THE DEVELOPMENTS IN THE ARMS MARKET IN THE CONTEXT OF THE MILITARY CONFLICT IN UKRAINE

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The military conflict provoked by the Russian Federation in Ukraine has created major imbalances in international security. In this fluid and unpredictable security environment, the defence industry has reacted promptly, increasing production and export of military equipment and modern weapon systems to counterbalance the aggressive actions of the Russian Federation.

The data analysed indicate the Russian Federation's continuing concern to make significant defence investments, including in the defence complex, which reveals its interest in continuing the military conflict in Ukraine. As for the Euro-Atlantic states, they are trying to counter the threat posed by the Russian Federation by supplying Ukraine with high-performance military equipment, while investing in their militaries to supplement the weapons supplied to Ukraine.

After the outbreak of the military conflict in Ukraine, Romania has managed to increase its exports of arms and ammunition, creating favourable conditions for profitable partnerships with large companies in the Euro-Atlantic area. At the same time, Romania has increased its defence budget allocation to 2.5% of GDP, and there are discussions to further increase this percentage in the coming period. A substantial part of this budget allocation is earmarked for the procurement of modern military equipment to NATO standards for the Romanian armed forces.

Keywords: defence; military conflict; defence industry; military equipment; NATO;

INTRODUCTION

The military conflict triggered by the Russian Federation in Ukraine has led to increased security risks at the regional level, especially in the Black Sea, and at the international level, mainly on the European continent. This security crisis is also, unfortunately, overlapping with other existing crises (climate change, economic crisis, energy crisis, effects of the medical crisis caused by COVID-19, etc.), which influence and reinforce each other, with direct effects on citizens and society as a whole. Crises triggered at the global level have the potential to materialise even in Romania and it is necessary to carry out a relevant analysis of the effects caused by them to prevent, as far as possible, threats and risks to national security.

Crisis management analysis reveals that every crisis creates both risks and opportunities for certain industries. For example, the global crisis generated by the COVID-19 pandemic has generated considerable profits for the pharmaceutical industry, both for vaccine manufacturers and medical equipment companies.

As for the international crisis generated by the Russian Federation's military intervention in Ukraine, it has led to an accelerated increase in the production of military equipment and ammunition that constantly supplies the theatre of operations in Ukraine as well as NATO member states on the eastern flank of the North Atlantic Alliance. This security crisis will benefit economically in particular from the major global arms companies that have substantially increased production to meet the growing demand on the international market, especially in Europe.

Thus, since the outbreak of the military conflict in Ukraine (24 February 2022), the Swedish company SAAB has increased its turnover by 170%, the German companies Rheinmetall by 153% and Hensoldt by 131%, the British company BAE Systems by 50% and the American companies Aerojet Rocketdyne by more than 50% and Lockheed Martin by 23% (source: Europa Liberă, 2023).

This trend will also be supported by the unanimous decision taken at the NATO Summit in Vilnius in 2023, where it was decided that the member states of the North Atlantic Alliance should increase defence spending to 2%. As far as Romania is concerned, institutionally agreed measures have been taken at the national level to increase defence spending to 2.5%, and public statements by Romanian officials indicate that the opportunity to increase this percentage in the coming period is being considered, with most of the additional funds being earmarked for spending on the modernisation of the armed forces. The increase in defence spending may also provide opportunities for the Romanian defence industry, in the sense that cooperation agreements can be concluded with major Western companies for the production of high-performance military equipment in Romania by first carrying out the necessary technology transfer.

For these reasons, defence industry experts believe that this upward international trend will continue at least until the end of the military conflict in Ukraine and beyond. It is expected that the level of armament will continue to increase worldwide, as the allies of both sides are interested in developing the defence sector and will therefore invest considerable sums in the development of high-performance military technology and equipment to replace the stocks delivered to the two combatant states, Ukraine and the Russian Federation respectively. They will also continue to invest in high-performance defence systems to respond effectively to the outbreak of conflict in which they are directly involved or to deter other states from attacking.

From this point of view, the defence industry needs to be able to adapt quickly to the requirements of the defence market to meet today's security challenges. It has recently become apparent that the defence industry worldwide is investing significant resources in the development of new high-tech military equipment. In this context, the Romanian industry will have to follow the current trend and invest in the production of competitive military equipment on the international market, including through profitable partnerships with major companies in the Euro-Atlantic market.

STATE OF WORLD AND NATIONAL ARMS PRODUCTION AND EXPORTS

Analysis of existing global data, publicly provided by SIPRI[1], leads to the conclusion that global arms production has increased significantly in recent times, including in 2022, mainly as a result of the military conflict triggered by the Russian Federation in Ukraine. The steady growth of the arms market follows the trend of active or potential conflicts at the international level, with most states

[1] **S**tockholm **I**nternational for **P**eace **R**esearch **I**nstitute.

with significant economic potential and financial resources actively investing in their defence industry. In this respect, we would mention the states in the Middle East region which, given their considerable financial resources, are investing large sums in importing state-of-the-art military equipment, with the primary aim of deterring states which are considered potential adversaries.

