

Lesya Kolinets**Doctor of Sciences, Senior Research Fellow**Vilnius Gediminas Technical University**LT-10223, 11 Saulėtekio Ave., Vilnius, Lithuania**<https://orcid.org/0000-0002-7005-0519>*

Transport corridors between Europe and Central Asia: The role of the Middle Corridor in the transformation of international economic relations

Abstract. This study aimed to determine how the Middle Corridor influenced the restructuring of international economic relations between Europe, Central Asia, and the Caucasus after 2022. The research was conducted on the basis of comparative and institutional analysis of official materials, transport statistics, analytical reports, and documents reflecting route dynamics, the transport policies of transit states, and trade interaction with the European Union. The findings demonstrated that after 2022, the Middle Corridor ceased to perform an auxiliary function and acquired the characteristics of an independent multimodal route between Europe and Asia. Trade in goods between the EU and the five Central Asian states reached EUR 54.267 billion in 2024, while the share of the European Union in the region's total foreign trade amounted to 24.7%. The duration for cargo to travel from China to Europe across the Middle Corridor was around 12-15 days, but a transit through the Suez Canal via sea could take as long as 40-60 days. The Caspian area became the central point in implementing the route; Kazakhstan, Azerbaijan, and Uzbekistan played a leading role in the implementation of the route in infrastructure, tariffs and digitisation. Between January and September 2025, the number of container trains from China to Azerbaijan increased to 296. At the Port of Baku, 6.1 million tonnes and 77 thousand containers were shipped. In Kazakhstan, in 2024, transport of goods along the route increased by 62% and reached 4.5 million tonnes. The results obtained can be used in the work of the ministries of transport of Kazakhstan, Azerbaijan and Uzbekistan, port administrations in the Caspian basin, railway transport operators, and companies engaged in transit and logistics activities, as well as the institutions of the European Union in planning investments, coordinating tariff policy, developing digital integration and strengthening the transport system between Europe and Central Asia

Keywords: trade; economy; logistics; infrastructure; investment

Introduction

After 2022, the transport and logistical system between Europe and Asia was radically restructured against the background of increasing geopolitical risks, a sharp tightening of the sanctions regime and a decrease in the forecast of the functioning of traditional directions. Under these circumstances, the Middle Corridor is increasingly not only an alternative transport direction, but also an instrument for the transformation of the existing international economic relationships in the Eurasian space between Europe, Central Asia and the Caucasus. The research problem arises from the fact that increased attention to this route has been accompanied by uncertainty regarding its actual economic significance: whether it primarily performs the function of a temporary logistical bypass or is gradually emerging as a sustainable infrastructural, trade, and institutional foundation for a new configuration of Eurasian interaction. In this regard, the study of the role of transit

states, the degree of coordination in their transit strategies and the influence of the corridor on the redistribution of economic ties in the context of the Central Asia-Caucasus-European Union axis remains relevant.

R. Palu & O.-P. Hilmola (2023) examined the literature on the Trans-Caspian route and its infrastructure, the legal framework of the Caspian Sea and the impact of the war in Ukraine on changing logistics strategies. They presented a method of examining the Trans-Caspian route in terms of route, policy, trade, alliances, infrastructure and challenges. In addition, the authors conducted two interviews with representatives of the transport sector in Finland and Estonia, which made it possible to relate the general overview of the route to practical perspectives on its significance for Northern European economies. L. Vasa & P. Barkanyi (2023) examined the changing significance of the Middle Corridor in geopolitical and geo-economic

Received: 29.03.2026, Revised: 01.08.2026, Accepted: 26.08.2026, Published: 08.09.2026.

Suggested Citation:

Kolinets, L. (2026). Transport corridors between Europe and Central Asia: The role of the Middle Corridor in the transformation of international economic relations. *Foreign Affairs*, 36(4), 90-99. doi: 10.59214/ua.fa/4.2026.90.

*Corresponding author (kolinetslb@gmail.com)



contexts. The analysis was mainly devoted to determining the contribution of the route to diversifying Eurasian links and strengthening the transit status of states in the new Eurasian Asia-Europe transit area. A. Zhumanov *et al.* (2024) focused on the Kazakh railway infrastructure of the Trans-Caspian International Transport Route and developed a model for calculating the transit time of container trains between the border of China and the Kazakh ports of Aktau and Kuryk. The modelling included two Kazakh routes: Altynkol-Aktau Port (3,106.1 km) and Dostyk-Aktau Port (3,640.2 km). For the first route, the average transit time amounted to 69.2 hours without delays at passing loops, 74.5 hours with delays at 50% of passing loops, and 79.1 hours with delays at all passing loops. For the second route, the corresponding figures were 81.1, 87.1, and 93.1 hours, respectively, which clarified the dependence of the efficiency of the Kazakh segment on single-track sections, the number of passing loops, and the priority regime applied to container trains. J. Boonstra (2024) studied the issues of transport interaction between the EU and Central Asia within the framework of the general connectivity policy, where transport and energy, as well as digitalisation, were developed in close connection with the political environment of the region. The author continued the above approach by pointing out the programmatic character of the European transport policy towards Central Asia, including a list of 33 infrastructure investment needs and 7 “soft connectivity” measures for digitalisation, interoperability, trade facilitation, customs procedures, and regulatory coordination. D. Rafi (2024) explored the strategic role of Azerbaijan as a member of the Middle Corridor based on the development of transport infrastructure, multimodal logistics, and the development of non-resource sectors. The study presented comparative indicators demonstrating both the potential and the limitations of the route: in 2022, transit volume through the Middle Corridor amounted to approximately 33 thousand TEU (twenty-foot equivalent unit), whereas 410.5 thousand TEU were transported through the Northern Corridor. At the same time, it was noted that in 2023 the total freight volume transported via the Middle Corridor reached 4.3 million tonnes, exceeding the figure for the previous year by 65%.

