on an understanding of the history of the development of society, we believe that the determining factors for the further development of this industry will remain the ability of states to adapt their national security strategies to new challenges and ensure the effective integration of innovative technologies into the defense sector.*

Keywords*: militarization, military expenses, international security, economic development, armed conflict, war, terrorism.*

***Анотація**. В статті авторами було досліджено світовий ринок озброєнь та військової техніки, а також рівень конкуренції на ньому, та сформульовано тенденції, виклики та перспективи, що наразі спостерігаються на світовому ринку озброєнь та військової техніки. В сучасних умовах господарювання світовий ринок озброєнь та військової техніки залишається надзвичайно конкурентним і динамічним, та характеризується високими темпами зростання військових витрат. Водночас, різке зростання військових витрат на тлі геополітичних конфліктів та зростання інвестицій у військові технології сприяють позиціонуванню даної галузі економіки у міжнародному вимірі важливим фактором глобальної безпеки, стабільності та світової економіки. Світовий ринок озброєнь та військової техніки визначається складною взаємодією конкуренції і співпраці, де країни прагнуть як військової переваги, так і стратегічного партнерства для захисту своїх інтересів. Майбутнє глобальної торгівлі зброєю полягає в збалансуванні цих сил, використанні технологічних досягнень і сприянні дипломатичному співробітництву для досягнення спільних цілей безпеки у світі, що швидко змінюється. Зважаючи на сучасні умови геополітичної ситуації, економічні, технологічні та політичні зміни, ринок озброєнь і військової техніки сьогодні знаходиться на етапі значних трансформацій. Виходячи з розуміння історії розвитку суспільства, вважаємо, що визначальними факторами для подальшого розвитку цієї галузі залишатимуться здатність держав адаптувати свої стратегії національної безпеки до нових викликів та забезпечувати ефективну інтеграцію інноваційних технологій в оборонний сектор.*

***Ключові слова:** мілітаризація, військові витрати, міжнародна безпека, економічний розвиток, збройний конфлікт, війна, тероризм.*

Introduction. The changes in the global security environment that have emerged in the 21st century largely determine the relevance of studying the global arms and military equipment market. Indeed, at the current stage of world politics, the problem of ensuring the national security of individual states, regional stability, and maintaining the functioning of the established international security system as a whole is in the spotlight of the international community, given the growth of terrorist threats, the development of new forms of military conflicts, and the rapid development of innovations in the field of weapons and military equipment development. At the same time, a special place in the analysis of global security policy trends is occupied by the study of the structure and dynamics of the development of the global arms and military equipment market.

The modern world arms and military market can be called one of the most complex sectors of the world economy, the features of which differ significantly from others. In view of this, there are many interpretations of the definition of the “world arms and military equipment market”, which once again confirms its complexity.

Literature review. The concept of the “world arms and military equipment market” implies a set of commodity-money relations that arise because of the sale on foreign markets of weapons, ammunition, dual-purpose goods, military vehicles, spare parts and components for the above-mentioned groups of goods, as well as explosives and military technologies [6].

According to the definition of Stockholm International Peace Research Institute (www.sipri.org), the world arms and military equipment market can be characterized as a system of global trade relations covering the production, sale and supply of arms and military equipment between countries.

In contrast, there is another point of view when the global arms and military equipment market is believed to be "a complex system of international military-technical relations that allows the exporting country to profit from the sale of weapons and influence the military-political situation in different regions of the world; a manifestation of rivalry between states for profits and potential buyers, military-technical superiority and leadership in the global space" [2].

Based on such interpretations of the concept of "world arms and military equipment market", we can conclude that this sector of the world economy has significant differences from traditional international trade in civilian products and services, since its development trends are significantly interconnected with numerous aspects of international relations and the domestic political situation of the world's states. At the same time, as follows from the above, the significance of the world arms and military equipment market is determined not only by the volume of exports of relevant goods and services and profit. Instead, the set of commodity-money relations arising from the sale of weapons on foreign markets is often used as a mechanism of influence in the field of international politics, which at the same time determines the political interests and courses of different countries of the world, depending on the positions they occupy in this system.

