

THE END OF THE ENERGY WAR IN EUROPE

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Abstract

The article traces the development of the confrontation and economic war between European countries and Russia in the energy sector following the start of Russian aggression in Ukraine. The main actions taken by Russia are outlined, which created an energy deficit in the energy markets and posed a significant risk to the energy security of European countries. The specific steps taken to stabilize the energy supply system and counter Russian policies are mentioned. Important instruments in energy policy are presented, including the “REPowerEU” plan and the decisions of the “Price Cap Coalition”. The effects of imposed sanctions on the Russian financial and economic system are analyzed, highlighting the low capacity of the Russian economy to compensate for the created deficits and limited opportunities for organizing alternative energy supplies. In conclusion, the main mistakes in Russia’s energy strategy and energy policy are defined, leading to Russia’s sustainable exclusion from the energy markets of Europe.

Keywords: sanctions, energy supplies, Russia, European Union, energy policy, REPowerEU, effect from sanctions, Price Cap Coalition

JEL: F51, F02, F17, H68

The emergence of the idea of the Russian “energy superpower”

A brief historical overview of Russia’s policy in the present century shows that soon after the collapse of the Soviet Union, the Russian political elite defined the restoration of Russia’s historical sphere of influence as its primary goal. Despite the heavy shock of the disintegration of the former empire from the Russian side, a historical revenge was sought. Such an approach fully corresponded to Russian political tradition. In one of his analyses of the peculiarities of Russian politics, Henry Kissinger notes that when Russia is in an offensive position, “it rarely shows a sense of restraint. Repulsed, it tends to heal its wounds and wait for the time of revenge” (Kissinger, 1995).

Despite the harsh lessons in its history, Russia continued its efforts to identify itself as a great power with growing geographical expansion, which traditionally involves control over increasingly larger territories and resources. An important

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element in the applied approaches in Russian politics was the linkage and dependence on European energy markets. The Russian leaders who took charge of the country at the beginning of the new millennium increasingly started using energy supplies to European countries as a means of pressure and creating various degrees and types of risks to their energy security.

A telling indication of the actual objectives of Russia's policies was the public reaction following the signing of the agreement in 2005 for the construction of the "Nord Stream" gas pipeline. Russian state media at the time featured numerous triumphant assessments that Russia had become a "great energy force" with an "energy weapon" (Brown, 2019). These assessments gradually found their way into the public sphere and became more widely circulated retrospectives connected to symbols of imperial grandeur in Russian history.

Unfortunately, the European response to the expanding Russian expansion at that time was not adequately sufficient. The increasing risks and potential threats were left without the necessary attention. Thus, despite some warnings, Europe allowed itself to fall into critical dependence on Russian energy sources. In 2021, the European Union imported 43% of its natural gas, 27% of its oil, and 40% of its coal from Russia.

The dependence of Europe also had its flip side, as it served as a major market for the realization of Russian energy resources. In the European direction, Russia realized over „60% of its gas exports, more than 50% of its overall oil and petroleum product exports, 35% of its aluminum exports, and almost 30% of its coal exports" (Prokofyev, 2022).

The increasing Russian presence in energy markets in Europe over the years, despite the existence of mutual interdependence, was accompanied by the implementation of non-commercial practices and systematic violations of energy market regulations.

Russia's ambitions and systematic attempts to establish complete control over Europe's energy markets were pursued in parallel with its efforts to restore its statehood and dominance in the post-Soviet space first in Chechnya and subsequently in neighboring countries, where frozen conflicts emerged in Transnistria, Abkhazia, and South Ossetia. According to Francis Fukuyama "over the 30 years of its existence, the Russian Federation has turned into an extreme right-wing radical imperial entity that does not recognize any borders, neither its own nor those of others" (Fukuyama, 2023).

In 2021, Russia began to deploy significant military forces along its border with Ukraine, simultaneously asserting its position on several crucial international issues. At the end of the year, a Russian ultimatum was issued to Ukraine and NATO countries, containing absolutely unacceptable demands. After receiving the expected rejection on February 24, 2022, Russian forces invaded Ukrainian territory.

Confrontation in the Energy Markets in Europe in 2021

The energy war is a particularly important element of Russia's economic and financial war against the United States and the EU. Its main goal was to create a deficit in energy markets, gradually expand the created deficit, generate artificially high prices, disrupt critically important societal activities, and cause heavy financial losses to European countries.

