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Geopolitical and Geo-Economic Importance of the Middle Corridor: A Chomprehensive Overview

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Abstract

The aim of the paper is to investigate the changing importance of the Middle Corridor in geopolitical and geo-economic contexts using analytical and case study methodology. The conflict in Ukraine has disrupted the traditional trade route between Asia and Europe via Russia, leading to the emergence of alternative transport options such as the Trans-Caspian International Transport Route (TITR), also known as the Middle Corridor (MC). This study examines the evolving importance of the Middle Corridor in the geopolitical and geo-economic context and highlights its potential as an alternative trade route for China-Europe trade. However, the corridor currently operates at only 10% of the capacity of the Northern Corridor, and significant efforts are needed to increase its capacity and ensure its efficient use. Successful corridor initiatives depend on effective management, trade facilitation and cross-border cooperation to overcome geographical disparities. As a result, the Trans-Caspian International Transport Route (TITR), also known as the Middle Corridor (MC), is emerging as a promising alternative for the foreseeable future. Overall, the growing importance of the Middle Corridor and other Asian economic corridors is changing regional trade and transport dynamics, requiring comprehensive management, trade facilitation and infrastructure development.

Keywords: Economics, Geo-Economic, Middle Corridor, Economic Growth, Transport Corridor, Regional Integration, Central Asia

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1. INTRODUCTION

The current war in Ukraine caused several difficulties in different fields and industries. One of these problems, which affects the regions outside of the conflict zone is the trade between Asia and Europe. The usual route from China to Europe passes through Russia, but the war has made this impossible. Thus, the Trans-Caspian International Transport Route (TITR), also known as the Middle Corridor (MC), seems to be a good option for the near future. TITR/MC is a rail freight and ferry system linking China with Europe. It starts from Southeast Asia and China, and runs through Kazakhstan, the Caspian Sea, Azerbaijan, Georgia and Turkey before reaching southern or Central Europe, depending on the cargo destination. Geographically, this is the shortest route between Western China and Europe.

Whilst providing a good option to avoid passing through Russia, the TITR currently only has about 10 % of the northern route's capacity. To develop the corridor's capacity and facilitate its use as the main transport route, mid-Asian countries have been investing billions of dollars in infrastructure. In our study, we investigate the changing importance of the Middle Corridor in geopolitical and geo-economic contexts using analytical and case study methodology. The main contribution of transport corridors to economic growth is subsequent to the reduction of logistics costs and transportation time along supply chains, which eventually help improve trade competitiveness. However, experience demonstrates that not all TC initiatives are successful and their success is much dependent upon the existence of proper corridor management mechanisms and trade and transport facilitation initiatives (PGlobal, 2011).

Today, Ukraine's economy is in disarray, as the supply chains of food, textiles and other goods, as well as equipment and materials, are either overloaded or disrupted. The conflict in Ukraine may further aggravate the transportation crisis. The conflict has also disrupted rail links between China and Europe, in which the corridor through Russia is used to transport many goods. Alternative sources of supply and transport routes require time before production can be scaled to the required level. In the context of globalization, the impact of economic corridors on international trade, investment, economic growth and logistics of countries and regions along them acquires special importance.

Despite the geopolitical upheavals of recent events and the disruption of logistics chains around the world, many countries are trying to cope with this challenge. The creation of regional supply chains requires new approaches to solving the problems that have arisen. Two levels of decision-making are needed to mitigate the effects of supply chain disruptions. First, governments must pursue policies that enhance the sustainability of critical supply chains. Secondly, it is necessary to study in detail the processes and possibilities of solving cross-border problems.

Under these conditions, interest in the route of the Middle Corridor increases. Now that global events have weakened the competitiveness of the Northern Corridor and new opportunities have emerged. The low interest in this direction to date can be attributed to the fact that the capacity of the corridor is insufficient to provide the entire volume of cargo, and the Middle corridor passes through the territory of many countries. However, in the face of increasing demand, countries have become more active in improving the infrastructure of the route and facilitating many customs processes. The concept of the Middle Corridor is that other participating countries can create a coordinated corridor that can not only facilitate interregional trade between China and Europe but also promote trade development within Central Asia, Caspian and adjacent regions. Most of the potential depends on the development of trade within the Middle Corridor, which is multimodal. For example, if Kazakhstan is able to increase trade with the European Union, then both regional and interregional trade will be able to use this opportunity. Thus, the aim of the paper is to investigate the changing importance of the Middle Corridor in geopolitical and geo-economic contexts using analytical and case study methodology.