The concept that most accurately characterizes the full list of such goods and services is “military, dual-purpose and special-purpose products and services”. However, to designate this list in the scientific literature, such concepts as: “products and services of the defense-industrial complex”, “products and services of the military-industrial complex”, “defense products”, “military products and services” are also quite often used.

The main goal of this research is determining the essence and components of the arms and military equipment market, the subject structure of the main exporters and importers, the dynamics of its development over the last decade, as well as modern trends that have formed under the influence of the current geopolitical situation and current military conflicts in the world.

Main results. The development of the world market for arms and military equipment (WMAME) is significantly influenced by political and economic events of various nature taking place in the international arena. Among these events, armed conflicts occupy a special place, which, on the one hand, generate demand for such products from countries that are their direct participants and act as importers, and on the other hand, stimulate the production of weapons, ammunition, military equipment, etc. in the rest of the world, which in turn act as exporters. In addition, it is a well-known fact that the work of national defense-industrial complexes of countries around the world is mostly financed by the efforts of their governments, since the activities of the former, as a rule, are aimed at satisfying the interests of the latter. Accordingly, we have every reason to assert that the size of both national defense industries and the world market for arms and military equipment can be determined by assessing military budgets and world military spending. In fact, this approach is used to reflect the structure and dynamics of this market by such respectable specialized institutions as the Stockholm International Peace Research Institute (SIPRI) and the International Institute for Strategic Studies (IISS).

Thus, the course of 2023 was characterized by active phases of four major armed conflicts (i.e. conflicts that resulted in the deaths of 10,000 or more people), namely: the civil wars in Myanmar and Sudan, the armed conflict between Israel and Hamas, and the Russian-Ukrainian war. In addition to the above, there were at least 20 more armed conflicts that fell into the category of high-intensity conflicts (i.e. conflicts that resulted in the deaths of 1,000 to 9,999 people).

These and other events demonstrate the high tension of the global security situation and reflect significant economic confrontation both between individual warring countries and between entire military-political alliances, which further explains why many countries in the world today need to maintain significant military budgets and foresee significant expenditures aimed at meeting the needs of their troops. Details on the dynamics of the global military equipment market, determined because of the size of military expenditures of countries in different regions, are presented in the following diagram.

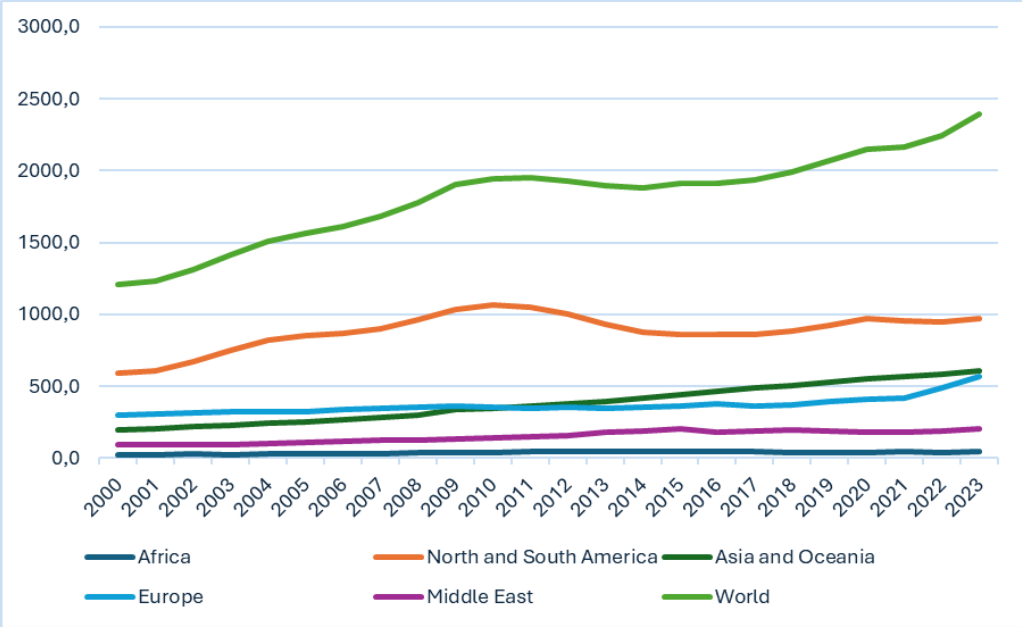

Figure 1. Dynamics of growth in military expenses in 2000-2023 by region, billion US dollars.