The manipulation of energy markets began in 2021 when, before the start of the winter season, it was discovered that natural gas supplies in European gas storage facilities had reached a critically low level. Data indicated that European gas storages, especially those under the operational control of "Gazprom", had reached their minimum level in seven years. According to "Gas Infrastructure Europe" the gas storage level was only 49% compared to approximately 65% during the same period in 2020. This circumstance, along with the increasing issues related to the regularity of energy supplies, led to an increase in prices of both natural gas and electricity.

In October 2021, the Russian president assured that "Gazprom" would increase natural gas deliveries to the European market to normalize the energy supply system and reduce the high prices of energy resources. However, it soon became apparent that the opposite was happening. Despite Russia's categorical commitment and even with increased supplies of liquefied natural gas from the United States, the natural gas shortfall in Europe continued to increase" (economic.bg, 2022).

Under these conditions, unlike other European suppliers such as Algeria, Azerbaijan, and Norway, Russia systematically reduced its deliveries to Europe. In the fourth quarter of 2021, Russian imports decreased by 25% compared to the same period in 2020 and by 22% compared to the levels of 2019. An analysis of the energy markets conducted by the International Energy Agency (IEA) at that time revealed that Russia had a significant additional capacity that allowed it to increase gas supplies to Europe by over thirty percent. The deliberate anti-competitive behavior of Russia gave rise to valid criticisms regarding the actions of Gazprom as "one of the significant factors contributing to the energy crisis and the rise in natural gas prices".²

In the face of growing uncertainty in the European market from Russia, it was stated that "assistance could be provided to Europeans, but on the condition that transit through Ukraine is completely halted and gas flows are redirected through the Nord Stream 1 and 2 pipelines" –Priyaka demokratsia, 2021). Russia's proposal confirmed the hypothesis that Russia's actions were

² The results of the conducted analysis have given rise to criticism of Russia by the Director of the International Energy Agency (IEA), who believes that its policy is likely a part of the reasons for high gas prices in Europe (economic.bg, 2022).

primarily aimed at exerting pressure on Europe to achieve its strategy of bypassing Ukraine as a transit country for energy deliveries. The artificially created gas deficit was deliberately used by Russia as a tool to exert pressure on its trading partners. The existing problems were further exacerbated, particularly as the growing gas shortage coincided with the increased demand due to the ongoing process of European economic recovery following the end of the COVID-19 pandemic.

Consequently, natural gas prices experienced a sharp increase and reached a level of \$2000 per 1000 cubic meters, which was entirely justified by the growing energy shortfall.

The crisis in the energy markets in Europe following the start of military actions in Ukraine

Since the beginning of the war in Ukraine, the situation in the energy markets in Europe has continued to deteriorate. The price of natural gas has reached a critical point, surpassing \$2500 per 1000 cubic meters due to the sustained supply shortage. In late March 2022, Russia made unexpected demands on European countries. According to Russia's decision, European countries were required to pay for natural gas in Russian rubles, despite existing long-term contracts specifying payment in US dollars and euros.

The proposed scheme involved customers of Russian natural gas from so-called "hostile states" converting dollars and euros into rubles through the Russian bank "Gazprombank", which would determine the exchange rate. President Putin warned that if European clients of Gazprom did not accept the new rules, existing supply contracts would be terminated.

Soon, Russian threats were put into action as Gazprom began reducing and eventually halting gas deliveries to countries that refused to pay for consumed energy in Russian rubles. The first countries to experience complete supply cutoffs were Poland and Bulgaria. Subsequently, deliveries to several other countries and energy companies were either stopped or reduced.

In May 2022, Russia decided to exert additional pressure on the markets by halting the operation of one of the main gas pipelines for gas transmission, the "Yamal-Europe" pipeline. Shortly after, Russian pressure was further intensified when the supply of natural gas through two other major routes passing through Ukraine's territory, near the "Sakharnovka" station, was halted.

In July 2022, there was another drastic reduction in gas supplies through the "Nord Stream 1" pipeline. Russia decreased the deliveries to a level of only 20% of its capacity, citing maintenance on the turbine that serviced the pipeline. Gazprom eventually halted the operation of another turbine on the pipeline, further reducing deliveries to Europe.

As a result of Russia's actions, a significant energy shortage was created just before the start of the winter heating season in Europe. This deficit led to a constant increase in natural gas prices, reaching a record level of \$3100 per 1000 cubic meters by the end of August 2022.

