

**TASKS AND WAYS TO ENSURE TECHNOLOGICAL AND
ECONOMIC SOVEREIGNTY OF THE UNION STATE**

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Annotation. The objective reasons and stages of the development of economic problems in Belarus and Russia at the beginning of the 21st century is examined. It is shown that these issues stemmed from the breakdown of the global economic linkages in 2014 as a result of adverse political decisions made by Western countries. Key strategies for countering external pressures are identified, including import substitution, diversification of production, and foreign economic relations. The role of the state is emphasized, and tools for supporting enterprises and industries are systematized.

Keywords: international division of labor, diversification, specialization, cooperation, import substitution, global economic linkages, restrictions.

By the beginning of the 21st century, the established international division of labor (IDL), despite its «imbalances» and disproportions, can be considered a generally positive result. It reflected the specialization of countries and geographic regions, as well as the international trade relationships that existed between them. Broadly speaking, the IDL represents the manifestation and development of the universal *principle of specialization* on a global scale.

Specialization means that each entity (e.g., a market participant) performs a *limited* number of functions (tasks) in which it perceives an advantage over others. Specialization enhances the skills of performers, allows for the accumulation of experience, improves the technological base for task execution, optimizes external connections, and ultimately

increases the efficiency of human activities. Specialization is always complemented by *cooperation*—the establishment of connections that enable the exchange of the results of labor between entities. The combination of specialization and cooperation creates a systemic property of *integrity*, which, in this context, applies to socio-economic systems and promotes their accelerated development.

This pair – specialization plus cooperation (S&C) – serves as a *structural foundation* at all levels of economic activity, from workplace sections and factory workshops to industries, national economies, and the global economy as a whole. This is its conceptual role. Historically, the deepening of S&C has, within certain limits, driven the growth of productivity in societal labor (in a broad sense). However, at the turn of the 20th and 21st centuries, negative phenomena began to emerge and intensify in this process, collectively referred to as *globalization*. The first manifestation of globalization was the suppression of national identity in ethnic groups and countries—particularly small and medium-sized ones – by transnational economic structures (TNCs), leading to the erosion of their economies and, consequently, the loss of political independence. The response from the peoples of many countries was the «anti-globalist» movement, which surged in the early 2000s.

An objective negative consequence of excessive specialization and the expansion of cooperative ties has been the increased *risks* associated with the operation of such *vast* economic systems with highly complex structures. The failure of a single element or disruption of a connection could lead to a systemic collapse. This could be caused by the depletion of a region's resource base, the emergence of regional conflicts, natural or man-made disasters, or reckless political decisions by nations.

At the beginning of the 21st century, the global economic system generally still had enough «margin of safety» to withstand emerging challenges. *Digitalization* provided an additional boost to its resilience. However, after 2014—and especially in 2022 – the global economic network suffered a blow that almost destroyed it. A group of countries made political decisions entirely devoid of economic rationale, leading to the outbreak of a regional conflict in the heart of Europe.

Belarus and Russia, at the end of the last century, just beginning to emerge from a deep economic crisis, were attempting to integrate into the international IDL system and become full-fledged members. This is evidenced, at least, by their desire to join the WTO. Russia's government

endured grueling negotiations that lasted 18 years, finally successfully concluding in 2012. However, by 2014, the West introduced the first package of sanctions—*restrictions* disrupting Russia's trade and economic ties with the global economy. The goal of these sanctions is clear: to complicate or eliminate the possibility of importing materials, equipment, and technologies necessary for the normal development of Russia's economy. A less obvious goal is to limit Russian exports to reduce the inflow of foreign currency into the country. This primarily affected the traditional export of hydrocarbons to Europe. A striking example of this economic war, carried out using terrorist methods, was the sabotage of the Nord Stream gas pipeline.

The Republic of Belarus, having submitted its application to join the WTO in 1993, only gained access to the markets of 21 WTO member countries in 2019. However, negotiations regarding access to the markets of Brazil, the EU, Canada, Costa Rica, New Zealand, and the United States are still ongoing.