Source: complied by the author based on https://www.sipri.org/databases/milex

Based on the SIPRI database and the prepared visualization of changes in military expenses in 2000-2023, we see that the estimated volume of world military expenses maintains a growing trend for the ninth consecutive year since 2015. At the same time, in 2023, the volume of such spending exceeded 2.4 trillion US dollars as a result of the impact of the Russian-Ukrainian war and the general geopolitical tension that exists in the international political arena. In dynamics, we observe that the increase in total military spending by 6.8% in 2023 compared to the previous year was the largest increase since 2009. As a result, the volume of total military spending in 2023 showed the highest level ever recorded by SIPRI. At the same time, the volume of world military spending as a share of world gross domestic product (GDP) increased to 2.3%.

Applying statistical observation methods, we note that this situation means that:

– governments of the world allocated an average of 6.9% of their state budgets for military needs;

– governments of the world allocated an average of 306 USD per capita for military needs;

– for the first time since 2009, the volume of military expenses increased simultaneously in all five regions of the world;

– in 2023, the largest increase in the volume of military expenses in relative terms compared to the previous year was recorded in African countries - by 22%, and the smallest - in the countries of North and South America - by 2.2%.

In addition to the generalized information on the volume of world military expenses, we consider it necessary to note the leading countries in terms of the volume of state defense budgets in monetary terms.

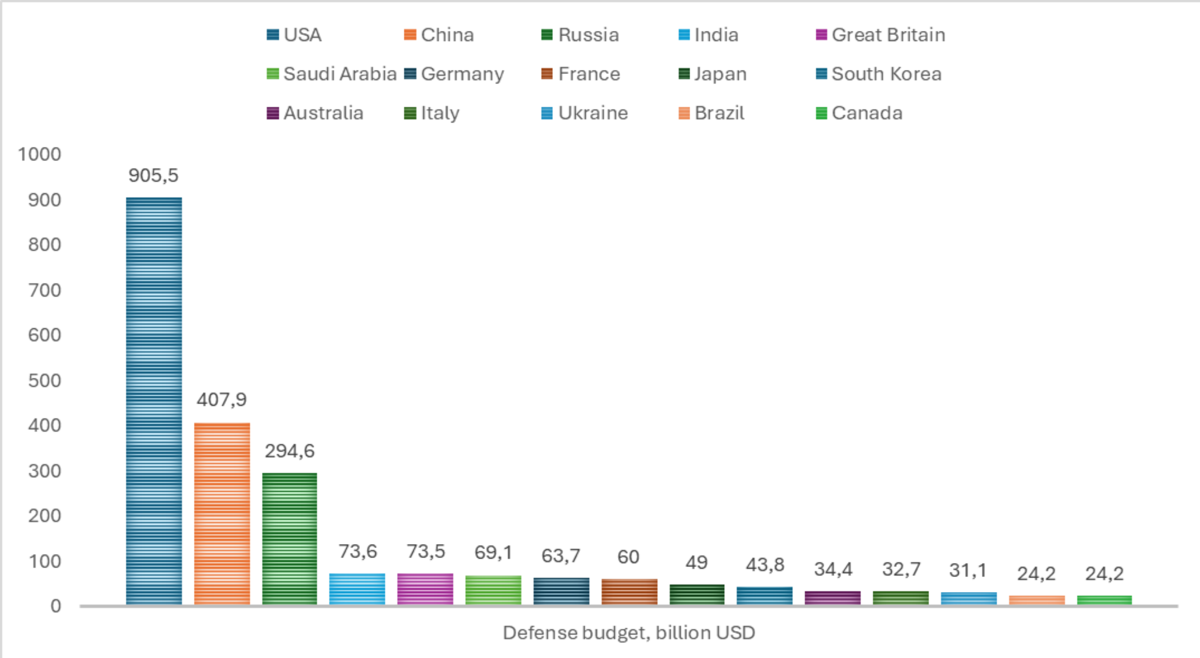

Figure 2. Leading countries by state defense budget in 2023, billion US dollar.
Source: complied by the author based on https://www.sipri.org/databases/milex

The absolute leader is the United States of America with a defense budget of 905.5 billion US dollars, which is more than twice the defense budget of China. At the same time, the total defense budgets of the United States and China, which is 1,313.4 billion US dollars, exceed the total military spending of the remaining thirteen analyzed countries by 439.5 billion US dollars. At the same time, Ukraine is in 13th place in this comparison.