2. THEORETICAL BACKGROUND

The main contribution of transport corridors to economic growth is subsequent to the reduction of logistics costs and transportation time along supply chains, which eventually help improve trade competitiveness. However, experience demonstrates that not all TC initiatives are successful and their success is much dependent upon the existence of proper corridor management mechanisms and trade and transport facilitation initiatives (PGlobal, 2011).

In the context of globalization, the impact of economic corridors on international trade, investment, economic growth and logistics of countries and regions along them, acquires special importance. The development of economic corridors is closely related to the changes in countries logistics performance (An et al., 2021; Li et al., 2021; Martí et al., 2014; Wang et al., 2018) Thus, the relationship between economic corridors and logistics performance raises a reasonable interest in the scientific community. Firstly, regional cooperation on infrastructure improvements based on economic corridors could strengthen connectivity and reduce trade cost while at the same time making trade easier and foster economic growth of corridor economies. It is known that removing barriers caused by national borders, and opening new transport markets, will lead to cross-border cooperation that significantly reduce geographical inequalities between countries. Secondly, the construction of new railways and roads creates added value for owner country. However, if the new connection is international, the value acquires not only by the owner country but also to the neighbouring countries that use this connection (Rakauskienė et al., 2022).

The objective of economic/development corridors is to leverage the infrastructure network and trade facilitation to promote economic and social development. Nevertheless, the corridors are not static; they may evolve over time in terms of their functional dimension. In Figure 1 presents the functional typology of corridors.

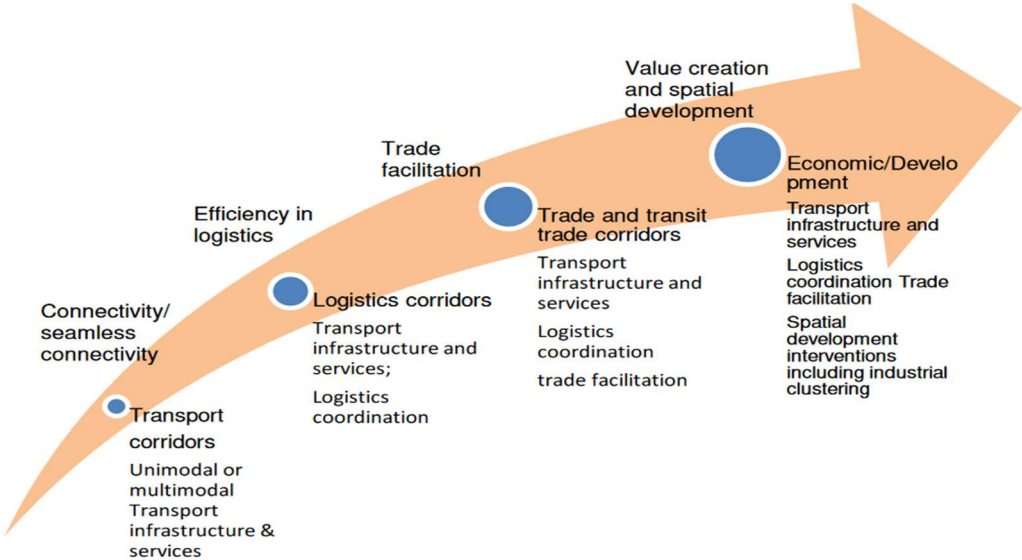


FIGURE 1. Functional typology of corridors

Note: compiled by authors based on Aggarwal (2020)

2.1 Economic corridors in Asia

In Asia, the concept of economic corridor was introduced in the Eighth Ministerial Meeting of the Greater Mekong Subregion (GMS) in 1998 to encourage economic activities along the major roads or the transport corridors through the establishments of industrial estates, special economic zones (SEZs) and border economic zones, drawing on the development corridors of Africa. The GMS countries were the first to adopt the economic corridor approach to regional integration in the subregion. Since then, there has been a series of corridor initiatives in Asia.

