

Elina G. Vanhemping 

Scandinavian Institute of Academic Mobility, Seinajoki, Finland

*e-mail: baltraining@gmail.com

GEO-ECONOMIC DETERMINANTS OF SUSTAINABLE DEVELOPMENT OF THE STATE IN THE MODERN WORLD: FOREIGN ANALYTICS

The experience of foreign geo-economic research is relevant for the systematic study and identification of provisions, tools, technologies that are effective for use in modern Kazakh economic policy. In this article, the author carries out a comparative analysis of scientific and methodological approaches, strategic conclusions and key tactical recommendations presented in the modern research discourse of the leading scientific and analytical centers of Finland regarding the impact of modern geo-economic statuses of states on the processes of their sustainable development. Finland's experience may be acceptable for Kazakhstan in different aspects. Finland has successfully developed innovative technologies, which may be of interest to Kazakhstan, which is striving for modern technological development. Kazakhstan can study Finnish experience in the field of innovation and use it to stimulate its own development. Such a comparative approach to the foreign experience of strategic geo-economic research is relevant for the vision of new reference points in understanding the place and role of Kazakhstan in modern geo-economics. Also, a systematic analysis of the foreign discourse of strategic geo-economic research presented in this article can help identify the most effective innovative technologies of public administration, the use of which will strengthen the resources of the effectiveness of research on political economic reforms and transformations in the Republic of Kazakhstan.

Key words: Geo-Economics, Economic Risks, Political Economic Reforms, State Strategy, Security Concept.

Э.Г. Ванхемпинг

Скандинавиялық академиялық ұтқырлық институты, Финляндия, Сейнайоки қ.

*e-mail: baltraining@gmail.com

Қазіргі әлемдегі мемлекеттің тұрақты дамуының геоэкономикалық детерминанттары: шетелдік талдау

Шетелдік геоэкономикалық зерттеулердің тәжірибесі – қазіргі қазақстандық экономикалық саясатта қолдануға тиімді ережелерді, құралдарды, технологияларды жүйелі зерделеу және анықтау үшін өзекті. Бұл мақалада автор Финляндияның жетекші ғылыми-талдау орталықтарының қазіргі заманғы зерттеу дискурсында мемлекеттердің қазіргі геоэкономикалық мәртебелерінің олардың тұрақты даму процестеріне әсері туралы ұсынылған ғылыми-әдістемелік тәсілдерді, стратегиялық тұжырымдар мен негізгі тактикалық ұсыныстарды салыстырмалы талдауды жүзеге асырады. Финляндияның тәжірибесі Қазақстан үшін әртүрлі аспектілерде қолайлы болуы мүмкін. Финляндия заманауи технологиялық дамуға ұмтылған Қазақстан үшін қызықты болуы мүмкін инновациялық технологияларды сәтті дамытып жатыр. Қазақстан инновация саласындағы фин тәжірибесін үйреніп, оны өз дамуын ынталандыру үшін пайдалана алады. Стратегиялық геоэкономикалық зерттеулердің шетелдік тәжірибесіне осындай компаративті көзқарас Қазақстанның қазіргі геоэкономикадағы орны мен рөлін түсінудегі жаңа реперлік нүктелерді көру үшін өзекті болып табылады. Сондай-ақ, осы мақалада ұсынылған стратегиялық геоэкономикалық зерттеулердің шетелдік дискурсын жүйелі талдау мемлекеттік басқарудың неғұрлым тиімді инновациялық технологияларын анықтауға ықпал етуі мүмкін, оларды қолдану Қазақстан Республикасындағы саяси экономикалық реформалар мен трансформацияларды зерттеу нәтижелілігінің ресурстарын күшейтуге мүмкіндік береді.

Түйін сөздер: геоэкономика, экономикалық тәуекелдер, саяси экономикалық реформалар, мемлекеттік стратегия, қауіпсіздік тұжырымдамасы.