Gazprom continued its systematic exploitation by announcing a delay in resuming deliveries through the "Nord Stream 1" pipeline. The cessation of gas supplies to Europe was accompanied by a demonstrative burning of gas on the shores of the Baltic Sea³. Soon after, both the "Nord Stream 1" and "Nord Stream 2" pipelines were permanently taken out of operation following explosions registered on September 26, 2022, in Denmark's exclusive economic zone.

As a result of deliberate reductions and complete halts in energy supplies by Russia, the energy security of European countries was put at high risk. This gave Russian authorities satisfaction, as they predicted that "during the winter season of 2022 and the beginning of 2023, entire cities in Europe would freeze" (Miller, 2022).

During the second half of 2022, Europe found itself in a challenging situation and faced problems that needed urgent solutions in preparation for the upcoming winter. Replacing the Russian share was difficult as the main energy supplies passed through the war-affected territory of Ukraine. Seeking solutions through the construction of new pipelines would require a significant amount of time, which Europe did not have. The implementation of large-scale liquefied natural gas deliveries was problematic due to the lack of sufficient receiving infrastructure. Additionally, the liquefied natural gas market was not flexible enough, as many producers relied on long-term supply contracts.

The REPowerEU Plan as a Response to Russian Energy Policy

Countering Russian pressure and urgently replacing energy resources from Russia has become one of the most important tasks for Europe in 2022. Soon after the start of Russian aggression in Ukraine on March 8, 2022, the European Commission proposed key ideas for a plan aimed at making Europe independent from Russian fossil fuels well before 2030. At the European Council meeting on March 24-25, the EU leaders reached an agreement on the need to achieve this goal and requested the EC to present a detailed plan within a short timeframe. The interruption of natural gas supplies to Bulgaria, Poland, and Finland highlighted the necessity for the urgent adoption of such a plan.

³ Specifically, this refers to a liquefied natural gas plant located northwest of St. Petersburg, which burns gas worth about \$10 million per day in the air. Rystad Energy's analysis shows that about 4.34 million cubic meters of gas are burned every day (Mediapool.bg, 2022).

Considering the ongoing and escalating Russian pressure and the disruption of supplies to several European countries, the European Commission adopted the REPowerEU plan on May 18, 2022. This plan was a response to the challenging situation in the global energy market caused by the Russian invasion of Ukraine. The rapid reorganization of the European energy system, as outlined in the plan, was necessary for two reasons:

1. The need to end the EU's dependence on Russian fossil fuels, which are being used as economic and political weapons.
2. The continuation of long-term efforts to address the crisis caused by climate change.

The plan presented by the European Commission included three main elements: energy efficiency, promotion of renewable energy sources, and diversification of energy resource suppliers for Europe.

To achieve the plan's objectives, the following short-term measures were proposed (European Commission, 2022):

- Joint procurement of gas, liquefied natural gas, and hydrogen through the EU's energy platform for all member states willing to participate, as well as for Ukraine, Moldova, Georgia, and the Western Balkans.
- Establishment of new energy partnerships with reliable suppliers, envisioning future collaboration in the areas of renewable energy sources and low-carbon gases.
- Rapid implementation of solar and wind energy projects combined with the use of renewable-source hydrogen, leading to savings of 50 billion cubic meters of imported gas.
- Increase in biogas production, resulting in savings of 17 billion cubic meters of imported gas.
- Approval of the first hydrogen projects in the EU.
- Communication by the EU on energy savings, containing recommendations on how citizens and businesses can achieve savings of approximately 13 billion cubic meters of imported gas.
- Charging gas storage facilities up to 80% of their capacity by November 1, 2022.
- Plans for coordinating the EU's level of demand reduction in case of supply disruptions.

The REPowerEU plan had a value of 300 billion euros and aimed to eliminate Russian energy imports by 2027, combining it with ecological measures, which would save Europe approximately 100 billion euros each year from gas, oil, and coal imports.

The process of normalizing Europe's energy markets in 2022

Despite the challenging situation Europe faced in 2022, it managed to relatively quickly overcome the energy deficit that emerged. Additional quantities were timely agreed upon and delivered by some countries, which were able to rapidly increase their supplies, thereby allowing Europe to replace nearly two-thirds of the natural gas previously imported from Russia within a few months. While Russia held a 31.4% share in the EU during the first half of 2022, this figure sharply dropped to 17% in July-August. By the end of the year, Norway became the largest supplier at 22.7%, followed by the United States at 17.4%.

