

Global Power Shifting Tendencies Influenced by the Conflict's Outcome: Regional and Global Implications



Andriy Stavytskyy 

Abstract The initiation of military operations by Russia against Ukraine in February 2022 sparked a full-scale war in Europe, impacting the global economy and geopolitical dynamics. This chapter delves into the underlying factors that ignited the conflict, with a particular focus on Russia's historical inclination towards expansion through warfare, its reliance on resource exports, and military capabilities, and its response to technological changes. The modern world's decreasing reliance on resources in favour of technological development poses a challenge to resource-rich countries like Russia, leading to efforts to maintain dominance through military aggression. Russia's economic dependence on resource exports, particularly energy, exacerbates its vulnerability to global market shifts. Understanding the multifaceted drivers of conflict is essential for addressing geopolitical tensions and fostering global stability. Mitigating the risk of future conflicts requires strategic diplomacy, economic diversification, and technological innovation to navigate evolving geopolitical landscapes.

On February 24, 2022, Russia carried out another aggression against Ukraine. Let's be honest, in the case of a blitzkrieg, European countries would not be able to change anything or react in time. However, Ukraine was ready to put up fierce resistance to aggression, which turned a momentary operation into a long-term war. After that, the main countries of the world could not help but react to the beginning of a full-scale war in Europe. Ukraine has common borders with the countries of the European Union, and therefore the consequences of the full-scale invasion of the Russian Federation strongly influenced the policy of the European Union.¹ This includes the

¹Cumming, D.J. (2022). Management scholarship and the Russia -Ukraine war. *British Journal of Management*, (in press), 33, 1663–1667.

A. Stavytskyy (✉)

Lucian Blaga University of Sibiu, Sibiu, Romania

Taras Shevchenko National University of Kyiv, Kyiv, Ukraine

© The Author(s) 2025

S. Nate (ed.), *Ukraine's Journey to Recovery, Reform and Post-War Reconstruction*, Contributions to Security and Defence Studies,

https://doi.org/10.1007/978-3-031-66434-2_1

reaction to the violation of the EU's basic values, the flow of migrants, a change in the energy paradigm, changes in production, an inflationary shock, etc.

The war significantly weakened the long-term prospects of the world economy. The main channel of the initial influence on the world economy was the market of raw materials. The prices of goods supplied by Russia and Ukraine, such as oil, wheat, fertilizers, various metals, have risen sharply. Rising food and energy prices exacerbate poverty and, in some cases, food insecurity, and add to already rising inflationary pressures. Capital outflows and a marked increase in borrowing rates are observed in many countries.² Monetary policy in developed economies became more rigid, which made less rich countries more vulnerable to financial stress.³ There are already clear signs that the war and the associated spike in commodity prices will make it difficult for policymakers in some countries to strike a delicate balance between containing prices and supporting post-pandemic economic recovery.⁴

Prerequisites of War: Mentality

Several reasons for the initiation of military operations are noted in the political discourse. First of all, we are talking about the desire of the Russian Federation to be at a distance from NATO countries. In particular, this was noted in the actual ultimatum of V. Putin in 2021 on providing Russia with “security guarantees”,⁵ which demanded the refusal of NATO expansion, the withdrawal from the territory of countries that became NATO members after 1997, all armed forces and armed forces from have appeared there in recent years. Now it is already obvious that the acceptance of such demands, on the contrary, would only allow Russia to seize all the countries of the former Soviet Union, as well as certain NATO countries, in particular the Baltic countries. At the same time, the argument about the threat of NATO cannot be taken seriously, because even in the conditions of the war, Russia relatively calmly accepted the entry of Finland and Sweden into this organization. It is obvious that the problem does not lie in the defensive organization at all, but in what real tasks and goals Russia sets for itself. To answer this question, you need to do some research into the history of the country's development.

² *CentralBankRates*. URL: <https://www.cbrates.com/>.

