The world after the COVID-19 pandemic during the war in Ukraine

Perspective of the development of the world order and security environment up to 2040. Challenges to Poland's security

VOL. 1 – POLITICAL AND GEOPOLITICAL DIMENSION

Robert Reczkowski, Jacek M. Raubo, Andrzej Podraza, Łukasz Jureńczyk, Paweł Turowski

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PERSPECTIVE OF THE DEVELOPMENT OF THE WORLD ORDER AND SECURITY ENVIRONMENT UP TO 2040. CHALLENGES TO POLAND'S SECURITY

NUP 2X35 REPORT
VOL. 1 – POLITICAL AND GEOPOLITICAL DIMENSION

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INTRODUCTION

The dynamic pace of contemporary political and geopolitical processes related to the progressive change of the current international order, catalyzed first by the COVID-19 pandemic and now by the war in Ukraine, prompts a great number of researchers, analysts, decision-makers and observers of the international arena to use geopolitics[1] as a cognitive tool, as in the past. Importantly, the new period of the struggle for hegemony, in the literature on the subject referred to as the era of strategic rivalry of states, has revived the classical theories, language, and methods of perceiving political reality known in geopolitics for over a hundred years, both in Poland and in many other countries.

Understanding the world around us is the basis of research on the security of individuals, communities, societies, states, the international community, their organization, and the actions taken and conducted (Gryz, 2013, p. 7). In this regard, in the command structures of NATO, in the armed forces of Allied and partner states, as well as in other states that are not part of NATO, systematic analyses of the security environment and the operational environment are carried out, aimed at identifying, analyzing and evaluating trends, factors, and conditions that may have an impact on the multifaceted security in the allied and national dimension and the manner of conducting military operations. At the level of NATO Strategic Commands, work in this area is carried out as part of the analysis of the future security environment (Strategic Foresight Analysis – SFA) and the operational environment (NATO Warfighting Capstone Concept – NWCC). Similar programs and projects are being implemented, e.g. in the United States (Joint Operating Environment 2040) or the United Kingdom (The Global Strategic Trends Programme).

In Poland, since 2019, in response to the need to understand the changing security environment, analyses and discussions have been conducted, e.g. as part of the security

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[1] Geopolitics as a field of knowledge is the study of the impact of geographical factors on the foreign policy of states and their groupings (international organizations, political and military blocs) and on the shaping of international order and security. It also focuses on the relationship between power, politics, time and space. Its main fields of research are the rivalry of superpowers and empires throughout history and an attempt to discover regularities in this area. Geopolitics, as an element of social sciences, does not create laws similar to the laws of physics but aims at perceiving processes and formulating hypotheses based on them (Potulski, 2010).

environment analysis campaign under the name *Nowe Urządzenie Polskie* (New Polish Battle Order) – NUP 2X35. The main objective of the aforementioned campaign is to identify the future conditions of the state security environment and the requirements that the Polish Armed Forces will face in the medium term, i.e. in 10-15 years. The name of the project refers to the glorious traditions of the old Polish art of war, which materialized in the concept of *Stare Urządzenie Polskie* (en. Old Polish Battle Order) (Kukiel, 1929, pp. 47-48), i.e. the order of battle which ensured the Polish army a number of victories in the period from the 15th to the 17th century.

It is commonly known that comprehensive and multifaceted strategic analyses are a key element of strategic planning processes in military organizations (Lis, 2022; Lis et al., 2022). Therefore, the NUP 2X35 campaign, which in its assumptions is to generate synergistic effects at the meeting point of the armed forces and academic and expert communities, is a natural platform for creating and exchanging knowledge in the field of the future security environment for the needs of analyses in the Polish Armed Forces and security management of the Republic of Poland (more: Mokrzycki & Lis, 2020; Lis & Mokrzycki, 2022). The theoretical basis for designing the course of the NUP 2X35 campaign was the concepts embedded in the theory of knowledge management, including the concept of the organization's ability to absorb external knowledge (cf. Cohen & Levinthal, 1990; Zahra & George, 2002; Todorova & Durisin, 2007; Sudolska, 2011; Glabiszewski, 2016; Lis, 2017, 2018; Lis & Sudolska, 2015, 2017), the concept of communities of practice (Wenger, 1996, 2000), the concept of open innovations (Chesbrough, 2003; Chesbrough & Appleyard, 2007) and the concept of a learning organization (cf. Senge, 1990; Garvin, 1993; Wheatley, 1994; DiBella, 2010; Lis, 2014; Freeman & Calton, 2020). Importantly, the results are made available in accordance with the principle of disseminating experience and acquired knowledge, which is a permanent part of the activity of Doctrine and Training Centre of the Polish Armed Forces (DTC), in order to contribute to raising social awareness in the field of state security. It should be emphasized that the results of the analyses of the NUP 2X35 campaign were used not only by representatives of the organizational units of the Ministry of National Defence. They also became a contribution to the next edition of analyses as part of the NATO Strategic Foresight Analysis project coordinated by Allied Command Transformation (ACT). DTC hopes that this effort will also strengthen the foundations of new concepts developed in Poland and NATO. Hence, the intensification of cooperation with international NATO Centers of Excellence and national counterparts of DTC in the United States, the UK, France, and the countries of NATO's eastern flank. In the opinion of DTC, this gives an opportunity to generate innovations in the field of military strategy and operational art, since they are the basis for the most interesting and mature operational concepts, which are the intellectual foundation for building the strategic advantage of the Polish Armed Forces. If DTC's activities within the NUP 2X35 campaign are still so actively supported, one can have

reasonable hopes that the gathered intellectual potential will be able to build modern solutions referring to the glorious traditions of the 'Old Polish Battle Order' and not inferior to it in effectiveness on the battlefield, only this time in a new multi-domain operating reality.

In accordance with the above assumptions, this monograph fits into the content of debates on the contemporary security environment, including, above all, its political and geopolitical dimensions. The considerations undertaken in the publication focus on aspects relating to the impact of the COVID-19 pandemic and the war in Ukraine on the contemporary security environment out to 2040[2]. In this regard, the main research problem was reduced to the question of what the security environment of Poland will be like after the COVID-19 pandemic out to 2040, taking into account the consequences of the war in Ukraine? Bearing in mind the operationalization of the main research problem, it has been additionally detailed in individual chapters of the monograph.

The aim of the publication is to present, from the perspective of Poland, the most probable changes taking place in the contemporary security environment out to 2040 and the implications of these changes in the context of challenges, threats and opportunities for the world, region (Europe) and Poland. Therefore, the specific objectives are:

– indication and description of the impact of the COVID-19 pandemic on the security environment, as well as political and geopolitical implications – in relation to the work carried out as part of the NUP 2X35 campaign;
– indication and description of the impact of the war in Ukraine on the security environment, as well as political and geopolitical implications – in relation to the work carried out as part of the NUP 2X35 campaign;
– indication of the main trends (phenomena) and description of the post-pandemic security environment in the political and geopolitical dimensions out to 2040;
– an attempt to define the role of the most important actors in international relations (the US, China and Russia) in shaping the security environment out to 2040;
– an attempt to determine the implications for the security environment on a global and regional (Europe) scale, as well as within Poland;
– an attempt to identify challenges and potential opportunities for Poland's security out to 2040.

Such a cognitive approach to the issue allowed the authors to formulate a research hypothesis in the form of a statement that in view of the deepening identified

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[2] The time perspective out to 2040 is closely related to the works carried out under the NATO Defense Planning Process (NDPP) and the national process of planning the development of the Polish Armed Forces [authors' note].

phenomena in the security environment, as well as the accelerators of changes in the form of two global crises (the COVID-19 pandemic and the war in Ukraine), a new world (dis)order emerges, strongly influencing the nature and shape of security architecture. In addition, the period up to 2040 is likely to be characterized by intense political and geopolitical changes. The trends identified in the report published by DTC in 2020 as part of the NUP 2X35 campaign entitled *Security Environment out to 2035 – NUP 2X35: The Polish Perspective* (Mokrzycki et al., 2020) are forecast to increase, and as a result, a change in the hierarchy of importance of actors in international relations is noticeable. In addition, the battle for influence between global and regional powers is likely to intensify, with activities aimed at developing the so-called smart power, which is a combination of military power (hard power) and the impact of diplomacy, economy, international law and culture (soft power).

The monograph consists of an introduction, a summary, five chapters, a conclusion and a list of references, and its layout strictly serves to solve the main problem, achieve the assumed goals and verify the adopted hypothesis. In the first chapter entitled *The COVID-19 pandemic and the Russian-Ukrainian war as catalysts for changes in the security environment*, the main considerations of the authors have focused on aspects related to the impact of the COVID-19 pandemic and the war in Ukraine on the broadly understood security environment. In addition, the chapter presents a number of research projects carried out as part of the NUP 2X35 campaign, which raised the issue of the impact of the COVID-19 pandemic on the security environment, as well as indicated the initial implications of the war in Ukraine resulting from the analytical work carried out within this campaign. The second chapter is devoted to identifying the main trends that have and will have the greatest impact on the shape of the security environment in the political and geopolitical dimensions in the near future. The third chapter describes, from the Polish perspective, the role of the most important actors in international relations, i.e. the United States, China and Russia, in shaping the security environment, taking into account key determinants such as COVID-19 and the war in Ukraine. In the fourth chapter, the authors made an attempt to determine the main implications for the security environment on a global and regional (Europe) scale, as well as within Poland, and in the fifth chapter, based on these implications, they identified the main challenges for Poland's security out to 2040.

A holistic approach was used in the research process. Therefore, for the purposes of this publication, in addition to expert debates (seminars and research conferences) conducted as part of the NUP 2X35 campaign, a review of fundamental documents on analyses of the modern security environment was also carried out, both those conducted in NATO with the active participation of DTC under the SFA[3] or NWCC

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[3] The SFA reports issued by NATO Allied Command Transformation (2017, 2020, 2021a, 2021b, 2022) [authors' note].

projects, as well as those carried out by foreign entities as part of national initiatives, e.g. *Global Trends* in the US. Importantly, the main point of reference was the above-mentioned report issued by DTC in 2020. The trends (phenomena) identified in this analysis and the resulting implications for Poland's security have been verified. In addition, the documents were enriched with additional research (expert interviews), as well as the results obtained as part of in-depth analyses conducted by DTC in the area of e.g. demography or urbanization[4], as well as the results of the authors' own research and opinions of experts forming the community of the NUP 2X35 campaign.

The findings contained in the monograph can be used to properly understand the phenomena taking place in the security environment and thus contribute to the design of activities aimed at strengthening Poland's security. Therefore, our publications are addressed mainly to institutions and those dealing with and interested in the issues of state security. This monograph is the first of six reports containing the results of analytical work carried out as part of the NUP 2X35 campaign, planned for publication in the years 2023–2025. Subsequent reports will concern aspects related to the forecast changes in individual dimensions of the security environment, such as: economy and natural resources, society, urbanization, new technologies, and natural environment.

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[4] Analyses entitled *Demographic Changes and their Impact on the Functioning of the Polish Armed Forces* and *Urbanization Processes and their Consequences for the Functioning of the Polish Armed Forces* were developed by DTC in 2021 for the internal needs of the Polish Armed Forces [authors' note].

SUMMARY

The risk of a global pandemic has been taken into account for years in analyses of the international security environment developed by specialized international entities, including DTC. Even though countries around the world had been preparing for such an eventuality, the COVID-19 pandemic took both their authorities and international institutions by surprise. The theoretical explanation of the pandemic can be the metaphor of the 'black jellyfish'[5] representing a known phenomenon, which, however, escalates extremely quickly and thus gets out of control, causing general surprise, which is a kind of 'unknown known'. Moreover, the COVID-19 pandemic is a factor that has dynamized the previously existing trends and tendencies observed in the international environment, including the evolution of the international system, although the observed direction of changes is not clear. Nevertheless, it seems that the current development of the situation in the security environment may point to the potential end of the hegemonic position of the United States, revealing many signs of multipolarity and polycentricity of the emerging international system, but with a certain reservation that in this system there will be two dominant poles – one of them representing the so-called world of freedom and democratic values, while the second representing a world that is the opposite of the first. This is accompanied by the shift of the center of gravity of economic power, and to some extent also political and military power, from the transatlantic zone to the Indo-Pacific, which at the same

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[5] Prof. Atanu Biswas, representing the Indian Statistical Institute, devoted one of his articles to this issue, posted on the widely read and reputable Indian news website Scroll.in. In his considerations, Biswas refers to the theory of the so-called black jelly, the basis of which is found in the works of the Slovenian philosopher Slavoj Žižek. As noted by Biswas, Žižek already in 2004 pointed to the possibility of the 'unknown known', which in 2007 was interpreted by the German sociologists Christopher Daase and Oliver Kessler as „what we don't want to know" (Daase & Kessler, 2007). In Biswas' understanding, however, this may be an example of what we think we know and understand, but what turns out to be more complex and uncertain. An example of such reasoning, according to Biswas, is the 'black jellyfish', which has the potential of going post-normal by escalating rapidly. Research on the species shows that the increasing oceanic temperature and acidity, caused by climate change, can create very favorable conditions for the rapid growth of jellyfish populations, leading to blocked water inlets and forcing power plants and nuclear reactors located in coastal areas to shut down. This happened in 2013 at the Oskarshamn power plant in Sweden, where one of the largest nuclear reactors in the world is located. In a further statement, Prof. Biswas states that jellyfish blooms provide a perfect representation of post-normalcy in an unthought future (Biswas, 2020).

time becomes the main area of competition for global dominance between the US and China.

In addition to the COVID-19 pandemic, an important factor of changes in the security environment has also been the Russian aggression against Ukraine, which *de facto* – as Robert Pszczel put it – has structurally broken the entire security architecture patiently built on the European continent for many decades, including international commitments agreed over the last 30 years. Moreover, Putin's Russia, in accordance with its own terminology, has chosen to confront the 'collective West', regardless of the costs for Russia itself, with the primary aim of minimizing US influence in Europe. Any efforts involving security and confidence-building measures or institutional solutions to preserve peace suddenly seem very fragile in the face of military power. After many months of Moscow engaging in sham dialogue and blatant lying to other countries and institutions, including NATO and the OSCE, all trust has been eroded. Moreover, by causing economic shocks in energy markets and using famine as a political instrument, Russia has further globalized the consequences of its war (Pszczel, 2022).

In the context of the effects of the COVID-19 pandemic and the ongoing war in Ukraine, in the coming decade, and probably also out to 2040, in the political and geopolitical dimension, three megatrends will be of particular importance for the security environment of Poland and the changing international order:

  – intensification of competition for influence between entities with different systems of values, norms and political and economic solutions, including states (among which a trio of superpowers: US-China-Russia[6], and India balancing between them, will be in the foreground), as well as non-state actors;
  – further, though temporarily slowed down by consolidation around the war in Ukraine, weakening of the comparative strategic position of the West as a result of shifting the geopolitical and economic center of gravity from the transatlantic area to the Indo-Pacific;
  – creating new or reconfiguring existing competing geopolitical, economic and military blocs of influence and value.

In addition, in the opinion of the experts of the NUP 2X35 campaign, by 2040, in the international security environment, the following trends may be observed:

  – **emergence of a global power vacuum** – global institutions will be replaced as regulators of economic and political processes by regional economic blocs, which will gradually transform into political or political-military blocs;

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[6] In the opinion of the experts of the NUP 2X35 campaign, as a consequence of the war in Ukraine, Russia will most likely be excluded from this competition or its role will be strongly marginalized [authors' note].

- **persistence of superpower ambitions in Russia and attempts to restore control over the post-Soviet area** – such an attitude may persist even if Russia suffers a defeat in the war in Ukraine; Russia will try to rebuild itself economically and militarily, and consequently, will continue to pursue an aggressive policy towards its neighbors;
- **shifting the center of gravity of power** – mainly economic and technological towards Southeast Asia;
- **generating uncertainty and tensions between the US and China** – the US will try to maintain the dominant strategic position of the Western (democratic) bloc, which will be opposed by the authoritarian bloc led by China and Russia;
- **growing political instability in the states** – this will result from the deepening of populist political elites' inclinations and, on the other hand, the intensification of anti-establishment tendencies;
- **deepening economic instability** – will be a consequence of the turmoil in the financial systems, and on the raw material, energy and food markets;
- **strengthening the role and importance of global international organizations** – as a consequence of increased threats, rivalry between superpowers and national particularisms;
- **increasing migration, including uncontrolled migration** – in particular towards Europe;
- **proliferation of weapons of mass destruction and advanced missile systems** – both by state and non-state actors, as a result of the questioning of the nuclear taboo by some nuclear states, as well as Russia's departure from international treaties in this regard.

At the same time, in the new international order, there will be a need to create a new architecture of the global security system. This poses a challenge both to NATO, which will have to redefine its place in this system, preferably in accordance with the 360 degrees principle, to be able to effectively counteract and respond to a comprehensive spectrum of threats, and to the Polish Armed Forces.