Even though global military expenses are one of the fundamental factors determining the volume of the global arms and military equipment market, information about it does not allow us to fully indicate the real volume of production, export and import of military products.

The database created by SIPRI is the most up-to-date and complete open source of information on the volume of global arms trade and the revenue of defense companies, which contains data from the annual financial reports of the largest companies on the market and publications of various publications, which are regularly updated. According to estimates by the Stockholm International Peace Research Institute, the total value of sales of military goods and services carried out with the participation of the hundred largest manufacturing companies on the market (SIPRI TOP-100) in 2022 amounted to at least 597 billion US dollars, which is 3.5% less than the same figure in 2021. For the purposes of studying the structure of the global arms and military equipment market in detail, we also consider it necessary to present a list of at least 30 of the largest manufacturers of products and services in this industry (excluding companies' resident in the russia), indicating the level of their income generated based on the results of 2022.

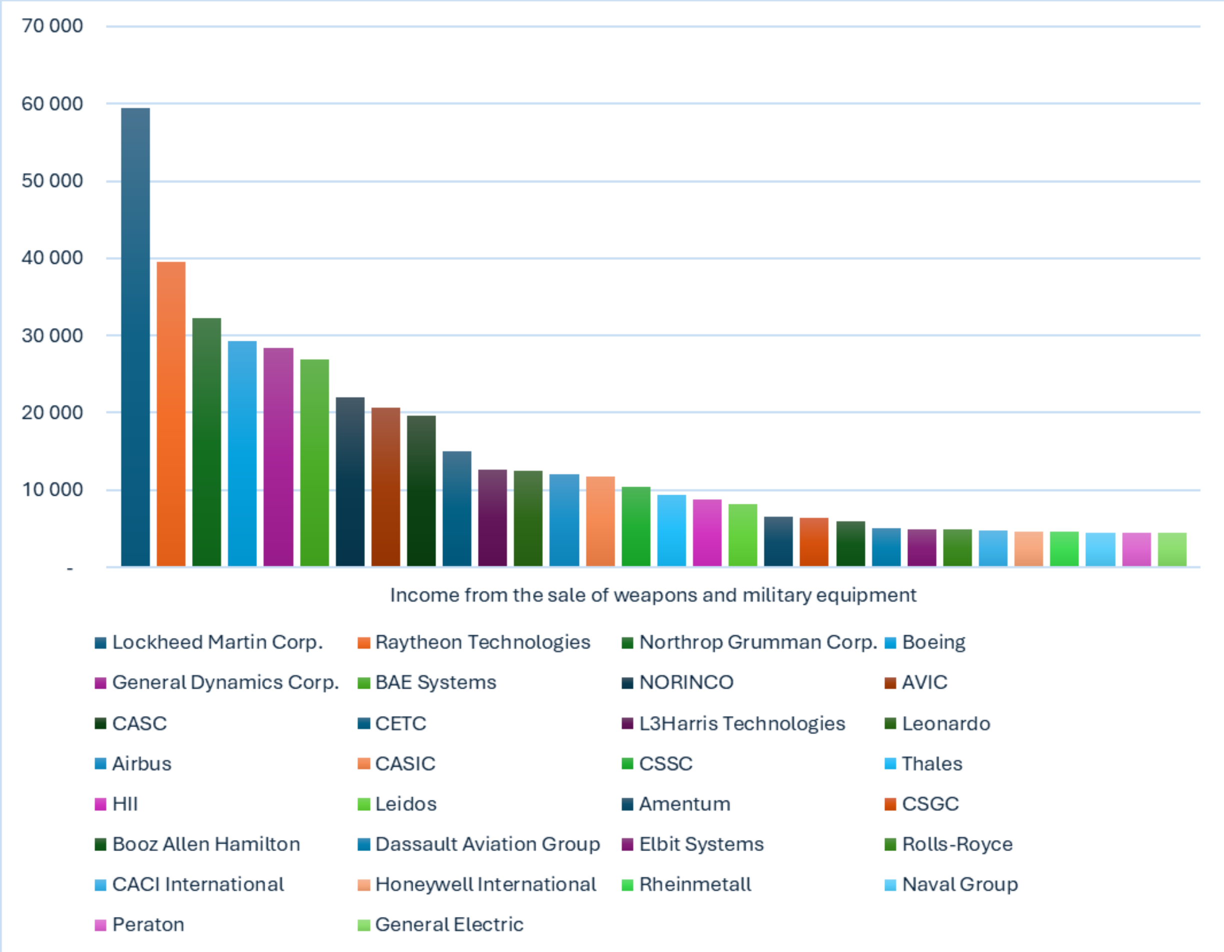

Figure 3. List and revenue level of the 30 largest military equipment manufacturers in the world for 2022, million US dollars

Source: complied by the author based on https://www.sipri.org/databases/milex

In the above-mentioned rating, JSC "Ukrainian Defense Industry", which unites state-owned multi-profile enterprises of various directions of the defense industry of Ukraine and within which the production of weapons and military equipment of Ukrainian origin is concentrated, is in 81st place with a revenue of 1,260 million US dollars for 2022.

In general, the analysis of data showed that transactions for the sale of military goods and services carried out with the participation of the hundred largest manufacturing companies on the market (SIPRI TOP-100) were mostly implemented by companies resident in the USA (51% of the total value of the SIPRI TOP-100), China (18% of the total value of the SIPRI TOP-100), the United