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Sanctions on NIS and the Transformation of Serbia's Energy Sector: Challenges and Strategic Opportunities

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Abstract: *This paper focuses on the current situation in the Republic of Serbia as a consequence of the imposition of sanctions on the Oil Industry of Serbia (NIS). Since the 10th of January 2025, the imposed sanctions have intensified the potential energy crisis and consequences for the economy of the Republic of Serbia. In this article, using the method of descriptive analysis, challenges are described as the result of the current geopolitical, economic, and international relations. The focus is placed on the consequences of energy supply and the functioning of the refining sector, with a comparison to the sanctions imposed on Yugoslavia from 1991 to 1996. The article examines the possibilities of source diversification and source supply routes, as well as changes in ownership structure, as potential future development scenarios.*

Keywords: *Energy crisis, Serbia's energy dependence, sanctions.*

1. Introduction

The Russia-Ukraine war represents the most significant geopolitical conflict of our time, with consequences extending across the globe. The effects of the war are present in international politics, the economy, security and the energy sector, and we are witnessing the far-reaching and profound changes in international relations. The far-reaching nature of the conflict between Russia and the West has fallen on the Balkan Peninsula, where the Republic of Serbia is situated at the center of a key regional gas distribution route-the Balkan Stream (Gajić A., 2023).

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Serbia faces a historic challenge in the energy sector due to the consequences of sanctions imposed on the Oil Industry of Serbia (NIS), which implies the necessity of restructuring the energy sector and redefining strategic development directions. The key question that arises is in which direction the energy policy of the Republic of Serbia is headed, and what are its strategic options under the new circumstances?

2. Theoretical and Methodological Framework

The sanctions imposed on the Oil Industry of Serbia are a consequence of the Russia-Ukraine war, which puts Serbia in a position to make key decisions on the energy field and strategic possibilities. The paper employs the method of descriptive analysis, aimed at examining relevant studies, documents, and available data, thereby providing an overview of the current situation and potential outcomes for overcoming the challenges. The objective of this study is to analyze the current position of the Oil Industry of Serbia in the context of the sanctions, identify key challenges, and explore potential strategic options for addressing the crisis.

2.1. Sanctions on NIS - characteristics, reasons and mechanisms

Since 2014, the European Union (EU) has been imposing intensive packages of sanctions on the Russian Federation due to the Russia-Ukraine war. The EU strongly condemned Russia's attack because of the illegal annexation of Crimea (2014), the full-scale invasion of Ukraine by Russian forces (2022), and the illegal annexation of Donetsk, Luhansk, Zaporizhzhia, and Kherson (2022) (European Council., 2024).

The sanctions against Russia include a ban on entry to the EU for sanctioned Russian citizens, the freezing of all assets in the EU belonging to sanctioned individuals, a prohibition for EU citizens to provide any funds to sanctioned individuals, and the immobilization of the Russian Central Bank's assets in the EU, amounting to 210 billion euros. Previous sanctions imposed on Russia due to the Russia-Ukraine war also imply that any third party interacting with Russia may itself become subject to sanctions.

NIS AD Novi Sad is the main supplier of oil and petroleum products in the Republic of Serbia, but its activities are not limited to a single sector. In addition to distribution, the company is involved in the exploration and extraction of oil and gas from underground sources, production of products, including retail to end consumers.

According to data obtained from the official NIS website, the company's ownership shares are as follows: Russian ownership 56.15%, the Republic of Serbia 29.87%, and other minority shareholders 13.98% (Naftna Industrija Srbije, 2023). Due to the majority Russian ownership, the company has been included on the U.S. OFAC (Office of Foreign Assets Control) list of sanctioned entities since January 10, 2025.

The primary consequences of the sanctions threatening the Republic of Serbia include a shortage of raw materials for processing at the Pančevo refinery, which is directly supplied by NIS, risks related to banking transactions, as well as challenges in the logistics of

alternative supply sources. This implies that the current regime of „hot circulation“ remains in effect, with a potential risk of a complete shutdown that could occur at any moment (Anufrijević, Mišić, 2025).

The secondary consequences of placing a company on the sanctions list include a ban on financial transactions, the freezing of assets, and restrictions on doing business with U.S. companies and individuals, as well as with any international organizations that already operate with or are linked to the United States. In practical terms, these measures threaten the continued operation of NIS AD Novi Sad due to the difficulties in maintaining regular and continuous business relations with both existing and potential partners (Partners, JPM, 2024).