³ Guénette J.D., Kenworthy P., Wheeler C. Implications of the War in Ukraine for the Global Economy. EFI Policy Note 3. URL: <https://openknowledge.worldbank.org/server/api/core/bitstreams/c0de65e6-cc96-5992-8f48-78417ce0e70e/content>.

⁴ How War in Ukraine Is Reverberating Across World's Regions—IMF Blog. URL: <https://joserobertoafonso.com.br/wp-content/uploads/2022/03/How-War-in-Ukraine-Is-Reverberating-Across-Worlds-Regions-%E2%80%93-IMF-Blog.pdf>.

⁵ Russian December 2021 ultimatum. URL: https://en.wikipedia.org/wiki/Russian_December_2021_ultimatum.

Russia was created precisely during the war of 1478 when the Moscow principality annexed the Novgorod Republic. Even though constant wars and conquests were commonplace at the time, this annexation was fundamental: an authoritarian country annexed a mercantile republic with an elected system of government. It was very difficult to keep such opposite systems in one state, therefore the management of the country began to develop exclusively in the direction of strengthening repression, strengthening authoritarianism and oppressing the masses. Accordingly, each new tsar of this territory did not in any way think about ensuring the development of the people themselves, but only about increasing the possibilities of obtaining resources to maintain the repressive apparatus. Any successful entities that were next to Russia have historically been perceived precisely as an object for capture and parasitism.

In the fifteenth century, Russia waged aggressive wars against the Kazan Khanate and the Grand Duchy of Lithuania, in the sixteenth and seventeenth centuries against the Crimean Khanate, the Hetmanate, the Siberian Khanate, and the Ottoman Empire. In these wars, Russia significantly increased its territory, and as a result, the amount of its resources. At the same time, similar wars against Sweden, Denmark, Livonia, and the Polish-Lithuanian Commonwealth were unsuccessful, which made it impossible to expand the state to the West. However, already in the eighteenth century, after the victory in the Northern War of 1700–1721, the Russian Empire began to seize new territories in all directions. During the eighteenth and nineteenth centuries, this country captured the territories of modern Georgia, Azerbaijan, Armenia, Finland, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Sakhalin, Turkmenistan, Inner Mongolia, Tyva, part of Prussia, Austria, Dagestan, Amur Krai, Khabarovsk Krai, a large part of Poland. As a rule, the capture was carried out by military means, after which puppet rulers were appointed, who “voluntarily” became part of the empire.

At the beginning of the twentieth century, the situation was not favourable for new conquests, because, in the first quarter of the century, Russia was mainly losing territories. In particular, Finland, Poland, Lithuania, Latvia, Estonia, part of Ukraine and Belarus were lost. However, as early as 1934, permanent operations to change the governments of neighbouring countries began. For example, this year a communist government was established in Xinjiang, later during the Second World War the territories of modern Ukraine and Belarus, Lithuania, Latvia, Estonia, and part of Finland were captured, and control was established over Poland, Czechoslovakia, Hungary, Albania, Yugoslavia, Romania, part of Germany, part of Japan. The bloody world war did not stop Russia's aggressive policy. In 1956, 1968, and 1979, troops invaded Poland, Czechoslovakia, and Afghanistan to establish the desired puppet government.

The collapse of the Soviet Union in 1991 significantly reduced the volume of the controlled territory, and a significant part of the gains of the nineteenth century was lost. But since 1992, Russia has returned to its favourite business: seizing neighbouring states. The main scheme remained the Finnish one, which was tested in 1940: saboteurs take over any settlement where a certain people's republic is proclaimed, which means the beginning of a “civil war”, in which Russia intervenes

in various ways. In 1991–1993, Russia made a puppet of part of Georgia—Abkhazia, in 1992—a part of Moldova—the Transnistrian Republic, in 1999—captured Ichkeria, in 2008—made a puppet of a part of Georgia—South Ossetia.