It is forecast that in the post-pandemic world, the United States, China and Russia will remain key state actors, where:

- **the United States**, through its involvement in the war in Ukraine, will strive to maintain a dominant strategic position in the international environment. While it perceives China and Russia as the main revisionist superpowers, only China's potential is perceived as a real threat to the US position in the world, and it treats Russia primarily as a destabilizer of international relations. While maintaining a dominant strategic position, and thus benefiting from it, the US wants to limit the costs of global engagement, which carries a potential risk for the security of the

Euro-Atlantic area, including Poland. Currently, however, the US reaffirms its security guarantees for NATO allies and military support for Ukraine. The probable weakening of Russia's strategic position will give the United States a prospective opportunity to focus on rivalry with China, its strategic competitor. This rivalry will be multidimensional (in the political, economic and technological areas), and it will be important to verify the policy of the broadly understood democratic West becoming dependent on China as a global producer of industrial goods. For this rivalry with China to be effective, Washington is likely to tighten its alliances, including in the Asia-Pacific area, and focus on the technological modernization of its armed forces and the ability to operate in all operational domains, including in cyberspace. To this end, it will be necessary to simultaneously take measures for political and social stabilization within the country;

– **China**, in recent decades, with its dynamic economic and military development, has been increasing its political ambitions, striving to achieve the rank of a global superpower. China is becoming more determined in the international environment, and the current economic problems will not limit this trend. This determination was observed in relation to Hong Kong, and now its symptoms will be increasingly visible towards Taiwan, as well as towards other US allies and partners in the region, including India and ASEAN countries. The United States is and will remain China's main strategic rival, and Beijing will try to counteract the American policy of limiting China's influence in the region and thus building regional hegemony. Due to the isolation of Russia by the West, caused by the war in Ukraine, the importance of cooperation between China and Russia will increase. The implementation of international goals by the Chinese Communist Party will also require internal stability of the state, which is supposed to be facilitated by increasing surveillance of the society;

– **Russia**, in the coming years, will probably struggle with serious economic turbulence caused by the COVID-19 pandemic, in particular the sanctions imposed by the West for its military aggression against Ukraine and changes in the budget assumptions (from 2023, 1/3 of its income is to be allocated to defense and security of the Russian Federation). In addition, it is predicted that limited access to Western technologies will intensify these turbulences and make it difficult for Russia to restore its military potential, which is currently suffering significant damage in the war with Ukraine. As a consequence, Russia will rely to a greater extent on cooperation with China, which will strengthen its dominant position in this relationship. At the same time, Moscow will continue to try to expand cooperation with the countries of the Middle East and Africa. Despite its strategic weakness,

Russia will not give up its superpower ambitions and its desire to regain dominance in the post-Soviet zone. It will try to use political, military or economic methods and tools to intimidate and blackmail both NATO countries and non-member neighbors with pro-Western tendencies. At the same time, it will continue to strive for full 'integration' with Belarus. In addition, Russia's violations of the basic principles of international law, also with the use of armed forces, mean that Moscow's relations with its existing (state and non-state) partners may turn into open rivalry. In this situation, Russia will continue its policy of withdrawing from international agreements with Western countries, including in the field of nuclear weapons non-proliferation, and can provide open assistance to countries developing their nuclear programs, such as Iran or North Korea. Moreover, in this regard, Russia may return to real nuclear weapons testing sites in order to strengthen its own nuclear deterrence policy.

In view of the above, the main political and geopolitical implications for the security environment out to 2040 include:

a) on a global scale:
- increasing the level of uncertainty in the international system related to the holistic perception of the state of security of individual countries;
- intensifying the rivalry between the US and China, using e.g. new geoeconomic instruments;
- limiting the confidence of states in international institutions, organizations, structures and mechanisms of information exchange;
- the need to develop new capabilities of the industrial base in case of further turbulences in supply chains;
- the need to increase real efforts to strengthen defense and deterrence;
- the possible passivity of the international community in the face of the next wave of emergence of the so-called failing or failed states;
- possible greater acceptance of the use of force than before, including a possible escalation of violations of international norms and rules for conducting armed conflicts and the use of state terror by the aggressor state against the civilian population;
- the possible impact of negative demographic changes in China and Russia on the ability of these countries to compete effectively with the US;

b) on a regional (European) scale:
- the possibility of factors reducing confidence in the decisions taken by the EU authorities;
- intensification of the EU federalization processes and strengthening its role in global politics;

- emphasizing the importance of NATO's effective operation, also in terms of non-military threats;
- the possibility of defragmentation of existing economic and military alliances due to differences in the perception of threats;
- the requirement to redefine defense needs in state-society relations;
- the emergence of further planes of possible radicalization and the creation and/or animation of divisions among societies;

c) in Poland:
- the need to increase the mobilization capabilities of the ministries responsible for the internal and external security of the state, and their cooperation with other state authorities, including the requirement to redefine defense needs in terms of state-society relations;
- the need to increase state resilience in the event of a phenomenon of a massive nature and directly translating into the functioning of society in the long term;
- the need to develop new capabilities of the industrial base in case of further turbulences in supply chains.

On the other hand, the main political and geopolitical challenges for Poland out to 2040 include:
- gaining the ability to quickly adapt to changes taking place in the political, geopolitical and economic sphere, as well as introducing solutions that would counteract negative social (in particular demographic[7]) changes in the long term, negative changes in urbanization and the natural environment, and threats related to technological progress;
- conducting a rational policy aimed at obtaining and maintaining the diversification of energy supplies and attempts to achieve energy independence and low CO_2 emissions of the energy system through e.g. investments in nuclear energy and renewable energy sources (RES);
- building the common defense capability, taking into account the multi-domain approach (not only in the purely military but also in the non-military aspect);
- taking measures to strengthen the civil protection and defense system in the event of a crisis, natural or technical disaster, and taking into account potential military operations in the country;
- maintaining a socio-political consensus among the citizens and main actors of the highly antagonized political scene regarding the scope of financing defense needs, including activities aimed at justifying the need

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[7] See further: Hrynkiewicz et al. (2020).

to incur increased spending on armaments and developing the potential of the armed forces;

– undertaking efforts to implement a long-term Technical Modernization Plan for the armed forces, accepted in terms of its long-term dimension (politically, militarily, technologically);

– taking further steps by Poland to maintain NATO cohesion, not only in the region of Central and Eastern Europe;

– maintaining the ability for effective allied cooperation with the US, as well as with European allies, including Germany, France, the UK and the countries of Central and Eastern Europe.
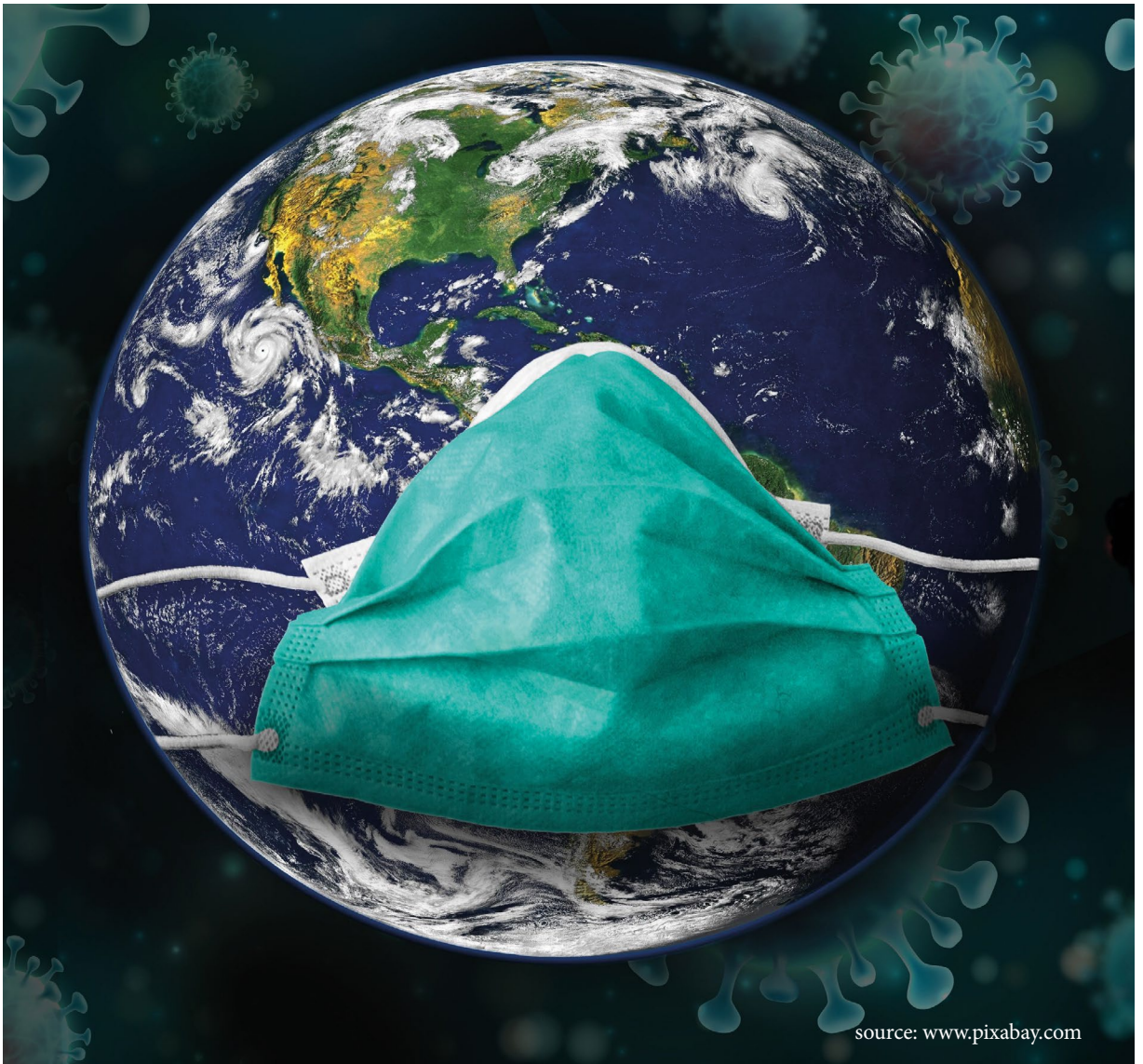
THE COVID-19 PANDEMIC AND THE RUSSIAN-UKRAINIAN WAR AS CATALYSTS FOR CHANGES IN THE SECURITY ENVIRONMENT

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Impact of the COVID-19 pandemic on the security environment

The COVID-19 pandemic is and will be for a long time after its end a reference for a number of studies and analyses carried out now, but also in the future by experts/analysts in various fields. Its social, political, economic or even military implications may affect global, regional and national security in the long term. However, restraint should be exercised towards introducing the narrative of the revolutionary nature of the changes brought about by the emergence of the SARS-CoV-2 pathogen. Nevertheless, it is worth noting that COVID-19 has significantly accelerated and in the coming years will accelerate even more the dissemination of modern technologies, both among society and at the state level. Therefore, we are dealing with a phenomenon that can become a dynamizing element and highlight certain trends and tendencies in the international space that have already been observed.

In this context, the most valuable is the animation of a multithreaded debate based on the exchange of experiences and views in the lessons learned formula. When the issue concerns Poland's security, we should contrast our research with the assumptions of the *National Security Strategy of the Republic of Poland 2020* and thus obtain the necessary instruments for changes in the state's security system in the coming years (Polcikiewicz, 2020).

It should be emphasized that the emergence of a global pandemic caused by the SARS-CoV-2 virus was in no way a surprise to security systems around the world, decision-makers, agencies and armed forces, and perhaps even societies, and for those states that have a developed synergy between intelligence, research and science space (particularly in fields related to medicine), and the military. In the latter case, it should be noted that the armed forces of countries around the world are constantly conducting analyses in the area of biological threats. They primarily concern the minimization of risks in the case of deploying contingents to missions abroad or the protection of own soldiers if their service takes place in an environment of dangerous pathogens and protection against the possible use of biological weapons, both by potential state and non-state actors (terrorist organizations, sects, etc.). It should also be emphasized that at the end of the 20th century and at the beginning of the 21st century (especially in connection with the 9/11 terrorist attacks), the threat of bioterrorism was an important point of reference for creating analyses related to comprehensive anti-terrorist plans of many countries. There have been many speculations about the use of much more dangerous pathogens, such as those that cause hemorrhagic fevers (Ebola). This was due to concerns related to, for example, the observation of the regional Ebola epidemic in West African countries (2014–2016). Moreover, previous outbreaks caused by

SARS (SARS-CoV-1)[8] and MERS-EMC/2012[9] coronaviruses provided a rich source of analyses. The issue of possible needs for action in the age of epidemic/pandemic was also rooted in social and scientific debates – from highly expert research of virologists and epidemiologists – to popular science publications in literature, film or Internet sources. One can only consider to what extent strategic reflection, in relation to threats to security other than epidemics/pandemics, translates into the attitudes of citizens, primarily in aspects that are visible at first glance and highly positioned on the agendas of socio-political debates in particular countries, including Poland.

Before the pandemic, one could get the impression that states were prepared for epidemic events, because in this respect they carried out a series of preparations covering such functional components of capabilities as: personnel, equipment, infrastructure facilities, procedures, etc. However, the real crisis situation of a global scale of impact showed a number of imperfections. Finally, the COVID-19 pandemic (to varying degrees) systemically surprised the authorities of most countries in the world. Importantly, this also applied to countries with the strongest regional and even global position, if we look at, for example, the fight against the pandemic in the United States or China. The countries that were in the worst situation were those that did not develop adequate 'total defense', i.e. to put it simply, a modern approach to the state's defense relationship, its civil defense, health care system, economy, financial system, etc. All the shortcomings in terms of the specificity of crisis management in the case of supply chains of key protective measures and life- and health-saving equipment also became apparent. It must be emphasized that the acquisition of protective masks and protective clothes, not to mention more complicated medical equipment (e.g. ventilators), was highly problematic. In relation to this problem, the discussion on two elements became crucial: secret services and globalization with its extensive supply chains and the deployment of production processes in countries with the lowest labor costs and/or with lower standards when it comes to legal regulations for the industry. Special services guaranteed the possibility of reactive, but more or less effective fishing out the stocks that were dwindling in the course of the first waves of the pandemic. Moreover, they became a key component in the sphere of maintaining orientation by governments in the conditions of information noise and the changing political and economic situation

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[8] The SARS virus, that is SARS-CoV-1, was responsible for the SARS epidemic (respiratory disease, also referred to as 'severe acute respiratory syndrome') in 2002-2003. It is a virus belonging to the coronavirus family – just like the one we know today as SARS-CoV-2 – responsible for the COVID-19 disease [authors' note].

[9] MERS-EMC/2012, also known as HCoV-EMS/2012, is the sixth coronavirus known to infect humans and the first human virus belonging to betacoronavirus lineage C. It is related to bat coronaviruses, in particular the Egyptian tomb bat, and is not the same as SARS-CoV, but related to it, and causes acute respiratory failure [authors' note].

on a global scale, not to mention the growing needs of counterintelligence. The scope of these tasks was extremely wide, ranging from protecting the state against possible information impact aimed at destabilization, creating divisions or causing panic and aversion towards the authorities, uniformed services and health care, to the necessary increase in the protection of the research and development sphere - in particular in the field of medicine and pharmacy.

Interestingly, in historical terms, epidemics are not exceptional phenomena, but in the globalized, developed world, where the economy is based on extremely complex, international supply chains, epidemics had not yet occurred on such a scale. In the opinion of the Polish Economic Institute, the COVID-19 pandemic – unlike the last global crisis that took place in 2007-2009 – has affected the key market mechanisms, both supply and demand. Supply was disrupted when supply chains were interrupted, especially those from China, exposing the inherent weaknesses of these chains or causing reshuffling of global supply chains. Subsequently, the actions of governments led to a reduction in the level of economic, social, educational and cultural activity, starting from the cancellation of mass events and limiting gatherings, through the suspension of the operation of most services and industries, especially in the tourism and transport sectors, to the suspension of all operations except those necessary for the functioning (lockdown). These actions, in turn, reduced supply, but also limited demand, reducing the income sources of many employees almost instantly (Polski Instytut Ekonomiczny, 2020).

In the opinion of the NUP 2X35 experts, the COVID-19 pandemic has taken two faces. On the one hand, like any crisis, it has generated huge threats (e.g. epidemic threat, intensification of social unrest caused by the increase in orders and prohibitions from the state or spreading disinformation in social media, etc.), including economic threats resulting from breaking traditional supply chains, mainly from Asia. On the other hand, however, the opportunities created by COVID-19 should be noticed (e.g. shortening of supply chains by moving production to Poland or the region of Central and Eastern Europe, etc.).

COVID-19 issues in the NUP 2X35 campaign − results of empirical research

The emergence of the COVID-19 pandemic at the turn of 2019 and 2020 was considered a factor significantly affecting the processes in the areas of interest to strategic analyses carried out as part of the NUP 2X35 campaign[10]. Therefore, in the next cycle of the campaign, the main attention was focused on a multi-faceted analysis of the security environment (in geopolitical, economic, social, and technological dimensions, as well as with regard to urbanization processes and environmental changes) taking into account the impact of the COVID-19 pandemic. The considerations assume the perspective of 2040 because it corresponds to the methodological assumptions applicable in long-term planning processes, both in NATO and the Polish Armed Forces. It is also important that, as in the case of previous cycles of the campaign, a wide range of researchers and experts from civilian and military universities in the country and abroad, public administration units, national and international think-tanks, as well as soldiers and employees of organizational units of the Ministry of

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[10] As Mokrzycki & Lis (2020, p. 15) point out, "(…) starting the security environment analysis campaign NUP 2X35 in 2019 and deciding on its methodological foundations, we considered the directions and methods of action. Based on the theory of strategic management, we relied on the model of the strategic analysis process and its methodology, adapting the solutions to the conditions of the Polish Armed Forces. In discussions on the security environment, we tried to decide what approach to adopt to the phenomenon of multidimensionality. Treating the security environment as an open but complex system, we weighed whether to use a holistic approach and consider the elements in their environment, or to rely on assumptions of linear analysis based on the categorization of strategic dimensions of the security environment, such as PMESII (Political, Military, Economic, Social, Infrastructure, Information)". It is worth noting that DTC is aware that the PMESII analysis has been successfully used in the army to analyze the operational environment. Many soldiers and civilian employees came across it during their service while performing tasks in NATO commands and staffs or during missions in Iraq and Afghanistan, gaining practical skills in its application and experiencing its usefulness in planning processes. However, it is a model that works well when the environment in question is well-structured. States, international organizations, transnational entities, armed forces, social structures, economy, infrastructure and information environment constitute the essential components of the security environment of the Central European theater of operations. Hence the choice of the method and the way of building analyses that take into account the broad political and legal, economic, socio-cultural and technological context, but also the challenges for the armed forces resulting from globalization, the dynamics of climate and demographic processes, urbanization and the development of cyberspace. Striving to ensure methodical consistency of analyses conducted under the NUP 2X35 campaign with analytical work carried out e.g. by NATO, as part of the Strategic Foresight Analysis (SFA) project, the NUP 2X35 campaign has adopted a segmentation of the security environment covering the geopolitical, economic, social, technological and natural environment dimensions. In addition, bearing in mind the growing importance of urbanized areas as the physical environment for conducting military operations today and in the future, in order to include the urbanization processes in the analysis, they have been separated from the social area [authors' note].