In South Asia alone a lattice of regional corridors has been proposed which includes 10 regional road corridors/gateways, 5 regional rail corridors/gateways, 10 maritime gateways, and 7 aviation gateways (De and Iyengar, 2014). Southeast Asia is connected through Mekong, IMT-GT and BIMP EAGA subregional corridors. In addition, there are transregional corridors connecting South Asia with Southeast Asia. These are: the India–Myanmar–Thailand Trilateral Highway Project, the Mekong–India Economic Corridor (MIEC), the Kaladan Multimodal Transit Transport Project (India–Myanmar), and the Delhi–Ha Noi Railway Link. Further, there are mega transnational corridors such as 6 Belt and Road corridors and 6 CAREC corridors. BRI routes comprise of 30,000 km of new/upgraded railways and roads that have been constructed or are in the process of being constructed since 2013 and almost 15,000 km more in the planning stages (Reed & Trubetskoy, 2018). CAREC corridors as stated above cover 29,350-kilometer (km) transport network.

In North East Asia, trade and transit trade corridors are in different stages of development including Siberian Land Bridge, Dalian (China–Russia), China Land Bridge (North east Asia - Central Asia), Vanino – Taishet and Tianjin– Mongolia, and Korea–Russia corridors. The aim of these projects is ‘to create a network in which trade and transportation can take place throughout the region as smoothly as it does within a single country’ (Mitsuhashi, 2010). It must be noted that these corridors have overlapping geographies and are not mutually exclusive.

2.2 China Pakistan Economic Corridor (CPEC)

The China–Pakistan Economic Corridor (CPEC) is the most prominent and ambitious of the BRI corridors. Its development objectives are multifaceted and include infrastructure development; increased people-to-people contact for enhanced academic, cultural, and regional knowledge exchanges; and a higher volume of trade flows and business activity. In principle, the CPEC model should result in a well-connected, integrated and dynamic economic belt extending between China and the coast of Pakistan.

The CPEC is supported by a bilateral trade agreement between China and Pakistan (see Figure 2). Most of the investments, estimated at close to \$50bn, are being spent on building and modernizing the overland connections between Xinjiang in western China to the Arabian Sea across the Himalayas. They are comprised of a network of roads extending almost 3,000 km, the port of Gwadar in Pakistan, a rail line and an oil pipeline between the two countries. The corridor will also see ancillary investments in solar power and a hydro power station.

The CPEC is part of a broader vision to enhance connectivity between China and the South and West Asia countries of India, Iran, Afghanistan, and the Central Asian Republics. When completed, the corridor should enable China’s imports of oil to go through the pipeline and therefore avoid the busy routes through the Straits of Malacca as well as congestion in the coastal provinces of China itself. However, outside these benefits, the corridor is also one of the more controversial ones, as it cuts through disputed territory between India and Pakistan.

2.3 China–Mongolia–Russia Economic Corridor

The China–Mongolia–Russia Economic Corridor is the most direct route between north-eastern China and its economic centres and markets in Russia and Europe. The Corridor builds



FIGURE 2. China-Pakistan Economic Corridor

Note: compiled by authors based on CPEC (2018)

on several years of efforts by Mongolia and Russia to improve connectivity to China and to their own more remote territories. The corridor is thus a convergence of the Eurasian Economic Community, championed by Russia, the BRI and Mongolia's initiative to improve connectivity with its two neighbours. For example, in 2013 Mongolia defined a new initiative to build roads between the borders with China in the south and Russia in the north, including 1,100 km of electrified railways and an oil and gas pipeline across Mongolia, which will cost a total of US\$50 billion (Otgonsuren, 2015).

The three governments have agreed to build an economic corridor and strengthen cooperation in transport infrastructure connectivity, port construction, industrial capacity, investment, trade and business, cultural exchanges, and environmental protection, in order to enhance the economic benefits of each country. In 2015, the three governments agreed on rail freight transport and the establishment of a joint Mongolian-Russian-Chinese rail transport and logistics company. Rail transport is key to the CMREC (see Figure 3).

2.3 New Eurasian Land Based Economic Corridor

The New Eurasia Land Based Economic Corridor is an international railway line running from Lianyungang in China's Jiangsu Province through Alashankou in Xinjiang to Rotterdam in the Netherlands. The Chinese section of the line consists of the Lanzhou-Lianyungang Railway and the Lanzhou-Xinjiang Railway, passing through eastern, central and western China. After leaving Chinese territory, the new land bridge passes through Kazakhstan, Russia, Belarus and Poland to reach a number of coastal ports in Europe. Leveraging the New Eurasia Land Bridge, China has opened an international freight rail link between Chongqing and Duisburg (Germany); a direct freight train between Wuhan and Mělník and Pardubice (Czech Republic); a freight rail link from Chengdu to Lodz (Poland); and a freight rail link from Zhengzhou to Hamburg (Germany). All of these new rail routes offer rail-to-rail freight transport and the convenience of "one declaration,



FIGURE 3. China-Mongolia-Russia Economic Corridor

Note: compiled by authors based on Beltandroad (2023)

one inspection, one cargo release" for all cargo transported. They are based on the recognition that shippers are willing to pay a premium for faster service that allows them to respond quickly to changing market conditions.