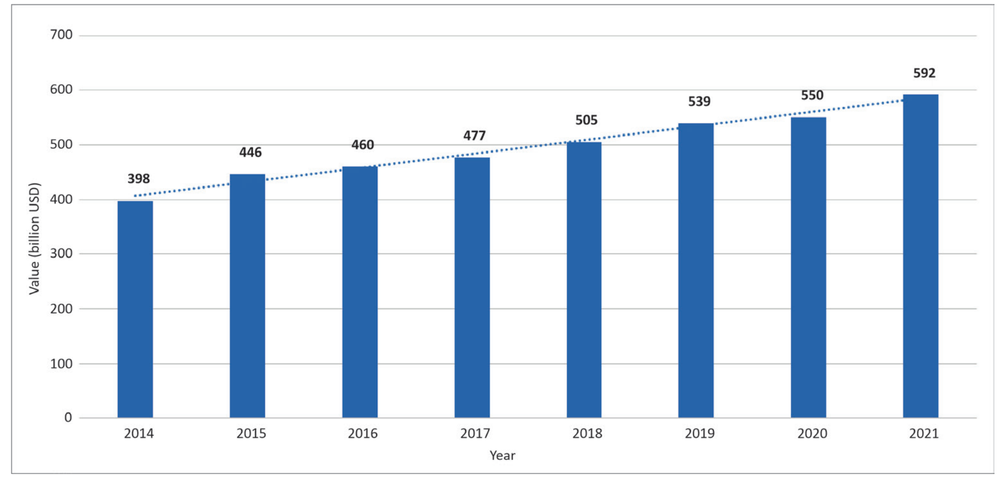

Chart 1: Evolution of exports of the top 100 companies worldwide (www.sipri.org)

Analysis of the data in *Chart 1* shows a linear increase in exports of military products by the world's top 100 companies. This shows the growing interest of countries in equipping themselves with modern weapons and ammunition. Although there is no official data for the year 2022, experts in the field estimate that arms exports have increased amid demand for modern military products, in the wake of the military conflict triggered by the Russian Federation in Ukraine.

From 2018-2021, the United States had a 40% market share of international arms exports. The second largest global arms supplier was the Russian Federation, which had a market share of 16% of global arms exports during the period under review. Data analysis reveals that the United States and the Russian Federation contributed more than half of the world's arms exports between 2017-2021. The next largest international arms exporters are the Cold War superpowers France, Germany and China. (Statista – 1, 2023).

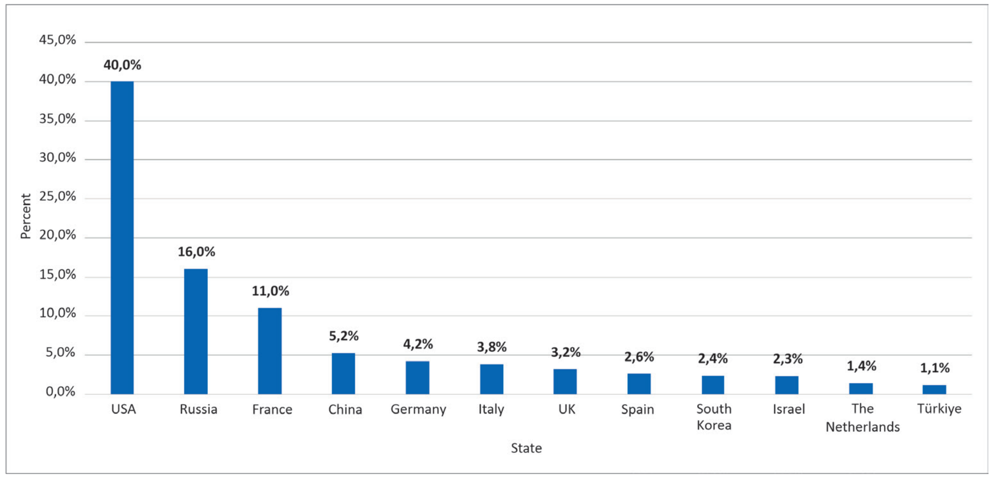

Chart 2: Percentage distribution of arms exporting states (Ib.)

In terms of military/defence spending, in the statistics for 2022, the US leads the world's top 15 countries with over $877 billion, followed at a distance by China ($292 billion) and the Russian Federation. This ranking shows the growing interest in military spending by states in conflict (e.g. Russian Federation - $86.4bn, Ukraine - $44bn), as well as states in areas where open military conflict could erupt at any time (e.g. Russia - $86.4bn, Ukraine - $44bn). Saudi Arabia - 75 bn USD South Korea - 46.4 bn. USD, Israel – 23.4 bn. At the same time, analysis of the chart below reveals the growing interest of European countries in making massive defence investments, which are threatened by the aggressive policy of the Russian Federation. Although Romania is not in the top 15 countries in the world in terms of military spending, military spending has increased from 2% of GDP to 2.5% of GDP, and this upward trend is expected to continue in the coming period, given the persistent threat generated by the Russian Federation in the Black Sea region.

From the analysis of the data presented in the chart above, it appears that the hierarchy of countries in terms of military expenditure per capita (per inhabitant) shows that the top 3 countries are the USA, Israel and Saudi Arabia, while Russia is ranked 11th, although in absolute terms it is ranked 3rd. China and India also rank 15th and 16th respectively, although in absolute terms military spending is substantial, and Romania ranks above them in terms of per capita.