National Defence were invited to a joint debate in the period from April 2020 to November 2021. During this time, 13 events were organized (11 webinars and 2 international research conferences GlobState – see table 1), which in total gathered over 3,000 participants from 38 countries.
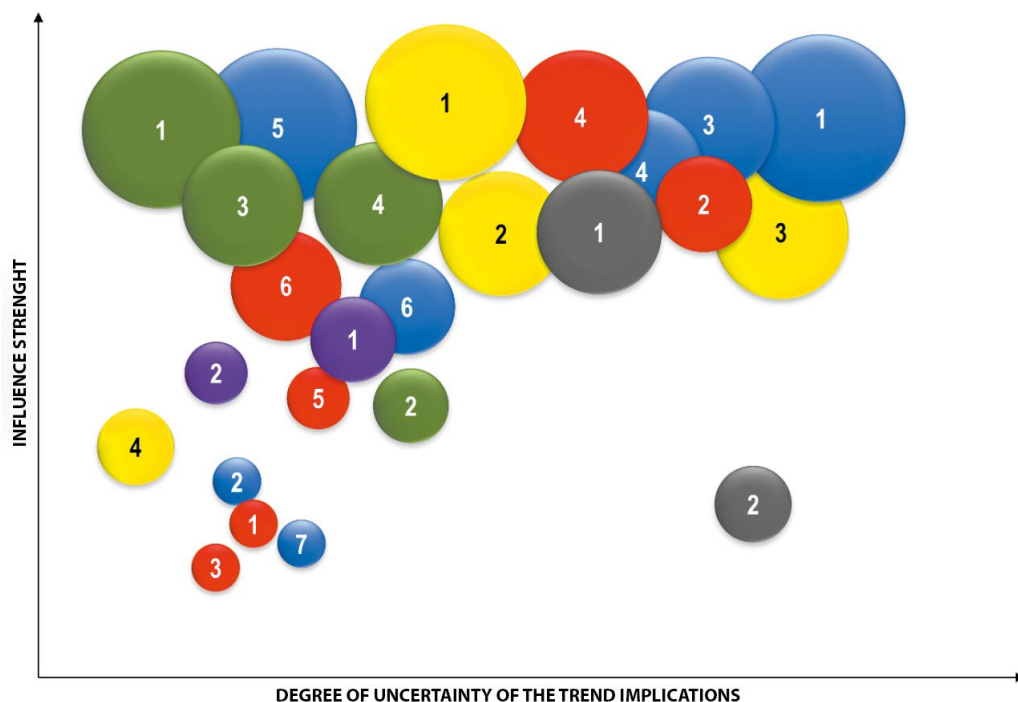
Table 1.
Seminars and research conferences taking into account the impact of the COVID-19 pandemic on the security environment, conducted as part of the NUP 2X35 campaign

Topic of the conference/ seminar	Format	Date
The COVID-19 pandemic and the security environment: the economic dimension	webinar	16 April, 2020
Global and regional gameplay of the COVID-19 pandemic	webinar	28 April, 2020
COVID-19 and the security environment: the social dimension	webinar	14 May, 2020
Innovative technologies and the future of post-pandemic society	webinar	4 June, 2020
Impact of the COVID-19 pandemic on the security environment and military operations	webinar	24 June, 2020
Principles of war and operational art in the context of the future security environment: Central and East European perspective	research conference (GlobState III)	16-20 November, 2020
The world after the COVID-19 pandemic: the geopolitical dimension	webinar	17 February, 2021
The world after the COVID-19 pandemic in terms of economics and natural resources	webinar	18 March, 2021
The world after the COVID-19 pandemic in the social and urbanization dimension	webinar	14 April, 2021
The world after the COVID-19 pandemic: the area of new technologies and the natural environment	webinar	12 May, 2021
Escalation of fear and rising tension	webinar	21 May, 2021
You have to play to win: Poland in the age of superpowers competition	scientific seminar	27 October, 2021
Security environment in the (post) pandemic world and its implications for the conduct of military operations	research conference (GlobState IV)	30 November – 2 December, 2021

Source: DTC's own study

The results of this effort include publications presenting the results of research findings and expert debate (Jureńczyk et al., 2020; Mokrzycki et al., 2021; Lis & Reczkowski, 2022a; Lis & Reczkowski, 2022b). The knowledge, opinions and views presented by members of the NUP 2X35 community during the above-mentioned seminars and research conferences allowed for the specification of the content of six thematic reports summarizing the current cycle of the campaign. The starting point for the debates and discussions were the trends in the security environment described in the first NUP 2X35 report entitled *Security Environment out to 2035 – NUP 2X35: The Polish Perspective*, published in 2020 (Mokrzycki et al., 2020). In the period February–May 2021, during the seminars and research conferences listed in Table 1, our experts were asked about the impact of the COVID-19 pandemic on the change (strengthening or weakening) of the trends identified in the first cycle of the NUP 2X35 campaign. The summary results of the survey conducted among the NUP 2X35 experts are presented graphically in Fig. 1.

The analysis of the results of the survey shows that in the opinion of the respondents, phenomena related primarily to the creation of a new international order combined with the further deepening of the polarization of societies and the continuation of the process of shifting the economic center of gravity from the transatlantic area in the Indo-Pacific region will dominate in politics and geopolitics. In economics and with regard to natural resources, respondents believe that COVID-19 will further increase economic inequalities in the world, and the role of natural resources (in particular, energy resources and rare earth metals) in the geopolitical game of countries will increase. On the other hand, demographic changes (in particular regarding the aging of societies in developed countries) and population migrations are key trends with regard to society, the implications of which will resonate with other dimensions of the security environment under consideration. As regards technology, the respondents unanimously admitted that COVID-19 has significantly accelerated and in the coming years will accelerate the dissemination of modern technologies both among society and countries, as a consequence of which their level of technological advancement will also increase. The development of modern technologies will also influence the further intensive development of e.g. the Smart City concept, one of the key trends in urbanization. In regard to the natural environment, phenomena related to climate change will continue to dominate, the effects of which, in the opinion of respondents, are likely to further limit access to food and drinking water in poor countries, which in turn may contribute to increasing the level of intensity of other adverse phenomena in the security environment, including, in particular, an increase in the likelihood of an armed conflict or migration.

Fig. 1. Graphical presentation of the results of surveys on the impact of the COVID-19 pandemic on the strengthening or weakening of the identified trends in the security environment as part of the NUP 2X35 campaign conducted by DTC in February-May 2021 [N=227 experts]
Source: DTC's own study

The impact of the Russian-Ukrainian war on the security environment

The world had not yet fully recovered from the COVID-19 pandemic, when on February 24, 2022, the security environment was hit by another shock, which, like the pandemic, affects and will probably affect the dynamics of processes in the security environment for at least a few more years. The Russian aggression of Ukraine, on a scale unprecedented in Europe since World War II, is a gross violation of international law (among others, a violation of the United Nations Charter and the principles of the Organization for Security and Cooperation in Europe – OSCE) and threatens the security and stability of entire Europe, both in the short and long term. Significantly, since Poland's accession to the European Union in 2004, Poland has warned not only Europe but also the world of the growing threat of a resurgent and revisionist Russia (Francis, 2023). However, the world, preoccupied with socio-economic challenges, and in recent years, additionally with the fight against the pandemic, did not allow itself to think about the possible outbreak of this conflict, usually counting on the effectiveness of soft power methods and tools. However, it did not happen, which means that the multidimensional turbulence in the world caused by the pandemic will probably deepen even more until at least 2030–2040, and the effects of the war in Ukraine will further catalyze it.

The ongoing war stimulates the discussion of experts and observers on its possible impact on the identified trends and phenomena in the security environment in the political, geopolitical, economic, and social dimensions, as well as with regard to urbanization, technology, and even natural environment in the perspective of at least the next 5–10 years. Importantly, as the NUP 2X35 experts indicate, they do not necessarily depend on the outcome of this conflict, because when looking at the security environment holistically, the conflict in question is only one of many variables interpenetrating in individual segments of this environment, and which have significant impact on the overall forecasted trends and phenomena.

In the opinion of the NUP 2X35 experts, the effects of the war in Ukraine cannot be underestimated, especially since its escalation cannot be ruled out, and this would directly translate into the political, geopolitical, economic, and social dimensions. This issue was raised by Polish President Andrzej Duda during a speech at the 77th session of the UN General Assembly in September 2022, who emphasized that

> (…)*This is not a regional conflict: it is a stoke of global fire, this war will bear on our countries and yours. Unless it has already happened* (United Nations, 2022).

Moreover, the acceleration of the negative trends and phenomena in the international security environment caused by the war and identified so far reduces the chance for the realization of a harmonious vision of the world presented by many idealists in favor of a world based on an intensifying confrontation and tough competition of interests. Therefore, in line with the theses of many geopoliticians, including Jose Miguel Alonso-Trabanco – an expert from the Geopolitical Monitor Intelligence Corporation, it should be clearly stated that in the political and geopolitical dimension, the war in Ukraine is not a peripheral event. In fact, this war is an element of the contemporary rivalry between superpowers, in this case for the very core of the Eurasian heartland – Ukraine, i.e. the key area whose control is necessary for domination over part of the world, which has not happened on such a large scale since World War II. For the Ukrainians, it is an existential struggle to be part of the Western world (a free, democratic world), and not part of the 'Ruthenian mir' based on the dictates of Russia. In turn, for the Russians, it is a brutal struggle for a place and a role in the changing international system, because – as Zbigniew Brzeziński wrote in *The Great Chessboard* – without Ukraine, Russia will never be a Eurasian empire (Brzeziński, 1997, p. 46). Therefore, from the perspective of Russian geopolitics, success in the confrontation with Ukraine could restore Russia's role as a major power to be reckoned with in the international arena and reverse the failures that Moscow suffered after the collapse of the Soviet Union, a collapse considered by Vladimir Putin as the greatest geopolitical catastrophe of the 20th century due to Russia's loss of so-called strategic depth. It is also important that for many countries of the Western world, such as the US, the UK, or Poland, this crisis is primarily a moral and international legal test of openness to the aspirations of the Ukrainian people, which also offers a kind of opportunity to strategically weaken Russia and – what is important – without the need to conduct direct combat. Moreover, it is an excellent opportunity to directly strengthen not only the cohesion of Western international political and military structures (EU, NATO), but also indirectly the operational capabilities of NATO and its members. In the above sense, the weakening of Russia as a superpower could be the first step in, for example, the US creating a collective effort or an alliance designed to compete with China identified by the US as its main strategic rival in the perspective of at least 20-30 years. Moreover, in the opinion of many observers of the geopolitical scene, Russia's failures in Ukraine would make China more reticent about a possible decision to annex Taiwan by force, and would undermine China's ambitious plans to strengthen its position both as a pillar of the Eurasian geoeconomic axis and as a superpower, which will peacefully (i.e. non-militarily) take over global leadership from the US. On the other hand, for continental European powers such as France or Germany, the war in Ukraine is a breakthrough, one can even say an awakening and a reminder that both strategic neglect (e.g. in maintaining and improving existing military capabilities and acquiring new ones) and

the illusion of eternal peace are simple recipes for geopolitical catastrophe (Alonso-Trabanco, 2022). What is more, throughout his rule, Putin has demonstrated the ability to win over French and German politicians and businessmen with various types of trade deals, involvement in energy projects (e.g. Nord Stream), and other incentives. Therefore, it is no coincidence that Putin chose Germany and France in 2014 to participate in the Normandy format talks in order to end the war started by Russia in eastern Ukraine. This approach, in the opinion of many experts, led to the failure of the Minsk agreements and actually prepared the ground for a full-scale invasion of Ukraine in 2022 (Francis, 2023).

In view of the above, as international observers and NUP 2X35 experts emphasize, the war in Ukraine created a kind of geopolitical vacuum resulting from the weakening of the traditionally dominant powers in European foreign policy, i.e. Germany and France. As a result (from the point of view of geopolitics) we have observed acceleration of the process of changing the balance of power in Europe, the center of which is moving away from the so-called old Europe, led by Germany and France, which strives for a 'reset' and establishing relations with Russia. The process shifts the center further to the east and north (to Poland and the Baltic states), where memories of the Soviet occupation, coupled with reluctance to give back part of the regained sovereignty to Brussels, are still alive (Erlanger, 2023; Francis, 2023; Morning Joe, 2023). Time will tell whether Paris and Berlin will rediscover the intellectual tradition of the art of governance inspired by *raison d'État* and the so-called *Realpolitik*, which they have cultivated for centuries, or lose their strategic position in the context of the changing international order. For all other states (especially regional powers), the war in Ukraine generates a large number of dilemmas, challenges, threats, and opportunities. Therefore, states that are trying to strengthen their strategic position ('emerging powers'), such as Turkey, India, Iran, Israel, or even Brazil, are aware that the Russian-Ukrainian war may have implications for their own contextual environments and national interests. In the meantime, they can wait impassively until a clear outcome of this clash is achieved, securing their interests or taking sides (Alonso-Trabanco, 2022).

Unfortunately, it is currently difficult to predict how long this conflict will last and how quickly the security environment will be able to return to an acceptable level of stability, especially in Central and Eastern Europe and Eurasia.

Political and geopolitical implications of the war in Ukraine in the analyses of the NUP 2X35 campaign

In the opinion of experts, the COVID-19 pandemic and the ongoing war in Ukraine undoubtedly accelerate and deepen the negative trends in the international security environment. For this reason, as part of the NUP 2X35 security environment analysis campaign, Doctrine and Training Centre of the Polish Armed Forces has undertaken a number of activities aimed at determining the fundamental implications for the security environment of Poland and the region resulting from the conflict in Ukraine[11]. As part of these projects, discussions were held on the potential implications for the security environment in the area of politics, geopolitics, energy, urbanization, and socio-economic factors, as well as implications for the functioning of the Polish Armed Forces and the conduct of future military operations. It should also be mentioned that DTC conducts a number of analyses concerning the military area, excluded from public debate and dedicated exclusively to the information needs of the Polish Armed Forces.

On the basis of the debates conducted so far, it can be generally stated that along with Russia's military aggression against Ukraine, the security system in the world has undergone dynamic changes and its existing architecture has been reoriented. Russia's aggressive actions have left a deep mark on many aspects of the security environment, not only in the military sphere, but also with regard to economy, energy or society. Moreover, the conflict in Ukraine has become an unprecedented event in recent

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[11] Only in 2022, as part of the NUP 2X35 campaign, in cooperation with the academic community and its regular partners, DTC organized five research projects (four scientific seminars and one international research conference), and in January and February 2023 two more seminars. Already on January 19, 2022, in the face of the impending conflict in Ukraine, DTC in cooperation with Adam Mickiewicz University in Poznań organized a scientific seminar entitled *The energy sector in the age of superpowers competition*. Then, just a week after the start of the Russian aggression against Ukraine, in cooperation with Nicolaus Copernicus University in Toruń, on March 3, 2022, DTC conducted a seminar entitled *Spatial development of cities in the context of future military operations*. Another seminar was organized on September 14, 2022 in cooperation with the Kazimierz Wielki University in Bydgoszcz, where the political and geopolitical consequences of the war in Ukraine were discussed, and on October 25, 2022, in cooperation with the Rzeszów University of Technology, a discussion entitled *Socio-economic consequences of the war in Ukraine* was conducted. The year 2022 ended with an international debate under the annual research conference GlobState, held on November 28-30, 2022, during which the theme of Russian aggression against Ukraine was present in every aspect of the talks. On January 19, 2023, a scientific seminar entitled *Social effects of the Russian invasion of Ukraine* was held, organized jointly by DTC, the University of Wrocław, and the Military University of Land Forces. The debates and analyses were summarized in a seminar conducted by the NUP 2X35 community at the Central Military Library in Warsaw, on the first anniversary of the aggression of the Russian Federation against Ukraine on February 24, 2023 [authors' note].

European history, with global implications. As pointed out by General Rajmund T. Andrzejczak – Chief of the General Staff of the Polish Armed Forces, during the annual international research conference GlobState organized by DTC, the diametrical change in the state of security in our immediate vicinity obliges the military and academic communities in Poland and in other countries of the region to identify sources of potential threats. Subsequently, together with the historical context, they should be the starting point for developing new military strategies (Andrzejczak, 2022).

Observers of the international scene also note that the armed conflict in Ukraine has opened a completely new stage in Russia's internal and foreign situation. Russia's political system is evolving towards a totalitarian system, social attitudes are becoming radicalized as a result of the increasing total influence of the authorities on the society, nationalist and imperialist tendencies are intensifying, the demographic crisis is deepened by losses of Russian troops at the front and citizens fleeing the country to evade conscription, and the economy focused on the export of raw materials loses many traditional partners. Russia's international political position has been significantly weakened. Moreover, voices are being raised that the Russian nuclear intimidation tactics, on which the Russian political leadership counted, have ceased to work (Trenin et al., 2023). In this regard, it has recently been noticed that Russia has sharpened its rhetoric regarding nuclear weapons in the propaganda and political dimension, e.g. by officially suspending its participation in the New START treaty[12]. Russia's emphasis on its nuclear potential, including the exercises of its strategic nuclear forces, may be interpreted as a sign of Moscow's potential preparations to unleash a nuclear war. However, Russia's threats about possible consequences if the West continues to support Ukraine did not prevent NATO countries from arming and training the Ukrainian army, as well as providing intelligence and extensive financial, economic and technical assistance to Kiev (Krzemiński, 2023).

When evaluating the effects of the war in Ukraine, it is extremely important for Poland's security environment that the gap in European leadership in the geopolitical aspect has also contributed to a change in the focus of NATO's interest in our continent, which has been shifted to the countries of Central and Eastern Europe, especially to the Baltic Sea region. In this context, many experts and observers emphasize the decisions of Sweden and Finland to join the Alliance[13], which are particularly important for

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[12] *New Strategic Arms Reduction Treaty* – a bilateral international treaty between the US and the Russian Federation on measures to further reduce and limit strategic arms, signed on April 8, 2010, in Prague [authors' note].