In 2014, Russia committed another act of aggression by seizing Crimea and creating puppet states in the east of Ukraine. Non-recognition of the annexation of the territory led to an open invasion of Ukraine in 2022. Thus, we see that, regardless of size, Russia has already formed an imperial mentality that requires constant expansion of controlled territory. If in the Russian Empire, it was simply the capture of neighbouring countries, in the USSR—the so-called spread of communism, in modern Russia—the introduction of the idea of the “Russian world”, which requires the capture of any territories where there are Russian citizens or speakers of the Russian language. In principle, any other state falls under the idea of the “Russian world” in the same way as under the idea of communism. Therefore, it is not necessary to be surprised by the desire to be admired by Russia.

Russia’s aggressive behaviour lies solely in its inability to ensure the development of the state and population in the long term. The system of parasitism in the Russian Empire, the USSR, and current Russia only led to corruption and technological, cultural and social backwardness. Moreover, this logic is also correct for its satellites. For example, East Germany, occupied by the USSR since 1945, 1990 was already 10–15 years behind Western Europe technologically, that is, about a third of the period of occupation. The greater the influence of Russia, the greater the decline. It is not for nothing that the post-socialist countries, which were satellites until 50 years ago, were able to relatively quickly build a more or less normal economy, still lagging behind Western countries. At the same time, the post-Soviet republics, which were under occupation for about 90 years, spend decades on the same path, not always having significant success. Thus, one of the components of aggression is constant technological and social backwardness, which creates a complex of inferiority in citizens, which they try to compensate for with a certain sublimation—a nuclear complex.

Prerequisites of War: Decreasing of Weight of Resources in the Modern World

The second major reason, which is somewhat related to the first, is the inability of Russia to show flexibility and adapt to new business conditions. Since the time of the USSR, a system has been formed in which Russia acts as the resource base of Europe, supplying oil, gas and other resources to the countries of the world. In recent decades, this country has focused on increasing supplies to Europe, which allowed it to increase its profits, therefore, as of the beginning of 2022, Russia was not only one of the world’s largest exporters of natural gas and oil but also the main exporter of

other goods to Europe.⁶ For a long time, Russia received huge revenues from the export of oil, gas and other resources, which created a certain cushion for it, which allows it to solve several strategic tasks. Firstly, at the expense of significant incomes, an opportunity was created to provide the average standard of living of the population higher than that of neighbouring countries, especially the former republics of the USSR, which made Russia a desirable country for trade. Secondly, Russia created a significant dependence on the supply of energy resources, which to a large extent tied the economies of its neighbours to itself, and also created pre-requisites for the possibility of influencing the political institutions of these countries. Such influence was not limited to the countries of the former USSR, because Russia strategically wanted to make the European market as dependent as possible on supplies, which could guarantee political stability in the event of war.

Russia had an extensive network of gas and oil pipelines and stable supply routes. Before the war, dependence on Russian oil supplies exceeded 20% in 14 countries, and for five of them (Slovakia, Lithuania, Poland, Finland, and Hungary) it exceeded 40%.⁷ With gas, the degree of dependence was even higher: three countries depended on Russian gas supplies for 100%, and another three depended on more than half. In Germany, Italy and Poland, the dependence on Russian gas in 2021 was from 40 to 50%. It is these three countries that create almost 40% of the GDP of the countries of the European Union, and therefore the dependence was really critical.

If other resource-rich countries made powerful investments in the development of the economy and culture, Russia fell into the so-called Dutch disease, when the state budget depends on the export of several types of raw materials (oil and gas) for more than two-thirds. At the same time, the needs of the population in goods and services are met at the expense of imports, which makes it impossible to develop its own production.

Despite the relative degradation of the Russian economy, this situation generally suited everyone. European countries were guaranteed to receive relatively cheap gas and oil, and the leadership of the aggressor country strengthened its position in its own state. However, the situation began to change. The rapid development of shale oil and gas extraction technologies, the transportation of liquefied gas, and green energy have led to the understanding of a reduction in the impact on neighbours at the expense of energy carriers, which means a reduction in stability in Russia itself.