The increase in energy deliveries from the United States was particularly significant. While they were initially supplying Europe with less than 1 billion cubic meters monthly in 2021, after the start of the war in Ukraine, the volumes reached 5.53-5.78 billion cubic meters. The growth in American exports demonstrated that the liquefied natural gas market could be considerably more flexible than initially estimated (The Insider, 2022).

Azerbaijan also managed to rapidly increase its deliveries, with its exports reaching 12.2 billion cubic meters in 2022, an increase of 4.1 billion cubic meters compared to 2021. The war in Ukraine prompted Europe to seek additional volumes from new suppliers such as Australia, Oman, and the United Arab Emirates.

As a result of the European policy implementation, the process of removing Russia from Europe's energy markets gained the necessary long-term and sustainable perspective. The opportunities and potential of the European market provided a basis for several countries to adopt plans for long-term expansion of energy supplies to the European continent. The United States decided to enhance its energy cooperation with Europe and aimed to replace 90% of the gas imported from Russia by 2030, which amounts to approximately 139.5 billion cubic meters. Azerbaijan also planned to increase its deliveries to European countries. The Trans-Anatolian Pipeline is expected to increase its capacity from 16 to 32 billion cubic meters, while the Trans-Adriatic Pipeline will increase from 10 to 20 billion cubic meters.

Many of the gas pipelines in the Southern Gas Corridor pass through Turkey, which is currently constructing the largest gas hub in Europe. Turkey's own reserves, combined with newly discovered fields, amount to approximately 405 billion cubic meters, with utilization set to begin in 2023. Turkey has also signed a gas supply contract with Bulgaria, from where the gas will be transported to Central and Eastern European countries.

Furthermore, long-term agreements for the supply of liquefied natural gas were concluded with Qatar and Oman. Egypt, Israel, and Cyprus also have the potential and intention to become future gas suppliers to Europe, provided

the necessary infrastructure is established. Israel possesses approximately 400 billion cubic meters of gas not intended for domestic consumption or committed to export. Cyprus reserves are estimated at around 400 billion cubic meters, while Egypt holds approximately 850 billion cubic meters.

Based on the mentioned data, it can be inferred that Europe, in the long run, will be able to almost completely replace Russian gas through deliveries from alternative sources. Following the measures taken by Europe, energy market prices started to steadily decline, currently standing significantly lower than before the war in Ukraine. It is likely that they will continue to decrease further as the network of alternative suppliers expands.

However, Russia's problems do not end here, and the future it currently faces is challenging, especially if negative scenarios resulting from the decisions of the so-called "Price Cap Coalition" are realized.

Restrictive Measures Imposed on Russia by the European Union, G7, and Australia's "Price Cap Coalition"

After the start of military actions in Ukraine, Western countries took a series of measures to counter Russian policies and provide assistance to Ukraine for its territorial integrity and national sovereignty. Gradually, sanctions with increasing scope and severity were imposed. In practice, they marked the beginning of a "total economic war against Russia" by the countries of the Euro-Atlantic world (Gadzhanova, 2022). Within just two months of the start of Russian aggression, Russia's imports decreased by 70% compared to the same period the previous year (Bashkatova, 2022).

By the end of May 2022, 675 foreign companies, including major global brands, announced the suspension and self-restriction of their activities in Russia or their decision to leave the Russian market. Logistic chains for the transportation of imported goods and services were interrupted, and transportation links, including air, rail, and maritime transport, were discontinued. The Russian economy found itself „isolated and confined within closed boundaries, with diminishing presence in global economic and trade chains" (Kleyner, 2022).

The content and scope of sanctions and restrictive measures were gradually expanded, and logically, by the end of 2022, the European Union and the G7 countries implemented two important decisions that would significantly reduce their dependence on Russian energy sources and strengthen their own energy security. Firstly, it should be noted that as of December 5, 2022, the European Union imposed an embargo on deliveries of Russian oil through maritime transport. At the same time, the G7 countries and Australia, collectively referred to as the "Price Cap Coalition" with the European Union, introduced a price

cap on Russian oil at \$60 per barrel. This price limitation began to be applied to both crude oil and petroleum and oil products derived from bituminous minerals originating from or exported by Russia. It should be noted that even before this date, EU countries had decided to stop purchasing Russian oil.