[13] At the Madrid summit, the leaders of the member states invited Sweden and Finland to join NATO. On April 4, 2023, Finland became the 31st member state of the Alliance. At the time of writing this report, Sweden's accession procedures are still ongoing. The accession of these countries will expand the zone of security and cooperation in Europe, and thus significantly strengthen the Euro-Atlantic community in the face of a threat from Russia [authors' note].

the security of NATO's eastern flank. In their opinion, this definitely changes the balance of power in the Baltic region and results in the devaluation of the Cold War approach to security in Europe. This may probably result in an increase in the role of Poland and other Central and Eastern European countries in the allied deterrence and defense system. Therefore, it is estimated that the Polish Armed Forces will also have to redefine their role and involvement in the rapidly changing geopolitical conditions, taking into account, in particular, the conclusions that can already be drawn from the ongoing war in Ukraine, as well as the final resolution of this conflict (considering both the variant of Russia's defeat or victory, as well as intermediate solutions).

It is also worth noting the opinions relating to both the political and military dimensions of the conflict in Ukraine. As Jacek Raubo notes, two selected threads from the conclusions of The Royal United Services Institute (RUSI) report published on November 30, 2022 (Zabrodski et al., 2022) can be quoted as a preliminary conclusion. First of all, the report pointed out that in the first days of the war, Ukraine's success in defending its statehood did not lie in its technological capabilities, but in speed and ability to adapt to its needs, especially at the tactical level. Hence the recommendation that one should focus not only on technological advantages, but also on the ability to integrate the capabilities that are possible to be mobilized at a given moment into a single whole. Secondly, bearing in mind the current experience from Ukraine, one can of course ask oneself whether this armed conflict proves the effectiveness or archaic nature of the ways of fighting and various weapon systems. From the current point of view, the most important is the discussion on how to combine modern and older systems into a single whole, how they can complement each other and increase the capabilities of the armed forces. Therefore, during the modernization of the armed forces, it should be examined how old and new systems can create synergistic effects and influence the development of defense capabilities. Moreover, modernization should not be treated as a process of deciding what military equipment should be acquired and introduced to the armed forces, and what equipment should be withdrawn, but as more difficult but more responsible convergence of the resources that are available and that will be available in the near future (Raubo, 2023).

SECURITY ENVIRONMENT IN THE POLITICAL AND GEOPOLITICAL DIMENSIONS

> *Diseases do not pause geopolitical competition but shape it.*
> Roderick Kefferpütz

The post-pandemic security environment in the political and geopolitical aspects out to 2040, as already emphasized in the introduction, will continue to be characterized by increasing volatility and uncertainty. The above thesis can be confirmed by statements regarding the impact of the COVID-19 pandemic on the shape of both the global and regional security environment and references to the consequences of Russia's armed aggression against Ukraine. In the context of the first of the above-mentioned factors, many researchers of international relations in the political and geopolitical aspects perceive the SARS-CoV-2 virus (which caused the COVID-19 pandemic) as a kind of marker, game-changer, or political catalyst. However, regardless of the whole dispute about its biological nature or social perception, it can be said with certainty that COVID-19 has influenced many phenomena and trends (see table 2), which are mostly related to changes in the world order (Radziejewski, 2021), and the war in Ukraine is one of many outcomes of these transformations.

Research and analyses carried out as part of the NUP 2X35 campaign indicate that we are currently dealing with: (1) reconstruction of the international order – probably towards a multipolar and polycentric world, but with two poles dominating under the leadership of the US on one side and China on the other; (2) the world is in an era of rivalry in which there is no longer a single state (global leader) with a dominant strategic position over other states, and (3) the Indo-Pacific area is becoming the economic center of the world and probably the main arena of the competition for global dominance between the US and China. The above is indicated not only by the findings of the NUP 2X35 campaign but also by the results of analyses conducted as part of allied programs, e.g. *NATO Strategic Foresight Analysis* (SFA) and *NATO Warfighting Capstone Concept* (NWCC), as well as security environment analysis reports prepared by in the world of think-tanks or government agencies[14].

An example of the above are, in a way, theses put forward by Bartłomiej Radziejewski, who somehow confirms this state of affairs, but at the same time asks the question: is what is currently happening only a change of pace or also a qualitative difference? In other words: without the pandemic, would the effects be only slower spread over time or would they be completely different? (Radziejewski, 2021). It also seems that the answer to the above questions can be found in many existing analyses of the security environment e.g. *NATO Strategic Foresight Analysis 2017 Report* (NATO Allied

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[14] E.g. the publication of the American National Intelligence Council (2021) entitled *Global Trends 2040: A More Contested World* from March 2021 [authors' note].

Command Transformation, 2017), *Global Strategic Trends – The Future Starts Today* (The Ministry of Defense UK, 2018) or *Security Environment out to 2035 – NUP 2X35: The Polish Perspective* (Mokrzycki et al., 2020)), which clearly indicate that the processes related to the reconstruction of international relations were already underway before the pandemic, and as a consequence, it can be assumed that COVID-19 and the Russian armed aggression in Ukraine only catalyze these changes. It seems significant, however, that this reconstruction is heading towards a new international (dis)order that is difficult to define unambiguously – the post-Westphalian order, in which the concentration of global power may alternatively be spread over two, three or more actors (Reczkowski & Lis, 2021). In other words, one should be aware that, as Roderick Kefferpütz observed:

> The sun is setting on the old geopolitical order: welcome to the age of world disorder (Kefferpütz, 2020).

Table 2.
Impact of the COVID-19 factor on trends identified in the area of politics and geopolitics before the pandemic (in black) and new trends identified after the pandemic (in blue)

Factors	Development forecast
Polycentricity, multipolarity of the world/**multipolarity and polycentricity of the world dominated by two opposing blocs of states – one under the global leadership of the US, and the other under the leadership of China and Russia**	↑
Globalization	→
Shifting the center of gravity of global economic activity from the West to Asia and the Southern Hemisphere/**strengthening the comparative global strategic position of the Indo-Pacific area at the expense of the Euro-Atlantic area**	↑
Increased importance of non-state actors	↑
Social (political) polarization	↑
Challenges in state management	↑
Identity and role of the state	↓
Competition between states over international rules and norms	↑
Creating competing geopolitical and economic blocs of influence and values	↑
Legend: ↑ increasing trend → stable trend ↓ decreasing trend	

Source: own study based on surveys and materials from a scientific seminar conducted on October 27, 2021 (Centrum Doktryn i Szkolenia Sił Zbrojnych, 2021b)

Experts participating in the NUP 2X35 campaign predict that in the coming decade, and probably also out to 2040, three megatrends will be of particular importance for Poland and the changing international order in the political and geopolitical dimension:

- intensification of competition for influence between actors with different systems of values, norms, and political and economic solutions, including states (among which the trio of superpowers: US-China-Russia and India balancing between them will be in the foreground), as well as non-state actors;
- further, though temporarily slowed down by consolidation around the war in Ukraine, weakening of the comparative strategic position of the West as a result of shifting the geopolitical and economic center of gravity from the transatlantic area to the Indo-Pacific area;
- creating new or reconfiguring existing competing geopolitical, economic and military blocs of influence and values.

Fig. 2. The place of Poland and the actors of international relations participating in the global rivalry of superpowers, with the identification of the main areas of the rivalry
Source: DTC's own study

The megatrends identified above, together with all the consequences of the Russian military aggression in Ukraine, both for the security of Poland and other actors of international relations, will create completely new conditions for functioning. Therefore, in the opinion of the NUP 2X35 experts, out to 2040, changes in the security environment will probably:

a) **more and more expose global power vacuum**. The 'new' world will probably consist of several regional economic blocs, which will also become political blocs (perhaps also politico-military ones). The element driving the emergence of blocs will be the lesson learned from the COVID-19 pandemic, i.e. the feeling that even large nation-states – including the US – are too weak to be the only point of reference. In addition, the pandemic has made governments realize that important economic processes cannot be located in one country (e.g. in China). Globalization will change its nature and focus on tightening cooperation within economic blocs organized by their dominant powers. Economic dependencies will continue to be global, but to a greater extent within groups of countries with similar political and socio-economic solutions;

b) **create the conditions for Russia's further aggressive action, despite its likely strategic defeat in the war with Ukraine**. In the opinion of the NUP 2X35 experts, Russia will remain the greatest source of threats not only to Poland, but to our entire region until at least 2040. This is confirmed by the current assertive and aggressive actions of Russia (Reczkowski, 2022; Reczkowski & Lis, 2022; Bryc, 2016; Bryc, 2009), which are part of its global superpower policy (with a tendency to regain its former spheres of influence) based on the use of not only smart power (Budzisz, 2021a, p. 35), but also hard power tools. An important manifestation of Russia's superpower activities are also e.g. its relations with NATO, which over the last 20 years have moved from the status of cooperation to the status of direct confrontation (Reczkowski 2022; Reczkowski, 2020b; Piechowiak-Lamparska, 2019). At the same time, it is estimated that a direct military threat to Poland from Russia in the context of the military and humanitarian assistance provided to Ukraine, which is fighting Russia, is much more likely today than a few years ago and in the situation of constantly maintained tension in the close vicinity (Belarus, Caucasus, perhaps the Balkans or the Baltic Sea) will be a permanent challenge for Poland's defense in the coming years (Polcikiewicz, 2019b). Therefore, Russia must not be underestimated, as it is still a country of more than 140 million people, a nuclear power with rich deposits of raw materials not only for energy purposes but also those essential for the development of modern technologies (rare earth metals). Moreover, after a temporary economic and military weakening, Russia will not give up its superpower ambitions and will

probably continue to focus on maintaining strategic control in its sphere of influence[15]. It will also seek to maximize its influence while minimizing the influence of the US, Central and Eastern Europe, the Middle East, and Africa;

c) **result in a shift of the center of gravity of power**, mainly economic and technological, towards Southeast Asia;

d) **generate uncertainty and tension between the US and China**. The United States will take steps to maintain the dominance of the bloc under its leadership (the so-called Western bloc – guided by the principles of democracy and freedom) over other political, economic and military blocs, including primarily the bloc created e.g. by China and Russia (the so-called authoritarian bloc). In this regard, China is likely to take the position that it has a legitimate claim to the position of global co-leader, and that no country can dominate over others, in this case over China. Therefore, they will probably look for coalitions of the willing (e.g. Iran or Asian and African countries favoring China) to challenge the American *status quo*;

e) **create problems in terms of maintaining political stability** through the growing anti-establishment trends and populist tendencies of political elites, resulting from the perceived social stratification and inequalities, but also from demanding attitudes and underestimating the achievements of the societies/ states of the transatlantic area in the past decades;

f) **generate threats to economic stability**, mainly in relation to:
   – finance through: increased debt, limited possibilities of state supervision over the financial system in a globalized world of supranational institutions and financial flows, instability of the banking system, creativity in constructing complex financial instruments or speculative bubbles;
   – energy resources as a key factor in the development and security of the state through: growing demand, security of access to sources and supplies, use of energy resources in the political and geopolitical game, safe exploitation in relation to the natural environment;
   – access to drinking water and food;

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[15] Russia wants to be part of the new concert of powers at all costs, to become one of the empires that has as much to say as China and the US, despite the lack of real economic power, the lack of modern technologies, the lack of soft power and all that in the modern world determines the strength of the state. Importantly, the key element that will determine Russia's strength in the long term will be the independence of the Central Asian states, i.e. Kazakhstan, Tajikistan, and Uzbekistan, from Russia. If these countries are able to build their own potential and become fully independent of Moscow, Russia's strategic position may be reduced to a status similar to that of the historical Duchy of Moscow (Kuraszkiewicz, as quoted in: Sroczyński, 2022).

g) **require strengthening the role and importance of global international organizations** – as a consequence of the increase in threats, the rivalry of superpowers and national particularisms[16];

h) **generate population migrations** (including uncontrolled migrations) on an unprecedented scale, which may threaten the stability of Poland, the EU, or European countries that are not EU members;

i) **enable the proliferation of weapons of mass destruction (WMD) or missile technologies** by non-state actors (Centrum Doktryn i Szkolenia Sił Zbrojnych, 2020, 2021a).

Moreover, in the opinion of the NUP 2X35 experts, the new international (dis) order will also require the creation of a new architecture of the global security system, including the new role of NATO[17] but while maintaining the 360 degrees principle (i.e. maintaining the Alliance's readiness to act decisively in all directions and respond to various types of challenges), which will allow the international community to cope with qualitatively new challenges and threats.

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[16] Experts and observers of international relations do not rule out that over the next years/decades, the management systems of international organizations will evolve towards decision-making by majority vote or some form of qualified majority without the right of veto [authors' note].

[17] It is estimated that for the first time in seven decades, NATO must deter and defend against both internal and external threats. According to Dr. Jamie Shea of the University of Exter, for most of the past decades, the Alliance was in a relatively luxurious position, having to deal with one challenge at one place and time, for example during the 50th anniversary (1999) NATO's actions focused on the military operation in Kosovo, and the 60th anniversary (2009) was dominated by discussions about the abrupt increase in the number of troops in Afghanistan. Now, over 70 years old, NATO has to deal with not one but three strategic fronts, which are not only geographically diverse but also present different types of threats and require different responses (Shea, 2019). For example, on NATO's eastern flank, aggressive Russia, by launching a military operation against Ukraine, has raised the alarm not only in the eastern member states of the Alliance, but above all, through the new strategic concept announced in Madrid, NATO - after a break of almost 30 years - returned to its original roots, i.e. deterrence, defense and capacity building necessary to defeat an equal adversary with modernized armed forces, extensive warfare experience, and technologically advanced weaponry. In turn, on NATO's southern flank, extremism, the activities of militias and criminal organizations permanently generate a whole range of threats to security, from terrorist attacks to humanitarian crises and uncontrolled migrations. Added to this is the increasing polarization of many Western societies, and widespread technologies have given malevolent actors a new hybrid toolkit to wreak havoc or exert influence. In addition, according to many security experts, one of the most important problems for NATO today is also strategic overload. Others include poorly resolved internal crises (e.g. Turkey's superpower policy and the aggravation of its relations with Greece). This also includes the fact that, despite the increase in the number of threats, there is further resistance (and the crisis caused by the COVID-19 pandemic only makes it worse) of some Member States to spend 2% of GDP on defense (Polcikiewicz, 2019a), as well as the limited capability to repel provocations below the threshold of triggering Art. 5 of the North Atlantic Treaty, which, according to many security experts, could potentially embolden opponents to even make territorial demands [authors' note].

KEY STATE ACTORS

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The United States

The pandemic has become a primarily political challenge for the US, as the crisis emerged in the election year and overlapped with its already strongly dynamized, in terms of ideology, political scene. Importantly, in the context of the war in Ukraine, US leadership once again proved indispensable and crucial in the effective mobilization of international efforts, especially in coordinating political and military support for Ukraine fighting the Russian invader. It seems that the ability of the US to adjust its goals to the challenges will be of great importance for moderating the ongoing processes. In this perspective, it is worth paying attention to the new US planning and strategic documents (in particular regarding strategic goals), which became the foundation for correcting Washington's international activity in the post-pandemic period. In March 2021, Washington published a document entitled Interim *National Security Strategic Guidance* to define the assumptions of American foreign policy until the announcement of the new *National Security Strategy*[18], i.e. until October 12, 2022 – that is the official presentation of the provisions of this document. Already in the interim guidelines, China was indicated as the only rival of the United States, because this country, unlike Russia, has economic, diplomatic, military, and technological power that can destabilize the global order. Russia, on the other hand, lacks such capabilities, but has the political will to play the role of a world superpower. Moreover, Russia only has the ability to destabilize the world, while China has the ability to oppose the power of the United States (The White House, 2021, pp. 94-95). The document also argued that the leadership of the United States in NATO would be confirmed by maintaining military presence in Europe, but also by mobilizing the allies to contribute more to the policy of deterrence and defense. The guidelines also indicated that an important element of the Alliance's transformation will be new strategic documents taking into account

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[18] In March 2021, US National Intelligence Council published an intelligence report entitled *Global Trends 2040* (National Intelligence Council, 2021) containing an analysis of the main demographic, political and strategic trends affecting the world out to 2040. According to the announcements of US representatives, the report was used for the preparation of the new *Security Strategy, Defense Strategy* and will also be used to prepare doctrinal documents for the US Armed Forces. The document was prepared by experts from 16 US intelligence agencies and is the result of a four-year analytical cycle – it is complementary and multidimensional. It indicates that the main rival of the United States will be China, which aims to build a broad coalition of states based on the Chinese normative and institutional system. In addition, the document warns against the likelihood of using nuclear weapons in crises caused by Russia and China. The changing global security environment will limit the effectiveness of the deterrence strategy and create a propensity for surprise strikes from Russia and China. The report, however, puts more emphasis on the threat from China. The United States will seek to strengthen NATO by updating its strategy and strengthening its partnership with the European Union and major countries on the European continent. In the opinion of the authors of the report, it is aimed at containing long-term threats from China and Russia [authors' note].

threats from Russia and China. The US's alliances with NATO, as well as with Australia, Japan, South Korea and the UK will be adapted to new threats. The new strategic approach uses the liberal paradigm, bases the international order on the strengthening of democracy, the postulate of defending the rights of women, religious minorities, and sexual minorities (LGBTQI+), and support for international organizations (UN). These instruments make up the repeated slogan heralding a new approach: 'America is back'. The instruments used by the administration of President Joe Biden resemble those from the early 1990s, used during the President Bill Clinton administration. With a certain difference – the current list of human rights has been redefined and expanded to include, among others, moral and ideological issues (The White House, 2021).