Russia's focus on oil and gas exports, the reserves of which are enormous, was often criticized as «short-sighted» not only by some Russian and Belarusian economists but also by foreign ones. However, this strategy actually generated significant budget revenues for Russia (up to 50% and sometimes even more), enabling investments in social development, science, industry, and other sectors of the national economy [1, 2]. The cessation of hydrocarbon supplies to Western Europe led to losses of tens of billions of dollars for the Russian budget between 2014 and 2016.

What *economic* measures should be taken in this critical situation to enhance the sustainability of development not only for Russia and Belarus individually but also for the Union State as a whole, as an important element of the global economic system? It is necessary to move away from excessive specialization by *diversifying* production and foreign economic relations. This should result in the creation of a new structure for the IDL and global economic ties. Decisions to join such a structure are made by each country independently, considering its political position and economic potential. Russia, being a large country with a powerful resource base, should not face significant challenges in making this transition. Belarus, in turn, has strong scientific and industrial potential. In this context, *the critical resources* for the Union State are *time* and *investments*.

In the first decade of the 21st century, the key priorities for the economies of both Russia and Belarus included revitalizing national economies,

including the military-industrial complex, fostering market relations, and rapidly integrating into the IDL system. To accelerate the resolution of these tasks and create a unified economic space, the Union State was established. However, following the events of 2014, Russia faced a new challenge: addressing significant technological gaps in several industrial sectors compared to leading global economies. According to experts from the Institute of Economic Forecasting of the Russian Academy of Sciences (IEF RAS) [1], this gap was estimated to be 25–30 years behind countries like Japan at the time. Thus, the focus shifted to ensuring the country's *technological independence*, which became a crucial strategic objective. Tactical efforts in this domain came to be defined by the term «*import substitution*». By 2024, in the face of 14 sanctions packages imposed on the Russian Federation, the importance of import substitution had grown significantly.

A similar trajectory unfolded in the Republic of Belarus, which has been under substantial sanction pressure since August 2020. As of November 1, 2024, in addition to sanctions imposed by the United States, Canada, and Japan, the European Union alone had implemented 8 sanctions packages against Belarus.

The practical difficulty of addressing the outlined challenges is exacerbated by *the forced abandonment of economic advantages previously gained from the participation of Union State countries in the IDL*. Under the current external conditions, political criteria outweigh economic ones. As a result, most import substitution projects demonstrate relatively low or even negative economic efficiency, which would be unacceptable for real businesses under normal circumstances [4]. This highlights the need for government support for the real economy sector. Indeed, practice demonstrates a significant increase in the role of the state as a centralized economic regulator and manager of additional (reserved) financial resources. The measures taken by the state can be categorized into financial and institutional. Let us examine the key measures in these areas.

Financial Measures by the Russian Government. In 2022, a portfolio of priority import substitution projects was developed, with a total volume of 5.2 trillion rubles, set to be implemented by 2030. To fund these initiatives, the *Industrial Development Fund* was established [3]. Additionally, the aviation and shipbuilding industries will receive separate funding.

The Russian Ministry of Industry and Trade identifies *subsidies* as a key tool for supporting R&D projects aimed at import substitution. Rapid projects that can deliver concrete results within six months to a year are being prioritized.

For projects involving co-financing of design documentation development, grants from the *Agency for Technological Development* can cover 100% of costs in the first year of implementation and up to 80% in subsequent years. In 2022, 327 items were included in the support list, with grant funding exceeding 4.5 billion rubles [4].

The government has also launched an investment platform providing enterprises with concessional loans for up to 15 years at interest rates ranging from 1% to 5% annually, backed by state guarantees or sureties from VEB.RF [3].

Institutional Measures by the Russian Government. As part of priority measures to develop the electronics industry, subsidized loans will be provided to buyers of domestically produced goods.

Proposals to include requirements for the use of Russian machinery in the licensing conditions for the exploitation of mineral resource deposits are being developed.

For certain types of critical import goods, tariff exemptions and zero customs duties have been introduced.

JSC «*Russian Export Center*» supports Russian manufacturers supplying equipment for the fuel and energy sector (e.g., construction of nuclear power plant units abroad) by assisting with accreditation by foreign licensors and EPC contractors. This aims to include Russian suppliers in vendor lists of relevant organizations [5], thereby *increasing budget revenues*.