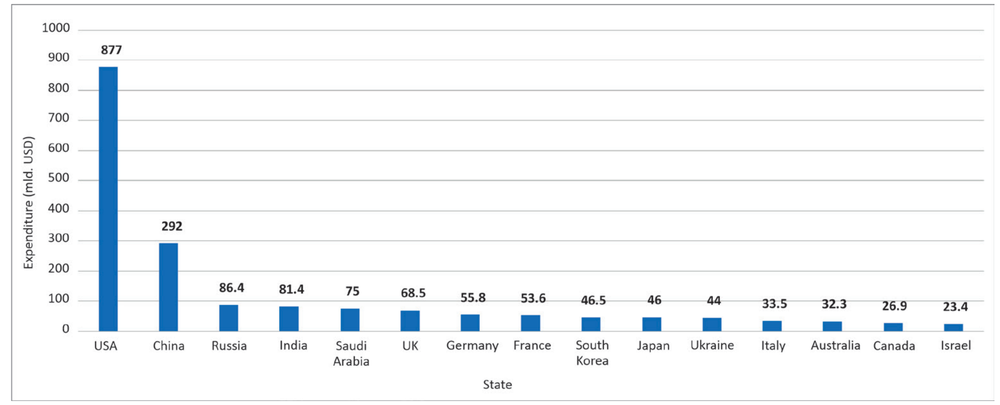

Chart 3: International military expenditure – 2022 (top 15 countries) (Statista-2)

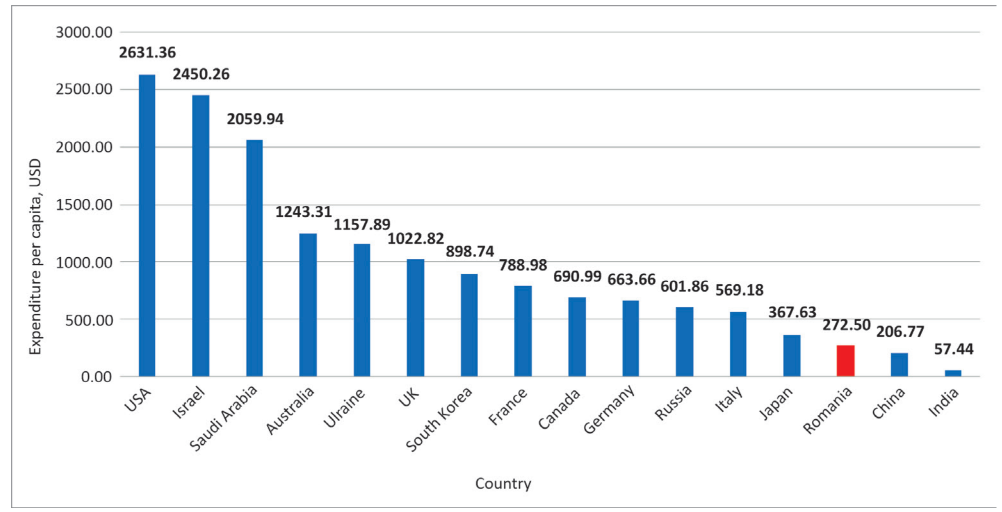

Chart 4: Military spending per capita at international level – 2022 (Statista-2)

Analysis of data on defence spending allocated by the Russian Federation reveals that the level of defence spending has increased significantly since the year of the outbreak of the military conflict in Ukraine, i.e. 2022, reaching USD 86,373 million, reaching the level of 2012-2014. The Russian Federation's maximum expenditure in 2012-2014 reveals the expansionist interest of the Russian Federation, which was reflected in the illegal occupation of the Crimean Peninsula in 2014. The Russian Federation's current interest in supporting the conflict in Ukraine by increasing production in the defence sector and the allocation of funds to the Russian armed forces in combat is also evident.

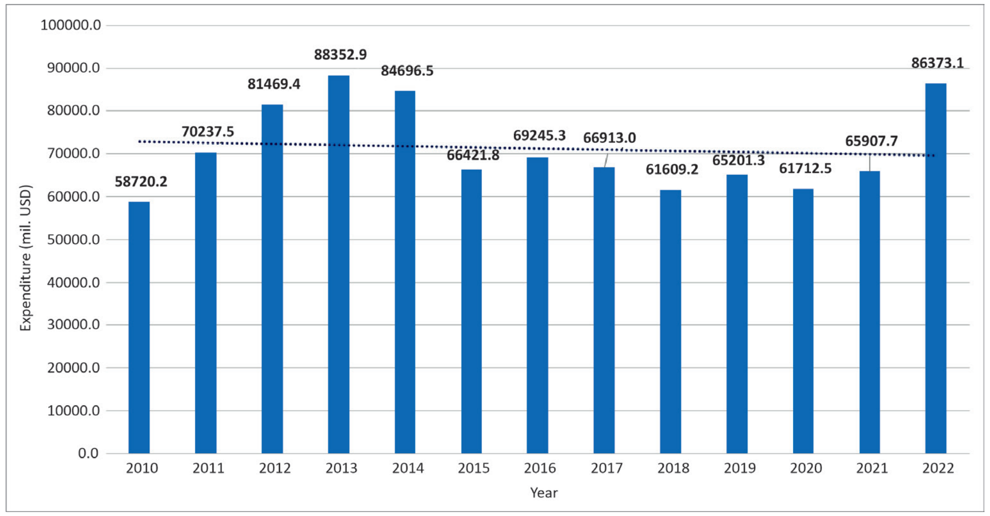

Chart 5: Evolution of defence expenditure of the Russian Federation (www.sipri.org)