The new *US National Security Strategy* of October 12, 2022, only confirms the earlier assumptions, and as noted by Marcin A. Piotrowski from the Polish Institute of International Affairs in the context of the security of Poland and NATO's eastern flank:

> *[...] the Biden administration will continue its unprecedented support for Ukraine until a 'strategic failure' of Russia, which can be understood in many ways, such as the loss of its offensive capabilities. Moreover, the document also signals that US allies and partners in Asia should get involved in helping Ukraine - Australia and Japan are good examples so far, and India is still a negative example. At the same time, the US indicates that the involvement of European allies in the Indo-Pacific can strengthen American security interests. This should be taken as a signal that strengthening security in this region may be the basis for developing strategic relations with the US. There are also clear suggestions for NATO allies to increase defense spending and investments in conventional military capabilities, which is very neglected in many countries. Although the Biden administration does not raise this publicly, it is worth noting that the current contribution of some Western European allies to the deterrence and defense of the eastern flank is still disproportionate to the presence of US forces in the region. However, the document does not mention Poland, given the accelerated modernization of its armed forces, it has a good position in the Alliance and in the context of bilateral military cooperation with the US. Thus, the document confirms the goals of American policy in Europe, which are convergent with the interests of Poland. Important for the development of bilateral defense cooperation with the US and NATO's collective defense policy may be the fragment of the document on 'integrated deterrence', which assumes the coordinated use of all instruments of the state and the armed forces, which is the basic assumption of the new US National Defense Strategy.*
>
> (Piotrowski, 2022).

Taking into account the above context, it is estimated that the US, at least until 2030 (and perhaps even beyond), will not only strive to effectively maintain a dominant global strategic position, which is associated with costs, but above all, try to achieve acceptable cohesion within its own society. This does not mean, however, that the directions of transformation of the current international order and the role of the United States in it are completely predetermined (Podraza, 2020). When adopting a strategy for the development of relations with the US, three possible variants of the development of the global order should be taken into account. In the first scenario, in the absence of a clear challenge to the US position, there will be a general return to a unipolar international order dominated by the US as the sole superpower. In the second one, we cannot rule out the emergence of a cooperative multipolar order under which common challenges and threats, such as global warming or combating potential pandemics, will require cooperation between states and international organizations in various global governance systems. Growing tensions, struggle for economic primacy, and mental and ideological differences may favor the emergence of a new era of relations, creating the already familiar spirit of the Cold War confrontation of ideological blocs. The relative peace in the so-called Cold War was ensured by equal potential in nuclear weapons and fear of their use. Today, the problem is technological advantage which will decide about peace or confrontation (Pawlak, 2022b). However, the current situation also points to a third scenario where there is a high probability of a return to the so-called Cold War period, in which both regional conflicts (e.g. the current one in Ukraine) and actions by revisionist superpowers, primarily China, but also Russia, will be instruments of contemporary rivalry between states. Henry Kissinger warns against the consequences of the rivalry between the United States and China and believes that victory in a situation of such significant technological development of both superpowers is not possible without the risk of destroying humanity (Bagshaw, 2021). Currently, such a scenario is also likely, which may be disturbing from the point of view of the stability of the international system. As Richard N. Haass emphasizes, nationalist tendencies are visible in the foreign policy of the United States, very clearly in Donald Trump's 'America First' slogan, slightly less visible in Joe Biden's approach, but manifested in the concept of 'foreign policy for the middle class' (Haass, 2021). The American belief that the nation is the highest value and the most important form of socialization, which results in a specific political, economic and social attitude, leads in a way to the formation of a new realism and ultimately may result in a re-evaluation of the prevailing since World War II strategy of the US which, as Haass emphasizes, wants to reap the benefits of international order while limiting and sharing the costs associated with building and maintaining it. Such a scenario would be quite disturbing from the point of view of the security of the Euro-Atlantic area, including Poland.

With regard to geopolitical challenges, in the case of the US, there is already a certain consensus, not shaken by the pandemic, and strengthened by the US involvement in supporting Ukraine's war effort. The binder is the priority perception of the role and importance of the rivalry with the People's Republic of China (PRC) for the functioning of the state in the international environment (Jureńczyk, 2017). The current administration is making increased efforts to build confidence among foreign partners. This applies both to transatlantic relations and relations in the Indo-Pacific area. It should also be emphasized that the US authorities are aware that the previous wars (Afghanistan and Iraq) and internal problems (social, financial, technological, and infrastructural), as well as the weakening of the US ideological significance in relation to other countries and entire regions, have led to a partial erosion of a superpower position. At that time, there was an unprecedented increase in the economic and military potential of China, and to a lesser extent also of other emerging powers, which has changed the global balance of power. Therefore, in a situation where the US importance has declined, it becomes crucial to increase conciliation capabilities and maintain alliances. A derivative of this is the emphasis on military rapprochement with Australia (e.g. AUKUS[19]), Japan, NATO states, etc. In this respect, the very large involvement of the US in political and military support for Ukraine, which is a major part of the American plan to weaken strategic Russia, and thus create the conditions to focus its attention on strategic rivalry with the PRC, seems to be of importance. At the same time, the above should also be seen as a certain weakness of Washington, which will be exploited by rivals of the American global position. Maintaining alliances and coalitions depends on their verifiability in times of crisis. Hence, other countries may be inclined to escalate to test, in a negative sense, the US and its defense capabilities towards its partners. Such a test was carried out after the outbreak of the war in Ukraine, when, fortunately, it turned out that the strategic cohesion of the West under the leadership of the US is much stronger than assumed by Russia and China. It is important that the phase of open Russian-Ukrainian war in the geopolitical area stopped the trend of the United States slowly leaving its role as the main player in the area of security in Europe. At this point, it is necessary to strongly emphasize the position of the United Kingdom, which contributed to the increasing involvement of Americans in the Ukrainian conflict. The UK was the initiator of deliveries of defensive armament, especially anti-tank armament. Moreover, the strong political and military reaction of the US to the Russian aggression against Ukraine meant that, as a consequence, China has to be more restrained about the possibility of taking Taiwan by force.

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[19] AUKUS – a defense alliance concluded on September 15, 2021, between Australia, the UK and the US [authors' note].

Although from the point of view of Poland's security and defense, in the international dimension, NATO is of key strategic (political and military) importance, strategic actions should also take into account a certain flexibility of the United States in its approach to participation in alliances. It is clear that Washington is primarily interested in the 'hub and spokes' model, i.e. developing bilateral alliances with individual countries within formal alliances such as NATO or outside them, as is the case in Asia, rather than fully anchoring their own security in NATO's decision-making procedures and institutional structures (Podraza, 2018). On the one hand, the United States, in accordance with the neoliberal paradigm of international relations, largely covers the costs of NATO's functioning, but on the other hand, taking into account the neo-realistic approach, it uses NATO at a time and in a way that suits Washington best. In this regard, it is estimated that the war in Ukraine and strategic rivalry with China may further strengthen this tendency in the US's approach to alliances due to the need to build the necessary alliances against China. To some extent, the beneficiary of this US approach, as well as the consequences of the Russian aggression against Ukraine, is Poland - the largest US ally in Central and Eastern Europe, which by 2040, through the intensive expansion of its military capabilities, will likely further strengthen its status. The geopolitical situation created in this way may paradoxically contribute to promoting the Intermarium project and, above all, to raising the importance of Poland (Pawlak, 2022a).

It should be noted, however, that the US, despite all the challenges and problems in defense policy and in general state policy towards the changing international situation, maintains the possibility of flexible adaptation. An example is the much more pragmatic modernization of the armed forces than at the beginning of the 21st century and the increased emphasis on preparing the armed forces for a major conflict. Moreover, this is done even at the cost of weakening the US's own confidence in the ability to maintain an advantage over a potential opponent. Once in history, this attitude guaranteed the US to carry out one of the most successful military transformations. It should be recalled that a number of Cold War successes in the competition with the Soviet Union, and later after the end of the Cold War, were the result of the diagnosis after the Vietnam War, also made in the context of a relatively weak position of the American economy and the financial system. The generation of realist soldiers and politicians who experienced the end of the US's ability to act independently (possibly using, for example, the format of a coalition of the willing – Iraq 2003) should be treated as a possible trigger for change. Thus, there is a likelihood that the US can repeat the successful transformation. Especially since the PRC was directly indicated as a reference point. Therefore, it will no longer be necessary to carry out modernization in a strategic vacuum, but to customize it in terms of preparing for a specific adversary.

In view of the above, it is forecast that in the next decade, and probably also out to 2040, the US will:
- strive for an internal political consensus on the need to prioritize rivalry with the PRC as an element determining the state's policy in the long term;
- probably move away from perceiving military interventions as US participation in the fight against terrorism or to stabilize entire regions;
- focus more attention on creating or deepening existing allied relations, especially in the Indo-Pacific area;
- strive to permanently weaken Russia strategically, which will enable it to focus greater attention on strategic rivalry with China;
- strive to relieve themselves of being a key element in the architecture of European security by emphasizing the European allies' compliance with burden-sharing within NATO, by fulfilling the criterion of spending at least 2% of GDP on defense policy by all NATO states, but also, albeit to a lesser extent, by supporting new European competencies, with the proviso that actions within the European Union will not lead to the violation of US strategic interests;
- emphasize technological competition with China and establishing cooperation around emerging and disruptive technologies as an element of building US advantage over China; counterintelligence and technical supervision over key industries will increase in the case of competition with the PRC, a similar change is and will be taking place when it comes to the supervision processes over the education and research and development segments;
- improve the modernization processes within the armed forces taking the PRC's capabilities as a point of reference;
- try to stabilize the internal socio-political situation in order to strive to maintain public support for defending the status of the US in the rivalry between superpowers;
- increase the production capacity of its defense companies that will want to benefit from the US Armed Forces' growing needs in this area, but at the same time, the ability to supply allied and partner forces will increase. In addition, the Pentagon/US Department of Defense will want to have an impact on production capacities that are important from the point of view of high-intensity military operations (see the war in Ukraine).

China

The analysis of the current international situation indicates that only China, due to its growing economic and military potential and clear assertiveness in foreign policy, out to 2040, may transform into the second global superpower rivaling the United States, which would mean a return to the bipolar system (Podraza, 2020). Although there are opinions that undermine the possibilities of further significant economic development of China and the implementation of the goals planned to be achieved for the centenary of the existence of the People's Republic of China in 2049, since the presidency of Barack Obama (2009-2017) there has been a clear turn of the US towards Asia, which is reflected in the gradual development of the policy of containing China. This policy was continued by President Donald Trump (2017–2021) and has been continued by President Joe Biden (2021–…). Both presidents interpret US-China relations in terms of strategic rivalry. In view of the above, it is not difficult to agree with the thesis of the aforementioned German political scientist Roderick Kefferpütz that China, in the global crisis caused by the COVID-19 pandemic, has seen opportunity, and their mindset – even today – is exemplified in an old Mao dictum: "There is great chaos under heaven – the situation is excellent" (Kefferpütz, 2020).

At the same time, it is indicated that the pandemic may be somewhat of a closure of a certain stage of China's development, as the previous so-called benign power with global aspirations will certainly increase its assertiveness towards not only the US, but also the rest of the world in the coming years (Jureńczyk, 2020a). However, before that happens, China, first of all, has to face (1) allegations of at least negligence, if not intentional misleading the international community about the epidemic situation in Wuhan and the sources of the pandemic, and (2) complete unblocking of the possibilities of the local economy, because for other countries, dependence on supply from the PRC has become too visible in the case of the COVID-19 pandemic. This will probably be one of the motivating factors to build other relations with China in the future, bearing in mind the specificity of this country's policy. Thus, the effects of the pandemic can be included in the broader and already present considerations about dependence on Chinese loans, inequalities in trade with China, as well as the disproportionate reliance on the advantage of Chinese technology companies in different regions of the world (Jureńczyk, 2020b). It should also be emphasized that the pandemic has signaled the country's tendency to block or significantly impede the travel of citizens of other countries. So far, at least in terms of propaganda, attempts have been made to camouflage all manifestations of de facto nationalist trends, manipulating them depending on the needs of internal policy. For example, more and more often China seeks to place espionage accents in the narrative about citizens of other countries, which in a way has also become a pretext for further development of

systems for surveillance of its own society using the latest technological achievements (e.g. artificial intelligence – AI; big data, etc.).

In addition, the Chinese authorities themselves are becoming more and more willing to reject forms that camouflage their strategic interests. This is reflected, for example, in the issue of a firm attitude towards Hong Kong and a *de facto* crackdown on the concept of one state and two systems, knowing that such actions may resonate among the Taiwanese. Moreover, the PRC breaks with its consensual attitude towards India as well. The clashes along the demarcation line and, above all, the subsequent harsh rhetoric towards India may indicate that Beijing is confident in its potential, including its military capabilities. Thus, we are not dealing only with a vision of the PLA's development, but with an emphasis on its potential and operational capabilities. In the future, the demarcation line with India may turn out to be a kind of litmus test, which will also be used to test the use of the argument of military, political and economic power in relation to countries other than the US or in relation to the Republic of China in Taiwan. China's stronger use of elements of its defense potential can also be seen in the case of the Philippines. The scale of the change in the approach of the Chinese authorities to the use of their own armed forces in the geopolitical game is reflected in the successive manifestations of force throughout the Indo-Pacific (NATO Allied Command Transformation, 2022). It is possible that the Chinese side, contrary to appearances, understands best that the effect of the pandemic has created a specific time window in the region, the closure of which will be greater political, military and intelligence integration of countries fearing China's growing role in the world. In this context, other countries of the world cannot be omitted, as the struggle is also about the attitude of European countries. This takes place both in the individual aspect, e.g. the change of French policy in the Indo-Pacific region, and on the grounds of the Alliance, a clear and highly readable signal of which are NATO communiqués and statements. Hence, it is by no means surprising that American commanders are already openly speculating, for example, about the possibility of China striking Taiwan. Thus, the PLA may again play a role as an element of PRC's practical activities in the international arena, moving away from merely demonstrating strength or supporting international peacekeeping missions. Another aspect is obtaining the possibility of using private military corporations to implement its own policy within Africa (NATO Allied Command Transformation, 2020).

It is also impossible to overlook the fact that the pandemic is a convenient justification for further deepening Chinese activities in the sphere of experiments using new technological solutions to control society. Specific intelligence solutions are somehow becoming an element of expanding Chinese activities beyond the borders of the country. By creating, for example, a field of conflicts over values such as freedom of expression, democracy, human rights, etc. the PRC emphasizes that it is ready to accept greater 'Balkanization' of the international system and non-democratic

regimes or those oscillating around values that contest (primarily the so-called liberal) democracy (Jureńczyk, 2020b).

The impact of the limitations of China's authoritarian political system on the possibilities of its further development remains an open question. Although in the economic sphere China seems to draw on the benefits of the free market and global economic exchange, in the broadly understood social sphere China is clearly moving towards increasing restrictions on civil liberties, information control and generating xenophobic attitudes. As the example of the Soviet Union has shown, such actions are not conducive to success in competing for global dominance. Attempts to centrally control the thoughts and actions of citizens result in limiting their initiative, growing bureaucracy, taking irrational actions by political decision-makers (lack of control mechanisms) and other negative phenomena. So far, China has seemed to avoid the above threats, but the intensification of authoritarian (and sometimes totalitarian) tendencies observed in recent years may hinder China's success in competing with democratic states and their civil societies. Moreover, like Russia, China has no friends in the international arena, only vassals and opponents. It may be able to catch up with or even surpass the United States in the foreseeable future, but it is doubtful whether it could stand up to the combined potential of the US, India, Japan, South Korea, Australia and other Pacific countries concerned about their expansion. Hence, the key ability for China, as in the case of Russia, may be to generate divisions and conflicts between its adversaries.

In view of the above, it is forecast that in the next decade, and probably also out to 2040, China:

- in the long term, will remain in great uncertainty as to the attitude of other countries (especially Western countries) after the end of the pandemic when it comes to building relations with Beijing;
- will increase economic and military cooperation with Russia, which will be a consequence of Russia's isolation on the international arena after its armed attack on Ukraine; in the long term, this cooperation will affect strategic rivalry not only with the US, but with the entire Western bloc;
- will increase their dominance in Central Asia;
- will probably try to weaken the US by supporting ideological divisions and internal unrest;
- will seek to weaken another contender in the global competition between powers, i.e. India, by supporting, for example, Pakistan or Turkey, as well as by intensifying the issue of Kashmir;
- will attempt to replace the US dollar in international settlements;
- will increase the military power factor in achieving its own goals in relations not only with the US or Taiwan, which may be associated with accepting

a higher level of risk when it comes to crossing different thresholds in the case of the conflict spectrum model;

– may probably refer to the Russian model of achieving political and military goals, i.e. creating conflicts or ambiguous situations in other countries or areas (e.g. Africa, Southeast Asia) to absorb the attention of other actors;

– will increase the pressure of surveillance (including counter-intelligence) on its own society and, above all, on citizens of other countries in the context of building a vision of an external threat;

– will be willing to test the defense capabilities of other countries through force projection (even in terms of a carrier battle group) and/or military maneuvers, strategic bomber patrols (including in cooperation with Russia);

– will increase the number of cyber operations to achieve its own political and military goals, moving away from the priority of economic espionage, to the need of having new opportunities to exert military-related pressure on other actors of international relations (both state and non-state).

Russia

It is estimated that the pandemic crisis, combined with the sanctions imposed by the West for armed aggression against Ukraine, may bring highly negative effects for Russian politics in the next 5-10 years. With regard to the COVID-19 pandemic, the Russian authorities tried to show that the country was not affected by the massive consequences of the spread of the pandemic. This concerned, for example, such symbolic elements as military exercises or parades. It is currently difficult to estimate the impact of such a policy in the context of the incidence (and deaths) of a large number of people and its impact on the subsequent assessment of the state and its institutions. It should be emphasized, however, that Russia was one of the first countries to use the pandemic very instrumentally in its offensive operations. First of all, this concerned intelligence, as well as disinformation and disintegration operations against Western societies (Reczkowski, 2020a). The Russian element of the vaccine policy can be added to this, although in its case it is difficult to talk about a positive end result due to the low effectiveness of the Sputnik-V (Gam-COVID-Vac) vaccine developed by the Russian Gamaleya Research Institute of Epidemiology and Microbiology. From the Kremlin's perspective, the pandemic was most likely perceived in the context of the possibility of weakening the position of the West, and any actions that could increase or resonate with this effect were taken as a natural pursuit of Russian national interests.