The degree of implementation of renewable energy sources is steadily increasing, on average since 2006 it has doubled across EU countries: from almost 11% to 22%. Scandinavian countries traditionally remain the leaders, where this share exceeds 83%. But the main thing is that the trend of increasing the use of renewable sources is unchanged, and therefore dependence on energy supply should decrease soon.

⁶Bhattachai, A., Romm, T., & Siegel, R. (2022, February 28). US economy appeared ready that surge, but Russia's invasion of Ukraine could send shock waves. *The Washington Post*. URL: <https://www.washingtonpost.com/business/2022/02/25/economy-us-russia-ukraine-gas/>.

⁷Izarova I., Drozd N., Kharlamova G., Terech O., Baklazhenko Yu., Stavtysky A. The first 100 days of war. Through the eyes of the Ukrainian academia. Ed.: Delia Stefanel, Razvan Serbian, I Francheska Pop.—Sibiu: Editura Universitatii "Lucian Blaga" din Sibiu, 2023.—177 p.

Russia realized this back in the 2000s, when the shale revolution began, which called into question the possibility of long-term energy supplies to Europe. The active implementation of alternative energy sources only caused concern for the Russian leadership.

The started war led to the realization of accumulated problems and Europe's gradual rejection of energy cooperation with Russia, which will mean the formation of a completely new market structure in the world, and, accordingly, a new security system. After all, in the long term, the situation for Russia does not look so good. Various strategies for switching to alternative fuel sources have already been implemented in the EU many times, but the 2022 crisis only accelerated this process. In particular, the European Commission adopted a plan for the transition to renewable energy sources and the abandonment of Russia's energy resources, according to which it is planned to spend 300 billion euros on financing the missing links of the gas, LNG and oil infrastructure, accelerating and expanding the transition to clean energy. Accordingly, by 2030, the share of renewable energy sources should be 45%, and energy consumption should be reduced by 13%.

Despite the understanding of the impossibility of further focusing on the Russian Federation in ensuring Europe's energy security, it is almost impossible to give up supplies quite quickly. If oil from the Russian Federation for most countries can be replaced by similar supplies from the countries of the Middle East, then for landlocked countries, it looks quite difficult in the short term. Previously, they received oil through pipelines, and existing logistics routes cannot meet the demand. Accordingly, when the oil embargo was adopted, exceptions were expected for pipeline oil.

Similarly, with gas: the only alternative to pipeline gas is LNG. In 2021, Europe imported from the Russian Federation 17.4 billion m³ of liquefied gas and 167.0 billion m³ pipeline gas. Now these 184.4 billion m³ have to be found in other countries of the world. However, supplies of this gas are significantly limited: firstly, by the availability and capacity of LNG terminals, and secondly, by the supply of LNG in the world. Australia, the USA and Qatar sell a total of 309.9 billion cubic meters or 60% of all liquefied gas. At the same time, 75% of gas from Australia and Qatar will be sent to Asia, which will not give it up. Taking into account certain actions of the Russian Federation to limit gas supplies, Europe will already face a significant gas shortage this year.

Thus, ensuring European energy security requires a fairly quick search for a replacement for almost 30% of the energy that was previously supplied by the Russian Federation and almost half is a gas replacement. It is not for nothing that European countries agreed on a 15% reduction in gas consumption during the war. The way out of the situation should be the development of LNG terminals and own LNG production, especially in new fields in Poland and Ukraine, accelerated development of renewable energy sources and bringing their share to at least 25% by 2030, temporary development of nuclear energy.

Thus, the further development of the concept of energy security in Europe should be related to the achievement of the above goals, the provision of energy logistics, as well as the process of unification of energy rules and tasks in European countries, which will allow full energy sovereignty.