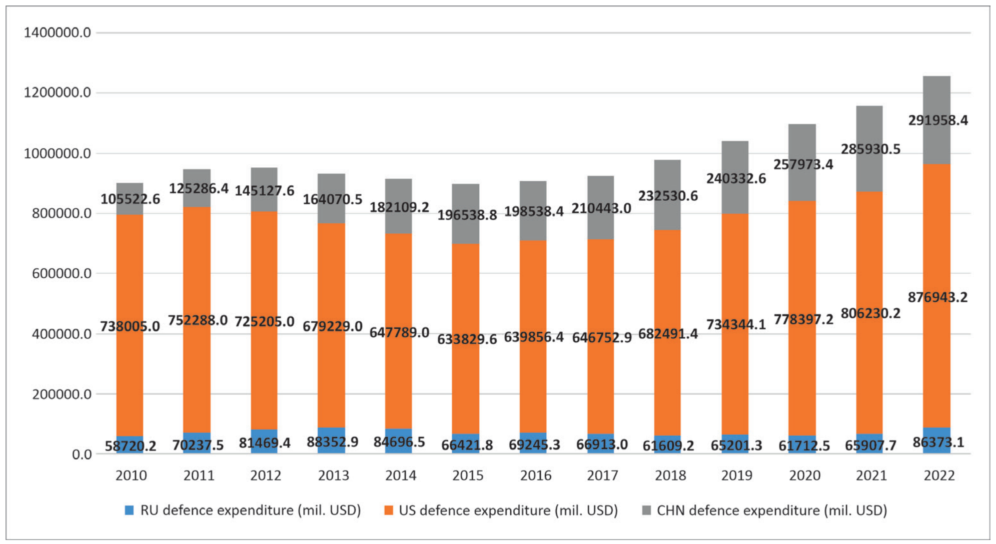

Chart 6: Evolution of the Russian Federation's defence expenditure compared to the US and China (www.sipri.org)

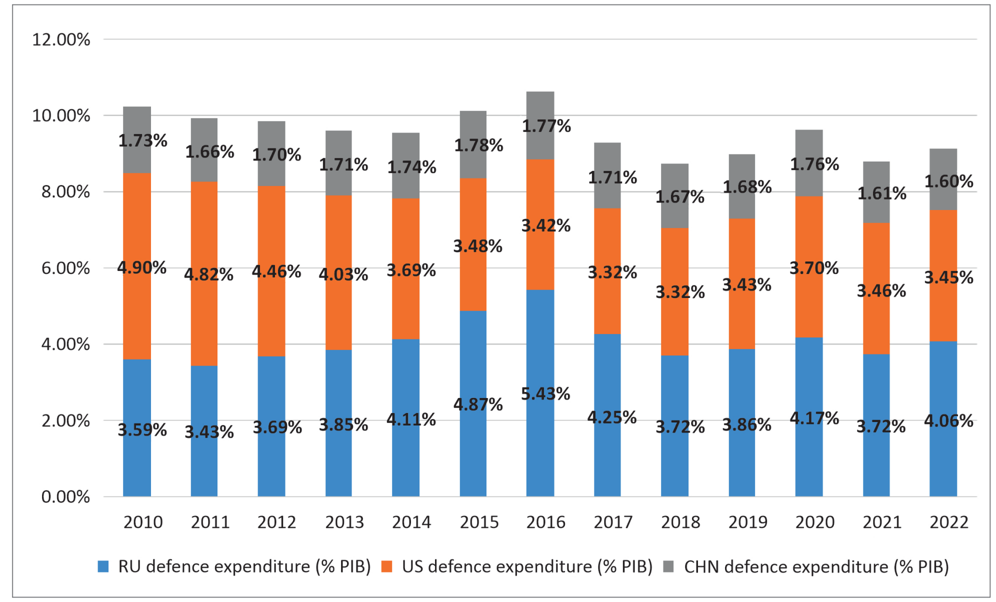

Chart 7: Evolution of defence expenditure of the Russian Federation compared to the US and China - %GDP (www.sipri.org)

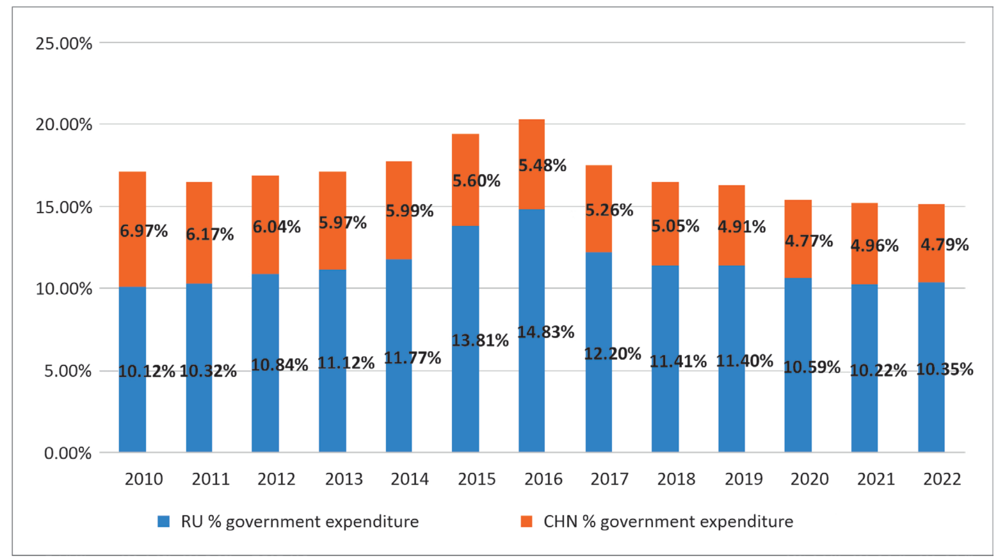

Chart no. 8: Evolution of defence expenditure of the Russian Federation compared to China - % of government expenditure (www.sipri.org)

The charts presented above show the Russian Federation's constant interest in increasing defence spending, including in the period before the outbreak of the military conflict in Ukraine, which reveals the preparation for this military conflict. Thus, as a percentage of government expenditure[2], the Russian Federation allocates about 10% and as a percentage of GDP[3] about 4%. However, in terms of the nominal amount invested in the defence sector, the Russian Federation invests 3 times less than China and about 10 times less than the US.