Э.Г. Ванхемпинг

Скандинавский Институт Академической Мобильности, Финляндия, г. Сейнайоки
e-mail: baltraining@gmail.com

Геоэкономические детерминанты устойчивого развития государства в современном мире: зарубежная аналитика

Опыт зарубежных геоэкономических исследований актуален для системного изучения и выявления положений, инструментов, технологий, эффективных к применению в современной казахстанской экономической политике. В данной статье автор осуществляют сравнительный анализ научно-методологических подходов, стратегических выводов и ключевых тактических рекомендаций, представленных в современном исследовательском дискурсе ведущих научно-аналитических центров Финляндии касательно влияния современных геоэкономических статусов государств на процессы их устойчивого развития. Такой компаративный подход к зарубежному опыту стратегических геоэкономических исследований актуален для видения новых реперных точек в понимании места и роли Казахстана в современной геоэкономике. Опыт Финляндии может быть приемлем для Казахстана в разных аспектах. Финляндия успешно развивает инновационные технологии, что может быть интересным для Казахстана, стремящегося к современному технологическому развитию. Казахстан может изучать финский опыт в области инноваций и использовать его для стимулирования своего собственного развития. Также, системный анализ зарубежного дискурса стратегических геоэкономических исследований, представленный в данной статье, может способствовать выявлению наиболее эффективных инновационных технологий государственного управления, применение которых позволит усилить ресурсы результативности исследований политэкономических реформ и трансформаций в Республике Казахстан.

Ключевые слова: геоэкономика, экономические риски, политэкономические реформы, государственная стратегия, концепция безопасности.

Introduction

The turbulent instability of the modern world, contradictions and challenges of globalization processes determine the special strategic importance of the economy in the processes of sustainable development of the state. In the context of the aggravation and escalation of modern challenges, geo-economic factors are becoming key indicators of the country's national security. The global technological rivalry causes the injection of a new generation of economic risks into the market space of many European and Eurasian countries. Experts unanimously note the global trend of increasing economic interdependence in the world since the end of the cold war of the XX century. Currently, there is a vigorous strengthening of geo-economic rivalry between major powers and medium-sized countries. This is manifested in the large-scale application of economic instruments in their state strategies and security concepts.

The analysis of the degree of geo-economic stability of the country has strategic importance for the development of science-based programs at the state level. In 2021, the Office of the Prime Minister of Finland commissioned a research pool of leading actors of the country's scientific community to fill in the gaps in the analysis of country geo-economic vulnerabilities at the local and global levels. In

particular, the government instruction pointed out the strategic need to identify the degree of intensity of Finnish interdependence with the United States and China.

The result of the research work carried out on behalf of the Prime Minister's Office was the creation of a comprehensive picture of awareness of the situation in the field of geo-economic vulnerabilities in Finland.

It should be noted that considering the data obtained, the country's economic policy is being formed, decisions are being made regarding the security of trade turnover and supplies of domestic producers at the Finnish level and at the level of the European Union as a whole.

Particular attention is paid to the development of policies to prevent collateral damage that global geo-economic confrontation can cause to Finnish business. As part of the execution of the order, the Office of the Prime Minister of the Republic of Finland prepared a research report on modern geo-economic influences in Europe (2022) based on the results of the study. Special attention was paid to Finland. The achievement of the designated research goals and objectives was carried out within the framework of an interdisciplinary research mission that combined the political, economic and technological experience of the leading analytical institutions of the project.

Literature Review

Let's focus on the analysis of the key provisions of leading international experts regarding geo-economic vulnerabilities for the states of the modern world, paying additional attention to the rhetoric of the research report prepared by Finnish scientists for the Finnish government in 2022 regarding modern geo-economic influences in Europe and the world.

It should be emphasized that the world expert community unanimously notes the fact that in the modern geo-economic confrontation, the economic competition between China and the United States is intensifying. This process determines new directions and local specifics in the global reset of geo-economic interdependence between many countries of the world.

Choer Moraes H.C. and Wigell M. (2020) conclude that what was previously interpreted as a «barrier to conflict» has now acquired the property of a «currency of power» (currency of power).

We are talking about the economic interdependence of countries, which is used to achieve power, political goals, thereby strengthening the chain geo-economic reaction between the world states. Its essence lies in the fact that countries, for the purposes of economic autonomy, are implementing a wide range of initiatives to control trade, investment and data localization.

Modern geo-economic competition determines new trends in social development, creates special risks and country opportunities in the international economy.

In such conditions, research aimed at analyzing the mechanisms and instruments of state policy that allow effective management of strategically priority economic interdependencies of the country has a high degree of relevance.

Let's consider such an experience on the example of the EU and Finland. It should be noted that the regulatory framework and institutions previously established in the international economy are currently under considerable pressure from the increasing geo-economic competition of the world's technological powers.

In such conditions, the role of economic functions and economic relations in the sphere of strategic interests related to the national security of states increases. This determines the integration of economic thinking and national security thinking. Many States during the new era of geo-economic competition are concerned about the strengthening of their economic dependence on other countries, forced escalation of global interdependence in

general. This trend is interpreted as a vulnerability factor for the national security of the country.