In the event of exceeding the price limitation on oil by specific exporters, they would lose the right to insure the respective deliveries made through maritime transport, as the insurance market is dominated by European companies. According to some estimates, between April and May 2022, 68% of Russian oil exports were carried out by shipping companies from the European Union, the United Kingdom, and Norway, with Greek tankers alone accounting for 43%. The share of carriers from these countries became increasingly important for Russia, whose oil supplies to India and the Middle East accounted for 80%. At the same time, only three countries—the United Kingdom, Norway, and Sweden—insured 97% of the tankers.

Starting from February 5, 2023, the European Union's embargo also began to be applied to products derived from the processing of Russian oil. In this way, the sanctions included in the sixth (June) package of sanctions started to be implemented.

According to Bloomberg data, during the first week of the embargo, the volume of Russian crude oil exports to the EU decreased from 1.86 million to 1.6 million barrels per day.

Secondly, it should be noted that on December 19, 2022, after extensive discussions, the energy ministers of EU countries decided to impose a price limit on natural gas at €180 per megawatt-hour, which should not be exceeded in supply contracts to EU countries. This price limitation came into effect on February 15, 2023, and will be in effect for the entire calendar year.

This decision provides a framework for implementing a solidarity policy by the European Union to ensure the gas needs of European countries. It includes joint purchases of gas from global energy markets and redistribution among EU countries in case of necessity⁴.

⁴ The EU countries will be able to use an additional €20 billion in the form of grants for projects that reduce dependence on Russian fossil fuels. The funds will come from the carbon emissions trading scheme. These funds will be provided through the RePowerEU mechanism. EU countries will have the opportunity to supplement their recovery plans and include these funds in the financing of various projects, including measures to improve the energy efficiency of buildings, decarbonize industry, produce electricity from renewable energy sources, hydrogen, etc. (Petkova, 2022).

Features of the Price Cap Coalition's Solutions

The solutions proposed by the Price Cap Coalition are clear evidence of a fundamental change in the approach to energy cooperation with Russia. In less than a year, there has been a sharp shift from perceiving Russia as a primary and dominant supplier in the European energy markets to practically complete abandonment of Russian oil and natural gas.

1. The imposed sanctions primarily serve as a direct response to Russia's exerted pressure through the creation of artificial deficits and market manipulations. The energy sanctions aim to deprive Russia of the ability to maintain a dominant position in the energy market and artificially impose high levels of energy resources. The decision of the European Council states that the reasons for the increase in natural gas prices in EU countries are the military aggression of the Russian Federation against Ukraine, an unprecedented decrease in natural gas supplies from Russia to the EU, and the use of gas deliveries from Russia as an "energy weapon".
2. Secondly, the introduced limitations on price caps outline the contours of a new mechanism for regulating the energy market. Its goal is to counter excessive price growth in natural gas and, consequently, inflationary pressure.
3. The decisions of Western countries mark a qualitatively new stage in the implemented policy towards Russia. The introduction of restrictions on oil and gas prices can also be perceived as a first step towards future institutional establishment of a global cartel of buyers of Russian oil and natural gas. In this way, even after years, an adequate response is provided to one of Russia's strategies in the energy sector and the positioning of natural gas as a political weapon on a global scale through the idea of establishing a "gas OPEC".
4. At present, it can be assumed that the success of implementing price limitations for energy resource deliveries in the future will likely stimulate the process of creating other similar mechanisms for a collective response in the event of future price shocks for crucial economic resources.
5. The complex and contradictory process of harmonizing different national positions regarding the establishment and implementation of sanctions and restrictions in the energy trade with Russia represents valuable institutional experience containing important lessons for improving the decision-making mechanism within the EU. Such institutional experience creates a certain confidence in successfully developing and implementing effective solutions by the European Union in crisis situations in the future.
6. Evaluation of Russia's Capability to React and Counter the Imposed Sanctions and Restrictive Measures

Assessment of the Negative Results for Russia in Early 2023

After the commencement of military actions in Ukraine, Russia practically initiated an economic war with Europe by implementing its long-prepared “energy weapon”. Within a short period, Russia halted gas deliveries through almost all pipelines to Europe, hoping to provoke a severe energy crisis.

However, European countries swiftly reacted, and their critical dependence on Russian energy supplies was relatively quickly compensated through alternative deliveries. At the same time, the process of an even faster and more extensive transition to higher technological levels of energy was accelerated.