L. Urciuolo (2024) highlighted a shift in freight flows from north to south of the east-west routes on the Middle Corridor in view of the consequences of the Russian invasion of Ukraine, as well as crises and security risks affecting maritime routes. It has been demonstrated separately that the South Caucasus and Azerbaijan in particular have become increasingly important as a transport and logistics hub between Europe and Asia. In the study by R. Petyur & H. Aliyev (2024), the role of the Middle Corridor in China’s foreign policy strategy under the conditions of Russia’s full-scale war against Ukraine was analysed. The authors discussed the importance of the role of the countries involved in the route (Türkiye, Azerbaijan, Kazakhstan) and the EU in the long-term prospects and limitations of the route. Consequently, K. Popławski *et al.* (2024) emphasised that the development of the Middle Corridor depends on the interaction of states with each other, logistics operators, international organisations, and key corporate market participants. According to the report, the length of the

Middle Corridor is approximately 7,000 km (about 30% less than the Northern Corridor), but the route’s competitiveness is limited due to a complex logistics system, an underdeveloped transshipment infrastructure, the presence of several customs zones, and the need to coordinate the work of the ports, railways, and logistics terminals. The report details container transport trends: 33 thousand TEU in 2022 versus 410.5 thousand TEU on the Northern Corridor, dropping to 20.2 thousand TEU in 2023 due to low sea freight costs and the difficulties of multimodal transshipment. The transformation of the transport landscape of Central Asia under the influence of Russia’s war against Ukraine, US-China trade rivalry, and the One Belt and One Road Initiative was examined by J. Rentschler *et al.* (2025). In this study, the Middle Corridor was defined as a geopolitical instrument for diversifying trade routes and reducing dependence on Russian and traditional maritime routes. T. Sharashenidze & G. Cher (2025) examined the economic and geopolitical prospects of the Middle Corridor under conditions of global confrontation and uncertainty. At the same time, the study demonstrated that even after the Northern Corridor had been disrupted by the war in Ukraine, the full potential of the route remained unrealised because of weak coordination between Kazakhstan, Azerbaijan, and Georgia, as well as competition among external actors in the region.

The analysis of the sources demonstrated that the existing literature had provided relatively comprehensive coverage of the geopolitical preconditions for the growing relevance of the Middle Corridor, the infrastructural limitations of the route, and the functions of individual transit states. However, three analytical dimensions had been integrated less comprehensively: the transformation of the geography of international trade after 2022, the transport policies of Kazakhstan, Azerbaijan, and Uzbekistan, and the impact of this combination of changes on the international economic relations between Central Asia and the European Union. This study aimed to determine the influence of the Middle Corridor on the restructuring of trade, transport, and institutional relations between Europe, Central Asia, and the Caucasus under the conditions of changing Eurasian trade geography after 2022. The objectives of the study were: to identify the characteristics of the formation of new Eurasian transport and logistics routes and the place of the Middle Corridor among alternative routes connecting Europe and Asia; to determine the economic interests and transport policy features of Kazakhstan, Azerbaijan, and Uzbekistan in the development of port, railway, and multimodal infrastructure; and to establish the influence of the Middle Corridor on international economic relations, regional integration, and trade and investment interaction between Central Asia and the European Union.

Materials and Methods

The empirical basis of the study consisted of official documents, statistical materials, and analytical reports reflecting the development of transport connectivity between Europe, Central Asia, and the Caucasus during 2022–2025. The body of sources included documents issued by the European Commission and the Council of the European Union concerning transport cooperation between the

European Union and Central Asia, particularly materials related to the Global Gateway initiative and policy documents on interregional cooperation (European Commission, 2024; Council of the European Union, 2025). Data on the European Union's foreign trade with Central Asian countries and Kazakhstan were used to describe the economic context of the route's development (European Commission, 2025a; 2025b; 2025c). The reports of the OECD (2025a; 2025b; 2025c) on Kazakhstan, Uzbekistan and the Trans-Caspian transport corridor as a whole were used to evaluate regional integration, infrastructure barriers and development opportunities for the Middle Corridor. The World Bank report was also used in order to consider projected indicators on the development of freight flows, the trade of the countries in the route, and the implementation of the Caspian section (World Bank, 2023). Materials produced by the International Association Trans-Caspian International Transport Route were used to clarify delivery times, operational dynamics, and the role of the route in multimodal connections between Central Asia, the Caucasus, and Europe (TITR, 2024). A separate group of sources consisted of materials from Azerbaijani transport institutions containing statistics on container trains, port cargo turnover, and transit transportation through the Azerbaijani segment of the route (Coordinating Council on Transit..., 2025d; 2025a; 2025b). Additional materials concerning the subsequent dynamics of freight transportation, maritime transport, ports, and Azerbaijan's digital logistics solutions were also taken into account (Coordinating Council on Transit..., 2025c; n.d.). Official publications of Kazakhstan were used to analyse state transport policy, the development of Caspian ports, the digitalisation of railway logistics, and cooperation with international partners (Ministry of Foreign Affairs of the Republic of Kazakhstan, 2025; Prime Minister of the Republic of Kazakhstan, 2025). Materials issued by the President of the Republic of Uzbekistan made it possible to characterise Uzbekistan's position regarding the use of the TransCaspian transport corridor, the coordination of tariff regimes, and the strengthening of the western direction of foreign economic interaction (President of the Republic of Uzbekistan, 2025a; 2025b).

The study was conducted within the framework of a documentary and analytical approach. The comparative method was applied to compare the Middle Corridor with traditional routes between Europe and Asia, as well as to identify differences in the transport policies of Kazakhstan, Azerbaijan, and Uzbekistan. The states were chosen due to their similar but also different functions within the structure of the route: Kazakhstan – an eastern hub of the route, a land-maritime hub, a land of the Caspian Sea, Azerbaijan – the western Caspian-Caucasian country and Uzbekistan – a landlocked Central Asian country (which is integrated into the Middle Corridor) in the multimodal and tariff coordination. The selection of countries for comparison was determined by: location within the transit route, participation in port and railway infrastructure and intermodal hubs, development dynamics of transport flows, participation in tariff harmonisation, degree of digitisation of customs and logistical procedures, and degree of coordination between transit strategies, trade and investment cooperation with the European Union.

Institutional analysis allowed the identification of the role of the European Union, international organisations and national governments in the new form of transport interaction. The contents of the official documents were analysed in order to categorise the themes in terms of the presentation by the states and international organisations on the development of the Middle Corridor. The units of analysis are the texts about the infrastructure, investment, time, volume of cargo, tariff policy, digitisation, port modernisation and coordination in the official documents. The content analysis categories are the infrastructure, investment, efficiency, tariff policy, digital policy, port-rail infrastructure, and economic external connection. The categories of the analysis of the content of transit policies of the Middle Corridor are: infrastructure development, investment attraction, logistics and tariff, digital interoperability, and port-railway coordination. In addition, the external orientation of the logistics and transit potential of the Middle Corridor is evaluated. Statistical-descriptive analysis was used to aggregate quantitative characteristics. This allowed the systematisation of indicators of external trade, cargo handling time, container transport volumes, port cargo turnover, capacity and transit dynamics. Dynamic analysis was employed to trace changes in the functioning of the Middle Corridor after 2022 and to identify the strengthening role of the Caspian segment during 2024-2025. A systems approach made it possible to examine the Middle Corridor as an integrated multimodal system within which infrastructural, tariff, digital, and external economic factors interact.