Kingdom of Great Britain and Northern Ireland (7% of the total value of the SIPRI TOP-100), France (4% of the total value of the SIPRI TOP-100), while the amount of income generated by companies resident in other countries of the world as a result of the sale of military goods and services is only 20% of the total. Another critically important stage in the study of the structure and dynamics of the global arms and military equipment market is the identification of the main exporting and importing countries of this type of goods and services. Such an analysis will not only identify the main trends in global trade in military equipment but will also contribute to a clear understanding of how geopolitical factors affect the development of this sector of the economy. In addition, studying the structure of foreign economic relations between countries in the field of defense cooperation in the form of the exchange of weapons and military equipment, as well as military services, will help determine possible scenarios for the further development of the defense industry of individual countries of the world, as well as the formation of a holistic understanding of global security and international politics. In general, SIPRI analysts note that only 66 countries in the world took an active part in concluding contracts for the export of this type of defense-industrial complex products and services over the past five years, i.e. 2019-2023. At the same time, the main share of all export transactions, namely 56%, was carried out by manufacturing companies operating in countries such as the USA, France, China, China, Germany and Russia. Accordingly, the volume of exports of military products carried out by the rest of the world is relatively insignificant both individually and in general. Therefore, we can argue that the above five countries were the leaders in arms exports during the recent period. We hope that, thanks to sanctions and the efforts of the world community to limit the potential of the Russian defense industry, this country will not be included in the rating of the largest manufacturers-exporters of weapons and military equipment in the future. Currently, the structure of countries that are the largest exporters of these products and services looks as follows.