The results in early 2023 indicate a fundamentally different situation in the energy markets. It is catastrophic for Russia, and it is challenging to find a historical analog to compare it with. Oil imports to Europe decreased by 90%⁵, and the Russian share in natural gas supplies reached a critical level of 7% (Yotov, 2022). Attempts by Russia to regain lost markets through liquefied gas deliveries are doomed to failure since the total volume of Russian liquefied gas production is only 30 million tons per year (Nezavisimaya Gazeta, 2022a).

It should be noted that the cessation of deliveries to Europe is a result of Gazprom’s own decisions. These decisions led to the heaviest losses in the corporation’s history. By the end of 2022, it turned out that Gazprom had exported a total of 101 billion cubic meters of gas, which is 50% less than the previous year. Deliveries to European countries and Turkey, the largest customers until then, dropped to 85 billion cubic meters, the lowest level in modern Russian history, comparable only to the period from 1985 to 1991.

It is expected that in 2023, exports to European countries will decrease to 60 billion cubic meters. At the same time, the possibilities for alternative exports to China are heavily restricted. Despite the increase in deliveries, only 16% of the regular sales to Europe were compensated. It is possible that in the future, it may reach a level of 22 billion cubic meters, which can hardly be compared to the 155 billion cubic meters exported to Europe a year ago.

Financial Losses of Russia Due to the Military Aggression in Ukraine

In the current situation of exhausting military actions, it is crucial to maintain and expand the policy of sanctions aimed at depriving Russia of the resources necessary to continue its military operations against Ukraine.

Following the onset of military actions, Russia’s material capacity and capabilities to sustain military operations continue to decline. According to Russian public assessments, 2022 turned out to be the year of the largest

⁵ In January, Europe consumed over 1.5 million barrels per day of Russian oil, and now that amount is less than 150,000 barrels (Knyazhevich, 2022).

“economic bleeding” in the country’s history⁶. Confiscated Russian assets and the net export of resources at dumping prices have exceeded \$550 billion. The export of resources from the country has surpassed imports by over \$250 billion.

At the same time, despite the imposed restrictions, the Russian Central Bank has continued to export significant financial resources abroad. Since the start of the war in Ukraine in February 2022, Russian citizens have transferred around \$4.3 billion to foreign banks, but the absolute record was set in September when a record \$6.7 billion was transferred to deposits in foreign banks. The amount of deposits held abroad has doubled since the beginning of the year, reaching a total of \$60 billion for the first time (Nezavisimaya Gazeta, 2022b).

In addition to these Russian losses, the losses of Russian offshore assets owned by Russian oligarchs should be added. According to research findings, the wealthiest Russian oligarchs have lost nearly \$95 billion due to the imposition of sanctions (Neate, 2022). It is estimated that they are losing an average of \$330 million per day since the beginning of the Russian invasion in Ukraine.

The need for material and financial resources required to conduct military operations in Ukraine is constantly increasing and is already straining the stability of the Russian state budget. According to Forbes estimate for the first nine months of the war, the expenses have reached \$82 billion (Datsenko, 2022). However, this estimate only includes direct costs necessary to sustain military operations and does not encompass ongoing defense expenditures or losses associated with the economy.

In 2021, Russia’s total budget revenues amounted to \$340 billion. In practice, it turns out that the Russian Federation has already spent a quarter of last year’s revenues on the military operation in Ukraine. While similar expenditures were somewhat manageable in the spring of 2022, as Russia was receiving nearly one billion euros per day from energy exports, the situation is fundamentally different in 2023.

The revenues of the federal budget from oil and natural gas exports continue to decline, while the continuation of military actions requires increasingly significant financial resources. By the autumn of 2022, Russia’s military expenses more than doubled and reached \$10 billion per month by the end of the year.

It is also important to consider the value of destroyed or lost military equipment, which already amounts to \$20.8 billion for the first nine months of the war. Compensating for these losses requires the restoration of outdated equipment that has been stored for decades, necessitating substantial additional financial expenditures.

⁶ “Nezavisimaya Gazeta” reports that assets freeze and net resource exports from Russia exceeded \$550 billion (Nezavisimaya Gazeta, 2022c).

Archaic Model and Low Technological Level of the Russian Economy

Russia's ability to counter the imposed sanctions is severely limited. Sanctions are likely to be an effective tool in preserving the archaic and inefficient model of the Russian economy.