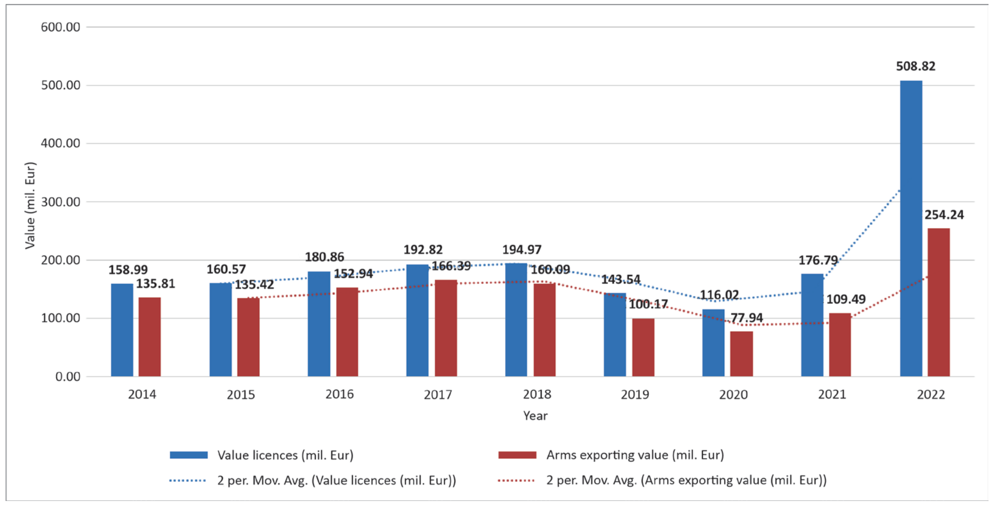

Chart 9: Evolution of Romanian arms exports (www.ancex.ro)

As far as Romania is concerned, the year 2022, which marked the outbreak of the war in Ukraine, was characterised by a major increase in arms exports, i.e. by approximately 123% (+€144.75 million). This increase in arms exports by the Romanian defence industry reveals the potential of the Romanian defence industry, which can be exploited to the full, including through the production and delivery of military equipment and ammunition needed in the current geopolitical context marked by the military conflict in Ukraine. From the point of view of the opportunities for the Romanian defence industry, the main beneficiary of the military equipment produced by the Romanian defence industry must be the Romanian Armed Forces,

[2] Government expenditure is the total monetary amount that the public sector pays to carry out its activities.

[3] Gross domestic product (abbreviated to GDP) is a macroeconomic indicator that reflects the sum of the market value of all goods and services for final consumption produced in all branches of the economy within a country during a year.

which need to purchase as much as possible from the domestic defence market, and the rest of the technologically advanced equipment from foreign markets, mainly from Euro-Atlantic companies.

From this point of view, the increase in the percentage of GDP allocated to the defence sector must be reflected, mainly, in the armament programmes carried out at the level of the Ministry of National Defence, and an important part should be dedicated to the acquisition of military products designed and manufactured by the domestic industry. At the same time, the other component institutions of the National Security System will have to adapt their procurement policy for arms and ammunition and other individual or collective protection equipment to the national industry, in order to support it.

An analysis of Romanian arms exports in terms of the categories of arms exported shows that most exported military products consisted of:

ML4 – Bombs, torpedoes, unguided missiles, guided missiles, other explosive devices and charges and related equipment and accessories, and specially designed components therefor (EUR 83 396 656);

ML10 – Aircraft, lighter-than-air vehicles, unmanned aerial vehicles (UAVs), aircraft engines and related equipment and components, specially designed or modified for military use (EUR 83 108 329);

ML9 – Warships (surface or underwater), special naval equipment, accessories, components and other surface vessels (EUR 77 633 594);

ML3 – Ammunition and warheads and specially designed components therefor (EUR 69 925 761).

The distribution by category of military products shows a diversification in 2022 of exports in the aircraft and naval vessels segment, but there is still a high demand for armaments. The increase in the value of ammunition exports and the diversification of the types of products exported will allow the domestic industry to recover economically and create the necessary conditions for further diversification of the product range, as well as the possibility of establishing economically profitable partnerships with companies in the Euro-Atlantic area.

As regards the defence expenditure allocated by Romania, the statistical data provided by SIPRI shows that it has been maintained at a high level, which is due to the increase in budgetary allocations for defence, as well as to the interest shown in complying with the decisions taken at NATO summits to allocate a minimum of 2% of GDP to defence. In this context, the Romanian authorities have understood and have taken the necessary measures to allocate substantial funds for the Romanian