Results and Discussion

After 2022, the Middle Corridor ceased to function as an auxiliary transit route between China, Central Asia, the Caucasus, and Europe and was identified in EU and international organisation documents as a distinct multimodal framework of Eurasian connectivity. The final document of the Global Gateway Forum for EU-Central Asia transport connectivity defined the objective of establishing a route between Europe and Central Asia with a transit time of 15 days or less, identified 33 infrastructure needs, 7 "soft connectivity" measures, and a package of current and planned investments amounting to EUR 10 billion (European, 2024). In the report by the OECD (2025c), the Middle Corridor was described not only as an alternative to the Northern Route, but also as a mechanism for regional integration, trade diversification, and the modernisation of transport infrastructure in Central Asia. However, it was also noted that the emergence of the Middle Corridor did not mean the simple substitution of one route for another, but rather that there was a new space of choice among alternative delivery schemes. For example, Azerbaijan's 2025 transport brochure says the Middle Corridor provides an alternative to both the Northern Corridor and the maritime route through the Suez Canal. Transport time between China and Europe via the Middle Corridor is said to amount to 12-15 days, whereas 40-60 days are needed for the Suez route. Thus, the construction of new Eurasian transport and logistical routes was a result of the strengthening of existing land-maritime transport and logistics solutions of cargo that was sensitive to delivery time rather than the full substitution of previous delivery

options (Coordinating Council on Transit..., 2025d). From this perspective, the Middle Corridor formation after 2022 was a result of an expansion in competition between the various options of regional and global connectivity, rather than the full substitution of one scheme for another. J. Plagemann *et al.* (2021) called this difference between horizontal competition between state strategies and the vertical competition of existing transport networks and new infrastructure projects. In this context, the Middle Corridor reflects the vertical dimension of competition, as it creates an additional logistical niche for cargo that is sensitive to delivery times, political risks, and sanctions-related constraints. In comparison with the approach of R. Pomfret (2021), which explained the development of Eurasian rail transport primarily in terms of the market needs of value chains, the present findings indicate that after 2022, market logic has been supplemented by security, institutional, and geopolitical factors.

It was also found that the increasing role of the Middle Corridor was related not only to transport logic, but to the EU-Central Asia relationship reorganisation. Indeed, at the first EU-Central Asia Summit, held in Samarkand on 4 April 2025, the relationship between the sides was upgraded to a strategic partnership, and the importance of sustainable transport connectivity for economic growth, regional integration and mutual economic resilience was reaffirmed. The parties also stated that the EUR 10 billion in support and investment for Central Asia mobilised at the Global Gateway Forum would be directed towards strengthening the transport links (Council of the European Union, 2025). The Middle Corridor institutionalisation after 2022 was thus a result of a shift from bilateral transport dialogue towards the EU-Central Asia interregional framework. In S. Abilov & B. Hajiyev's (2022) research on the EU-Azerbaijan transport dialogue was examined through the prism of changing structural conditions of the spatial organisation of transport flows, while this work traces this logic through the prism of the EU's strategic partnership with Central Asia. Similarly, the idea of N. Winn & S. Gänzle (2023) on the role of resilience and pragmatism in EU policy for the region receives an infrastructural specification: transport connectivity is not a field of secondary importance, but one of the practical mechanisms of the EU's external economic restructuring for the region.

The deepening of transport interaction took place against the backdrop of expanding trade between the EU and Central Asia. According to the European Commission (2025a), trade in goods between the EU and the five Central Asian countries reached EUR 54.267 billion in 2024. The EU trade policy portal indicates that in 2024, the EU accounted for 24.7% of the total external trade of Central Asian countries (European Commission, 2025b). This means that transport routes develop not outside existing, but rather on the background of an already existing trade, and new logistics solutions become a tool for supporting the next round of economic ties. It was also established that the role of the Middle Corridor goes beyond transcontinental transit between China and Europe. According to the figures presented in the World Bank (2023) report for the forecasted scenario up to 2030, if the full potential of the route is implemented, the volume of freight flows via the Caspian Sea can reach 11 million tonnes, while the

proportion of trade between the countries of the corridor using the Caspian section may exceed 60% of the total mutual trade, compared to 40% in 2021. The report also stresses that the percentage of trade between the EU and China along the route is likely small – approximately 1% of bilateral trade turnover – suggesting that its regional integrative function predominates over a purely transcontinental one.

These results correspond to the results from N. Nurseit (2025), who concluded that the significance of the Middle Corridor is not limited to transcontinental transit, but also includes a regional integration function, and considers the route to be an attractive alternative for transport between Europe and Asia as part of the need to find a more rapid and secure way of transit. This study refines that point by adding that the corridor is a strategic and promising one for transit, not only due to speed, but also due to the potential for further development of integration within the Caspian region. Presented conclusions regarding the need to operationalise the route and the need to improve its functional indicators are consistent with the study of S. Mohseni *et al.* (2025), which considers the impact of improving the Trans-Eurasian transport railway network on the competitiveness of modes of transport. The presented results expand upon this logic by showing that for the Middle Corridor, the issue of competitiveness is directly linked not only to the network as such, but also to tariff predictability, port synchronisation, and the capacity of Caspian hubs.

The research findings confirm that the Caspian region is the main operational centre of the new Eurasian transport and logistics routes. It is the Caspian region that brings together key ports, maritime-railway transshipment, and multimodal operations, which affect the transport capacity of the route, the regularity of service and the stability of transport times. Data from the TITR (2024) indicate stabilisation in delivery times. The transit time from Altyunkol to Absheron is 9 days, to Poti and Batumi is 12 days, and to Constanța via the Black Sea segment is 20-22 days. This indicates that the Caspian section of the route already performs not only a transit function, but also a timecoordination function for the entire corridor. This highlights the transit and coordinating role of the Caspian in the Middle Corridor and the fact that maritime transport, railway communication, port transshipment, and delivery schedules meet within the Caspian. This supports the conclusion of P. Högselius (2022) that technical infrastructure is a process that turns Central Asia into a functional, connected place. In the present study, this role is specified through the aforementioned TITR data. Unlike the research of A. Yermekbayev *et al.* (2024), which focuses on the diversification of the TITR route from the point of view of Kazakhstan, demonstrate the dependence of the route on the relationship between its eastern and western Caspian sections. The study of M. Izteleuova *et al.* (2024) allows for a broader interpretation of transport and logistics infrastructure as a factor of economic efficiency; however, in this case, the key issue is not general infrastructural development, but its impact on delivery times, containerisation, and the stability of multimodal transfers.