As measures to counteract the global interdependence of the state, experts call strengthening control over the economy, the introduction of initiatives aimed at increasing the economic self-sufficiency and sustainability of the state. This is especially true in the technological spheres (Choer Moraes H.C. and Wigell M., 2020)

It is important to emphasize that innovations in the field of high technologies occupy a leading place in the international rivalry of the great powers of the world today.

Experts believe that the leading positions of the United States in the technological sphere determined their significant economic advantage and high ratings of achievements in the military field.

Both priority state tasks are concentrated within the framework of the «innovation imperative». Its essence lies in the fact that for China to move up the global value chain, a strategically prerogative necessity is the large-scale development and development of innovative technologies (Blanchette J., 2021). The socio-economic phenomenon called the «middle income trap» is expressed in high rates of transition from low to middle income.

Cheap labor also plays a significant role. It should be noted that this definition of «Middle-income trap» is a subject of discussion in the professional scientific environment (Gill I., Kharas H., 2007).

In the race for technological leadership on the world stage, China applies a wide range of geo-economic measures, from the state program of a new industrial policy to various forms of technological cooperation.

The expert materials of European analysts indicate that to bridge the technological gap with the United States, there are practices of intellectual plagiarism and industrial espionage in China. (M.Wigell, M.Deschryvere, Ch.Fjäder, N.Helwig, V.Kaitila, H.Koski, J.Seilonen, A.Suominen, 2022).

The geo-economic paradigm of the United States of America determines the intensification of the search for ways of separatization from the Chinese economy. Especially relevant for the United States is their independence from Chinese manufacturers in the field of high technology.

Studies show that there is some pressure from the United States on other countries of the world so that they follow their course of eliminating dependence on the Chinese economy (M.Wigell, M.Deschryvere, Ch.Fjäder, N.Helwig, V.Kaitila, H.Koski, J.Seilonen, A.Suominen, 2022).

As for the European Union, the introduction of geo-economic initiatives in it is a regulatory and procedural challenge. Initially, when creating this international association, the fundamental principles of independence of security policy from economic policy were laid down.

Due to the currently growing convergence of these policies, the European Union was not ready for such circumstances of global reality. The process of convergence of national security policy with economic policy, expressed in the phenomenon of geo-economics, can be regarded as a challenge, as an alarming signal of modernity, to which it is necessary to respond in a timely manner.

To respond to the geo-economic challenges of the global world, the European Union is taking initiatives to develop policies to strengthen its competitiveness in the economic and technological spheres.

Special attention is also paid to the formation of the EU's status as a significant stakeholder in the global arena of setting the rules of the game for the world economy (Helwig N., 2020).

Such initiatives, in general, indicate a reset of the principles of European sovereignty in the economic and technological spheres. Their strategic importance is associated with increasing the efficiency of managing economic interdependence in the European Union.

An important consequence of such a reset should be to reduce the dependence of the economies of the European Union countries on global geo-economic players.

The revision of the EU principles regarding the convergence of national security policy and economic policy is also aimed at countering excessive global protectionism to prevent risks of accelerating a chain geo-economic reaction and prevent threats that may harm the interests of European business (European Commission, 2020).

From a theoretical and methodological point of view, these debates are focused within the framework of the concept of «open strategic autonomy». Terminologically and ideologically, the concept is based on the rhetoric developed during the discussion of the strategic autonomy of Europe as a whole.

Many experts assess it as a kind of optimal cross-country compromise that competing EU states are trying to achieve in terms of their economic goals in the European and global markets (Helwig N., 2020).

Those countries of the European Union who's industrial and trade policies are protectionist tend

to economic autonomy. First, many experts refer to France as such.

As for those EU states in which market liberalism flourishes and a high degree of dependence on international trade, they advocate that the European economy should be open. Scandinavian countries are among them.

According to the definition of «open strategic autonomy» introduced by the European Commission (2021a), «open strategic autonomy» does not include the promotion of protectionism in any way.

The open strategic autonomy of the European Union is focused on the creation of clear international rules of the global trading system regulating the competitiveness resources of all European countries (European Commission, 2020).

Experts (Helwig N., 2020) point to the high degree of relevance of the European Commission and individual EU member states' exploration of the optimal design of their economic policy in modern geo-economic conditions.

The strategic necessity of collecting and analyzing complex data is actualized, because of which it is possible to understand the degree of economic and technological interdependence of the country clearly and concretely in the global economic system.

Such studies allow us to calculate the weak and vulnerable places in the space of the economic sovereignty of the state.