2.2. Sanctions in the Federal Republic of Yugoslavia in the 1990's and a comparison with the current situation

Modern history records the most dramatic economy collapse of the Federal Republic of Yugoslavia during the period from 1991 to 1996. The period of the most severe sanctions lasted from 1991 to 1993, during which GDP declined by more than 50%, representing the most dramatic recorded drop in gross domestic product. During this time, the economy lost over 60% of its value. Industrial production fell by more than 70%, both as a result of the trade blockade and due to a lack of resources, the inability to invest and modernize production, the outflow of skilled labor, and the collapse of the financial system.

The most dangerous economic phenomenon of that period was hyperinflation, which reached extremely high levels. Inflation rates followed the trajectory below:

1. January 1993: 100% per month (Statistical Yearbook of the FRY, 1993);
2. December 1993: 3,130% per month (Statistical Yearbook of the FRY, 1993);
3. January 1994: 313,000,000% per month (Statistical Yearbook of FRY, 1994).

At its peak, hyperinflation led to a doubling of prices every 34 hours. It was the result of a combination of factors, including the monetization of the budget deficit due to the lack of foreign investment and external financing, a drastic decline in production that limited the supply of goods, psychological factors and the loss of confidence in the domestic currency, as well as the development of a black market with extremely high margins.

The unemployment rate increased from 13% in 1991 to as much as 30% in 1993. However, official statistical data do not provide a complete picture, as a large number of employees did not receive regular wages, enterprises operated at minimal capacity, and an additional 20–30% of the labor force fell into the category of “hidden unemployment.” Unemployment was unevenly distributed, accompanied by the phenomenon of a “mass exodus,” that is, brain drain among the highly educated population (Tutić et al., 2025).

By comparing the sanctions imposed on the Oil Industry of Serbia with those imposed during the period of the Federal Republic of Yugoslavia, certain segments that pose similar threats can be identified. In the case of sanctions on NIS, a reduction or complete absence of raw materials may lead to the shutdown of production at the Pančevo refinery, which

would seriously endanger the national economy. This could result in increased unemployment, inflation, rising production costs, and a decline in overall economic activity. A similar cause-and-effect relationship was present during the severe sanctions imposed on the FRY from 1991 to 1996, with the most significant decline in economic activity occurring during the first three years of sanctions. It is evident that sanctions primarily affect key economic parameters, namely production, transportation, and distribution.

3. Economic, Market, and Geopolitical Consequences of Sanctions

3.1. Consequences for the Republic of Serbia

According to M. Kovačević (Peljto, 2025), the current situation involving NIS will cause serious consequences for Serbia's economy, particularly in terms of the supply and import of petroleum products, which will increase costs and lead to a reduction in economic activity in certain sectors. He also emphasizes the rise in other domestic prices, which further increases pressure on the Serbian economy and requires more intensive state involvement in addressing this issue. NIS has played a significant role in the formation of the state budget through excise duties and value-added tax (VAT) on fuel, which implies that the current situation will result in a decline in public revenues.

Similarly, Đogović argues that the closure of the Pančevo refinery would have the greatest impact on employees in related companies and district heating systems, as well as on consumers and the economy as a whole (Peljto, 2025). A likely consequence is an increase in demand for gasoline and diesel, which, under conditions of limited resources, may lead to higher prices and potential shortages. Due to the temporary shutdown of refineries, further production has been suspended, indicating that current reserves and production from domestic gas sources will not be sufficient to meet the long-term needs of the state and the population, which implies the necessity for urgent solutions to overcome this problem.

Agriculture, which is highly dependent on the Oil Industry of Serbia, is in an unfavorable position, further contributing to rising food prices. Increases in diesel prices lead to higher production and transportation costs, which directly affects the competitiveness of Serbian products on the European market. According to available sources, these consequences are still considered hypothetical, and NIS currently possesses reserves sufficient to meet the needs of the state and citizens during the current winter period.

3.2. Consequences for Energy Security

The gas supply route serving the Republic of Serbia is connected to the TurkStream pipeline and enters Serbia through Bulgaria at the Zaječar entry point. From this point, the flow continues northward toward Hungary or westward for domestic consumption. This gas route has represented a key element in ensuring gas supply to Serbia; however, following the imposition of sanctions, it has become evident that the existing strategy requires reorganization due to the emerging crisis situation.

The gas shortage threatening the Republic of Serbia arises from the limited ability to control domestic reserves and gas availability. This issue stems from the ownership structure of the Banatski Dvor gas storage facility, which is under Russian ownership, forcing Serbia to lease additional storage capacity in Hungary for 500 million cubic meters of gas. The Republic of Serbia has demonstrated an inadequate response speed in addressing this issue and in securing new storage capacities that would be under national ownership (Lazarevic, 2025).