FIGURE 4. New Eurasian Land Based Economic Corridor

Note: compiled by authors based on Nikkei Asia (2023)

2.4 China-Central Asia-West Asia Economic Corridor

The China-Central Asia-West Asia Economic Corridor will run from Xinjiang via Alashankou on the China-Kazakhstan border to connect with existing rail networks in Central Asia and the Middle East. The corridor covers the Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan and Afghanistan, as well as Iran and Türkiye. It could be

extended to run through Azerbaijan, Georgia and Russia to Ukraine. However, individual components of the corridor have already been implemented. For example, the Kamchiq Tunnel, the longest railway tunnel in Central Asia and a key project along the Angren-Pap railway line in Uzbekistan is already open, further improving connectivity between China and Central Asia. A rail link between China and Afghanistan was inaugurated in September 2016. Once completed, trains will be able to travel from eastern China to Iran in less than half the time of an alternative route by sea through the port of Shanghai.

2.5 China Indochina Peninsula Economic Corridor (CICPEC)

The corridor, also known as the Nanning-Singapore Economic Corridor, aims to connect eight major cities - Singapore, Kuala Lumpur, Bangkok, Phnom Penh, Ho Chi Minh City, Vientiane, Hanoi and the Chinese city of Nanning. From there, further hubs would be added to the major economic centres of Guangzhou and Hong Kong, creating a network linking ten cities with a combined population of over 50 million. In essence, the corridor links China and the neighbouring ASEAN states. ASEAN has one of the most interconnected transport networks of any developing region in the world. The network has been developed over time, but in particular through the initiatives of the Greater Mekong Sub-region.

2.6 Nanning-Singapore Economic Corridor

The Nanning-Singapore Economic Corridor connects major cities such as Nanning, Hanoi, Vientiane, Phnom Penh, Bangkok, Kuala Lumpur and Singapore. It is the most convenient passage connecting China with Southeast Asia. The linear distance between Nanning, the capital of Guangxi, and Singapore is about 3000 kilometres. If the two cities are connected by highways and railways, it will take only two days by land from Nanning to Singapore. The terrain through which this corridor passes is mostly flat with small hills, making it much easier to build the necessary transport infrastructure.

Now the Nanning railway is connected to Vietnam's North-South railway. From southern Vietnam, the railway can be extended to Cambodia, Thailand, Malaysia and eventually Singapore. The sections from Nanning to the Vietnam-Cambodia border and from the Cambodia-Thailand border to Singapore have been completed and are now operational. Only the 300-kilometre section from Phnom Penh to Hanoi remains to be built from scratch. The tracks from Nanning to Hanoi have already been standardised. To make the N-S rail link operational, the tracks on other sections need to be standardised to make them compatible with the Nanning-Hanoi tracks.

Building a highway between Nanning and Singapore is no great technical challenge. The highway between Nanning and Youyiguan (a Chinese city on the border with Vietnam) has been linked to Vietnam's No. 1 highway, which links the north and south of Vietnam to the road network in Laos, Cambodia and Thailand. The Nanning-Youyiguan highway was completed in 2005, and the Nongkhai-Bangkok-Kuala Lumpur-Singapore highway also exists. At present, only 500 kilometres of road remain to be built or upgraded from the China-Vietnam border to Vientiane. Once the entire Nanning-Singapore expressway is completed, it will be the most important transport link between China and the Indochinese countries. Before this N-S highway is completed, the alternative road is from Vinh City in central Vietnam to Vientiane in Laos, or the section from Quangtri, a city in central Vietnam, to Savanakheth in Laos and then to Khon Kaen in Thailand.