Materials and Methods

The research content of this article is formed based on the application of methods of content analysis of secondary sociological information, strategic government documents, analysis of statistical databases, comparative method of analysis of key discourses of the modern analytical field of Finnish and European geo-economic analytics. An interdisciplinary approach occupies a special place. The key analytical interpretations are built based on a systematic study of the methodological design of Finnish strategic studies in the field of assessing the geo-economic vulnerabilities of the country.

We consider it essential to emphasize that modern strategic political economic research requires high validity and exceptional reliability of the results obtained. This puts forward special requirements for the scientific validity and reliability of the methodology used and the instrumental and methodological design of research in general. This provision emphasizes the indisputable relevance of studying modern methodologies, analytical methods

and techniques, survey tools used in state scientific centers of foreign expertise of socio-economic development.

The methodology of modern socio-economic analysis successfully combines qualitative and quantitative research methods. From the arsenal of qualitative research methods, expert interviews and standard documentary analysis are traditionally used. From quantitative methods, the design line of the research of the analyzed Finnish scientific project includes the method of descriptive statistics, bibliometric analysis, data-driven analytics, and surveys by survey research.

The conceptual analysis of modern geo-economics is carried out based on reference to scientific publications on the studied problem, to the state program documents of Finland, the European Union, the USA, China.

Results and Discussion

The experience of the European Union demonstrates that its ambitions align with the national interests of economic sustainability. In these circumstances, it is nationally important for each country to conduct a scientifically based assessment of its own vulnerabilities in the context of geo-economic invasion. Comprehensive data collection and analysis is strategically necessary to understand a country's economic and technological interdependence in the global economic system. This analysis can identify weaknesses and vulnerabilities in a state's economic sovereignty.

To gain a preliminary understanding of a country's geo-economic vulnerabilities, it is important to clarify the current situation in the geo-economic dynamics between the country, its regional neighbors, and major powers such as the United States and China.

It is worth noting that the term «great powers» is commonly used in English-language analytics by the scientific and expert community to refer to the United States and China. Identifying geo-economic threats and risks for each country is crucial in developing effective policies to strengthen their economic and technological sovereignty.

To gain a comprehensive understanding of the current geo-economic dynamics in Finland and the EU, it is essential to address the following research problem: the identification of geopolitical risks associated with the intensifying geo-economic rivalry between the United States and China and their potential impact on Finland's economy. The identified list of geo-economic risks will

enable politicians and businesses in Finland and other countries to proactively eliminate potential vulnerabilities and develop policy measures aimed at economic sustainability and increasing competitiveness. This applies equally to Kazakhstan.

This text assesses the current policy of the European Union considering the potential political and economic consequences of the Sino-American geo-economic confrontation. The purpose of this assessment is to improve the validity of decisions regarding the management of domestic developments.

Additionally, it determines the degree of economic dependence of the Republic of Finland on China, the USA, and the EU. The aim of this study is to analyze the risks and opportunities for Finland in the context of increasing global geo-economic competition.

Additionally, the study will identify Finland's domestic technological competencies and resources, as well as its degree of external geo-economic dependence. This will be achieved through an analysis of the dynamics of cooperation between Finland and the USA and China in the development of science, technology, and innovation (STI) cooperation. Specifically, determine the technological areas and actors involved in collaboration. This analysis can clarify technology interdependencies, identify relative advantages, and reveal potential vulnerabilities.

The data obtained are relevant for use in the national investment program aimed at strengthening Geoeconomics determinants of sustainable development of a state are important aspects that are considered by foreign analytics. Here are some of them:

1. Resource base: The availability of natural resources, such as oil, gas, minerals, is an important factor for the sustainable development of the state. They can be a source of income, export potential and attract foreign investment.

2. Geographical Location: Geography can play a key role in the economic development of a state. Location on the seacoast, proximity to transport routes, access to international markets and trading partners – all this can contribute to sustainable economic development.

3. Infrastructure: Quality infrastructure such as roads, railways, airports, ports, energy systems, communication networks help in business development and attracting investments. Efficient infrastructure ensures the ease of movement of goods, services and people, which promotes economic growth.

4. Political stability and institutional effectiveness: The stability of the political system and the effectiveness of government institutions are important for attracting investment, business development and ensuring predictability of economic policy.

5. International cooperation: Participation in the international community, maintaining relations with other countries, participation in international organizations and agreements contribute to the creation of a favorable external environment for the sustainable development of the state.

These factors are just some of the complexes of aspects considered by foreign analytics when studying the geo-economic determinants of the sustainable development of a state. It is important to note that each country has its own unique characteristics and factors that can influence its sustainable development.