At the same time, Russia's actions have clearly shown that even during such severe upheaval in the security environment as the COVID-19 pandemic, one should not focus only on one dimension of the environment. This was particularly evident when it comes to the continuation of the highly escalating Russian policy towards NATO and Ukraine, as well as by maintaining an expansive form of paramilitary and military presence in the Middle East and Africa (Bryc, 2017). It is predicted that also in the coming years, Russia will try to maintain such formats of influencing the security of individual regions of the world, both for particular (e.g. access to raw materials) and symbolic (e.g. position of a global superpower), as well as strictly military goals (e.g. further aggressive actions against Ukraine or other post-Soviet states) (Jureńczyk, 2019; Piechowiak-Lamparska, 2017). One of the limitations for Russia in this aspect will be the financial resources and the economic consequences of the sanctions imposed by the international community for Russian aggression against Ukraine. As noted by Robert Pszczel, the war with Ukraine has already turned out to be so costly for Russia that on May 27, 2022, the Russian Minister of Finance Anton Siluanov admitted that as much as 8 trillion rubles (approx. USD 120 billion) are needed for the Russian stimulus budget. Moreover, the imposed sanctions are starting to work and in the next 5-10 years they will cause a significant contraction of the Russian economy, which will not be able to produce a huge range of goods without foreign technologies, parts or components. In addition, as a consequence of economic contraction, unemployment will increase significantly, a trend that will not be reversed for many years due to international economic sanctions. Even in the event of their possible abolition in the future, the problem will be the limited trust of foreign, mainly Western, investors. Despite the current totalitarian nature of the Russian political system, some signs of dissent (even amongst high-ranking diplomats) show a growing recognition of these facts. As one Russian expert put it, Putin has "amputated the future of Russia" (Pszczel, 2022). Therefore, it is assessed with high probability that in 5-10 years Russia will be a weaker, less influential actor, but will also continue to be a significant source of threats to the security not only of Poland, but of the whole of Europe.

In the opinion of the NUP 2X35 experts, by 2040, the key strategic dilemma for Russia will be the issue of further relations with NATO/EU/US after the war with Ukraine, and with China in the context of the growing rivalry between superpowers. While in the case of NATO/EU/US for Russia the matter is based on a fairly clear game of interests, for which the diplomatic, military and intelligence (including counterintelligence) apparatus is effectively prepared, in the case of China it is about something else – about the specific relationship between these countries. Of course, these relations can be described as highly coalitional or even allied, but the effects of making Russia dependent on China or limiting the Chinese side's dependence on Russian technologies must not be overlooked. Russian experts' analyses of the PRC have always been meticulous and wide-ranging, and the current authorities probably

have a highly negative picture of trends in relations between these powers. However, Russia's increasingly difficult relations with the West may actually condemn Russia to long-term cooperation with China. Russia itself will probably have to take protective measures regarding its interests, which in the long run do not have to and probably will not coincide to a large extent with the growing aspirations of the PRC. The second key issue for Russia is to maintain the momentum of activities aimed at strengthening the Russian position in the Arctic. However, it cannot be overlooked that Russia's rather aggressive policy and emphasis on Arctic aspirations have translated into a more assertive policy of other Arctic states. This can already be seen, for example, in expanding the American military presence in the Arctic by developing cooperation with European partners, especially Norway and the United Kingdom, as well as creating a second pillar in the Alaska region. In the case of the US, we do not deal with too much emphasis on the development of Arctic competencies, unlike Russia. However, building the military component is progressing and is planned in the long term. Therefore, it cannot be ruled out that not only Ukraine or the Black Sea, but also the disputed Arctic regions may become an area generating the risk of Russia using military force and escalating the conflict. In the Arctic, Russia is primarily seeking influence on raw material resources, confirmed by its current policy, and it also sees a future opportunity to compete with the US and China when it comes to effective use (in financial terms) of the Northwest Passage.

An equally important problem in determining the future of Russia, both in the internal and international dimensions, will be the succession of power after Vladimir Putin. Although there have been no serious indications of a possible crisis of authority in Russia so far (even in the face of the socio-economic consequences Russia suffers for its armed aggression against Ukraine), the question of a successor may gain in importance in the perspective of a few or more years[20]. This issue may be the key to the continuation or change of Moscow's domestic and foreign policy. As Andrzej Podraza emphasizes, the sources of Russia's neo-imperial policy do not result only from the implementation of foreign strategy, but are largely internal in nature, related to the defense of the interests of a corrupt regime that fears the expansion of the area of democracy and the possible success of reforms in Ukraine, Georgia or Moldova, as this could lead to the erosion of the foundations of Vladimir Putin's regime. The war in Ukraine and the earlier conflict with Georgia are the result of the conviction that it is necessary to defend the interests of the current regime in the Kremlin, but it also

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[20] A significant example of this is the so-called Prigozhin's rebellion, whose leader wanted to force reforms in the Russian armed forces, and thus significantly improve the morale of the troops fighting in Ukraine. It is important, however, that the Kremlin's lack of decisive action to suppress the rebellion and punish the rebels severely may be perceived as a signal of the collapse of the security structures, and may also have a negative impact on Russia's ongoing military operations [authors' note].

results from Putin's statement mentioned earlier that the collapse of the Soviet Union was the greatest geopolitical catastrophe of the 20th century (Podraza, 2016, 2022).

In view of the above, it is forecast that in the perspective of the next decade, and probably also out to 2040, Russia:

- despite the strategic weakness caused by the conflict in Ukraine and isolation on the international arena, will continue to use the military power factor to put pressure on NATO and countries with interests close to the West, especially in the context of limited room for maneuver in other aspects of international relations (e.g. in the area of trade in noble metals or rare earth metals);
- will strive for full integration with Belarus (politically, economically and militarily), *de facto* incapacitating it and making it dependent only on Russia;
- will remain in strategic uncertainty as to the further deepening of cooperation with the PRC, while at the same time, it will remain willing to build the so-called autocratic bloc opposed to the so-called Western (democratic) bloc led by the US;
- in order to compensate for the losses incurred as a result of starting the war in Ukraine, will probably seek to quickly take control of the disputed areas in the Arctic regions and apply the well-known policy of *fait accompli*; at the same time causing additional disputes and tensions, Russia may be forced to limit its military involvement in other regions of the world, key for its superpower policy;
- will continue its attempts to undermine the effectiveness of the West, primarily in the transatlantic space by means of an extensive apparatus of secret services, cyber operations and information operations;
- will seek greater involvement in the competition in the Middle East and Africa; similarly, attempts are possible to develop Russian operational assets in Transnistria and in the Balkan region, especially in Serbia, Bosnia and Herzegovina, and Montenegro; behind-the-scenes activities in cooperation with organized crime are also possible, including false flag operations aimed at increasing non-military threats and undermining the sense of security across Europe;
- having the status of a 'rogue' state in the West, there is a high probability of aggravating the confrontation with Moscow's current partners, who in a way have become Russia's adversaries again; in this regard, the Kremlin may suspend or completely withdraw from many treaties with Western countries, including the treaty with the US on the non-proliferation of nuclear weapons, which in turn may open the way to Russia's overt support for nuclear programs implemented, for example, by Iran or North Korea, as

well as a return to real nuclear weapons testing sites in order to strengthen its nuclear deterrence policy;

– will be forced to take radical action (external or less probable – internal, reformist) aimed at mitigating the negative effects of the sanctions imposed after the attack on Ukraine, reducing the global demand for traditional energy resources and exhausting own capacity to exploit new, hard-to-reach deposits;

– will have to make changes in the military area in terms of the potential of the arms and military-related industries, especially when it comes to gaining the ability to replace parts previously obtained from the West (legally, illegally) and increasing the mass production of military equipment (for own needs – losses and armaments, but also for exports to fight for markets where it may or has lost influence).

POLITICAL AND GEOPOLITICAL IMPLICATIONS

According to the NUP 2X35 experts, the unprecedented changes observed in the security environment, both in the context of the COVID-19 pandemic and the war in Ukraine, will directly or indirectly affect the functioning of states, governments, and societies. All the more so that this publication is being published at a time when the war in Ukraine is still ongoing and the number of question marks outweighs what seems to be foregone. However, regardless of the scale of changes, on the basis of the analyses conducted as part of the NUP 2X35 security environment analysis campaign, it is possible to point to political and geopolitical implications of key importance for the national security system, such as the following.

On a global scale

- **Increasing the existing uncertainty in the international system with regard to the holistic perception of the level of security of individual states**. It should be noted that a particularly strong emphasis on the pandemic in the socio-political debate in highly developed countries led to a temporary disturbance of a certain kind of perception of the security situation on a global scale. However, it can be hypothesized that most likely both the pandemic itself and the war in Ukraine are only accelerators of changes, and not changes in themselves, especially redefining the system of international dependencies. Many of the phenomena and processes discussed in this document, including the intensifying rivalry between superpowers, have been observed for many years, but the pandemic and the war in Ukraine have spurred them on. What is more, the pandemic and the war in Ukraine, which is natural due to the scale of the phenomenon, also have an impact on the global struggles between the US and China so far, becoming, for example, references used in the discussion about the origin of the SARS-CoV-2 virus, the so-called vaccine policy or defining a clear position of China in terms of support for a specific side in the ongoing Russian-Ukrainian conflict.
- **Intensifying the rivalry between the US and China, using e.g. new geoeconomic instruments**. According to Edward Luttwak[21], geoeconomics is an instrument for building economic power, but also for rebuilding economic relations, creating structural advantages and strength of some countries over others (Luttwak, 2000, p. 24). In this perspective, the COVID-19 pandemic has

[21] Edward Luttwak – American economist, strategist, historian, military theorist, former adviser to US President George W. Bush and consultant at the US Department of Defense, senior consultant at the Center for Strategic and International Studies in Washington [authors' note].

become a mechanism for a permanent reshuffling of economic power. Economic data, if not falsified, indicate that the Chinese economy was better adapted to the crisis, and its development rate during the pandemic remained relatively high[22]. All this takes place in the regulatory environment of the world order, based on free flows and free trade created within the World Trade Organization (WTO). It was the US that set up this trade regime and was its main beneficiary. It now seems that the Chinese economy uses this structure to gain a structural advantage more effectively than the US economy. This is where the key dilemma concerning the strength and power of the leader of the global economy lies. The indicated dilemma will affect international relations depending on how strongly the United States decides to limit free trade mechanisms (which happened during the presidency of Donald Trump – through the use of customs mechanisms) or how strongly it will restrain and restrict the Chinese economy with a decoupling mechanism. To put it simply, the mechanics of this strategy are based on maintaining the free movement of goods, which is beneficial for the US, based on the WTO order, while transferring supply chains from China to other countries politically close to the US. If this process is carried out in continuation with the policy of the previous US administration, then we will have to deal with maintaining the key instrument of mitigating the growth of the Chinese economy. Interestingly, the strategic dimension of the decoupling policy will have a strong regional (EU) and local/national (Poland) impact through highly probable relocation of the production chains to Poland, V4 countries, or other Central European countries. The process indicated here takes place in the planning dimension. If it is implemented, it is possible that it will contribute to the growing importance of Poland and Central Europe in the world.

- **Reducing the confidence of states in international institutions, organizations, structures and mechanisms for information exchange**. In the context of the COVID-19 pandemic, from the beginning, the World Health Organization (WHO) was under attack by the administration of President Donald Trump for the alleged tardiness in investigating the sources of the epidemic and acting, so to speak, in the interest of the PRC. Although criticism from the current US administration is less visible, it is difficult to assume that the sources of distrust can be eliminated in a highly effective and efficient way. Moreover, it should be noted that similar doubts arise regarding other organizations and mechanisms designed to guarantee an internationalized approach to specific crises. This does

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[22] China's GDP growth has clearly slowed down compared to 2021, when it amounted to 8.4%. It was also much lower than the target set in March 2022 by the authorities, which assumed an increase of about 5.5 percent. The results achieved by the Chinese economy were strongly influenced by the draconian policy of pandemic lockdowns, which the authorities began to abandon only in November 2022 (Kozieł, 2023).

not mean a definitive goodbye to their role in building a system of relations on a global scale, as they are still highly useful. However, it should be emphasized that their work will be burdened with a greater degree of distrust and distancing by individual states from published analyses and activities of international organizations. If the US was able to strongly contest the WHO, other countries will probably follow this approach in creating their own policies or *ad hoc* actions. Let us remember that in recent years we have seen similar distrust in cases of the international chemical weapons regime, and aspects of control over nuclear program development systems have been also questioned. In Europe, such issues have been experienced when it comes to tools that were supposed to build mutual trust and transparency of military activities (e.g. the treaty on the total elimination of intermediate- and short-range missiles – INF, as well as the Treaty on Open Skies).

- **The need to develop new industry capacities in the event of further turbulences in supply chains**. At present, one must agree that the pandemic will probably become an important factor accelerating the new approach to existing standards, but at the same time, earlier changes in this respect must be recognized. They are the result of technological change, increased Sino-American and American-European economic competition, and the struggle for new markets. It is also worth mentioning an event such as the blocking of the Suez Canal – showing the high level of complexity and connections of the communication routes used (particularly by sea). Thus, it will become an extremely important factor to enable own economies to survive, to a greater extent than before, periods of crises, including wars. Technologies and medical equipment, including the need to support own research and development centers in the field of vaccines and drugs, can be a kind of litmus test. This also applies, probably in the long term, to semiconductors and other strategic elements when it comes to emerging and disruptive technologies. Of importance are also issues related not only to maintaining, but above all to increasing the capacity of the industrial defense potential in the context of the production of military equipment, ammunition, repairs, as well as maintaining the ability to conduct military operations in the long term.

- **The need to increase real efforts to strengthen defense and deterrence**. In the context of the pandemic experience, the Russian aggression against Ukraine and the observed transformations in the system of international relations, one can forecast a retreat from extensive international initiatives, focused primarily on goals that are difficult to define and a very extensive declarative space, as opposed to the need for closer cooperation, e.g. in the military or political-military domain. Uncertainty and emerging fears as to the use of force in international relations (considering various forms and their varied scale in terms of the model

of thresholds for the use of force/conflicts) will result in the desire to increase the effectiveness of crisis response, and this may bode well for the existing and new coalition and alliance formats. In the latter case, one can see, for example, the possibilities of increased interoperability of forces as a result of training activities, cooperation at the technological level, etc. – in peacetime. In this context, it is worth noting the potential attractiveness of the NATO model for other regions, i.e. building security structures referring to the effectiveness of NATO and its efforts to ensure long-term stability and security for member states. To put it simply, if NATO were not so important and did not guarantee a certain scope of deterrence and defense, it would simply be passed over and potential opponents/critics would focus on other (supposedly more effective) elements of the transatlantic space. It is also necessary to carefully observe the development of the so-called Five Eyes Alliance (FVEY) and its potential expansiveness both in the sphere of areas other than Signal Intelligence (SIGINT), and member states (Raubo, 2020). In this regard, as security experts rightly point out, intelligence is currently one of the most important forms of preparing for a crisis response.

- **Possible increased acceptance by the international community for the emergence and existence of the so-called failing or failed states**. Decisions to withdraw or drastically reduce the military presence (permanent forces, training missions, material assistance, etc.) in conflict regions with a large asymmetry of fighting forces in no way result from their effective (peaceful) resolution. The examples of Afghanistan and Somalia, as well as regions such as West Africa or the Sahel, point to the possibility of an escalation of conflicts in the coming years because on the one hand, the local forces existing there have become more or less negatively dependent on external support. On the other hand, terrorist organizations, opposition fighters, guerrillas, etc. have not been decisively defeated and, above all, no success has been achieved in cutting them off from sources of funding and supplies. However, the pandemic, the costs of fighting it, personal losses among own citizens, and the general psychological fatigue with the format of foreign interventions do not allow for further, effective (according to the standards of previous missions/operations) support for so many regions and individual countries. The existence of failing or failed states, in the format known from the late 1990s, constituting a safe haven, for example, for terrorist organizations, may therefore be accepted. It must be recognized that terrorist organizations will now be attacked only selectively as a reaction or prevention against the possibility of carrying out attacks on other countries (direct actions of special operations forces units and air strikes, including by unmanned aerial vehicles). An analogous situation may take place when it comes to potential subsequent waves of piracy development. Especially that there is already a case of Somalia, where, for example, in Puntland (an autonomous part of Somalia)

many people and local structures gained access to significant financial resources in connection with piracy. Such a grassroots approach based on piracy can become a highly attractive response to the significant pauperization of the local population, a sense of loneliness in the international arena or the collapse of the developed tourism industry. Acceptance of limiting the authority of state entities or even the collapse of their ability to operate in a given area at the expense of other non-state actors is highly dangerous, as it may translate into a number of cross-border threats. Of course, the attention of the world in the 21st century, due to the effects of the September 11 attacks, is currently focused on the discussion on terrorist threats. However, such issues as migration pressure, production-smuggling-trafficking of psychoactive substances, proliferation of weapons, ammunition and explosives, plundering of natural resources, and the possibility of factors leading to the degradation of water sources, natural environment, etc. cannot be omitted from the analyses. The latter element seems to be the least discussed in the context of failing or failed states, but the situation with the export of chemical and perhaps even radioactive waste to Somalia in the 1990s should be recalled. The scale of this phenomenon has not been accurately presented to the international opinion due to the then and present level of security in the Horn of Africa region.