Russia once again faced its standard problem: the current source of income will soon begin to decrease critically, and technologically the country once again lags behind the world. Accordingly, since the aggressor country does not want to implement global development trends, it is necessary to find another place for parasitism.

Given the fact that during its existence the Russian Federation was unable to build a self-sufficient economy based on the sale of resources, the time of its competitive existence should be shortened. Accordingly, the country's authorities are in a hurry to seize the largest possible amount of resources and production to ensure further demand for their products. Russia has entered the last phase of its existence, where without structural transformation it will not be able to sustain its activities. It is for this reason that this country is forced to hurry.

However, other industrial resources should not be underestimated, because the technology change significantly affects which resources are useful. In particular, metals necessary for the production of a key element of the transition to green energy (batteries) have soared in price 6 times since March 2021 and then halved. In general, for example, during the period from March 2021 to the summer of 2023, lithium in general grew by 5 times, and nickel by 1.5 times. Because of this, there was a desire to create a cartel conspiracy between countries that control almost 60% of explored lithium reserves. There is also the problem of China's monopoly position, which controls 58% of lithium processing capacity. Therefore, greater control over territories provides opportunities for additional control over resources.

Prerequisites of War: Military Backwardness

The world economy is developing rapidly, it is enough to note that the combined GDP of the countries of the world in 2021 was almost 8 times greater than the GDP in 1960.⁸ It is obvious that this growth is due to two key factors. First, it is the development of technologies that contributed to more efficient use of resources, the creation of new goods and services, and the development of logistics. Secondly, the significant increase in the global population, which increased 2.6 times from 1960 to 2021.⁹ These changes lead to the formation of a completely new structure of the economy, changing the role and influence of every country in the world. If we consider the development of the main players on the planet, it can be seen that the share of the US GDP in the planetary output from 1992 remained approximately at the level of 27–28% until 2007. It was in this pre-crisis year that there was a drop to 26.5%, which accelerated in the following years. Currently, the US produces only 23.6% of the global GDP, remaining at the top of the leaderboard. At the same time, China's role as the main geopolitical adversary of the USA is constantly growing. If

⁸GDP (constant 2015 USD). URL: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD>.

⁹Population (total). URL: <https://data.worldbank.org/indicator/SP.POP.TOTL>.

back in 1992, China produced a little more than 3% of the global GDP, then already in 2021 this share will increase to 18.2%. During this time, Russia produced from 1.5 to 2.5% of the global GDP, and over the past 15 years, this share has gradually but steadily decreased from 2 to 1.7%.

It is worth analyzing the role of NATO in the geopolitical confrontation between the three main states. If by 2021 its role had declined somewhat, then the beginning of the Russian Federation's war against Ukraine posed the question of NATO's existence and membership in it with new force. In 2022, three countries submitted applications to the alliance: Finland, Sweden and Ukraine. Finland's application was approved relatively quickly, but the situation with Sweden due to certain political problems forced the postponement of this country's membership, but there is no doubt that Sweden will soon become a new member of NATO. Accession to Ukraine is currently impossible due to the war. However, NATO is the main block in the world that is able to oppose the Russian Federation, which has both conventional and nuclear potential comparable to it. The table shows the share of GDP of NATO countries as of 2022 after the accession of Finland. This share has fallen from 56.6% to 46.1% since 1992, despite NATO's relatively steady expansion. In order to understand the role of new members, the share of NATO's GDP from the planetary GDP was calculated with the countries that were actually in the bloc on a certain date. As we can see, this share is from 97 to 99%, that is, the entry of new members, so their additional contribution as a whole is at the level of statistical error. Thus, regardless of the entry of new members of the bloc, it controls an ever-lower level of production. However, it should be noted that while China added 15% of global GDP during the period under review, NATO countries lost 10.5%, but NATO, China and the Russian Federation began to control 3.5% more than in 1992 (increasing from 62.5% to 66%). As you can see, there is currently no opportunity in the world to create another real military bloc that could compete with the existing ones. The rest of the world accounts for only a third of the world GDP.