Table 1 – Link Between Geo-Economic Determinants and Sustainable Development

Name	Indicators
Geographical position	Access to sea routes Natural resources Geopolitical regions
Energy security	Diversity of energy sources Energy independence
Trade and Investment	Openness to trade Attracting foreign investment
Infrastructure	Roads, railways, ports Communication networks
Innovation and scientific and technological progress	Creation and application of new technologies Innovation and Research
Political stability and governance	Stability of the political situation Effective management
Note: The table was compiled by the author based on an open source of information	

Accessing the Crunchbase database allows you to determine the size of the collected group data and count them over the past decade. This creates an understanding of how the activity of American and Chinese companies affects the specifics of the formation of a competitive space in the European Union and in Finland. A similar research technique is relevant and applicable to the study of other countries, including Kazakhstan.

Descriptive data analysis is effectively used to study the volume of annual acquisitions made

by technology giants from China and the United States. On its basis, the relative market significance of the spheres of products produced by the acquired companies is clearly and validly clarified.

Based on comparative studies conducted by analyzing statistical data in the above databases, Finnish experts calculated the index of revealed technological advantages (RTA). Recently, the dominant role of the PRC in international standard-setting (2022) structures has been increasing. Experts note significant discrepancies in China's interpretation of the cornerstone, fundamental values in the context of knowledge standardization.

This situation is regarded by Finnish analysts as a potential strategic risk of a geo-economic nature. This creates the need to develop special regulations and policies within which Europe and Finland should become more selective in relation to technical standards adopted on the European market.

This aspect of the activity is of a strategic nature and is directly related to initiatives to protect European values in the field of technical standards extrapolated in the EU economic space.

To solve this problematic situation, Finnish analysts have proposed the following three key recommendations to the Finnish Government.

The adoption of new provisions of the Law on Digital Markets (Digital Markets Act regulation) regarding the obligations of technology giants in the field of data exchange should be an urgent and not postponed measure. It is necessary to secure by law access to the databases of European companies, which are monopolistically owned by the technology giants of digital markets. Such a strategic step of lawmaking will create equal conditions for the competition of EU countries and their innovative implementations in digital markets.

The next fundamentally significant measure to counteract inequality in the field of competitiveness is aimed at countering «killer» acquisitions for European business, which are carried out by technology giants in the EU.

This measure should legally prevent the use of state subsidies for similar transactions outside the European Union. Countering such acquisitions, which, according to experts, are «murderous» for the viability of European business, should be the adoption of a new pan-European regulation regulating this area (new EU-wide regulation).

In a single package with the above two measures, strategic analysts propose to strengthen Finland's presence in international institutional structures developing standards as a full participant.

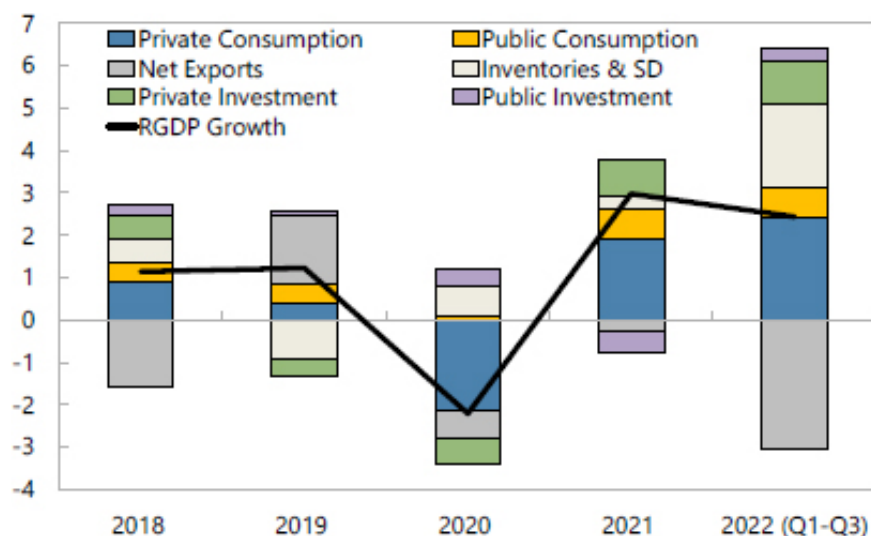


Figure 1 – Annual Real GDP Growth Contributions

Note: based on the source of the International Monetary Fund. European Dept., 2023

Thus, to resist the modern global impacts of geo-economic force, states are tightening control and supervisory measures in the field of business in strategic sectors of the economy.