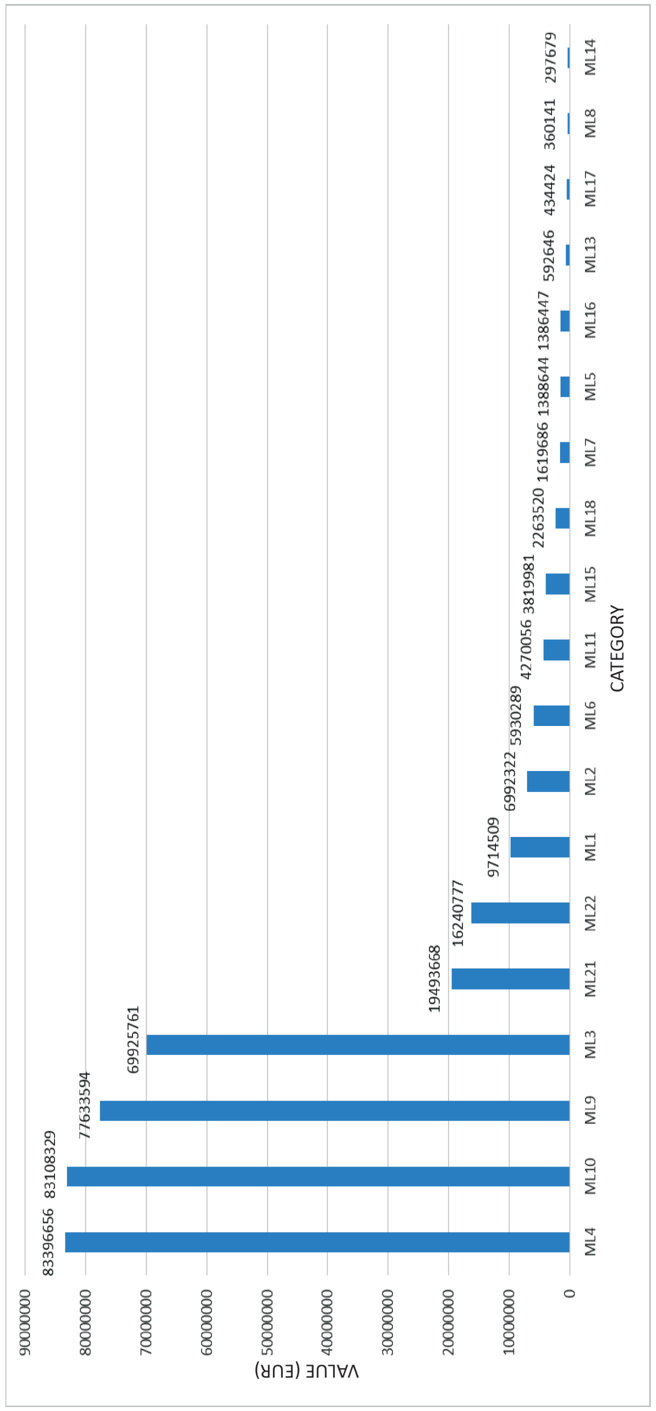

Chart 10: Distribution of arms exports by category of arms (EUR) (www.ancex.ro)

Armed Forces' equipment programmes. The main purpose of this is to reduce the technological gap between the Romanian Armed Forces and the other NATO member states' armed forces while increasing the degree of interoperability with the modern weapons systems used by the North Atlantic Alliance.

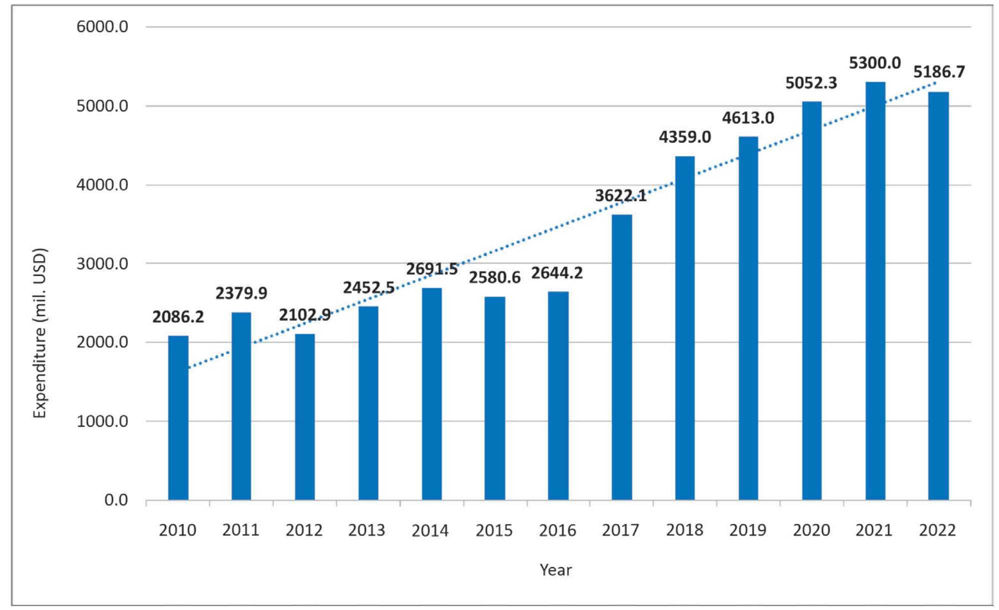

Chart 11: Romania's defence expenditure (www.sipri.org)