One of the most important aspects of financial management in the security and defence sector is cost control. After the Second World War, these costs almost always decreased. If in the early 1960s, they accounted for almost 6.5% of GDP, then in 2021 they will drop to 2.2%. However, in nominal terms, they continue to grow, in particular, in 2021 they reached 2.1 trillion. Dollars. The largest spending in 2021 was seen in the US, China, India, the UK and Russia, which together accounted for 62% of spending. In 2022, Saudi Arabia replaced Great Britain in the top five. If we analyze it by world regions (Fig. 1), we can see certain trends, in particular, obvious constant trends for the growth of military spending in Asia and the countries of the Middle East.

According to SIPRI's assessment,¹⁰ the largest 20 countries spend almost 87% of all military expenditures. At the same time, the distribution of such expenses across the countries of the world is rather uneven. For example, according to statistics, in 2020, Ukraine's defence expenditures amounted to 3.4% of GDP, which is one of

¹⁰SIPRI Military Expenditure Database. URL: <https://www.sipri.org/databases/milex>.

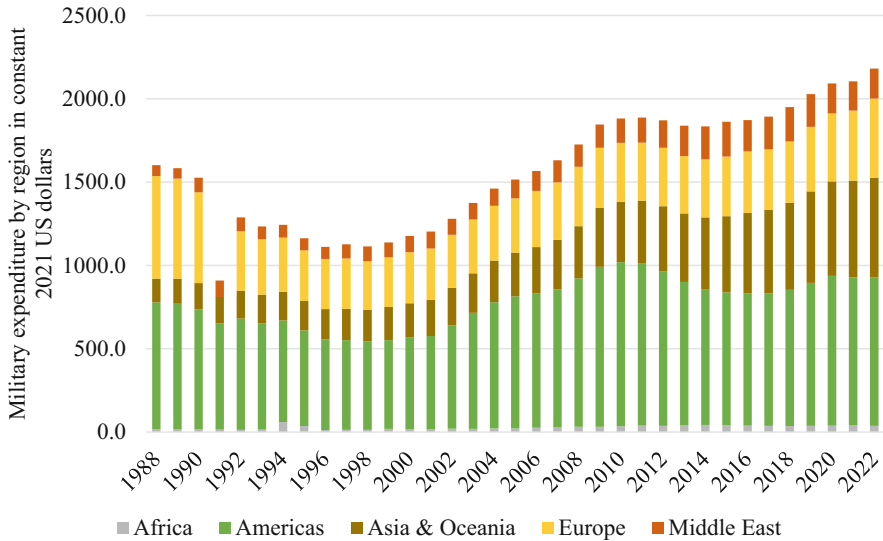


Fig. 1 Military expenditures by world region. Source: compiled by the author based on SIPRI Military Expenditure Database. URL: <https://www.sipri.org/databases/milex>

the largest indicators among the countries of Eastern Europe. At the same time, the full-scale invasion of the Russian Federation into Ukraine forced a significant increase in these costs. Currently, Ukraine has the highest percentage of relative defence spending. Ukraine's military expenses in 2022 increased 9.3 times and amounted to \$80.3 billion, or 55% of GDP,¹¹ the Ministry of Finance, and NATO countries paid 86% of Ukraine's needs. The budget of the Ministry of Defense of Ukraine in 2022 was \$37 billion, and together with spending on paramilitary formations, the costs amounted to \$44 billion.¹² NATO countries allocated 32.4 billion dollars to Ukraine, i.e. up to 74%. The second part of the costs is the supply of weapons by allied countries. As of February 2023, they reached \$7.24 billion.¹³

It should not be forgotten that economic power is a rather variable concept. Currently, there are two main leading countries in terms of economic power: the United States and China. However, The Economist magazine¹⁴ notes that China is currently facing a number of serious problems that can seriously complicate its further economic development. First of all, we are talking about the demographic component. The size of the working population of China has been decreasing for

¹¹The 2022 budget. URL: https://mof.gov.ua/uk/budget_2022-538.