The modern model of the Russian economy is built on three fundamental ideas:

1. Redistribution of rent from hydrocarbon exports as the main resource for implementing economic policies, such as stabilization policies (formation of reserves of various kinds, poverty reduction), development policies (capitalization of development institutions, direct budget support for specific industries and scientific-technical activities).
2. Russia's participation in global technological markets primarily as an importer. This means that the competitiveness of Russian technological products is largely ensured through massive imports of raw materials, components (especially electronics), individual nodes, and aggregates (Lenchuk, 2022).

In 2021, Russia imported machinery and equipment worth \$144.3 billion (49.2% of total imports), while the export of this category of goods was more than four times smaller, amounting to only \$32.6 billion (6.6% of total exports). In practice, Russia has established itself primarily as an importer of machinery and equipment with different technological purposes.

The data indicates that the more significant the export of products with medium or high technological levels, the greater the associated imports. The main source of funds for importing technological equipment is primarily the revenues from energy exports.

An important imperative of Russia's traditional economic policy is social stabilization through limiting regions with high poverty and combating unemployment. As a result of this approach, the Russian economy is characterized by a combination of low unemployment, low labor productivity, and low wages. „Consequently, there is a closed cycle: excessive employment – low wages – poverty and insufficient consumption. This model is balanced by the inflow of financial resources from commodity exports” (Belousov, 2022).

An additional problem for the Russian economy is the emergence of the so-called “economy of the poor”, which began in 2010 and intensified as a result of technological sanctions. „The main issue lies in the sustainability of this model and the tendency for this “economy” to become increasingly self-contained, providing guaranteed but low incomes and accessible consumption of low-quality goods, while perpetuating the majority of Russian citizens at the bottom of the social ladder. According to some forecasts, in the case of a “sanctions war”, Russia's income reduction could reach one-third” (Belousov, 2022).

It is highly likely that the main resource for the functioning of the Russian economy, such as resource rent, will significantly decrease. Considering the growing needs related to ongoing military actions and reduced revenues, future budget support for various sectors, industries, and social activities may prove to be extremely insufficient.

Limited Potential for Structural and Technological Reform of the Russian Economy

Regardless of the proclaimed goals for modernizing the economy and the emergence of “new centers of economic growth”, Russia is hardly capable of implementing the necessary economic and structural reforms.

First and foremost, it should be noted that the Russian economy is highly bureaucratized and corrupt. To a large extent, it is dominated by state ownership. According to calculations by the World Bank, 71% of Russia’s GDP is produced by state-owned enterprises and organizations (budgetary, state-owned enterprises) or those subordinate to the state. In particular, large conglomerates such as Gazprom, Rosneft, Rostec, Russian Railways, Aeroflot, and others, have their capital predominantly dominated by the state’s share.

At the same time, 74% of the assets of the Russian banking system are controlled by state banks, as well as banks subordinate to structures controlled by the state.

The persistent trend towards nationalization is one of the reasons for the economic stagnation in Russia, as a market economy cannot develop effectively through state structures. Since 2003, according to the World Bank, the share of private ownership in GDP creation has decreased from 65% to 29%. During this time, the share of the state budget in GDP has increased by 1.5-2 times, monopolizing a growing number of industries, restricting the competitive environment, and acquiring more and more of the existing private enterprises“

(Aganbegyan, 2022).

On the other hand, Russia traditionally ranks among the top countries in the world in terms of the number of crimes related to corruption. The scale of damage associated with corruption amounts to trillions of rubles⁷.

The extent of damage from corruption-related crimes in Russia, based on criminal cases initiated in 2020, exceeded 63 billion rubles. In 2021, a record number of corruption-related crimes in the last 8 years was registered, with an increase of 16.5% compared to the previous year.

⁷ Opinion of the Chairman of the Accounts Chamber of Russia, Alexei Kudrin.

According to the annual Corruption Perceptions Index by Transparency International, Russia ranks 138th out of 180 countries. In this list, it is neighboring countries with Mexico, Iran, Lebanon, and Papua New Guine (Ivanov, 2022).

Reasons for Russia's defeat in the energy war with Europe

When discussing Russia's impressive defeat in the energy war, it should be fair to point out that it is not solely the result of measures taken by Western countries, but also to a large extent due to Russia's own irrational decisions.