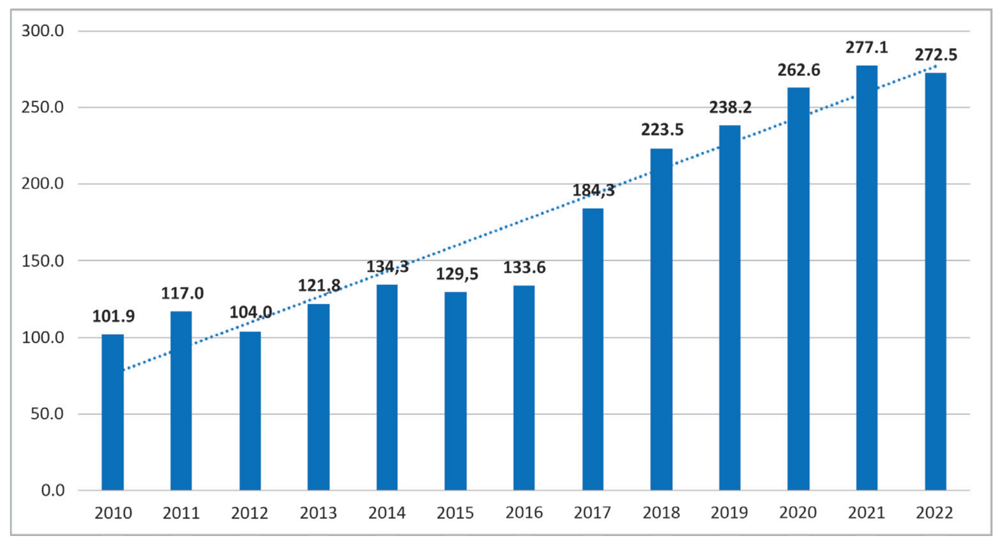

Chart 12: Romania's defence expenditure (USD/capita) (www.sipri.org)

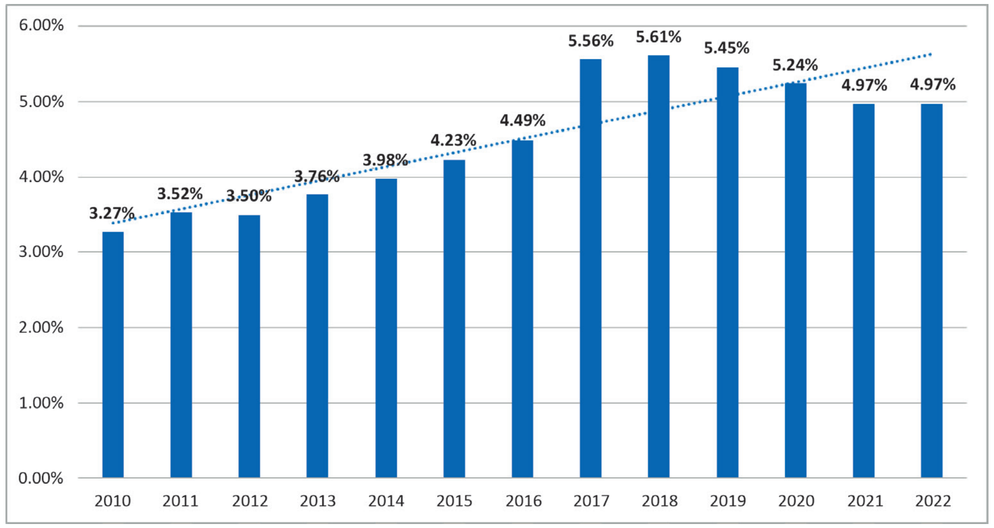

Chart 13: Romania's defence expenditure (% of government expenditure) (www.sipri.org)

The charts above reveal Romania's interest in investing significant amounts in defence, especially after 2017 when it was agreed at the political-military level to allocate a minimum of 2% of GDP to defence. The decision of the Romanian state to allocate at least 2% of GDP to defence was taken following the decision agreed at the level of member states at the NATO Summit held in Warsaw (Poland) in 2016. The substantial budget allocations allowed the purchase of modern military equipment from Euro-Atlantic partners, which enabled the Romanian Armed Forces to achieve a high degree of interoperability with the other forces of NATO member states. The current security situation requires an increase in budget allocations, especially for the existing equipment programmes at the level of the Ministry of National Defence, with a major emphasis to be placed on financing programmes developed by the Romanian defence industry. Currently, the Romanian Armed Forces purchase about 10% of the products produced by the Romanian defence industry. Another very important aspect is the strict application of the offset legislation, which has recently been revised to meet the new challenges of how to carry out the Romanian Armed Forces' acquisition programmes, in terms of substantial investments in the Romanian defence industry.

The development of the Romanian defence industry must be thought in close correlation with NATO and EU developments, and it is necessary to cooperate very

well with the Ministry of National Defence and the Ministry of Economy, which controls ROMARM SA – the largest producer of military equipment and ammunition at the national level.

An analysis of the data published by the ANCEX Control Department of the Ministry of Foreign Affairs (www.ancex.ro) reveals that the top 5 countries of destination for exports of military products are Israel (53,312,766 EUR), Norway (36,872,667 EUR), Bulgaria (33,037,224 EUR), the UK (15,918,846 EUR) and the USA (10,727,719 EUR).

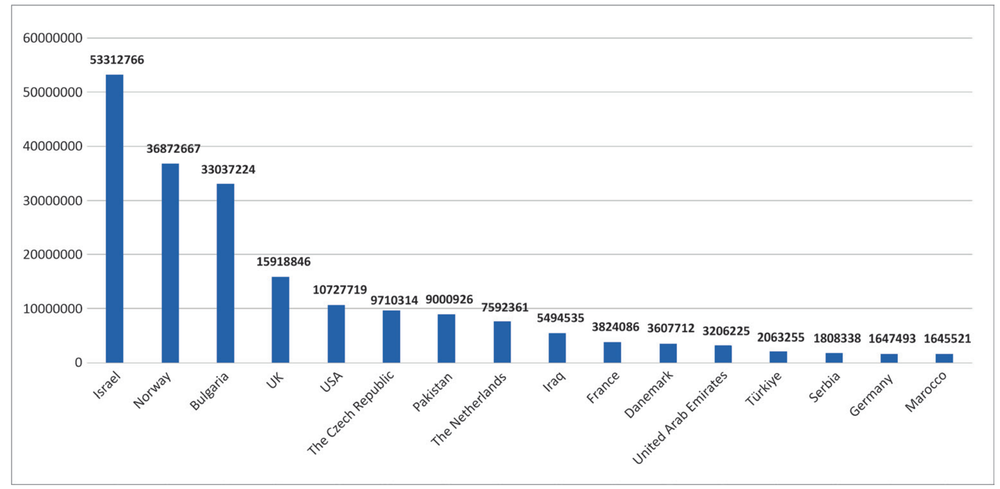

Chart 14: Main export destinations of the Romanian defence industry (Ib.)