Let's consider them on the example of Finland. It should be emphasized that similar policies are being implemented in many other countries of Europe and the world.

Measures, procedures, regulations in the field of public control over direct investments and subsidies coming from abroad are significantly increasing.

Such measures have been taken by Governments to eliminate the threat of control by foreign business actors of infrastructures and technologies that are strategically important for the sustainability of the country's economy. Also, this measure directly affects equality and honesty in competitive competitions in the domestic and foreign markets.

Measures are being implemented to restrict access to new capital. Thus, the United States excludes Chinese companies from stock exchanges.

A new course of re-design and re-adaptation of existing economic instruments to counter geo-economic vulnerabilities and increase the national security of states is rigidly outlined.

Stricter rules and increased enforcement are expected under the European Union Blocking Act. (Council Regulation (EC) 2271/96).

The EU blocking statute prohibits European operators from complying with certain sanctions that were imposed by the United States against Cuba and Iran. The current situation forces operators to choose between US sanctions or the EU Blocking Statute.

In modern conditions, geo-economic dependencies, having a certain share of positive factors for the development of individual countries, still, to a greater extent, determine their concern. Geo-economic risks provoke threats to the economic stability of the state, can shake the foundation of well-being in the indicators of state sovereignty and affect the prospects for the development of democracy.

The Finnish government has set itself the goal of increasing the share of R&D to 4 percent of expenditures by 2030. This is extremely modest compared to China, which is intensifying its ambitions within the framework of the proclaimed Fourteenth Five-Year Plan. It states the planned rate of deduction of expenses (expenditures) for R&D in the amount of 200 percent.

A key role in the development of the dynamics of Finland's international economic cooperation with both the United States and China will, according to experts, be played by the strategic capabilities and breakthrough technological developments of Finnish Nokia. The share of Finnish patents jointly owned with China is exceptionally high compared to other European countries. Nokia and Huawei are dominant in their provision.

It should be additionally noted here that in Finland scientific structures are primarily consolidated within the organizational framework of classical universities. There are two types of universities in the country: classical (research-oriented) and applied (practice-oriented).

Students are trained in bachelor's and master's programs in both types of universities. Preparation

for PhD programs is carried out only at classical universities.

The University of Helsinki is a classic university with a rich history, traditionally occupying the top position in the ranking of Finnish universities and included in the TOP-100 world rankings.

As for Aalto University, it is an innovative format of a new generation of university in the "4.0" model. It was created several years ago in Helsinki with a high share of foreign investment by uniting the oldest technical universities in Finland and introducing an innovative structure for the organization, management, administration of academic and research processes.

It was launched in 2012 through the creation of the Huawei Innovation Center in the capital of Finland, Helsinki, engaged in research and development in the field of high technology.

The specifics of the global Bologna reforms of the late 90s and early 2000 affected the process of reforming the Finnish R&D system.

One of the consequences of the transformations of science and higher education in Finland in the 2000s and 1900s was organizational and structural changes, expressed in the consolidation of universities, research centers, revision of financing issues, introduction of requirements for commercialization of activities and attraction of investments into their mission and functional component, administrative autonomy in the field of seeking additional financial resources for the university budget.

Geoeconomics determinants play a crucial role in the sustainable development of a state in the modern world. Kazakhstan, located in a strategically important region of Eurasia between Europe and Asia, is influenced by a few factors that impact its economic activity and well-being.

Among these factors are Kazakhstan's transport routes, including its railway network and oil pipelines, which play a significant role in transit transport and trade with international partners. Kazakhstan possesses abundant natural resources, such as oil, gas, uranium, rare earth metals, and other minerals. These resources offer opportunities for export development and foreign investment attraction. Kazakhstan is a significant producer of oil and gas.

The development of the energy sector and diversification of energy sources can contribute to the country's sustainable development and reduce dependence on individual markets. The development of high-quality transport and communication infrastructure is crucial for attracting investment and promoting business

growth. Kazakhstan is investing heavily in its infrastructure, including railways, highways, ports, and airports. Kazakhstan is collaborating with other countries and regional organizations, such as the Eurasian Economic Union (EAEU), the United Nations (UN), and the Shanghai Cooperation Organization (SCO).

The development of education, science, and innovation plays a crucial role in the sustainable development of the state. Kazakhstan is actively investing in the development of human capital, including programs to improve skills, conduct scientific research, and support innovation, which can help expand markets and attract foreign investment.