The most detailed dynamics for 2025 were recorded in the Azerbaijani segment of the route. According to the results for the first quarter of 2025, the number of arriving in Azerbaijan from China in blocks of container trains along

the Middle Corridor amounted to 125 trains, which is approximately 13 thousand TEU. For January-June 2025, the indicator was 199 trains, approximately 22 thousand TEU, and for January-September 2025, 296 trains, approximately 32 thousand TEU. Thus, in 2025, general estimates of the development of the corridor were changed to regular statistics, which showed the growth of the container segment and the stability of delivery (Coordinating Council on Transit..., 2025a; 2025b; 2025c). In addition, the consolidation of the Caspian hub is confirmed by the Baku International Sea Trade Port performance dynamics. For the first quarter of 2025, 1.9 million tonnes of gross cargo and 30 thousand TEU, for the first half – 3.9 million tonnes of gross cargo and 53 thousand TEU, and for the first nine months of 2025 – 6.1 million tonnes of gross cargo and 77 thousand TEU of goods. Within the transit segment, 4.2 million tonnes of goods and 47 thousand TEU for the same nine months in 2025. This shows that the Caspian part of the route is not just a secondary element, but the second multimodal hub, where the base for containers is being built.

The findings regarding the strengthening role of Baku as a separate multimodal hub are consistent with the conclusions of M. Samadova *et al.* (2025), where the development of Azerbaijan's transport and logistics sector is linked to the effects of investment in transport infrastructure. At the same time, the present study specifies this relationship more precisely, as the increase in infrastructural capacity is correlated not only with general sectoral development but also with the transit function within the Middle Corridor. The conclusion that international transport corridors are significant not only for the economy but also for the security and stability of states corresponds to the study by M. Augan *et al.* (2025). Taking this into account, the findings presented in this study supplement the security approach, because in the case of the Caspian segment, the stability will depend on how regularly cargo will be shipped and whether multimodal transfers will become predictable.

The role of the Caspian region within the route is further reinforced by the infrastructural expansion of Azerbaijan. According to data from Coordinating Council on Transit... (2025d), Azerbaijan's transit freight volume reached 14.5 million tonnes in 2024, representing a 2.5-fold increase compared with 2019, of which 4.3 million tonnes were attributable to the Middle Corridor. At the same time, the throughput capacity of the Baku Port stood at 15 million tonnes and 100 thousand TEU, and is expected to increase to 25 million tonnes and 500 thousand TEU following the completion of the next expansion phase. It has also been noted that the Baku-Tbilisi-Kars railway, which carries 5 million tonnes of freight per year in the west, provides access to European markets. On the eastern Caspian route, Kazakhstan's position as a land-sea transport and logistics hub has improved significantly. According to official Kazakh sources, freight volumes along the Middle Corridor increased by 62% in 2024, reaching 4.5 million tonnes, while a target has been set to increase capacity to 10 million tonnes per year by 2027. According

to data from the Ministry of Foreign Affairs of the Republic of Kazakhstan (2025), Aktau and Kuryk ports have developed, and the OECD (2025a) also reported that in January-March 2025, the country's sea transport volume was 56% higher than in the same period of 2024, reaching 1.02 million tonnes. Meanwhile, Uzbekistan, which does not have a direct outlet to the Caspian Sea, is deepening its involvement in the Middle Corridor by improving the multimodal and tariff component of the route and by shifting part of its external logistics flows towards western directions. At the EU-Central Asia summit in 2025, Uzbek officials stressed the need for increased use of the Trans-Caspian transport corridor's potential and convergence of transport and logistics projects with the concept of Global Gateway (President of the Republic of Uzbekistan, 2025a; 2025b). According to OECD (2025b), Uzbekistan, Kazakhstan, and Turkmenistan have agreed on railway tariff harmonisation, which would facilitate the transport of goods towards Europe and further integrate the countries into the Trans-Caspian logistics system.

A separate component of the Middle Corridor is Georgia, which provides the connection between the Caspian segment of the route, Black Sea ports, and the Turkish corridor. Its role is determined not only by its transit position between Azerbaijan and Türkiye, but also by the operation of the ports of Poti and Batumi, through which the route gains access to the Black Sea. In the materials of TITR (2024), it is recorded that delivery from Altynkol to Poti or Batumi took 12 days, highlighting the importance of the Georgian segment for stabilising the temporal parameters of the route. In addition, in 2024, the Georgian section of the Baku-Tbilisi-Kars railway, which covers about 850 km, with 263 km within the territory of Georgia and 79 km within the territory of Türkiye, saw an increase in freight capacity from 1 million to 5 million tonnes annually (Coordinating Council on Transit..., 2025d). Within this scheme, Türkiye acts as a western hub for the route, which is subsequently integrated into the European transport system. In the country's transport policy, the Middle Corridor is considered a route going from Azerbaijan and Georgia to Türkiye and onwards to Europe. It is also noted that it is about 2,000 km shorter than the Northern Corridor, which can reduce delivery time between China and Europe to 18 days. In addition to crossing the Kars-Akhalsikhe railway line, Türkiye's role is highlighted by the port component, including the Mediterranean route (the Mersin port). According to the Ministry of Foreign Affairs of the Republic of Türkiye (n.d.), this port is considered a potential trans-shipment hub within the framework of the Trans-Caspian International Transport Route. Consequently, the Middle Corridor has developed as an ordered multimodal system where Kazakhstan and Azerbaijan constitute the eastern and western Caspian hubs; Uzbekistan is integrated into it through tariffs, railway and multimodal coordination; Georgia plays the function of an interface between the Caspian, Black Sea and Türkiye; and Türkiye provides access to the European transport area (Table 1).