This directly implies Serbia's dependence on other countries for the use of gas. In this way, the country becomes vulnerable during times of sanctions and crises. In the long term, this situation affects the competitiveness and production capacity of the industrial sector. Data from recent years indicate that the Republic of Serbia relies on imported gas for nearly three-quarters of its consumption.

The main suppliers include Iraq, Russia, Kazakhstan, Romania, and Croatia, via terminals or pipelines. In 2023, crude oil imports to Serbia amounted to 611 million U.S. dollars, with the largest shares coming from Hungary, Romania, Bulgaria, Belgium, and other countries. This figure shows that oil and fuels account for approximately 5% of Serbia's total imports, highlighting a significant share of the overall import structure.

These data indicate Serbia's dependence and create pressure to diversify sources of raw materials in order to reduce vulnerability, both due to geopolitical relations and logistical limitations. One of the alternative gas distribution routes, Serbia–North Macedonia, remains in the discussion phase, as does a route via the Black Sea.

3.3. Diversification

The diversification process can be viewed in three dimensions:

1. Source of raw materials;
2. Logistics and transportation;
3. Refining, distribution processes, and reserve capacities (Lazarević, 2025).

1. Source of Raw Materials

In terms of raw material sources, certain alternatives have been considered, such as importing resources from Kazakhstan via tankers to the Croatian pipeline. Resources from the Middle East and North Africa are also being explored as potential alternatives. A change in the composition of raw materials would require technological adaptation at the Pančevo refinery, which can be considered one of the upcoming challenges. Long-term cooperation and securing raw materials could be ensured through contracts based on competitive conditions.

2. Logistics and Transportation

Pipeline imports are particularly effective for transporting large volumes, which places Serbia in a challenging position due to the limited number of operational pipelines on its

territory and the capacity of the Pančevo refinery in terms of supply infrastructure. Construction of new infrastructure represents a significant investment in terms of finances, regulations, coordination, and reserve capacities.

3. Refining, Distribution Processes, and Reserve Capacities

Import distribution of raw materials requires adequate refining capacity, product storage, and a distribution network to maintain security of reserves, especially during the winter period. Diversification represents a strategy to mitigate potential risks related to oil and petroleum product shortages, sudden price spikes, and reduced industrial activity, which in turn has direct consequences on political relations.

Experts argue that Serbia requires an energy transition, as its current vulnerability stems from the reliance of the energy system on fossil fuels. Serbia possesses significant developmental energy potential in terms of sustainable, local energy sources, which could positively impact the domestic industry.

4. Geopolitical Context

The Russia-Ukraine war has led to the introduction of a unilateral sanctions package against the Russian Federation by Western countries, including the United States, Australia, Japan, Canada, the United Kingdom, and the European Union. The sanctions package included restrictions in the financial sector (limitations on the Central Bank), exclusion of Russia from SWIFT international transactions, new rules on goods and services, and new regulations in strategic sectors (energy, aviation, and transport).

Sanctions serve two main purposes and function as an instrument of foreign policy. The first dimension relates to disrupting trade flows and weakening the Russian economy (GDP decline), while the second dimension is political, aiming to stop the war and support Ukraine. As a political tool, sanctions are intended to create pressure on the target state and encourage a change in behavior. The sanctions imposed on Russia do not only target the state itself but also its residents and third parties closely connected to the sanctioned country.

The United States possesses the most far-reaching authority in imposing sanctions and uses them as an instrument of foreign-trade relations. In December 2023, U.S. President Joseph Biden signed an executive order expanding OFAC's authority to impose sanctions on other financial institutions involved in transactions with Russia's military-industrial base (Szyszczak, 2025).

The consequences affected foreign financial institutions through the threat of secondary sanctions and imposed certain restrictions on the import of Russian products. Non-compliance with this order could result in the direct exclusion of a foreign financial institution from the global financial system, which is based on the U.S. dollar.

On the other hand, the European Union applied its common foreign and security policy as the basis for sanctions. Member states expressed different positions regarding the measures to be imposed on the Russian Federation due to their previous bilateral relations.

4.1. Geopolitical Position of Serbia

Strategies of small states facing great powers can be classified into two categories:

1. Bandwagoning strategy, which involves aligning with great powers to prevent security threats or forming alliances of smaller states to neutralize the power of a threatening great power;
2. Hedging strategy, which involves maintaining a neutral stance and developing ad hoc mutually beneficial relations to minimize confrontation with any great power.