Kazakhstan has the potential for sustainable development through efficient resource use, infrastructure development, economic diversification, and active international cooperation.

In conclusion, geo-economic determinants play an important role in the sustainable development of a state in the modern world. Foreign analytics are actively studying these aspects and highlighting several key factors that affect the stability and prosperity of the state.

Resource base, geographic location, infrastructure, education and scientific and technological capacity, political stability and institutional effectiveness, and international cooperation are all important factors in determining a state's capacity and capabilities for sustainable development.

However, it should be noted that each country has its own unique characteristics and context, and therefore it is important to take these into account when analyzing geo-economic determinants. Moreover, the interrelationship and interaction between these factors also play a significant role in achieving sustainable development.

In general, the geoeconomics determinants of sustainable development of a state in the modern world are a complex and multifaceted topic that requires in-depth analysis and understanding. Foreign analytics continue to study these aspects and draw conclusions that may be useful for developing strategies and policies that contribute to the sustainable development of the state.

Conclusion

The first package of recommendations from the Finnish strategic review focuses on the problem of developing and implementing a national system for assessing geo-economic risks.

As a result of such dialogue, a complete picture of the current situation is formed regarding key foreign economic dependencies in trade, finance, supply chain, high technology and databases.

The second area of concrete action aimed at strengthening Finland's national system for protecting Finland from geo-economic risks is related to specific corporations and increasing strategic coordination of management in the field of breakthrough technologies in the country.

We are talking about identifying, based on assessments of Finnish business and research institutions, their inherent geopolitical risks and their subsequent inclusion in already created national risk maps.

Conducting a corporate assessment of geo-economic risks focuses priority attention on the indicators of the country's technological sovereignty.

Also, the assessment of geopolitical risks and vulnerabilities contributes to the development of open cooperation at an optimal level, which is significant for increasing competitiveness,

innovative implementation and increased labor productivity.

Experts suggest the following as specific actions aimed at identifying geo-economic risks in specific Finnish companies and organizations.

First, it is necessary to create an Observatory of Critical Technologies at the EU level. Its activities will be carried out by leveraging existing networks of experts in the field of high technology and will be aimed at informing the government to adopt geo-economically sound strategies for international economic cooperation in the field of high technology.

The Observatory of Critical Technologies, created at the EU level, will monitor the development of the situation in the technological field and develop and update development plans (road maps) for strategically important breakthrough technologies.

The third area of concrete action aimed at strengthening Finland's national defense system against geo-economic risks involves new initiatives in the field of trade cooperation.

References

1. Blanchette, J. (2021, July/August). Xi's gamble. The Race to Consolidate Power and Stave Off Disaster. Foreign Affairs. <https://www.foreignaffairs.com/articles/china/2021-06-22/xis-gamble>
2. Choer Moraes, H. C., & Wigell, M. (2020). The emergence of strategic capitalism: Geoeconomics, corporate statecraft and the repurposing of the global economy. FIIA Working Paper 117. <https://www.fia.fi/julkaisu/the-emergence-of-strategic-capitalism>
3. Commission staff working document. 2022 Country Report – Finland // https://commission.europa.eu/system/files/2022-05/2022-european-semester-country-report-finland_en.pdf
4. Council Regulation (EC) No 2271/96 of 22 November 1996 protecting against the effects of the extra-territorial application of legislation adopted by a third country, and actions based thereon or resulting therefrom // <https://eur-lex.europa.eu/legal-content/EN/TXT/?Uri=celex%3A31996R2271>
5. Digital Markets Act (DMA) Legislation // https://digital-markets-act.ec.europa.eu/legislation_en
6. European Commission. (2020a, September 30). A new ERA for Research and Innovation. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2020) 628 final.
7. Finland: 2022 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Finland // <https://www.elibrary.imf.org/view/journals/002/2023/038/article-A001-en.xml>
8. Gill, I., & Kharas, H. (2007). An East Asian Renaissance: Ideas for Economic Growth. Washington, DC: World Bank
9. Hans-Jakob Schindler. An Assessment of the Efforts to Mitigate the Impact of US Secondary Sanctions: The EU Blocking Statute and INSTEX // https://www.inss.org.il/wp-content/uploads/2021/02/iranmonograph_e-29-39.pdf
10. Helwig, N. (2020). EU strategic autonomy: A reality check for Europe's global agenda. FIIA Working Paper, 119. <https://www.fia.fi/en/publication/eu-strategic-autonomy>
11. Mikael Wigell, Matthias Deschryvere, Christian Fjäder, Niklas Helwig, Ville Kaitila, Heli Koski, Josi Seilonen, Arho Suominen. Europe Facing Geoeconomics: Assessing Finland's and the EU's Risks and Options in the Technological Rivalry. Prime Minister's Office Helsinki 2022
12. New legislative framework // New legislative framework
13. Policy strategies for value-based technology standards // <https://policyreview.info/articles/analysis/policy-strategies-value-based-technology-standards>
14. Stacking the Deck: China's Influence in International Technology Standards Setting // <https://asiasociety.org/policy-institute/stacking-deck-chinas-influence-international-technology-standards-setting>
15. Technological advantage // https://www.oecd-ilibrary.org/docserver/sti_scoreboard-2015-41-en.pdf?Expires=1699786381&id=id&accname=guest&checksum=1BC71C65F399335FC5CCD97350643A5A
16. Быков, А. А. Торговля добавленной стоимостью: источники сбалансированного экономического роста / А.А. Быков, О. Д. Колб, Т. В. Хвалько; под ред. А. А. Быкова. — Минск, Мисанта, 2017. — 356 с.