Table 1. Key performance indicators of the Azerbaijani segment of the Middle Corridor in 2025

Indicator	January-March 2025	January-June 2025	January-September 2025
Container block trains from China via the Middle Corridor	125	199	296
Equivalent in TEU	~13,000	~22,000	~32,000

Table 1. Continued

Indicator	January-March 2025	January-June 2025	January-September 2025
Baku Port, total cargo throughput	1.9 million tonnes	3.9 million tonnes	6.1 million tonnes
Baku Port, container throughput	30 thousand TEU	53 thousand TEU	77 thousand TEU
Transit segment of the port, total volume	1.3 million tonnes	2.7 million tonnes	4.2 million tonnes
Transit segment of the port, container throughput	19 thousand TEU	34 thousand TEU	47 thousand TEU

Source: developed by the author based on Coordinating Council on Transit... (2025a; 2025b; 2025c)

The economic interests of transit states of Central Asia and the Caucasus focus on three interconnected objectives: increase transit revenues, expand the opportunity to export to European and world markets, and reduce the country's dependence on one main route. The Middle Corridor is associated in the reports of the OECD (2025a; 2025b; 2025c) with the following goals: economic modernisation, regional integration, diversification of the partners and investments of the region. As a result, the transport policies of countries on the route are focused not only on increasing cargo turnover, but also on expanding the economic functions of transport infrastructure. With regard to Kazakhstan, it was found that the strategy of state transport policy is consistently oriented towards combining the development of the Caspian ports, railway approaches and digital solutions in logistics. In 2025, the Kazakh side not only confirmed the possibility of increasing the capacity of the Middle Corridor to 10 million tonnes by 2027, but also expressed a desire to further strengthen the Aktau and Kuryk ports in the multimodal structure of the route (Ministry of Foreign Affairs of the Republic of Kazakhstan, 2025). The official sources of the EU report that modernisation of Aktau port and road infrastructure in the country is supported by the EU in terms of financing the transport modernisation of the country, which correlates with the country's transport policy (European Commission, 2024). Moreover, it has been found that Kazakhstan's view on the competitiveness of the Middle Corridor does not end with physical infrastructure but also includes digitalisation in transport operations management. Thus, the government in February 2025 noted the development of digital solutions in railways in Kazakhstan to reduce the time of cargo processing and transparency in the logistics process (Prime Minister of the Republic of Kazakhstan, 2025). The OECD (2025a) report mentions that Kazakhstan Temir Zholy (KTZ) has made 10 tariff increases between January 2023 and May 2025, increasing tariffs by 3-35%, respectively, which makes it more difficult to plan transport costs. This suggests that Kazakhstan's transport policy combines a modernisation agenda with the issue of tariff stability, which directly affects the predictability of the route.

The findings on the combination of Kazakhstan's transport modernisation with the issue of tariff stability are consistent with the conclusions of R. Saito (2026), where logistics diversification in Central Asian countries is analysed from the perspective of foreign policy and external economic orientation. At the same time, the study demonstrated a more applied aspect of this diversification, namely its dependence on the extent to which national logistics solutions are transformed into a predictable transit regime. The findings also correspond to the approach of Z. Zhunissova *et al.* (2025), who

examined Kazakhstan's foreign policy strategy within the framework of Central Asian integration. In contrast to a broader political perspective, the results show that Kazakhstan's integration strategy has materialised through the development of ports, railway approaches, digital services, and efforts to institutionalise its role in the Trans-Caspian route.

In the case of Azerbaijan, it has been established that state transport policy has evolved into a model of a western Caspian gateway integrating maritime, rail, road, and digital components. The materials of Coordinating Council on Transit... (2025d; n.d.) explicitly record the development of the Digital Transport-Logistics Information System, eCMR, and e-Permit mechanisms, as well as a course towards further expansion of the Baku Port and railway infrastructure. In addition, starting in February 2025, the Baku International Sea Trade Port was merged into Azerbaijan Railways, making the Azerbaijani segment of the corridor more clearly multimodal. This represents a transition from a separate transport assets approach to an integrated transport and logistics system. For Azerbaijan, the Middle Corridor also acts as an external multiplier. According to the Coordinating Council on Transit (2025d), ASCO, the Azerbaijan Caspian Shipping Company, transported more than 8 million tonnes of cargo in 2024, while Silk Way West Airlines annually transports more than 500 thousand tonnes and connects Azerbaijan with over 40 international destinations. Thus, Azerbaijan's transport policy focuses not only on the servicing of transit, but also on developing related logistics and service segments and increasing the economic benefits of participating in the corridor.

Uzbekistan has been identified as a country that, despite not having a Caspian coastline, is constantly becoming a part of the western vector of Eurasian transport connectivity by means of multimodal connections. At the EU-Central Asia Summit in April 2025, statements issued by the Uzbek side pointed to the necessity of developing jointly adopted measures, creating conducive conditions for the efficient operation of the entire Trans-Caspian transport corridor and aligning these measures with those of the Global Gateway initiative (President of the Republic of Uzbekistan, 2025a; 2025b). In addition, the OECD (2025b) noted that in May 2025, Uzbekistan had concluded agreements with Kazakhstan and Turkmenistan aimed at harmonising railway tariffs for the movement of freight trains. This means that Uzbekistan is gradually shifting its transport policy from solely the modernisation of national transport infrastructure to the coordination of the transport regimes and tariff conditions. From the structural point of view, Uzbekistan's transport modernisation includes the creation of logistic centres, electrifying railway sections, renewal of the locomotive fleet, and further digitisation of trade procedures. The OECD

report (2025b) also mentioned that the country creates multimodal centres and is gradually reorienting its foreign

logistics towards the western direction using the Caucasus and the Caspian Sea (Table 2).

Table 2. Comparative parameters of transport policy in Kazakhstan, Azerbaijan, and Uzbekistan

Country	Main directions of transport policy	Quantitative/institutional parameters
Kazakhstan	Development of Aktau and Kuryk ports; expansion of capacity; digitalisation of railway logistics	4.5 million tonnes on the route in 2024; +62%; target of 10 million tonnes by 2027
Azerbaijan	Development of Baku Port; BTK (Baku-Tbilisi-Kars railway); digital platforms; eCMR and e-Permit systems; integration of maritime and railway operators	14.5 million tonnes of transit in 2024; 4.3 million tonnes via the Middle Corridor; Baku Port capacity 15 million tonnes/100 thousand TEU, planned expansion to 25 million tonnes/500 thousand TEU
Uzbekistan	Tariff harmonisation; modernisation of logistics centres; reorientation towards western routes via the Caucasus and the Caspian Sea	Tariff agreements reached in May 2025; strengthened coordination within the Trans-Caspian corridor

Note: for Uzbekistan, no comparable publicly available statistics on transport volumes within the Middle Corridor were identified; therefore, its participation is presented through tariff, logistics, and institutional parameters