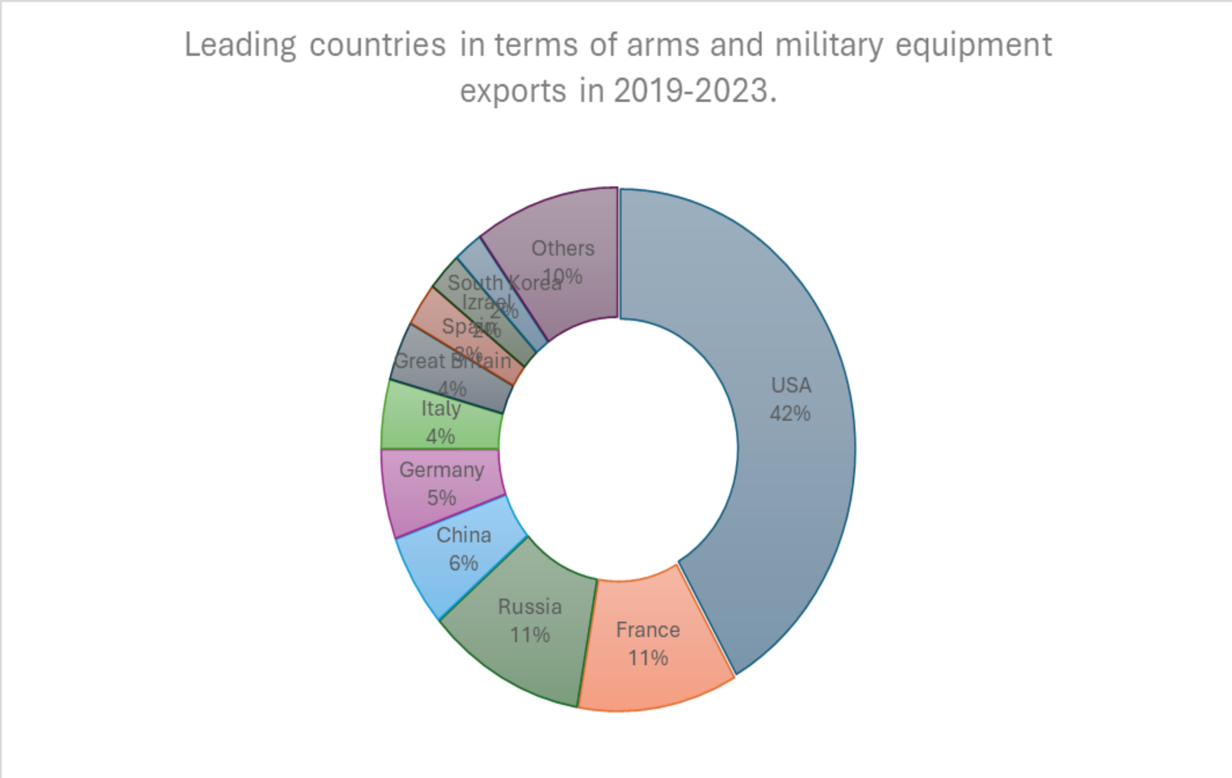

Figure 4. Leading countries in terms of arms and military equipment exports in 2019-2023, %
Source: complied by the author based on https://www.sipri.org/databases/milex

At the same time, when considering the sales of weapons and military equipment in foreign markets by the largest exporting countries, the following trends are observed:

1) USA. The volume of US exports during the period 2019-2023 increased by 17% compared to the same period in 2014-2018, and their share in total global exports of military products increased from 34% to 42%. During 2019-2023, the USA supplied weapons and military equipment to 107 countries around the world. At the same time, about 38% fell to the countries of the Middle East (Saudi Arabia, Qatar, Kuwait, Israel), 31% - to the countries of Asia and Oceania (Japan, Australia, South Korea), 28% - to the countries of Europe, particularly Ukraine. A significant part of exports to the world market was made up of deliveries of aviation equipment, including F-15 fighters.

2) France. The volume of exports of France during the period 2019-2023 increased by 47% compared to the same period in 2014-2018, and its share in total world exports of military products is currently 11%. During 2019-2023, France supplied weapons and military equipment to 64 countries around the world. At the same time, about 29% fell to India, 42% to countries in Asia and Oceania, and 34% to countries in the Middle East.

3) Russia. The volume of exports of Russia during the period 2019-2023 decreased by 53% compared to the same period in 2014-2018, and its share in total world exports of military products is now 11%. The main indicator demonstrating the decrease in the export potential of this country is

the number of countries to which Russia sent samples of its own weapons: in 2019 it was 31 countries, and in 2023 – only 12. At the same time, about 34% of all Russian arms exports fell to India, 21% - to China and 7.5 – to Egypt.