References

1. Blanchette, J. (2021, July/August). Xi's gamble. The Race to Consolidate Power and Stave Off Disaster. Foreign Affairs. <https://www.foreignaffairs.com/articles/china/2021-06-22/xis-gamble>
2. Bykov, A. A. Torgovlja dobavlennoj stoimost'ju: istochniki sbalansirovannogo jekonomicheskogo rosta [Value Added Trade: Sources of Balanced Economic Growth] / A. A. Bykov, O. D. Kolb, T. V. Hval'ko; pod red. A. A. Bykova. — Minsk, Misanta, 2017. — 356 s.
3. Choer Moraes, H. C., & Wigell, M. (2020). The emergence of strategic capitalism: Geoeconomics, corporate statecraft and the repurposing of the global economy. FIIA Working Paper 117. <https://www.fiaa.fi/julkaisu/the-emergence-of-strategic-capitalism>
4. Commission staff working document. 2022 Country Report – Finland // https://commission.europa.eu/system/files/2022-05/2022-european-semester-country-report-finland_en.pdf
5. Council Regulation (EC) No 2271/96 of 22 November 1996 protecting against the effects of the extra-territorial application of legislation adopted by a third country, and actions based thereon or resulting therefrom // <https://eur-lex.europa.eu/legal-content/EN/TXT/?Uri=celex%3A31996R2271>
6. Digital Markets Act (DMA) Legislation // https://digital-markets-act.ec.europa.eu/legislation_en
7. European Commission. (2020a, September 30). A new ERA for Research and Innovation. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2020) 628 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/?Uri=COM%3A2020%3A628%3AFIN>
8. Finland: 2022 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Finland // <https://www.elibrary.imf.org/view/journals/002/2023/038/article-A001-en.xml>
9. Gill, I., & Kharas, H. (2007). An East Asian Renaissance: Ideas for Economic Growth. Washington, DC: World Bank
10. Hans-Jakob Schindler. An Assessment of the Efforts to Mitigate the Impact of US Secondary Sanctions: The EU Blocking Statute and INSTEX // https://www.inss.org.il/wp-content/uploads/2021/02/iranmonograph_e-29-39.pdf
11. Helwig, N. (2020). EU strategic autonomy: A reality check for Europe's global agenda. FIIA Working Paper, 119. <https://www.fiaa.fi/en/publication/eu-strategic-autonomy>
12. Mikael Wigell, Matthias Deschryvere, Christian Fjäder, Niklas Helwig, Ville Kaitila, Heli Koski, Josi Seilonen, Arho Suominen. Europe Facing Geoeconomics: Assessing Finland's and the EU's Risks and Options in the Technological Rivalry. Prime Minister's Office Helsinki 2022 // https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163804/VNTEAS_2022_12.pdf?Sequence=1&isallowed=y&x_tr_sl=fi&x_tr_tl=ru&x_tr_hl=ru&x_tr_pto=sc
13. New legislative framework // New legislative framework
14. Policy strategies for value-based technology standards // <https://policyreview.info/articles/analysis/policy-strategies-value-based-technology-standards>
15. Stacking the Deck: China's Influence in International Technology Standards Setting // <https://asiasociety.org/policy-institute/stacking-deck-chinas-influence-international-technology-standards-setting>
16. Technological advantage // https://www.oecd-ilibrary.org/docserver/sti_scoreboard-2015-41-en.pdf?Expires=1699786381&id=id&accname=guest&checksum=1BC71C65F399335FC5CCD97350643A5A