Source: developed by the author based on OECD (2025a; 2025b; 2025c), Ministry of Foreign Affairs of the Republic of Kazakhstan (2025), Coordinating Council on Transit... (2025d), President of the Republic of Uzbekistan (2025a; 2025b)

The participation of Kazakhstan, Uzbekistan and other Central Asian countries in the Middle Corridor should be seen not only as transport modernisation, but also as an element of external economic balancing. According to L.-C. Sim & F. Aminjonov (2024), cooperation between the countries of the region and China is mutually beneficial, however asymmetrical, and is accompanied by attempts to reduce the level of dependence on a single external partner. In this context, the Middle Corridor simultaneously maintains connections to Chinese cargo and opens up new markets to the EU, Türkiye, the Caucasus, and the Black Sea. This aligns with the conceptual framework developed by L.-C. Sim & F. Aminjonov (2025), who describe the regional integration of Central Asia into the Indo-Pacific system via corridors, pipelines, and energy systems. In these terms, the transport corridor is a form of tangible diversification, bringing together infrastructural, tariff, and digital trade measures.

The impact of the Middle Corridor on international economic relations is visible in the growing integration of Central Asia and the Caucasus. For example, the World Bank (2023) predicts that, under conditions of full operationalisation of the corridor by 2030, trade among the countries along the route via the Caspian Sea could increase to more than 60% of their mutual trade. This confirms that the Middle Corridor is not only a new route connecting China and Europe, but it also facilitates the development of regional economic relations among the economies of Central Asia, the South Caucasus, and other key transit countries. Transport corridors in EU-Central Asia relations are primarily a driver of growth in trade and investment, as well as a form of regulatory and institutional cooperation. As the European Commission (2025b) points out, Central Asia has become a priority trading partner of the EU within the broader Eurasian space, and the EU remains the main destination for Central Asian exports. Furthermore, the joint declaration of the 2025 summit noted that the development of transport connectivity was discussed within the broader framework of cooperation, alongside critical raw materials, connectivity, energy, and water (Council of the European Union, 2025). In this regard, the issue of transport corridors has been lifted from the level of transport engineering and has become part of a broader system of interregional economic relations.

Separately, it was established that Kazakhstan retains a dominant position in the EU's trade with Central Asia. As the European Commission reports (2025c), trade in goods between the EU and Kazakhstan in 2024 stood at EUR 44.94 billion. This data shows that the development of the infrastructure of the Kazakh part of the Middle Corridor has affected not only the development of intra-Central Asian transport routes, but also significantly shaped the geography of trade and investments in EU-Central Asia relations. In this regard, the Kazakh segment of the Middle Corridor can be viewed as a key entry point for the EU to access the Central Asian market. Finally, the impact of the corridor on the volume of trade and its structural composition is not equal. As for the structure of EU-Central Asia trade in 2024, mineral fuels, lubricants and related products accounted for 90.4% of imports from Central Asia, and 52% of EU exports to Central Asia comprised machinery and transport equipment (European Commission, 2025a). This suggests that despite the growth of the Middle Corridor, trade still shows a heavy imbalance in commodity-technological structure. In turn, the World Bank (2023) model forecasts that full implementation of the Corridor by 2030 can reduce the share of raw-material shipments and increase the proportion of containerised and time-sensitive flows. In this sense, modernisation of transport opens up the prerequisites for the restructuring of trade goods.

The effects of transport corridors on international economic relations are also reflected in the emergence of a new structure of interrelation between states, international financial institutions and the private sector. The Global Gateway Forum has shown that states, international banks, logistic operators and businesses are all involved in setting investment priorities for connectivity in transport (European Commission, 2024). According to the OECD (2025c), the corridor can deliver its full potential only if it turns into a stimulus for trade integration and not into a transit corridor alone. This has made it possible to identify a shift from a model of the transport corridor as a set of physical infrastructure assets to a model of the corridor as an institutional and investment platform for international economic interaction.

Consequently, during 2022-2025, it is possible to identify a combination of three interrelated functions

of the Middle Corridor. First, it has emerged as an alternative transport land-sea route between Europe and Asia with the potential to decrease dependence on the northern route and on transport via the Suez Sea route. Second, it has come to function as a means of integration between Central Asia and the Caucasus, increasing intra-regional trade flows and strengthening coordination of transport policy. Third, the Middle Corridor has become a material basis for deepening EU and Central Asia relations, in which connectivity in transport is embedded in the larger framework of economic relations at the international level through investment and the use of digital solutions, as well as modernisation of the port infrastructure and the rail corridor. In turn, the research results indicate that further consolidation of the Middle Corridor is conditional upon the tariff stability, digital integration, capacity of transport hubs at the Caspian Sea and intergovernmental cooperation.

Conclusions

The article has considered the role of the Middle Corridor in changing international economic relations between Europe, Central Asia and the Caucasus in transport-logistics, institutional and foreign economic terms. The article has revealed that spatial reorganisation in trade will not entail displacement of existing routes but instead will form a new system of alternatives in the framework of which the Middle Corridor has gained in importance for time-sensitive cargo. This is corroborated by a significant decrease in delivery timelines to 12-15 days, in contrast to the 40-60 days for seaborne freight transported through the Suez Canal. It is now established that the Caspian region has emerged as the operational hub of the corridor, as this is where the major ports, the maritime-rail interchange, as well as the main multimodal trans-shipment nodes are concentrated. According to calculations made in 2025 for January-September, on the Azerbaijani section, there were 296 container block trains of direct delivery from China. In turn, according to Baku Port, the trans-shipment of cargo there has reached 6.1 million tonnes, of which 77 thousand are containers. That is to say that the project is

moving from the stage of political declarations to steady operational activities. At the same time, the results show that the function of Kazakhstan as an eastern node of the land-sea route is getting strengthened. During 2024, on Kazakhstan's section along the route, there was a 62% growth in freight volumes, to 4.5 million tonnes. Thus, it can be confirmed that the corridor efficiency does not rely simply on geography; it is also a question of coordinated port-railway, tariff, and digital infrastructural work.

In turn, it can be concluded that the expanding role of the Middle Corridor is associated with the widening of economic relations between the European Union and Central Asia. In 2024, trade between them reached EUR 54.267 billion, and the EU's share of the region's total foreign trade stood at 24.7%. This suggests that the Middle Corridor fulfil a transit function, but it is also a kind of integrator, reinforcing the ties between the states of Central Asia, the Caucasus and European markets. Meanwhile, the results also show that the further deepening of these effects depends on tariff stability, digital interoperability of national transport information systems, synchronisation of Caspian hubs, and coordination at the inter-governmental level. The study's limitations include the fact that the main sources are open official sources; as well, macro-indices for 2022-2025 were used. Thus, the corporate logistics strategy of the subjects of the corridor, as well as micro-effect factors for certain categories of commodities, are not covered by it. Further research should focus on the modelling of the impact of tariff scenarios on corridor efficiency, the assessment of its influence on the dynamics of changes in the trade commodity structure, and the comparison with other alternative routes in the long-term time series.