Serbia applies a “hedging” strategy, balancing its relations with neighboring Western countries and with the Russian Federation, with which it shares historical, cultural, and political interests. Deviating from good relations with Russia could place the Republic of Serbia in a severe energy crisis. Serbia’s stance on sanctions imposed on Russia due to the war is a refusal to implement punitive measures, which further strengthens political allies regarding territorial independence and sovereignty. Although exposed to external pressures, this approach allows Serbia to protect national interests and develop regional relations while expecting the most favorable political outcome at the end of the war (Gajić, 2023).

5. Possible Future Development Scenarios

This section discusses potential development strategies to overcome the high-risk situation resulting from the imposition of sanctions on the Oil Industry of Serbia (NIS).

5.1. Partial Diversification and Adaptation

Serbia’s energy security depends on international relations and the economy, clearly affecting the country’s potential for sustainable development. Key domestic and international actors, such as Russia, China, and the European Union, along with factors like the green transition and geopolitical situation, play a significant role in energy stability. One possible scenario involves the process of diversification, aiming to maintain Serbia’s energy stability and mitigate potential risks associated with dependence on imported energy sources (Životić, 2025).

The current geopolitical situation indicates that Serbia strives to preserve energy stability. One potential solution includes gas interconnections with Bulgaria, North Macedonia, and Romania, which could reduce dependence on a single source. However, Serbia lags behind other countries in terms of diversification.

Obstacles to accelerating this process include limited financial resources, infrastructure challenges, and political difficulties. In addition to maintaining stability, diversification

could potentially influence price regulation and support the further development of the industrial sector.

5.2. Change in Ownership Structure

Another potential development scenario involves a change in the ownership structure of the Oil Industry of Serbia. One of the conditions set by the United States for lifting sanctions on NIS is the complete removal of Russian ownership from the company. In response, Belgrade and Moscow have initiated negotiations regarding potential solutions to meet the U.S. requirement. Two approaches are mentioned in literature and reports:

1. Transitioning the company from majority Russian ownership to full ownership by the Republic of Serbia;
2. Purchasing the Russian stake from the foreign investor (Velebit, Ivić, Jovanović, 2025).

Potential buyers reportedly include British company Shell, Hungarian company MOL, and some Arab countries. A key question debated by critics is whether nationalization can genuinely ensure NIS's success and guarantee the country's energy stability, or whether it could lead to failure.

Both scenarios provide a framework for considering possible development paths for Serbia's energy sector and NIS, but the final outcome depends on economic, political, and international factors.

6. Conclusion

This paper has described the current situation in the Republic of Serbia, the challenges the country faces, and the potential risks to the economy and population. To better understand the impact of sanctions on the economy, a comparison was made with the sanctions imposed on Yugoslavia between 1991 and 1996.

Sanctions have macroeconomic consequences for a country's economy, demonstrating the power of sanctions as a foreign policy tool employed by great powers. Given the current geopolitical positions of countries and international relations, it is evident that the sanctions on NIS are not primarily aimed at Serbia but result from the presence of Russian ownership in the company's structure.

Dependence on a single source of gas, oil, and petroleum products places Serbia in a vulnerable position, necessitating the development of alternative solutions. The diversification process described represents one way to ensure reserves and sufficient energy supplies, mitigating potential long-term risks.

Serbia's geopolitical strategy largely enables energy transition and diversification processes. However, due to limitations in financial capital, the complexity of infrastructure, and political challenges, diversification as a potential development strategy remains a topic of discussion. Similarly, changing the ownership structure, as a second potential strategy,

is also under debate, as this paper was written before the final outcome of the situation was known.

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Sankcije protiv NIS-a i transformacija energetske sektora Srbije: izazovi i strateške mogućnosti

Andela Kostić

Apstrakt: Ovaj rad se fokusira na trenutnu situaciju u Republici Srbiji kao posledicu uvođenja sankcija protiv Naftne industrije Srbije (NIS). Od 10. januara 2025. godine uvedene sankcije su intenzivirale potencijalnu energetske krizu i posledice po privredu Republike Srbije. U ovom članku, korišćenjem metode deskriptivne analize, opisani su izazovi koji proizilaze iz aktuelnih geopolitičkih, ekonomskih i međunarodnih odnosa. Poseban akcenat stavljen je na posledice po snabdevanje energijom i funkcionisanje rafinerijskog sektora, uz poređenje sa sankcijama koje su bile uvedene Jugoslaviji u periodu od 1991. do 1996. godine. Članak razmatra mogućnosti diverzifikacije izvora i pravaca snabdevanja, kao i promene u vlasničkoj strukturi, kao potencijalne scenarije budućeg razvoja.

Ključne reči: Energetska kriza, energetska zavisnost Srbije, sankcije.