4) China. The volume of China's exports during the period 2019-2023 decreased by 5.3% compared to the same period in 2014-2018, and its share in total world exports of military products is now 5.8%. China has supplied arms and military equipment to 40 countries around the world, mostly those in Asia and Oceania, accounting for about 85% of total exports. At the same time, almost 61% of China's total exports to the world market go to just one country - Pakistan.

5) Arms and military equipment exports to the rest of the world collectively account for a small share of the market (about 30%).

Similarly to the structure and dynamics of export operations in the global arms and military equipment market, it necessary to consider the situation that has developed in the context of import operations of defense-industrial complex products during the period 2019-2023. In general, analysts note that 170 countries of the world participated in the conclusion of foreign economic contracts for the import of products of this type over the past five years. At the same time, the main share of all import operations, namely 35%, fell on such countries as the Republic of India, Saudi Arabia, the State of Qatar, Ukraine and Pakistan. Accordingly, the volume of imports of military products and services carried out by the rest of the world is relatively insignificant individually. Therefore, the above-mentioned five countries were leaders in arms imports during the recent period.

In addition, an analysis of the structure of imports of weapons and military equipment for the period 2019-2023 by region of the world made it possible to draw the following conclusions: 37% of all imports of weapons and military equipment fall on the countries of Asia and Oceania; 30% - the countries of the Middle East; 21% - Europe; 5,7% - North America and South America; 4,4% - Africa.

The structure of countries that are the largest importers of this industry in the international dimension is presented in Fig. 5.

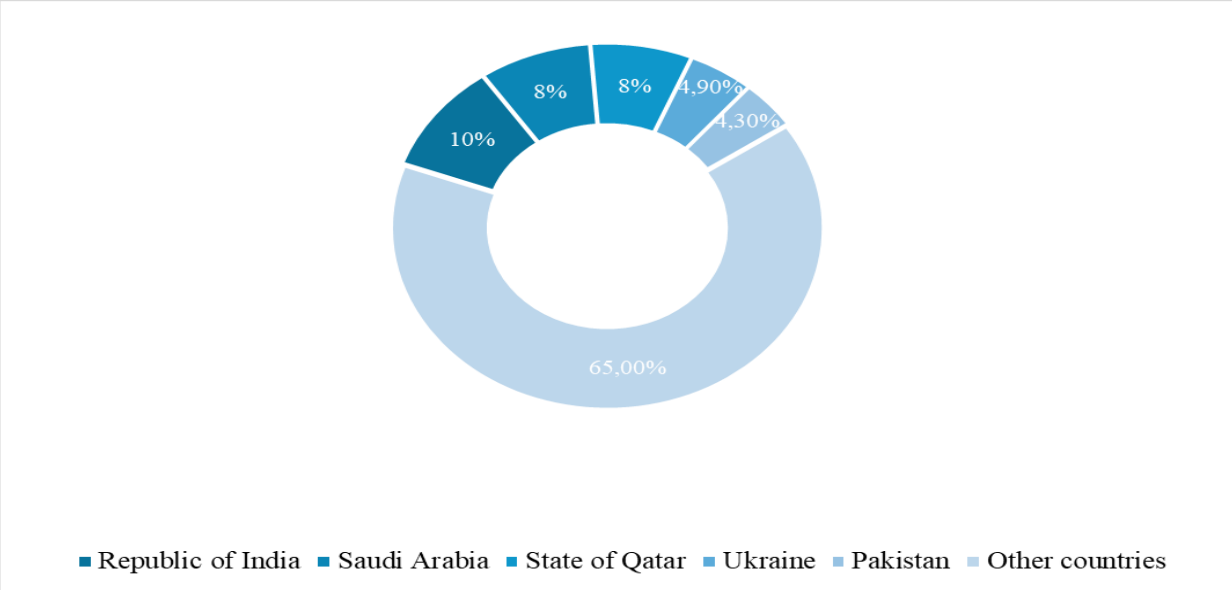

Figure 5. Leading countries in terms of imports of weapons and military equipment (2019-2023)

Source: complied by the author based on https://www.sipri.org/databases/milex

At the same time, when considering the procurement operations of weapons and military equipment on foreign markets by the largest importing countries, the following trends are observed:

→ Tensions in the relations of the Republic of India with Pakistan and China significantly affect the volume of imports of weapons and military equipment carried out by this country. Imports of the specified products and services to the Republic of India during 2019-2023 increased by 4.7% compared to the same period in 2014-2018, and its share in total world imports of military products is currently 9.8%. Russia remains India's main supplier, but its share in Indian arms imports decreased from 76% in 2009-2013 to 58% in 2014-2018, and then to 36% in 2019-2023. Instead, to meet its needs for military products and services, the Republic of India has turned to Western exporters, primarily France and the United States, and is also taking measures to intensively develop its own defense industry.