Acknowledgements

None.

Funding

None.

Conflict of Interest

None.

References

- [1] Abilov, S., & Hajiyeve, B. (2022). The European Union – Azerbaijan high-level transport dialogue: A timely reaction to the structural changes? *Journal of Eurasian Studies*, 13(1), 32–41. doi: 10.1177/18793665211054516.
- [2] Augan, M., Mukhametzhani, A., Yermekbayev, A., Zhekenov, D., & Byuzheyeva, B. (2025). The impact of international transportation corridors on security and stability: A comparative analysis of Poland and Kazakhstan. *New Perspectives*, 33(4), 377–398. doi: 10.1177/2336825X251382118.
- [3] Boonstra, J. (2024). *EU-Central Asia connectivity: Using all the pieces (EUCAM Policy Brief No. 39)*. Groningen: Centre for European Security Studies.
- [4] Coordinating Council on Transit Freight of the Republic of Azerbaijan. (2025a). *Quarterly report, January-March 2025*. Retrieved from <https://transit.gov.az/storage/Website-Report-2025-Q1-ENG.pdf>.
- [5] Coordinating Council on Transit Freight of the Republic of Azerbaijan. (2025b). *Quarterly report, January-June 2025*. Retrieved from <https://transit.gov.az/storage/Website-Report-2025-Q2-ENG.pdf>.
- [6] Coordinating Council on Transit Freight of the Republic of Azerbaijan. (2025c). *Quarterly report, January-September 2025*. Retrieved from <https://transit.gov.az/storage/Website-Report-2025-Q3-ENG.pdf>.
- [7] Coordinating Council on Transit Freight of the Republic of Azerbaijan. (2025d). *Transforming transport: Azerbaijan's vision for seamless connectivity*. Retrieved from <https://surl.li/ephmlu>.
- [8] Coordinating Council on Transit Freight of the Republic of Azerbaijan. (n.d.). *Maritime transport and ports*. Retrieved from <https://transit.gov.az/en/transportation-systems/maritime-transport-and-ports>.
- [9] Coordinating Council on Transit Freight of the Republic of Azerbaijan. (2024, May 20). *Modernisation of Baku-Tbilisi-Kars railway*. Retrieved from <https://transit.gov.az/en/media-en/news/modernisation-of-btk-railway-en>.

- [10] Council of the European Union. (2025). *Joint press release following the first EU-Central Asia summit*. Retrieved from <https://www.consilium.europa.eu/en/press/press-releases/2025/04/04/joint-press-release-following-the-first-eu-central-asia-summit/>.
- [11] European Commission. (2024). *Key outcomes of the Global Gateway investors forum for EU-Central Asia transport connectivity*. Retrieved from https://international-partnerships.ec.europa.eu/document/download/e1c1b297-0d05-40a3-968c-cba1c77a48d9_en?filename=investors-forum-eu-central-asia-transport-connectivity-key-outcomes_en.pdf.
- [12] European Commission. (2025a). *European Union, trade in goods with Central Asia 5*. Retrieved from https://international-partnerships.ec.europa.eu/document/download/e1c1b297-0d05-40a3-968c-cba1c77a48d9_en?filename=investors-forum-eu-central-asia-transport-connectivity-key-outcomes_en.pdf.
- [13] European Commission. (2025b). *EU trade relations with Central Asia*. Retrieved from https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/central-asia_en.
- [14] European Commission. (2025c). *European Union, trade in goods with Kazakhstan*. Retrieved from https://webgate.ec.europa.eu/isdb_results/factsheets/country/details_kazakhstan_en.pdf.
- [15] Högselius, P. (2022). The hidden integration of Central Asia: The making of a region through technical infrastructures. *Central Asian Survey*, 41(2), 223-243. doi: 10.1080/02634937.2021.1953963.
- [16] International Association "Trans-Caspian International Transport Route" (TITR). (2024). *Meetings of the Working Group on the development of the Trans-Caspian International Transport Route were held in Shymkent*. Retrieved from <https://middlecorridor.com/en/press-center/news/meetings-of-the-working-group-on-the-development-of-the-trans-caspian-international-transport-route-were-held-in-shymkent>.
- [17] Izteleuova, M., Arimbekova, P., Murzabekova, K., & Alik, A. (2024). Features of development and efficiency of transport logistics infrastructure. *Acta Commercii*, 24(1), article number a1235. doi: 10.4102/ac.v24i1.1235.
- [18] Ministry of Foreign Affairs of the Republic of Kazakhstan. (2025). *Kazakhstan and OSCE intend to strengthen cooperation in economic and environmental dimension*. Retrieved from <https://www.gov.kz/memleket/entities/mfa/press/news/details/995712?lang=en>.
- [19] Ministry of Foreign Affairs of the Republic of Türkiye. (n.d.). *Türkiye's connectivity and multilateral transportation policy*. Retrieved from https://www.mfa.gov.tr/turkiye_s-multilateral-transportation-policy.en.mfa.
- [20] Mohseni, S., van Hassel, E., & Vanelsländer, T. (2025). Assessing the impact on mode competitiveness of improvements of the Trans-Eurasian railway network. *Journal of Shipping and Trade*, 10, article number 3. doi: 10.1186/s41072-025-00193-4.
- [21] Nurseit, N. (2025). Attractiveness and prospects of the Middle Corridor for cargo transportation between Europe and Asia. *Journal of Eurasian Studies*, 17(1), 167-182. doi: 10.1177/18793665251388115.
- [22] OECD. (2025a). *Kazakhstan: Enhancing the competitiveness of the Trans-Caspian Transport Corridor in Central Asia*. Retrieved from <https://surl.li/nviuok>.
- [23] OECD. (2025b). *Uzbekistan: Enhancing the competitiveness of the Trans-Caspian Transport Corridor in Central Asia*. Retrieved from <https://surl.li/birrrk>.
- [24] OECD. (2025c). *TCTC: State of play, challenges and policy considerations*. Retrieved from https://www.oecd.org/en/publications/enhancing-the-competitiveness-of-the-trans-caspian-transport-corridor-in-central-asia_f261e7fa-en/full-report/tctc-state-of-play-challenges-and-policy-considerations_b8a252b7.html.
- [25] Palu, R., & Hilmola, O.-P. (2023). Future potential of Trans-Caspian corridor: Review. *Logistics*, 7(3), article number 39. doi: 10.3390/logistics7030039.
- [26] Petyur, R., & Aliyev, H. (2024). Role of the Middle Corridor in China's foreign policy strategy. *Actual Problems of International Relations*, 160(1), 43-49. doi: 10.17721/apmv.2024.160.1.43-49.
- [27] Plagemann, J., Datta, S., & Chu, S. (2021). The paradox of competing connectivity strategies in Asia. *Third World Quarterly*, 42(10), 2265-2281. doi: 10.1080/01436597.2021.1941846.
- [28] Pomfret, R. (2021). The Eurasian landbridge: Implications of linking East Asia and Europe by rail. *Research in Globalization*, 3, article number 100046. doi: 10.1016/j.resglo.2021.100046.
- [29] Popławski, K., Baniak-Stachowiak, S., Michalski, A., & Popławski, M. (2024). *The Middle Corridor: A Eurasian alternative to Russia (OSW Report 1/2024)*. Warsaw: Centre for Eastern Studies.
- [30] President of the Republic of Uzbekistan. (2025a). *President of Uzbekistan proposes new initiatives for strengthening cooperation between Central Asia and European Union*. Retrieved from <https://president.uz/en/lists/view/8024>.
- [31] President of the Republic of Uzbekistan. (2025b). *Address by the President of the Republic of Uzbekistan Shavkat Mirziyoyev at the first "Central Asia – European Union" summit*. Retrieved from <https://president.uz/en/lists/view/8023>.
- [32] Prime Minister of the Republic of Kazakhstan. (2025). *Georgian Prime Minister gets acquainted with digital solutions in railway transport within his official visit to Kazakhstan*. Retrieved from <https://primeminister.kz/en/news/georgian-prime-minister-gets-acquainted-with-digital-solutions-in-railway-transport-within-his-official-visit-to-kazakhstan-29648>.
- [33] Rafi, D. (2024). *Azerbaijan's strategic role in the Middle Corridor: Taking the spotlight in the globalized world and boosting non-oil sectors via transit operations (MPRA Paper No. 122499)*. Munich: Munich Personal RePEc Archive.
- [34] Rentschler, J., Reinhardt, A., Elbert, R., & Hummel, D. (2025). The Trans-Caspian Corridor: Geopolitical implications and transport opportunities. *Journal of Transport Geography*, 125, article number 104211. doi: 10.1016/j.jtrangeo.2025.104211.