2.7. Central Asia Regional Economic Cooperation (CAREC) Corridors

In 1991, as a result of the collapse of the Union of Soviet Socialist Republics, five new independent states emerged in Central Asia - Kazakhstan, the Kyrgyz Republic, Tajikistan,

Turkmenistan and Uzbekistan. These countries have large reserves of hydrocarbons (oil and natural gas) and mineral resources, and thus a large export potential, which should be realised by means of a developed and modern transport infrastructure. The road network in Central Asia comprises some 66,000 kilometres of roads, of which 9,000 kilometres are used for regional and international transport. The railway system in Central Asia covers more than 22,000 km. Kazakhstan has the largest and most heavily used railway, accounting for 66% of the total length of railways in the region and carrying 84% of all freight. Uzbekistan has about 18% of the region's railways, which carry about 11% of total traffic. Turkmenistan has about 12% of the regional railways and 4% of the total transport. The slow development of the economies of these countries is due in large part to their significant 'economic distance' from world commodity markets. Consequently, it is important for the countries of the region to promote the development of transit routes as they seek to become a trade, transport and economic bridge between the People's Republic of China and Southeast Asia and the Russian Federation and the countries of the European Union, to provide these transport routes with modern infrastructure and to develop information, trade and industrial logistics centres.

The corridors reflect current and potential trade flow patterns. The selection of corridors is based on the inclusion rule of at least two CAREC countries and the following five criteria:

- (1) current traffic volumes;
- (2) prospects for economic and traffic growth;
- (3) ability to increase connectivity between regional economic and population centres;
- (4) prospects for reducing delays and other obstacles, such as the number of border crossings and gauge changes;
- (5) and economic and financial sustainability of infrastructure, management and technology improvements.

3. FINDINGS

3.1 The growing importance of the Middle Corridor

East Asia is one of the most economically integrated regions in the world, with low barriers to trade and investment. It is openly linked to a network of suppliers based in neighbouring Southeast Asia. South Asia, on the other hand, is one of the least economically integrated regions in the world, with comparatively high barriers to trade and investment. Central Asia has historical links with the West, which are currently weakened, and emerging links with the East. Central Asia can become a transit region between East and West and further develop its role as a supplier of raw materials in both directions, including to the main production and manufacturing centres of East Asia. Europe is geographically and economically divided between North and South, whereas Asia is much more geographically and economically divided into Eastern, South-eastern, Southern and Central-Western spheres, separated by deserts, high mountains, climate and historical diversity far beyond what is found in other parts of the world. This can be seen in the Logistics Performance Index map (World Bank, 2018), which highlights the geographical divide between Asia's subregions. This makes integration more costly. Asia's economic networks are more concentrated and clustered around hubs, and these hubs are weakly connected by long-distance links (see Figure 5).

3.2 The Trans-Caspian International Transport Route (The Middle Corridor)

Central Asia lies at the centre of the Eurasian landmass. This offers the Central Asia Regional Economic Cooperation (CAREC) the opportunity to provide high-volume transit and to act as a value-added intermediary for East-West trade, particularly in bulk and containerised cargo by rail. In addition, CAREC could enhance the role of suppliers of raw and processed inputs to



FIGURE 5. New Eurasian Land Based Economic Corridor

Note: compiled by authors based on Intermodal (2023)

medium to high value-added economic centres in East Asia and Europe (including the Russian Federation). These opportunities have only been partially exploited by Central Asian economies, as investment has so far focused on improving the physical infrastructure of the corridors and on improving border and customs systems along the priority transport corridors.

The Trans-Caspian International Transport Route (TITR, Middle Corridor) is a rail freight corridor linking the People's Republic of China (PRC) and the European Union through Central Asia, the Caucasus, Türkiye and Eastern Europe. The non-PRC Middle Corridor consists of a coalition of port, logistics and transport companies, many of which are either state-owned or have strong links to state-owned network monopolies. These institutions, their industries and the states they represent lie between the European Union and the PRC, forming a contiguous transport bloc from which it is possible to develop a new transport and trade macro-region.

Compared to other transport modes, rail transport along the Middle Corridor has historically played a minimal role. However, even before China's Iron Silk Road and Belt and Road policies, there were long-term multilateral institutional development programmes for transport integration, the most prominent of which was the Transport Corridor Europe-Caucasus-Asia (TRACECA). The European Union initiated TRACECA, and the EU, the five Central Asian republics, the three South Caucasus republics, Türkiye and Moldova signed multilateral agreements in 1993, later joined by Iran and Ukraine. However, the development and use of the Central Asian and Caucasian transport corridors under TRACECA has been less than satisfactory. The TRACECA Caucasus-Black Sea corridor is still slower and more expensive than routes connecting Central Asia and the PRC to Europe via Kazakhstan and the Russian Federation. High costs and slower transit times make it practically uneconomical for commercial use (UNECE, 2017). The main problem with the corridor is that it involves slow and costly ferry legs to cross first the Caspian and then the Black Sea from Georgia to ports in Romania or Bulgaria, or using an underdeveloped rail route through Türkiye. Although the EU has funded 14 transport projects in the region since 1995, they have not had a significant impact on the development of regional corridors.