→ Saudi Arabia became the second largest importer of weapons in the world during the period 2019-2023, its share in total global imports of military products is currently 8.4%. The volume of imports by the specified state in the period 2019-2023 decreased by 28% compared to the period 2014-2018. The largest share of imports of military products and services belongs to the United States, which provided 75% of the total volume of supplies to Saudi Arabia.

→ The State of Qatar became the third largest importer of weapons in the world with a share of 7.6% in total global imports of military products. Imports of arms and military equipment during 2019-2023 increased by 396% compared to the same period in 2014-2018. At the same time, 45% of all import operations in the industry during the specified period were provided by the USA, 25% - by France and 15% - by Italy.

→ In the same period Ukraine accounted for 23% of imports of arms and military equipment in the European region and 4.9% of global imports. Accordingly, Ukraine is considered the largest importer of arms in Europe and the fourth largest in the world. After the full-scale russian invasion in February 2022, at least 30 countries of the world began to actively provide Ukraine with the necessary weapons and military equipment, and already in 2023 Ukraine became the largest importer of arms in the world by a certain margin. During 2019-2023 39% of Ukrainian arms imports were provided by the USA, 14% by Germany and 13% by Poland.

→ Pakistan's imports of arms and military equipment increased by 43% in the period 2019-2023 compared to the same period in 2014-2018 and currently account for 4.3% of total global imports of military products. The above-mentioned situation creates the circumstances for considering Pakistan the fifth largest importer of arms and military equipment in terms of operations. In the current environment, Pakistan continues to strengthen its relations in the field of arms procurement with China, since 82% of the country's arms import operations during 2019-2023 were implemented precisely thanks to bilateral cooperation with China.

Conclusions. As a result of a detailed analysis of the structure and dynamics of the development of the global arms and military equipment market, its complexity and dynamism were established. The arms market is presented as a highly competitive and regulated area, where the leading countries of the world, in particular the USA, China, Great Britain, as well as European countries, compete for leadership in the production and supply of military products and services.

Over the past decades, the world economy has seen a constant increase in the amount of spending from state budgets of countries around the world on military needs and the development of new technologies, which mostly stimulates the development of the global arms and military equipment market.

The leading countries in terms of military spending and defense budgets — the United States, China, Russia, France, and the United Kingdom — are the entities that today determine the structure of the global arms market.

Analysis of the global arms market by revenue of the largest manufacturing companies in 2022, as well as by export volume of products and services of this type for the period 2019-2023 also confirms the dominance of the United States, China, and the United Kingdom. At the same time, among the main trends observed during export operations in the market under study is a significant increase in US supplies to the Middle East and Asia, as well as an active reduction in export operations involving the Russian Federation due to the impact of international sanctions that were introduced in response to unprovoked armed aggression and the latter's full-scale invasion of Ukraine.

At the same time, in the context of arms and military equipment import operations, the role of the Republic of India, Saudi Arabia, Qatar and Ukraine has been growing over the past five years. This indicates significant changes in global trade flows, which primarily involve an intensive increase in defense procurement volumes in response to geopolitical threats by those countries that were not previously particularly distinguished by significant defense budgets and active participation in the world market. Therefore, in view of the above, we believe that in modern conditions the world market for arms and military equipment remains extremely competitive and dynamic and is characterized by high rates of growth in military spending. At the same time, the sharp increase in military spending against the backdrop of geopolitical conflicts and the growth of investments in military technologies contribute to the positioning of this sector of the economy in the international dimension as an important factor in global security, stability and the world economy.

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