¹²Trends in the world military expenditure, 2022. URL: https://www.sipri.org/sites/default/files/2023-04/2304_fs_milex_2022.pdf.

¹³Data Set Ukraine Support Tracker Data. URL: <https://www.ifw-kiel.de/publications/data-sets/ukraine-support-tracker-data-17410/>.

¹⁴How soon and at what height will China's economy peak? URL: <https://www.economist.com/briefing/2023/05/11/how-soon-and-at-what-height-will-chinas-economy-peak>.

about 10 years, and in 2022 the country's population reached its peak. Any attempts to increase the birth rate have not yet yielded results, so according to the UN, by the middle of the century, the number of the working-age population of China may decrease by more than a quarter. This, of course, will deal a significant blow to China's GDP growth. However, another significant problem is the constant decrease in labour productivity in the country. A long period of booming development and construction of houses, roads and railways is replaced by a period of diminishing returns on infrastructure spending. Also, increasing geopolitical tensions in the world lead to the withdrawal of investments and entire enterprises from China to the USA, Great Britain and others, which will further reduce labour productivity.

In such a situation, there are several possible solutions. The first in practice was shown by the countries of Eastern Europe, which implemented not only market mechanisms but also a democratic system, which led to growth even in conditions of population decline. The second method is practised by authoritarian countries that try to compensate for the outflow of the population or its decrease at the expense of new territories, new resources, and new technologies. It is obvious that China has chosen the second path, and therefore it will become more aggressive as the situation in the economy worsens. According to forecasts, by 2030, the country's naval fleet may exceed the American one by 50%, and by 2035, its nuclear arsenal will increase almost four times.

Prerequisites of War: Technological Changes

As already mentioned earlier, throughout its history, Russia has always faced technological backwardness. Another important aspect of the present should be added to this—the change in the phase of technological development. The book¹⁵ examines the history of technological innovation. Although the author uses them to analyze the implementation of the green economy, his division into historical cycles can be useful for understanding geopolitical changes. The stages of technological development have a major impact on various areas of society, including industry, military affairs, energy, social change, and education. Table 1 shows six stages of technological development with a description of the relevant technological innovations and their impact on various areas.

Currently, we are at the beginning of the sixth stage, which determines the individualization of demand, production, training, and logistics. This means that standard resources cease to play the role they used to play.

The openness of the economy allows you to quickly adapt existing technological solutions to life, which was demonstrated by Ukraine, which in a rather limited time became one of the technological leaders in the banking sector, agriculture, and

¹⁵Stoknes *PETomorrow's Economy. A Guide that Creating Healthy Green Growth*. The MIT Press, 384 pp. ISBN: 9780262044851.

Table 1 Stages of technological innovation

Stage	Technological innovations	Military innovations	Energy innovations	Social changes	Changes in education
Wave One: Mechanization (1760–1830)	The creation of the first engines that allowed to mechanize primitive production, mainly with the help of water energy. Replacement of people with machines, development of the textile industry, factory production.	The development of steamships and steam engines, which significantly improved the transportation of troops and the provision of military operations.	Use of water energy. The beginning of industrial coal mining	The creation of a new class of people who were the owners of new capital, which was associated with new technologies: mills, spinning mills, weaving and mechanical factories.	Implementation of mass compulsory education, development of universities
Wave Two: Steel, Steam, Railways (1830–1900)	The creation of steam engines, which allowed the creation of railways, the transportation of large volumes of goods by land and the rapid development of industry, in particular, steel.	Development and improvement of firearms, including long-range	Mass use of coal for all spheres of life. Beginning of industrial production of electricity (1882).	The creation of monopolies in the field of transportation and steel production, the spread of their influence on political processes in countries.	Achieving almost complete literacy of the population, increasing diversity educational trajectories
Wave Three: Industry (1900–1945)	The introduction of mass production technology, which made incredible volumes of consumer goods available at ever lower prices. The beginning of the introduction of chemistry in industrial production.	The development of mass-produced weapons that used new energy (oil) technology: airplanes, tanks.	The beginning of oil production and its widest possible use for the transportation of people and goods. The use of electricity for mass production and improving the quality of life.	Industrial conglomerates have the greatest influence.	Development of research work, expansion of courses in social sciences and humanities, increase in the number of students and expansion of access to higher education.
Wave Four: Electronics,	Introduction of electronics, development of	The development of aircraft strength, the		TNCs become rich and politically influential	Standardization of education, its globalization, (continued)