- **Possible greater acceptance of the use of force than before, including possible escalation of violations of international norms and rules for conducting armed conflicts and the use of state terror by the aggressor state against the civilian population**. In the event of an armed conflict, it is highly probable that large-scale purges will be carried out against representatives of groups and social strata of the attacked state that have been identified by the aggressor as particularly hostile. Collective responsibility against civilians is also likely. The implementation of such actions can be seen in the conflict in Ukraine, where the extent of damage is difficult to accept and is still growing day by day. Ukrainians (both military and civilians) are killed because of their nationality and attachment to it. The methods of action against civilians used by the Russian Federation are completely different from those used by NATO countries under, for example, the paradigm of reaching 'hearts and minds'. This approach was to minimize the use of deadly force against civilians and protect the dignity and integrity of human life, and thus contribute to social acceptance of the stationing of NATO troops in the mission area. The Russian strategy, however, is based on the population-centric paradigm, which has been denied by the states of Western civilization. Active actions against the population reject the basic axiom of Clausewitzian strategy, which recognizes the destruction of the enemy's military power as the basis for success. In science, they are referred to as the brutalization of warfare. They are carried out in accordance with the scientific model, in which breaking,

intimidating and terrorizing the society leads to the loss of the will to resist by the state leadership. Such actions are supposed to cause unacceptable costs for society and, consequently, an attitude of submission and passive acceptance of the new order, so that the defenders cannot find support in the civilian population (Colombo & Souleimanov, 2022). An essential executive subsystem of the model of brutalization of warfare is the creation of a network of filtration camps whose task is to identify civilians hostile to the aggressor. In the camps, the process of registration, detention, interrogation and secondary interrogation and imprisonment of civilians is carried out. Part of the population is deported to remote areas of the Russian Federation, while children are taken from their places of residence and sent to Russia. Russia announced that by mid-August 2022, within five and a half months from the beginning of the aggression, it had transferred to its territory about 3.4 million Ukrainian citizens, including about 550,000 children (Poltras, 2022). It seems that Russia's systemic goal is to improve its own demographic indicators through systemic actions to bring millions of citizens of the Ukrainian state to its territory. In this perspective, citizens of the attacked state become a valuable human resource whose forced relocation to Russian territory may be one of the non-military strategic goals of the aggressor state. At the same time, in order to break the will and morale of the civilian population, civilian objects become the target of attacks using military technology. Entire cities – such as Mariupol or Bakhmut – are razed to the ground. Clear atrocities (Bucha, Irpin and other cities) that meet the criteria of war crimes are notoriously committed by the Russian side, and at the same time glorified on Russian state television and Russian social media. More than eight million people have had to flee Ukraine and many more have been internally displaced. Moreover, hospitals, schools, critical infrastructure (including energy), cultural goods, private homes and industrial centers are systematically destroyed or plundered, and stolen items are sent to Russia in an organized manner (Pszczel, 2022). The above-mentioned atrocities of military operations and the use of terror against the civilian population derive from the long, almost 100-year-old Soviet art of war known as the so-called strategy of destruction and attrition, and state terror[23]. The Russian 'special military operation' in Ukraine is based on this concept, which assumes the so-called denazification of Ukrainian society. This concept is being developed as a set of repressive actions against approx. 5

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[23] The precursor in the Soviet thought and art of warfare against civilians based on the strategy of destruction was Alexander Andreyevich Svechin – Russian and Soviet military leader, military theoretician and historian, scientist and publicist. General in the tsarist army and komdiv in the Red Army; participant in the Soviet-Japanese Border War, World War I, and the Russian Civil War; lecturer at the Frunze Military Academy and the General Staff Academy. Knight of the Order of St. George. Shot during the Stalinist purges [authors' note].

percent of Ukrainian society, which should be punished, eliminated or forced to emigrate. If in 2021 the population of Ukraine was about 41.3 million, then the 5% scale means that repressions affect over 2 million citizens (M. Wojnowski, expert interview, February 28, 2023). These figures clearly illustrate the enormous scale of the phenomenon of state terrorism in Russia, which will probably have to be faced in the future.

- **Possible impact of negative demographic changes in China and Russia on the ability of these countries to compete with the US**. Unfavorable demographic changes, already visible in both countries, probably until 2030 or in a longer perspective, may result in a revision of policy in these countries. As demographers note, 2021 was the first year since 1950 that China's population declined. Only, unlike the events of the past, when the cause was mass famine prompted by the policy of industrialization as part of the 'Great Leap Forward' ordered by Mao, today factors of a different nature come to the fore, namely the low birth rate in China, where statistically every woman has 1.3 children. As a result, there is no question of even a simple replacement of generations, because here a ratio of 2.1 children per statistical Chinese mother would be needed, and the Chinese authorities must take into account the accelerated aging of the population and a decrease in the population in the coming years. In Russia the situation is similar. According to demographers, in 2050 the population of Russia may fall from the current 146 million to 121 million. These trends reduce the possibilities of both countries in terms of prospects for economic growth, but also for the development and modernization of their armed forces. In the opinion of an American expert – Andrew Michta – these factors mean that time is not working in favor of the revisionist powers, and their relative advantage will decrease. According to experts, the elites in Moscow and Beijing are aware of this, and therefore, if these countries want to play the global situation to their advantage, they are currently under enormous time pressure in terms of taking possible revisionist actions (Budzisz, 2021b; Michta, 2021).

On a regional (European) scale

- **Possibility of factors reducing confidence in decisions taken by EU authorities**. This is, in fact, a continuation of the processes observed during the immigration crisis in 2015-2016. Controversies surrounding some decisions taken by the EU authorities during the pandemic, e.g. related to the contracting of vaccines, and caution in the support for Ukraine in the first phase of the conflict, may in the

coming years reduce the confidence of states and, above all, societies in the EU crisis response capabilities. This does not mean an automatic loss of EU influence on the continent, taking into account issues such as economic or ideological ties, or perhaps external pressure from stronger actors and competition with other regions. However, the belief that this type of format will remain a key element for security, including the hard one, may be waning. It should be noted that the role of the EU subsidiarity principle will be *de facto* tested under PESCO and the European Defense Fund. If such initiatives do not translate into tangible technological and organizational successes, they may create space for the erosion of EU and EU-wide security visions.

- **Intensification of processes of federalization of the EU and strengthening its role in global politics**. Currently, we are witnessing extensive institutional processes, as a result of which the European Union has the potential to gradually transform from a confederation, i.e. a voluntary union of sovereign states, into a federation, i.e. a federal state modeled on the US with a central government. The visions and guidelines of the coalition agreement, signed by the German parties SPD, Greens and FDP include actions aimed at intensifying the development of the EU and establishing a federal European state. It is expected that in the near future, there may be initiatives affecting the governments of EU Member States regarding legislative changes, including in relation to the existing treaties. The first sign of this pressure is the attempt to abolish the veto right in favor of majority decision-making. The implementation of this project may have significant consequences for the future and shape of the current nation states. Of course, on the other hand, the intensification of processes aiming at federalization may also cause an increase in Eurosceptic moods in the member states and, consequently, lead to political and diplomatic conflicts and divisions, e.g. in the already suggested so-called two-speed Europe or the withdrawal of individual countries from the EU, as exemplified by the United Kingdom.

- **Emphasizing the importance of NATO's effective operation also in the aspect of non-military threats**. In the fight against the pandemic, NATO has shown its strategic importance, for example, through the use of such tools as strategic airlift cooperation programs (SAC and SALIS in cooperation with Sweden and Finland, non-NATO states), but also through the possibility of building an exchange of experiences between military personnel and medical personnel dealing with the fight against the pandemic, etc. The most crucial element turned out to be the ability to maintain full operational readiness during the crisis related to COVID-19[24]. Although the number of military exercises and

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[24] For example, in the sanitary regime, it was possible to continue to rotate forces that are part of operations carried out under the aegis of NATO, such as Air Policing or enhanced Forward Presence (eFP) [authors' note].

maneuvers was reduced, the capability to effectively provide Member States' statutory deterrence and defense missions was demonstrated. This has become an important geopolitical lesson for all NATO members. Despite significant turbulences within the countries, thanks to the involvement of significant assets of the member states to fight the pandemic, allied relations were able to compensate for such problems. It should also be noted that the NATO system has also proven itself in the context of the inflamed situation in the eastern Mediterranean. The pandemic and the escalation of tensions between Greece and Turkey in August 2020 could have resulted in a highly unpredictable crisis. Today, it can be said that diplomacy within NATO allowed the dispute to be settled and the required de-escalation to be made. It is worth adding that NATO is not an entity that is focused on long-term resolution of such disputes, and therefore no other type of end results should be expected from the Alliance. Undoubtedly, the effectiveness of NATO has been confirmed by actions in relation to the conflict in Ukraine, in particular by strengthening the military presence in the countries of NATO's eastern flank, as well as by coordinating military support and humanitarian aid for Ukraine based on the existing civil-military infrastructure. This shows that most European countries have turned to NATO's proven security umbrella, backed by US military capabilities.

- **Possibility of fragmentation of existing economic and military alliances due to differences in the perception of threats**. Long before the outbreak of the war in Ukraine, some analysts suggested that the noticeable lack or different visions of the enemy, different economic, political, social and ideological interests between NATO member states, and between the US, Germany and France indicated the possibility of undermining the cohesion of the Alliance, which in an extreme scenario could result in the division of NATO or even its disintegration (Pawlak, 2020). The possibility of such a development of the situation was one of the potential scenarios of the security environment analyzed by the Bundeswehr out to 2040, as reported by the German daily *Der Spiegel*. It indicated the risk of NATO fragmentation and the possibility of a conflict of interest between the states of the so-called old EU and the countries of Central and Eastern Europe (Pawlak, 2019). The ongoing war in Ukraine has confirmed these assessments. As the British daily *The Sun* reports, according to Russian assumptions, the war in Ukraine was to lead to the disintegration of NATO in its current form (Bojanowicz, 2023). Knowing the aspirations of Germany and France to play a dominant role in Europe, and counting on the US ceding security issues on the old continent to Germany, Putin calculated that a successful war with Ukraine would speed up this process and force the US out of Europe permanently. As a consequence, this would open the possibility of implementing the so-called pact from Lisbon to Vladivostok. The course of the war and the defeat of Russia's

strategic assumptions temporarily slowed down the dominating tendencies of the so-called old EU. However, many international relations experts argue that the strategic goals of dominating Europe are still valid. The resistance or even unwillingness of some countries to support the fighting Ukraine, especially in the initial phase of the war, may be a manifestation of such an approach. In addition, redirecting US attention to NATO's eastern flank, building a strong army in Poland and increasing the presence of the US on its territory also indicates the possibility of rivalry between the US and the so-called old EU for influence in the region. Therefore, it is expected that in the next decade, there may be an intensification of the activity of the old EU on the political, ideological and, above all, economic level, driven by the so-called green deal and zero emission policy. As a result, these activities may generate the risk of fragmentation of economic and military alliances.

- **The requirement to redefine defense needs in state-society relations**. In the case of European states, we face a highly problematic, especially in the long-term dimension, challenge in terms of building and/or reconstituting a massive personnel base for the comprehensive defense activity of states. This must take into account the existing changes (not always positive – in terms of translating into the real situation) taking place in the social, political, economic and technological perspective, determining, for example, the lowering of citizens' identification with the defense needs of states, as well as with less competitiveness of the military service in relation to the possibility of professional development outside the military. It is important to remember that European countries abandoned their systems of mass armies and mass maintenance of reserves due to the end of the Cold War. A *de facto* European model was developed, a simplified version of the American AVF (all-volunteer force) vision, often without existing US solutions such as the National Guard and the Reserve. Today, NATO and EU countries (e.g. Finland and Sweden) see an increased demand for reserves, but for political and/or practical reasons, building personnel reserves becomes a much more difficult challenge than even quite unpopular, due to their cost, modernization processes. In terms of the consensus around the financing of the armed forces, challenges related to post-pandemic aspects should be pointed out. On the one hand, the armed forces demonstrated the possibility of operational support for the state in times of crisis, for example in the sphere of transport, logistics or medical evacuation. On the other hand, the issues of financial burdens related to the fight against the pandemic and the deteriorating economic situation may be further arguments to criticize the processes of spending funds on defense, especially in countries that still consider their security environment to be relatively stable. Perhaps the turning point for these countries in changing their approach to defense aspects will be the war in Ukraine, as is the case in the

countries of Central and Eastern Europe, where this factor has become the main determinant for the rapid strengthening of their own defense capabilities (see Poland or Baltic countries).

- **The emergence of successive planes of possible radicalization and the creation and/or animation of divisions among societies**. In this area, it becomes crucial to observe all disinformation, disintegration, etc. activity, first around the issue of vaccinations and a number of (often radical) pandemic restrictions, and recently around issues related to the war in Ukraine. The European space has already been significantly polarized with respect to topics such as: migration policy and its resultant threats; attitude towards Russia and its policy towards Ukraine and other countries in the region; attitude towards US-Chinese rivalry and its European impact; the issues of defining populism and political relations with actors excluded from the sphere of the political, social and media mainstream; attitudes towards multicultural forms of society; the terrorist threat in Europe; attitudes of European countries towards the United Kingdom and its post-Brexit policy, etc. Hence, the fight against the pandemic and any doubts about its effectiveness, adopted forms of action and further humanitarian and military support for the fighting Ukraine can potentially be translated into the existing fields of creation and further radicalization of socio-political disputes. At the same time, it must be assumed that such topics are and will be used by external (including non-state) actors to weaken state structures and European institutions. From a less antagonistic version of vaccine policy to a more antagonistic use of anti-war attitudes being a consequence of, among other things, the deepening energy and economic crisis in Europe, also through physical resistance (mass demonstrations, fights with the police, etc.).

In Poland

- **The need to increase the mobilization capabilities of the ministries responsible for the internal and external security of the state, and their cooperation with other state authorities, including the requirement to redefine defense needs in terms of state-society relations**. In the case of COVID-19, the migration crisis on the border with Belarus, and the multi-million wave of refugees from war-torn Ukraine, Poland, for the first time, was faced with the need for such a massive appeal to diversified human and material resources in the conditions of a crisis situation related to the entire state, to the entire population, to all aspects of the state's operation (public, as well as private structures) and,

importantly, to a crisis situation lasting in the long term. It should be noted that based on the case of the COVID-19 pandemic or the migration crisis, it was possible to analyze the effectiveness of the security system in the event of a non-military threat. The result of this is, for example, the recognition of the role and importance of cooperation between the military and other state institutions. The key reflection, however, should be to confirm the importance of the total (common) defense system based on a differentiated approach to the issue of defense in terms of the military, social, economic, digital, psychological, and information spheres, as well as on the structures involved in the activities (armed forces, uniformed services, special services, state institutions and local government, non-governmental organizations, etc.).

- **The need to increase state resilience in the event of a mass threat, directly affecting the functioning of society in the long term**. Not only the COVID-19 pandemic, but above all the war in Ukraine highlighted the strategic role of the economic and raw material base, as well as the adaptation of the state to functioning in conditions of disruptions in the continuity of supply chains and/or competing, in a crisis situation, with other state actors for minimized resources. It is also necessary to look more critically at such aspects of the functioning of society as the supply of food and other goods in a crisis situation for the purpose of maintaining the continuity of trade and provisions, especially when there is pressure to buy in urban areas. Resilience also applies to building strategic communication channels and redefining the needs and possibilities in the field of educating the society, including shaping pro-defensive attitudes. The above confirms the need for a comprehensive and holistic approach to the issue of broadly understood resilience, and due to strong interdependencies, it requires efficient and effective cooperation between the civilian and military sides in order to achieve the reinforcement effect. This is confirmed by the statements of the participants of the annual GlobState conference organized by the General Staff of the Polish Armed Forces and Doctrine and Training Centre of the Polish Armed Forces, who point out that resilience is key to effective deterrence and defense. Moreover, the importance of resilience in Poland was raised in *National Security Strategy*[25], approved by the President of the Republic of Poland in May 2020, in which, in addition to common defense[26], resilience was indicated as the basic imperative strengthening Poland's security.

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[25] *National Security Strategy of the Republic of Poland* is a document defining a comprehensive vision of shaping national security in all its dimensions. The contents of the above document are the basis for their further development in national strategic documents in the field of national security and development of Poland [authors' note].

[26] The concept of common defense is that the entire state and society are involved in defending the sovereignty of the state, and the armed forces are only one of many elements of the defense system [authors' note].

- **The need to develop new capabilities of the industrial base in case of further turbulences in supply chains**. The functioning of market participants and the supply chains in a changing and unpredictable reality requires special attention to the resilience of the networks connecting them and their susceptibility to adaptation. Thus, it is necessary to strive to maintain the resilience of supply chains in the event of negative scenarios in the economic environment. At the same time, they should maintain high capacity to adapt when opportunities arise in the external environment. In this respect, it should be expected that in the coming years, the adaptability of supply chains will be a symptomatic manifestation of growing market competences, and their effective management will be inseparably related to the implementation of new solutions in combination with modern technologies. Importantly, the necessary increase in supply chain resilience should include mitigation of internal and external factors causing disruptions in its functioning. As a result, the ability to prevent the transmission of these disruptions to subsequent links will increase - and thus - the propagation of the negative effects of the risk to a larger number of participants in the supply chain. This requires proper modeling of cooperation between the participants in these structures, which are supply chains (Bukowska-Piestrzyńska et al., 2022, pp. 129-130).

POLITICAL AND GEOPOLITICAL CHALLENGES TO POLAND'S SECURITY OUT TO 2040

With respect to politics and geopolitics out to 2040, the authors have identified eight key challenges:

1. **Obtaining the ability to quickly adapt in the context of changes taking place not only in the political and geopolitical area, but also changes in the economic, social (especially demographic), and technological areas, as well as those related to urbanization and natural environment**. It is estimated that in the coming decades, the most effective states are likely to be those that can build social consensus and trust in collective action on adaptation, and that will be able to use the expertise, capabilities and relationships of non-state actors to complement the potential of the state[27].