The rail transport corridors from the PRC to Central Asia via Kazakhstan to the Caspian Sea ports along the TRACECA corridors are well established, while a proposed new corridor via the Kyrgyz Republic does not seem feasible (Bucsky & Kenderdine, 2020; Kenderdine, 2017). The most important development in the last 25 years was the finalisation of the Baku-Tbilisi-Kars

railway in 2017, which reopened direct rail transport between the Caucasus region and Türkiye following the closure of the railway between Armenia and Türkiye due to the Armenian-Azerbaijani conflict in the early 1990s. Another major achievement was the completion of the Trans-Kazakh railway in 2014, a 988 km Zhezkazgan-Saksaulskaya-Shalkar-Beyneu line that shortened the east-west transport route between the Chinese border and the Caspian port of Aktau by about 1,000 km (Rodemann & Templar, 2014). This became important after the opening of the second Kazakhstan-PRC rail border crossing at Khorgos/Altynkol in 2011; however, the Khorgos crossing is still severely underutilised in normal economic operations and has also suffered from politicised bottlenecks (Ruehl, 2019; Bucsky & Kenderdine, 2020; Kenderdine & Bucsky, 2021).

The east-west crossing of the Caspian Sea from China to Europe is a major bottleneck, as ferry and port services are insufficient to balance rail throughput capacity on either side (Badambaeva & Ussembay, 2018). The rail ferry to Baku has been in operation for more than three decades, but container services were only introduced in 2019 (PortsEurope, 2018). The roll-on-roll-off (RoRo) vessel fleet has expanded in recent years and there are now 13 vessels serving the Baku-Aktau and Baku-Turkmenbashi routes (Azerbaijan Caspian Shipping Company, 2019). Azerbaijan has built a new port at Alat with a first phase capacity of 10-11.5 million tonnes of general cargo and 40,000-50,000 TEU containers, with plans for further expansion. On the rail side of the Caucasus, the Baku-Tbilisi-Poti/Batumi main line is an electrified, mainly double-track line with high freight capacity. Both Georgia and Azerbaijan have invested in track upgrades over the past decade and this section of the corridor is now in good condition. From Azerbaijan to the Georgian Black Sea ports, the line currently carries mainly hydrocarbon products, but container transport has become much more important on the return route. In total, 45% of Georgian Railways' traffic consists of petroleum products, while 38% is transit - almost exclusively to and from Azerbaijan (Georgian Railways, 2019). The development of a new deep-water port at Anaklia with a planned capacity of 100 million tonnes per year was due to be completed in 2021, but Georgia pulled out of the contract in 2020 (Lomsadze, 2020). There are two routes from western Georgia, one by ferry across the Black Sea and one overland through Türkiye. In both cases, reaching the targeted Central European markets is challenging, as the routes pass through either Ukraine or Romania, where rail infrastructure is in a relatively poor state (Popa & Schmidt, 2013; Miecznikowski & Radzikowski, 2017).

After crossing the Black Sea by ferry to Varna in Bulgaria, the onward rail corridors pass through Serbia, which is not a member of the EU, meaning that crossing the border is much more time-consuming due to customs procedures. The state of Serbia's transport infrastructure is also poor, with speed limits sometimes as low as 20-40 km/h and a largely single-track network. However, the entire rail corridor from the Bulgarian border to the Hungarian border is currently being upgraded, both to rehabilitate existing lines and to double-track most lines. Black Sea rail ferry services between Romania and Bulgaria to Georgia started in 1978. The Bulgarian state-owned shipping company Navibulgar provides services from Georgia to both Bulgaria and Ukraine. Navibulgar operates under a special tripartite intergovernmental agreement between the governments of Bulgaria, Ukraine and Georgia for the operation of direct rail ferry services between the ports of Varna (Bulgaria), Chornomorsk (Ukraine) and Poti and Batumi (Georgia). According to the timetable, there are monthly ferries between Poti and Varna. Navibulgar is the only company in the Black Sea region to provide rail ferry services between Georgia and the European Union, and it has two vessels for this purpose, both built in 1978. The ships' route forms a triangle between Varna, Poti and Chornomorsk. The rail ferry connection to the Romanian port of Constanța was in operation before 1990 and the infrastructure for rail ferries exists, but none currently operate. In 2003, there was a plan to launch a new rail RoRo ferry from Constanta to the Georgian port of Poti, but this never materialised (UNESCAP, 2003). Despite this limitation,

container transport between the two ports is currently possible, but there is a need for transshipment in both ports. As the rail gauge systems are different anyway, this is not a major problem, as containers can be loaded more cheaply and quickly than railway wagons. However, the capacity for rail wagons on ro-ro ferries is very limited, with vessels having a capacity of 50-106 wagons, which is one to two full trains (Viking Rail, 2015).