- [35] Saito, R. (2026). Analyzing the diversification of logistics in Central Asian countries: A study from the perspective of foreign relations. *Journal of Contemporary East Asia Studies*. doi: [10.1080/24761028.2026.2647862](https://doi.org/10.1080/24761028.2026.2647862).
- [36] Samadova, M., Huseynova, N., & Hajigayibova, A. (2025). Assessing the development of transport and logistics sector in Azerbaijan and the impact of transport investment: Cross-country analysis. *Problems and Perspectives in Management*, 23(1), 597-619. doi: [10.21511/ppm.23\(1\).2025.45](https://doi.org/10.21511/ppm.23(1).2025.45).
- [37] Sharashenidze, T., & Cherkezishvili, G. (2025). *The perspectives of the Middle Corridor in an age of global confrontation and uncertainty*. Tbilisi: Friedrich-Ebert-Stiftung.
- [38] Sim, L.-C., & Aminjonov, F. (2024). Statecraft in the Steppes: Central Asia's relations with China. *Journal of Contemporary China*, 33(148), 618-633. doi: [10.1080/10670564.2022.2136937](https://doi.org/10.1080/10670564.2022.2136937).
- [39] Sim, L.-C., & Aminjonov, F. (2025). Corridors, pipelines and electrons: Modalities of economic engagement by Central Asia with the Indo-Pacific. *International Affairs*, 101(4), 1213-1235. doi: [10.1093/ia/iiaf071](https://doi.org/10.1093/ia/iiaf071).
- [40] Urciuolo, L. (2024). *The Middle Corridor Initiative: Where Europe and Asia meet*. Brussels: European Institute for Asian Studies.
- [41] Vasa, L., & Barkanyi, P. (2023). Geopolitical and geo-economic importance of the Middle Corridor: A comprehensive overview. *Eurasian Journal of Economic and Business Studies*, 67(2), 20-32. doi: [10.47703/ejeb.v2i67.295](https://doi.org/10.47703/ejeb.v2i67.295).
- [42] Winn, N., & Gänzle, S. (2023). Recalibrating EU foreign policy vis-à-vis Central Asia: Towards principled pragmatism and resilience. *Geopolitics*, 28(3), 1342-1361. doi: [10.1080/14650045.2022.2042260](https://doi.org/10.1080/14650045.2022.2042260).
- [43] WorldBank.(2023).*TheMiddleTradeandTransportCorridor:Policiesandinvestmentstotriplefreightvolumesandhalvetravel timeby2030*.Retrievedfrom<https://thedocs.worldbank.org/en/doc/6248f697aed4be0f770d319dcaa4ca52-0080062023/original/Middle-Trade-and-Transport-Corridor-World-Bank-FINAL.pdf>.
- [44] Yermekbayev, A., Delovarova, L., & Kaliyeva, A. (2024). Trans-Caspian International Transport Route: A Kazakhstani perspective on challenges, opportunities, and prospects. *International Journal: Canada's Journal of Global Policy Analysis*, 79(2), 312-329. doi: [10.1177/00207020241257636](https://doi.org/10.1177/00207020241257636).
- [45] Zhumanov, A., Kegenbekov, Z., & Tolujevs, J. (2024). Trans-Caspian international transport route infrastructure assessment using simulation modelling. *Transport and Telecommunication*, 25(1), 11-19. doi: [10.2478/ttj-2024-0002](https://doi.org/10.2478/ttj-2024-0002).
- [46] Zhunissov, Z., Uderbaeva, B., Kurmangali, M., Darkenbayev, A., & Tazhikov, A. (2025). Kazakhstan's foreign policy strategy within the framework of Central Asian integration. *Asian Journal of Political Science*, 33(1), 92-106. doi: [10.1080/02185377.2024.2396116](https://doi.org/10.1080/02185377.2024.2396116).