Table 1 (continued)

Stage	Technological innovations	Military innovations	Energy innovations	Social changes	Changes in education
Television, Aviation (1945–1990)	television and consciousness management technologies.	creation of high-precision and nuclear weapons.	Start of gas production, the introduction of nuclear energy.		the introduction of active international exchange of experience, academic mobility.
Wave Five: The Digital and Internet Wave (1985–Present)	Implementation of the internet, online trade, mass communication technologies	Improvement of high-precision weapons, implementation of systems for simultaneous control of troops and various equipment, creation of UAVs	New technologies for the production of shale oil and shale gas, liquefied gas, the beginning of the introduction of green energy and renewable energy sources	Digital content companies are the most profitable and influential in the world	The integration of technologies and the start of using online courses, the introduction of training programs that meet the requirements of the labour market, the creation of innovation centres and a change in the model of interaction between teachers and students.
Wave Six: Green (2015–2060)	Implementation of the Internet of Things, electricity conservation technologies, systems for sharing items and services.	Automation of management of technical means, implementation of artificial intelligence systems for management of robotic troops	Transition to renewable energy, abandonment of fossil fuels	Companies developing artificial intelligence systems, robots and drones, environmentally friendly technologies, climate control systems.	Activating the focus on an individualized approach to learning and research, using artificial intelligence and blockchain technologies, promoting the development of flexible and distance learning, expanding cooperation between universities and industry to improve the level of graduate training

					and ensure compliance with the requirements of the modern labour market.
--	--	--	--	--	--

Source: compiled by the author

online trade. This was demonstrated during the war, when even in the most difficult early days, the banking system never once stopped making payments or issuing funds, the shops continued to operate. At the same time, relatively closed economies, for example, the Russian Federation, create only technological clusters in large cities, without spreading technology throughout the country.

Key Take-Aways

1. The state formation on the territory of the modern Russian Federation constantly gravitates towards expansion at the expense of war, which is proven by its history. The mentality of the people requires constant conflicts, and therefore the only way to avoid future wars on the European continent is to divide Russia into several states that will not possess nuclear weapons. At least some of them should choose a democratic path of development with subsequent accession to the EU.
2. The role of resources in the modern world is gradually decreasing in favour of technological development. Resource-rich countries (such as Russia), sensing their backwardness, are trying to delay the inevitable collapse of their economy due to the loss of the monopoly on the supply of energy to European countries. Until the economy of such countries is diversified, they will pose a threat to all humanity.
3. The role of NATO has decreased over the past 30 years, in particular, the countries of the alliance began to control 10% less of the world's GDP than earlier. Today, their share is slightly more than 46%, which gives certain chances for the formation of a new block similar in strength to what China is doing. However, in the medium term, it will not be able to create an entity that will be able to challenge NATO.
4. The world is undergoing another technological transition, which complicates disputes between countries and leads to tectonic shifts. The new order will be associated with the development of artificial intelligence, planetary object management systems, climate control systems, and robotic troops. Countries that can adapt to changes will be leaders in the next 20 years before a new phase transition.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