Transnational cooperation in transport and logistics has become more important than ever in the wake of Russia's invasion of Ukraine. Indeed, the attempts by Azerbaijan, Türkiye and Kazakhstan to secure a place in the ambitious China-led Belt and Road Initiative (BRI) prior to the war have given the Middle Corridor increasing momentum and the potential for further cooperative initiatives. Although relatively little progress has been made in harmonising and simplifying customs documentation and procedures through the above-mentioned initiatives, the optimisation of this multimodal transit corridor as a viable passageway has become a top foreign policy priority for all relevant actors in light of Russia's increasing isolation due to the imposition of the Western-led sanctions and export restriction regime.

4. CONCLUSIONS

The ongoing conflict in Ukraine is disrupting the traditional trade route between Asia and Europe via Russia. As a result, the Trans-Caspian International Transport Route (TITR), also known as the Middle Corridor (MC), is emerging as a promising alternative for China-Europe trade. However, the TITR currently operates at only 10% of the capacity of the Northern route. Central Asian countries are investing in infrastructure to increase the capacity of the corridor and promote its use as a primary transport route. Transport corridors such as the TITR reduce logistics costs and transport time, thereby promoting economic growth and trade competitiveness. Successful corridor initiatives rely on effective management, trade facilitation and cross-border cooperation to reduce geographical disparities between countries.

Asia has proposed and developed various economic corridors, such as the China-Pakistan Economic Corridor (CPEC), the China-Mongolia-Russia Economic Corridor, the New Eurasian Land-Based Economic Corridor, the China-Central Asia-West Asia Economic Corridor, the China-Indochina Peninsula Economic Corridor (CICPEC), the Nanning-Singapore Economic Corridor, and the Bangladesh-China-India-Myanmar Economic Corridor (BCIMEC). These corridors enhance connectivity, trade and socio-economic development in the region.

The Central Asia Regional Economic Cooperation (CAREC) corridors also promote economic integration and development. With abundant hydrocarbon and mineral resources, Central Asian countries can unlock their export potential through improved transport infrastructure. Central Asia's road and rail networks facilitate regional trade, connectivity and access to global markets.

In conclusion, the growing importance of the Middle Corridor and other Asian economic corridors is transforming regional trade and transport dynamics. These corridors improve connectivity, reduce trade costs and promote economic growth. However, realising their full benefits requires proper management, trade facilitation and infrastructure development

REFERENCES

1. Aggarwal, A. (2021). The Concept, Evolution, Impacts and Critical Success Factors of Regional Economic Corridors MPRA Paper No. 110706. [cited 20 March, 2023]. Available: https://mpr.ub.uni-muenchen.de/110706/1/MPRA_paper_110706.pdf
2. An, H., Razzaq, A., Nawaz, A., Noman, S.M., & Khan, S.A.R. (2021). Nexus between green logistic operations and triple bottom line: evidence from infrastructure-led Chinese outward foreign direct