In the economic war led by Russia, the following major mistakes were made:

1. Strong overestimation of its own capabilities and capacity. Russian policy was primarily aimed at gradually blocking supply channels and creating a lasting deficit of energy resources. Throughout, Russia overestimated the significance of Europe's dependency on Russian supplies. However, as a result of compensatory actions taken by European countries, the reverse turned out to be true – the dependence of Russia on the European market was far more significant than anticipated.
2. By systematically restricting and halting its own supplies, Russia effectively removed itself from one of the largest, developed, and liquid energy markets in the world. Russia lost long-established positions in the energy market where it traditionally had presence and comparative advantages. It remains unanswered why Russia decided to put its most important source of financial resources, which its finances and many other sectors of its economy depend on, at such enormous risk and to a significant extent destroy it.
3. Russia failed to conduct a realistic assessment of the characteristics and structure of the energy market in Europe, as well as the possible scenarios for reaction by European countries. In conditions of a severe confrontation, all decisions made and implemented should be defined after a thorough analysis of their effects and consequences for national interest. The data clearly indicate that Russia did not have a clear, long-term plan to compensate for the inevitable losses resulting from the initiated economic war.
4. Russia's actions to halt natural gas deliveries were carried out without a prepared and secured logistical and market alternative. It failed to properly assess that its energy infrastructure, primarily oriented towards European markets, placed it in a vulnerable position. Within this interdependence, especially after Russia deployed its "energy weapon", Europe found itself with much greater opportunities, alternatives, and technological capacity. The possibilities for redirecting Russian energy supplies to other destinations at the same time proved to be limited. The organized alternative

deliveries so far relate to limited quantities with minimal profit, which is a prerequisite for reducing future energy resource extraction.

5. The Russian energy policy was aimed not only at creating a deficit in the energy markets but also at causing financial losses to European countries. However, there is a lack of substantiated answer to the question of how beneficial it is for Russia itself to inflict retaliatory losses on its trading partners by achieving higher prices for energy resources, especially when it reduces and terminates its own deliveries. In this situation, the result for Russia is primarily immense missed benefits and a sharp decrease in its income.
6. Russia's reputation as a reliable trading partner suffered a severe or rather fatal blow. The reputation built over the years since the Cold War as a fair supplier was completely destroyed. The events of the past two years categorically marked Russia as one of the most unreliable and unpredictable trading partners in contemporary trade relations.

For the challenging future after the end of Russia's dominance in the energy markets of Europe

In conclusion, it can be noted that the confrontation between the US and the EU against Russia, which started after the annexation of Crimea in 2014, quickly escalated in 2022 into a total economic and financial war. As a result, the economic model that relied on intensive relations between Russia and the European Union as the main trade, investment, and technological partners was completely destroyed (Trenin, 2022).

The assumptions on which Russia relied before the war, expecting that Western countries, driven primarily by their economic interests, would mitigate the consequences of the geopolitical clash, were proven wrong.

At the moment, it is difficult to predict the exact outcome of the economic war with Russia, as a sustainable solution in international economic relations can only be achieved within the context of an agreement that puts an end to the war in Ukraine. However, it is currently uncertain whether such an agreement is possible.

There is also no answer to questions regarding the content and form of a future peace. It is unlikely that Russia can be defeated in the current conventional military conflict, considering it possesses nuclear weapons.

Regardless of the significant losses suffered so far, it is highly unlikely that Russia can be economically destroyed completely, given its vast territory and substantial natural, material, and human resources. It maintains functioning

economic and trade connections with significant economic powers such as China, India, Turkey, and others.

Regarding the unprecedented pressure on Russia's finances and economy, it should be noted that sanctions have rarely been an effective tool for stopping military actions, according to historical experience. In the 20th century, only three out of 19 attempts to use sanctions as a political instrument to halt wars were successful (The Economist, 2022).

The future of Russia itself is also unclear, as there is a possibility of future processes leading to its disintegration as a state. Similar dramatic precedents exist in Russian history.

The realization of such hypotheses requires European countries to prepare for a prolonged and difficult coexistence with Russia in the future.

Regardless of the various scenarios that may unfold in the future, considering that Russia has been removed from European energy markets, it can be reasonably assumed that it will never again be a source of risk for the energy security of European countries. Russia is deprived of any opportunities to influence the policies of European states and impose its selfish interests. The Russian "energy weapon" as an instrument for realizing its geopolitical ambitions has suffered a categorical failure.

The unsuccessful attempt by Russia to regain its status as an "great energy force" is now only a grim memory. On the other hand, it will remain an important and successful episode in the shared history of Europe.

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