Gas export revenues remain a key contributor to this goal, with a focus on redirecting gas flows to eastern markets.

As early as May 2014, before the Western sanctions policy became fully active, Gazprom and the China National Petroleum Corporation (CNPC) signed an agreement for the supply of Russian gas via the «eastern» route. The Power of Siberia pipeline was constructed in record time, with its inauguration taking place on December 2, 2019 [6]. This example demonstrates that Russia was already prepared to *diversify* its gas export routes at that time. This trend continues today: on August 3, 2024, the President of the Russian Federation announced, following talks with the President of Mongolia, that the project documentation for the Soyuz-Vostok pipeline was ready. A year earlier, Deputy Prime Minister Alexander

Novak stated that Russia was finalizing the route development for this pipeline, which will be connected to Power of Siberia-2, to supply gas to Kazakhstan, Mongolia, and significantly increase deliveries to China [7].

Another example of gas supply diversification is the Yamal LNG project. Since 2011, Yamal LNG JSC has been signing agreements for the design, equipment supply, and construction of a natural gas processing and liquefaction (LNG) facility based on the South-Tambeyskoye field. By December 2017, the Russian President launched the ceremonial shipment of the first batch of liquefied gas, marking the commissioning of the plant's first production line [8]. Today, Russia is the world's fourth-largest LNG exporter, with buyers on every continent, including most Western countries, without any restrictions.

A significant contribution to increasing budget revenues comes from Russia's nuclear industry. At the «Russian Energy Week 2023» Forum held in Moscow, President Vladimir Putin stated that the Russian energy sector has no competitors abroad and is *simultaneously constructing 22 nuclear power units*. This accounts for approximately 80% of the global market. Russia is fully technologically independent both in the creation and operation of nuclear power plants [9]. At the same event, Rosatom CEO Alexey Likhachev confirmed that the «post-Fukushima syndrome» has been overcome, and demand for Russian nuclear projects will continue to grow [10].

As of 2022, 31 countries worldwide generated energy using nuclear power plants, operating 438 power units of various types. In 2021–2022, despite opposition from several countries, particularly Germany and Austria, which are against nuclear energy, decisions were made to include nuclear energy in the European taxonomy, as well as in the Russian and Chinese taxonomies almost simultaneously, recognizing it as «green» to facilitate investment for its development [11].

Among Russia's most significant nuclear projects abroad are the following [12]:

Tianwan Nuclear Power Plant – the largest economic cooperation project between China and Russia. By 2021, six power units with VVER-1000 reactors were commissioned. The master plan envisions the construction of a total of 8 units.

Akkuyu Nuclear Power Plant – currently under active construction on Turkey's Mediterranean coast, this plant will consist of four power units equipped with VVER-1200 reactors.

Paks Nuclear Power Plant – originally built based on a Soviet design, it generates over 50% of Hungary's electricity. On August 21, 2023, Rosatom began the main construction phase of Paks-2, which includes two VVER-1200 reactors.

An example of fruitful cooperation between Russia and Belarus within the framework of the Union State is Russia's provision of a credit line of 105 billion Russian rubles (approximately 3.7 billion Belarusian rubles) to Belarusian enterprises for joint import substitution projects. Currently, Belarusian enterprises are implementing more than 20 such projects, focusing on products that are in demand by Russian partners [13]. Russia has also enabled Belarusian companies to submit new applications for additional initiatives in this area.

Thanks to these allocated funds and the growing demand for Belarusian automotive components in Russia, certain enterprises in Belarus have received new orders and improved their financial performance. For example, the revenue of Rudenks JSC, which produces headlights for vehicles and other machinery, increased by 35.6% in 2023. Sales volumes grew particularly after major Western manufacturers exited the Russian market. Lighting equipment from Rudenks is used in the production of KAMAZ, GAZ, UAZ, and Lada, as well as PAZ and LIAZ buses.

Thus, the economies of both Union State countries are actively developing today, addressing the goals of budget replenishment, import substitution, and diversification of external ties despite significant sanctions pressure. At the same time, they are tackling strategic tasks such as building a new, equitable IDL system and global economic relations. A key driver of this effort is the BRICS association, established with Russia's active participation, in which Belarus became a partner state on October 24, 2024.

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