2. **Conducting a rational policy aimed at obtaining and maintaining diversification of energy supplies and attempts to achieve energy independence and low CO_2 emissions of the energy system through, for example, investments in nuclear energy and renewable energy sources (RES)**. Taking into account the changes in the energy markets in the years 2021-2022 caused by the COVID-19 pandemic and, above all, the invasion of Ukraine by the Russian Federation, on March 29, 2022, the Council of Ministers adopted the assumptions for the updated *Energy Policy of Poland until 2040* (PEP2040). The document indicates that the updated energy policy of Poland must, apart from the already adopted three pillars, such as: just transformation, zero-emission energy system, and good air quality, also take into account the fourth pillar – energy sovereignty, the special element of which is ensuring the rapid independence of the national economy from imported fossil fuels (coal, crude oil, and natural gas) and derivatives (LPG, diesel oil, gasoline, kerosene) from

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[27] In the American report *Global Trends 2040: A More Contested World* (National Intelligence Council, 2021) in terms of adaptation to the changes taking place in the world by 2040, it was emphasized that „[...] adaptation will be both an imperative and a key source of advantage for all actors in this world. Climate change, for example, will force almost all states and societies to adapt to a warmer planet. Some measures are as inexpensive and simple as restoring mangrove forests or increasing rainwater storage; others are as complex as building massive sea walls and planning for the relocation of large populations. Demographic shifts will also require widespread adaption. Countries with highly aged populations like China, Japan, and South Korea, as well as Europe, will face constraints on economic growth in the absence of adaptive strategies, such as automation and increased immigration. Technology will be a key avenue for gaining advantages through adaptation. For example, countries that are able to harness productivity boosts from artificial intelligence (AI) will have expanded economic opportunities that could allow governments to deliver more services, reduce national debt, finance some of the costs of an aging population, and help some emerging countries avoid the middle-income trap. The benefits from technology like AI will be unevenly distributed within and between states, and more broadly, adaptation is likely to reveal and exacerbate inequalities" (National Intelligence Council, 2021, p. 3).

the Russian Federation[28] and other countries subject to economic sanctions through diversification of supplies, investments in production capacity, network infrastructure and storage, as well as in alternative fuels. In addition, taking into account such factors as: regulatory pressure from the European Commission, a change in the mindset of international business that sees opportunities in the low-emission transformation, and technological development causing a decrease in the prices of energy from renewable sources, measures have already been taken in Poland to meet these challenges through the implementation of the so-called concept of distributed energy, the essence of which is the dispersion of sources, i.e. their physical location in many places. In this context, Poland envisages actions aimed at:

– expansion of domestic generation sources, including dispersed renewable and low-emission technologies, as well as faster integration of renewable energy sources in all sectors as part of increasing technological diversification and energy independence, taking into account ensuring the stability of the energy system operation and limiting its environmental impact;

– further development of renewable sources as an element of the diversification of the energy mix, assuming out to 2040 the pursuit of approximately half of the production of electricity from RES; along with the continued increase in the installed capacity of wind and solar sources, it is assumed that activities aimed at increasing the use of RES independent of weather conditions (including water, biomass, biogas, biomethane and geothermal energy sources) will be intensified; in these plans, the use of RES in energy communities (including energy clusters and energy cooperatives) and in hybrid installations will be particularly desirable;

– measures to strengthen the development of power grids, automation mechanisms, technologies ensuring a high level of cyber security, as well as increasing the potential for electricity and heat storage at the level of prosumers, RES producers, network operators and aggregators;

– prospective implementation of the technology of small modular reactors (SMRs) as an alternative to conventional units, e.g. for the production of process heat in industry and heating, and to strengthen energy security at the local level in the power sector;

– ensuring financing and development of investments aimed at the development and integration into the system of new low-emission technologies, at the

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[28] In the opinion of many energy experts, additionally, as a consequence of the Russian aggression in Ukraine, Russian fossil fuels such as coal, oil and, in particular, natural gas should be permanently eliminated from European energy markets. Russia, while maintaining its imperial and expansionist state doctrine, should be perceived by the European Union as a long-term source of threats to its security and instability for the international environment [authors' note].

same time strengthening the flexibility of the energy system and energy security (Ministerstwo Rozwoju i Technologii, 2022, p. 12).

In the opinion of the Polish Economic Institute, as well the NUP 2X35 experts, the dynamic changes in the Polish energy mix require the replacement of coal as the dominant energy source with a transitional fuel. According to various assessments, gas may be that kind of fuel for the energy sector. In countries where coal has been phased out and a shift towards RES has been embraced, such as Denmark, gas turned out to be a transitional fuel for several decades. The advantages of blue fuel include, above all, lower emissivity compared to coal. However, it should be remembered that EU regulations are aimed at the complete elimination of fossil fuels, which also include gas. Therefore, when analyzing the possible directions of technological development in the coming years, it can be observed that an alternative to the electrification of the economy based on renewable sources will be a mixture of gas and hydrogen. As some studies show, after appropriate modifications, gas networks are able to transport a mixture of which even 20-50 percent is hydrogen. The need to ensure the stability of supplies while meeting the requirements of the climate policy also requires thinking about large-scale and low-emission sources. Energy is one of them. The PEP 2040 project provides for the commissioning of the first nuclear unit with a capacity of 1-1.5 GW in 2033, and another five by 2043. The total capacity of the reactors would amount to 6-9 GW. However, as international experience shows, nuclear energy consumes huge financial resources. In the case of Poland, figures in the range of 15-19.2 billion PLN per 1000 MW are provided. In addition, nuclear energy needs huge amounts of water for cooling, which is why the transition from coal to nuclear energy will also sustain the problem of declining hydrological resources in the country (Polski Instytut Ekonomiczny, 2019).

3. **Building the common defense capability, taking into account the multi-domain approach (not only in the purely military but also in the non-military aspect)**. This concerns the expansion of the debate on personnel reserves, the involvement of civilian state structures in defense planning, and the preparation of a modern system of civil protection (civil defense). At the same time, the necessary synergy should be assumed in the understanding of the modern concept of state security – from military and energy security to an increased level of technological security, cyber security, information security, as well as water and food security.

4. **Taking measures to strengthen the civil protection system in the event of natural and technical disasters, humanitarian crises and taking into account the potential aggressor – the Russian Federation**. The operation of the Civil Defense in crisis situations and disasters should be taken into account by expanding and adapting underground car parks for civil shelters and building

car parks in newly constructed facilities, taking into account all technical parameters enabling their full use for this purpose. In this regard, changes in e.g. building regulations should be considered, as well as the expansion of alternative water intakes (e.g. pumps in housing estates). If Russia uses state terror and a strategy of destruction and extermination against the society of the attacked state, the key challenge is to build a coherent national and perhaps regional civil protection system that would effectively ensure the security of the citizens. Such a system adapted to current challenges should also cover the protection of critical infrastructure with its key services necessary for the functioning of society, e.g. energy, heat, water supply, transport services, medical supplies and the governance system.

5. **Maintaining the socio-political consensus on the needs of financing the armed forces among citizens, but also among the main actors in the antagonized political scene**. The current acceptance of spending the necessary funds on defense (broadly understood) caused by the Russian aggression against Ukraine may be undermined in the coming years, especially in the event of turbulence in the economic system of the state. Achieving a political and social consensus, analogous to the one that took place, for example, in the matter of Poland's accession to NATO, becomes a strategic goal.

6. **Implementation of a forward-looking Technical Modernization Plan accepted from the perspective of its long-term dimension (politically, technologically, militarily)**. This concerns combining the armament factor with preparation for technological transformations, which will define new requirements for the battlefield in the future (maintaining R&D opportunities in the case of Polish industry, science, etc., as well as including Poland in allied activities towards emerging disruptive technologies that would not be available due to the lack of sufficient financial resources in one country). At the same time, it is necessary to opt for the widest possible use of NATO's Innovation Accelerator or the European Defense Fund and other allied formats.

7. **Poland's actions to maintain NATO cohesion not only in the region of Central and Eastern Europe**. From the perspective of the experience of Russian aggression in Ukraine, the key challenge is to gain the ability to stop the aggressor's forces on the state border line. For these reasons, it is in the interest of the countries of the entire eastern flank of NATO, including Poland, to change the priority in NATO's strategy in accordance with the principle: from forward presence to forward defense. Moreover, Poland should become a key partner of the supporters of NATO's 360-degree approach to the perception of strategic threats. Recognizing the need to lobby for strengthening and maintaining the allied presence in Central and Eastern Europe, it is also necessary to understand the strategic needs in the regions of e.g. the Black Sea, the Mediterranean, the

Arctic, and even crisis response missions outside Europe (e.g. North Africa, the Sahel). The 360-degree approach is built on the pillar of creating active NATO, which, despite its natural particularisms, should work out a balance between the defense needs of the allies and the function of deterrence.

8. **Maintaining the ability for effective allied cooperation with the US, as well as with European allies, including Germany, France, the United Kingdom, and the countries of Central and Eastern Europe**. From Poland's perspective, it is currently difficult to consider replacing the role of our transatlantic allies with other actors as realistic. The sphere of allied values would be a contentious issue in this regard, not to mention the ability to actually fulfill allied obligations. Hence, despite some ideological or political differences, there is a strategic need to develop military cooperation with the US, Germany, France, and the United Kingdom. This does not mean omitting enhanced cooperation with other countries (e.g. Sweden, Finland, or Ukraine), within which particular attention should be paid to Romania and the Baltic States, which are in a similar situation to Poland. It seems, however, that Poland still has limited capabilities (although these capabilities have increased significantly in the face of the ongoing war in Ukraine) to independently shape the surrounding space (primarily in the area of security) in the long term, but it does have to play the role of moderator in this regard in Central and Eastern Europe. This is supported by the fact that Poland is characterized by a high level of fulfillment of allied obligations and the ability to simultaneously strongly emphasize threats and forms of minimizing these threats in the region.

CONCLUSION

This analysis of the post-pandemic security environment during the war in Ukraine in the political and geopolitical dimension out to 2040, carried out as part of the NUP 2X35 campaign, allows to conclude that the current and future security environment will continue to be characterized by high dynamics of change and uncertainty, as well as the occurrence of a number of challenges and threats related to changes in the international order, the possibility of a global economic crisis, migration and climate change.

In political and geopolitical terms, the future security environment will continue to be characterized by unpredictability and uncertainty. The new international (dis) order (most likely multipolar and polycentric, but with two dominant poles) that is being created before our eyes – shaped in part by the challenges coming from the imperialist ambitions of Russia and China – in the opinion the NUP 2X35 experts will be primarily a platform to intensified competition between actors of international relations. Importantly, the new order may probably be both a cause for the initiation of new armed conflicts and a reason for the unfreezing of old ones, as states and non-state actors will use new instruments of influence and, in the process, destroy the international norms that have ensured political stability in the last decades. The above allows us to imagine many probable scenarios for the world out to 2040 – from a democratic renaissance to the transformation of global cooperation – of course, depending on interactions or human choices along the way.

Rapid technological progress, including information technology, is one of the reasons why the world in 2040 will be even more complex, but also more sensitive to these processes than it is now. Many trends will interpenetrate, resulting in a comprehensive range of changes and effects, such as serious changes in world politics, changes in the functioning of individual communities and humanity as a whole, further dynamic development of modern technologies, and increased care for the natural environment. These changes will multiply the tests of states' resilience systems and the adaptation of communities to changing geopolitical, social, economic and technological conditions, often exceeding the capacity of existing systems and models. Moreover, the imbalance between existing and future challenges/threats, and the capability of states/institutions and systems to respond to them will likely increase further.

It should be noted that the NUP 2X35 campaign is one of the activities aimed at developing the capability to identify the conditions of the future state security environment and the requirements that the Polish Armed Forces will face. In the next cycles of the NUP 2X35 campaign, we intend to take actions aimed at determining the impact of identified factors and trends in the security environment on the operational environment and the use of the Polish Armed Forces using heuristic foresight and wargaming-based scenario foresight. Work will also be continued in inclusive communities of practice integrating experts from various scientific disciplines examining the environmental states and processes in the security environment of the Republic of Poland. At the same time, we hope that this monograph and other results of work carried out as part of the NUP 2X35 campaign will be an inspiration to continue a broad expert debate on challenges for state security and will contribute to increasing public awareness in this area.

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The key success factor in conducting this cycle of the NUP 2X35 campaign was undoubtedly the involvement of researchers and experts who, *pro publico bono*, joined the work of communities of practice dealing with political, geopolitical, economic, and social aspects, urbanization processes, and changes in the areas of new technologies and the natural environment.

Without the expert knowledge of representatives of military and civilian universities, public administration units and think-tanks, it would not be possible to achieve the intended goal of this campaign cycle, which was to identify and describe key trends in the post-pandemic security environment out to 2040, taking into account preliminary conclusions from the war in Ukraine. The results of research and expert analyses presented during the GlobState conference, webinars, and scientific seminars conducted as part of the NUP 2X35 campaign constituted the basis for analytical work carried out in inclusive thematic teams. Thus, the involvement of researchers in the work under the umbrella of the NUP 2X35 campaign may constitute a mature example of the impact of research activity on the functioning of society in the sphere of state security and defense, which is one of the criteria in the parametric assessment of research units.

We are grateful that as part of the NUP 2X35 campaign, we could benefit from the results of research and expert knowledge of representatives of numerous universities, commands, public administration units, and think-tanks. In the area of politics and geopolitics, particularly active participants in the NUP 2X35 campaign were:

- War Studies University,
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- Catholic University of Lublin,
- General Staff of the Polish Armed Forces,
- Adam Mickiewicz University,
- Kazimierz Wielki University,
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- University of Opole,
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Director
Doctrine and Training Centre
of the Polish Armed Forces
Col. Dr. Andrzej Lis

ABOUT THE AUTHORS

Col. Dr. Robert Reczkowski

Deputy Director – head of Concept Development and Lessons Learned Division at Doctrine and Training Centre of the Polish Armed Forces. He is also an academic at the Faculty of Political and Security Sciences, Nicolaus Copernicus University in Toruń.

His research interests focus mainly on topics related to contemporary armed conflicts, national and international security, and issues related to geopolitics and geostrategy, both in historical and contemporary terms.

Dr. Jacek M. Raubo

Analyst dealing with security and defense issues, affiliated with the Defence24 Group since 2015. He is also a lecturer at the Faculty of Political Science and Journalism, Adam Mickiewicz University in Poznań.

His academic interests primarily revolve around topics related to national and international security, the impact of technological advancements on armed conflicts, as well as matters associated with the activities of contemporary secret services.

Prof. Łukasz Jureńczyk

Professor at Kazimierz Wielki University in Bydgoszcz, head of the Department of Security Policy at the Faculty of Political Sciences and Public Administration. He is also the editor-in-chief of the academic journal "World of Ideas and Politics".
His academic interests encompass international political relations, international military relations, and various aspects of security policy.

Prof. Andrzej Podraza

Head of the Department of International Relations and Security at the Institute of Political Science and Public Administration of the Faculty of Social Sciences of the Catholic University of Lublin. From January to May 2023, Visiting Fellow at the Nanovic Institute for European Studies, Keough School of Global Affairs, University of Notre Dame, the US.
His research interests include theories of international relations, European integration (historical development of European integration, treaty reforms, EU institutions and decision-making procedures), EU external relations and security (common foreign and security policy, common security and defense policy), transatlantic relations (US foreign policy, NATO, US-EU relations), international security, energy security, cybersecurity, Central and Eastern Europe.

Paweł Turowski

Since 2007, he has been working in the Department of Law and Non-Military Security of the National Security Bureau in Warsaw. A graduate of the Institute of History, the University of Warsaw.
He mainly deals with the issue of state resilience, including: energy security, economic security, geoeconomic challenges, as well as hybrid and information threats.
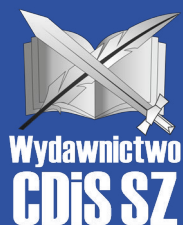
NUP 2X35 EXPERTS

PARTICIPATING IN DEBATES DEDICATED TO THE IMPACT OF THE COVID-19 PANDEMIC AND THE WAR IN UKRAINE ON THE AREA OF POLITICS AND GEOPOLITICS

- Bryc Agnieszka, Dr. – Nicolaus Copernicus University in Toruń
- Cesarz Maciej, Prof. – University of Wrocław
- Gryz Jarosław, Prof. – War Studies University in Warsaw
- Hut Paweł, Prof. – Ministry of National Defense, University of Warsaw
- Jureńczyk Łukasz, Prof. – Kazimierz Wielki University in Bydgoszcz
- Makowiec Paweł, Dr. – Chancellery of the Prime Minister, Military University of Land Forces in Wrocław
- Pawlak Cezary, Lt. Col. Dr. – Doctrine and Training Centre of the Polish Armed Forces, University of Łódź
- Pawłuszko Tomasz, Dr. – University of Opole, Sobieski Institute
- Piechowiak-Lamparska Joanna, Dr. – Nicolaus Copernicus University in Toruń
- Pieczywok Andrzej, Prof. – Kazimierz Wielki University in Bydgoszcz
- Podraza Andrzej, Prof. – Catholic University of Lublin
- Polcikiewicz Zdzisław, Col. (Ret.) Prof. – Nicolaus Copernicus University in Toruń
- Raubo Jacek M., Dr. – Adam Mickiewicz University in Poznań, Defence24 Group
- Reczkowski Robert, Col. Dr. – Doctrine and Training Centre of the Polish Armed Forces, Nicolaus Copernicus University in Toruń (thematic coordinator)
- Reginia-Zacharski Jacek, Prof. – University of Łódź
- Repetowicz Witold, Dr. – War Studies University in Warsaw
- Sadowski Sławomir, Dr. – Kazimierz Wielki University in Bydgoszcz
- Szpak Agnieszka, Prof. – Nicolaus Copernicus University in Toruń
- Świętochowski Norbert, Col. (Ret.) Prof. – Military University of Land Forces
- Tomaszycki Marek, Lt. Gen. (Ret.) Dr. – Military University of Land Forces in Wrocław
- Turowski Paweł – National Security Bureau
- Wałdoch Marcin, Dr. – Kazimierz Wielki University in Bydgoszcz
- Wincławska Maria, Prof. – Nicolaus Copernicus University in Toruń

- Wojciechowski Sebastian, Prof. – Adam Mickiewicz University in Poznań, Institute for Western Affairs;
- Wróblewski Paweł, Dr. – University of Wrocław