The domestic defence industry has made significant exports to technologically developed countries such as the US, UK, Norway and Israel. This aspect reveals the increase in terms of the technological level of the products exported by the Romanian arms industry companies.

At the same time, the Romanian armaments industry must be able to cope with the situation of a transition from peace production to war production and concrete measures are needed to make the necessary adaptations, together with measures to upgrade the industrial structures considered critical to sustaining the efforts in the event of the outbreak of a military conflict in which Romania is a party. In this context, an important role is played by the strategic planning process, which will set out the stages to be followed for the modernisation of the domestic armaments industry and will also cover the tactical level, with particular attention being paid to the specific details of this area.

To maintain credibility abroad and to have access to advanced military technologies, it is necessary to effectively control exports of military products and technologies, as well as the raw materials needed to produce them. Romania has, through the ANCEX Control Department of the Ministry of Foreign Affairs, an efficient national authority recognised for its effectiveness by its Euro-Atlantic partners.

RECENT DEVELOPMENTS AT THE EUROPEAN LEVEL AIMED AT STRENGTHENING THE DEFENCE INDUSTRY

The European Commission's *"Defence Investment Gap Analysis and the Way Forward"*, presented on 18 May 2022, highlighted that the defence sector suffers from a triple deficit: financial, industrial and capabilities. The Communication also notes that recent budget increases by EU member states have come after years of substantial cuts and extremely low investment in the defence sector.

Today, European states rely heavily on the support of the United States for their security. To at least partially overcome this dependence, measures have been taken at the EU level to strengthen the European defence industry, including by allocating substantial funds for the joint procurement of modern armaments and ammunition for such weapons. France is the main promoter of this solution aimed at strengthening the defence industry at the European level.

The main aim of this approach at the EU level is to stimulate EU member states to procure armaments jointly, thus ensuring interoperability, significant savings and ultimately a strong European defence industry. In this way, EU member states will be able to replenish their depleted stocks more effectively through donations to Ukraine.

In this context, on 27 June 2023, the Council concluded a provisional agreement with the European Parliament on an Act on the strengthening of the European defence industry through joint procurement (EDIRPA[4]) (European Council – 2023).

[4] **E**uropean **D**efence **I**ndustry **R**einforcement through common **P**rocurement **A**ct.

The agreement reached sets out a number of clear conditions for economic entities (contractors, subcontractors) and defence products to be eligible, as well as the conditions that projects must meet to be eligible for funding:

- contractors involved in joint procurement should be established and have their executive management structures in the EU or an associated country (Iceland, Liechtenstein or Norway). They should also not be controlled by a non-associated third country. EDIRPA funds may under no circumstances be used to procure components from countries not respecting good neighbourly relations;
- by default, contractors must use facilities and resources located in the EU or an associated third country. The use of non-EU facilities is only permitted if an EU producer does not have the relevant infrastructure on EU territory;
- member states may only purchase products which are not subject to any restrictions imposed by a non-associated third country which limit their ability to use them. This rule does not apply to urgent and critical defence-related products, provided that they have been used before 24 February 2022 in the majority of the consortium and that the consortium members commit themselves to studying the feasibility of replacing such restricted components with unrestricted components from the EU.

CONCLUSIONS

The global and national defence industry has rapidly adapted to the demands of the defence market by increasing arms and ammunition production in proportion to demand in the wake of the military conflict in Ukraine triggered by the Russian Federation. However, the industry cannot cope with the very high demand for arms and ammunition required by the military conflict in Ukraine and the replenishment of stocks by states that have donated such military equipment to Ukraine.

The data analysed show the trend of the major exporters of military equipment to increase their turnover, a trend which is also reflected in the states purchasing military products. The Romanian industry benefited from the context marked by the military conflict in Ukraine and has exported military products above the average of the last 5 years, which led to an increase in turnover with positive aspects in terms of profitability. Analysis of data available in specialised open sources (SIPRI, ANCEX

Department of the MFA) shows that most countries have increased their defence budget allocations after the outbreak of the military conflict in Ukraine.

In the coming period, given the fact that this conflict in Ukraine will be prolonged, favourable conditions are created for the Romanian defence industry to supply armaments both for the Romanian Armed Forces and for other countries. A viable solution is to develop partnerships with major manufacturers of military equipment for the production in Romania of modern military equipment or sub-assemblies that can be exploited both by beneficiaries in our country and on the international market.

Romania can benefit from its privileged geostrategic position within the Black Sea Region, as well as from its good relations with NATO and EU partners for the development of partnerships with major international companies. As a member state of NATO and the EU, Romania is obliged to maintain a high level of budgetary allocation dedicated to the defence sector, while at the same time making the most of the projects carried out at NATO and EU level, to develop joint military equipment projects.

At the same time, Romania must take advantage of the strategic partnership with the USA, as well as those concluded with the other states in the Euro-Atlantic area to import state-of-the-art military technology and equipment, capable of facing a possible hostile military action by the Russian Federation. In conclusion, to effectively counter hostile action by the Russian Federation, cohesion between the EU and NATO member states is necessary, and the measures taken to modernise the armed forces of the EU and NATO member states must be coherent and complementary, without duplication of investment efforts between the two entities.

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