- investment in Belt and Road host countries. *Environmental Science and Pollution Research*, 28(37), 51022-51045. <https://doi.org/10.1007/S11356-021-12470-3>
3. Badambaeva, S. E., & Ussembay A. E. (2018). *AISTP-The Development of a New Eurasian Logistics Infrastructure. Innovative Technologies in Transport: Education, Science, Practice*. Almaty, Kazakh Academy of Transport and Communications.
 4. Bucsky, P., & Kenderdine, T. (2020). 'Is the Iron Silk Road Really so Important? — Rail Freight Use on China's New Silk Road Economic Belt'. *MGIMO Review of International Relations*, 13 (5), 168-193. <https://doi.org/10.24833/2071-8160-2020-5-74-168-193>
 5. CPEC (2018). China Pakistan Economic Corridor Maps [cited 20 March, 2023]. Available: <https://cpec.gov.pk/maps>
 6. De, P., & Iyengar, K. (2014). Developing Economic Corridors in South Asia. [cited 10 March, 2023]. Available: <https://www.adb.org/sites/default/files/publication/162073/developing-economic-corridors.pdf>
 7. Derudder, B., Liu, X., & Kunaka, C. (2018). Connectivity along overland corridors of the Belt and Road Initiative. Discussion Paper MTI Global Practice. [cited 10 March, 2023]. Available: <https://documents1.worldbank.org/curated/pt/264651538637972468/pdf/Connectivity-Along-Overland-Corridors-of-the-Belt-and-Road-Initiative.pdf>
 8. Georgian Railways (2019). Annual Report 2018. [cited 10 March, 2023]. Available: <http://cdn2.grmedia.com.ge/app/uploads/2019/05/annual2018.pdf>
 9. Intermodal (2023). Intermodal and Logistics [cited 10 March, 2023]. Available: <https://www.intermodal-logistics.ro/ceva-logistics-solutie-de-transport-multimodal-china-europa-prin-middle-corridor>
 10. Kenderdine, T., & Bucsky, P. (2021). Kazakhstan–China Border Delays as Rail Freight Hedge Wobbles. [cited 10 March, 2023]. Available: <https://thediplomat.com2021/01/kazakhstan-china-border-delays-as-rail-freight-hedge-wobbles>
 11. Li, X., Sohail, S., Majeed, M. T., & Ahmad, W. (2021). Green logistics, economic growth, and environmental quality: evidence from one belt and road initiative economies. *Environmental Science and Pollution Research*, 28(24), 30664-30674. <https://doi.org/10.1007/S11356-021-12839-4>
 12. Lomsadze, G. (2020). Georgia Cancels Contract for Black Sea Megaport. [cited 10 March, 2023]. Available: <https://eurasianet.org/georgia-cancels-contract-for-black-sea-megaport>
 13. Martí, L., Puertas, R., & García, L. (2014). The importance of the Logistics Performance Index in international trade. *Applied Economics*, 46(24), 2982-2992. <https://doi.org/10.1080/00036846.2014.916394>
 14. Miecznikowski, S., & Radzikowski, T. (2017). Over Capacity of Container Shipping as a Challenge to Rail Silk Road Competitiveness. *Research Journal of the University of Gdańsk. Transport Economics and Logistics*, 70, 121–132. <https://doi.org/10.5604/01.3001.0010.5932>
 15. Mitsuhashi, I., Sasa, K., Zhongkui, L., Gao, H., & Kim, H.S. (2005). Future development of sea transportation corridors in Northeast Asia. *Eastern Asia Society for Transportation Studies*, 5, 1687-1702.
 16. Nikkei Asia (2023). [cited 10 March, 2023]. Available: <https://asia.nikkei.com/Spotlight/Belt-and-Road/China-s-Belt-and-Road-hits-a-speed-bump-in-Kazakhstan>
 17. PGlobal Global Advisory and Training Services (2011). A study of international transport corridors in OIC member countries. Materials of the International Workshop “Impact of transportation network on trade and tourism” 7-9 June 2011, Izmir, Republic of Türkiye. [cited 10 March, 2023]. Available: <https://www.comcec.org/wp-content/uploads/2021/07/IDB-TransportCorridors-Study.pdf>
 18. Popa, M., & Schmidt, C. (2013). On the Rail-Based Freight Corridor between CE and SEE Regions and the Main Obstacles on Romanian Territory. *Transport Problems*, 8(1), 47–56.
 19. PortsEurope. (2018). Volume of Cargo Transported through Baku Port in 2017 was 4.4 Million Tons. [cited 30 March, 2023]. Available: <https://www.portseurope.com/volume-of-cargo-transported-through-baku-port-in-2017-was-4-4-million-tons/>
 20. Rakauskienė, O.G., & Petkevičiūtė-Stručko, M. (2022). Determinants of logistics' performance: a new approach towards analysis of economic corridors and institutional quality impact. *Insights into Regional Development*, 4(3), 11-33. [http://doi.org/10.9770/IRD.2022.4.3\(1\)](http://doi.org/10.9770/IRD.2022.4.3(1))

21. Reed, T., & Trubetsky, S. (2018). *The Belt and Road Initiative and the value of urban land*. Working Paper, World Bank.
22. Rodemann, H., & Templar, S. (2014). The enablers and inhibitors of intermodal rail freight between Asia and Europe. *Journal of Rail Transport Planning & Management*, 4(3), 70-86, <https://doi.org/10.1016/j.jrtpm.2014.10.001>
23. Ruehl, H. (2019). The Khorgos Hype on the Belt and Road. [cited 30 March, 2023]. Available: <https://thediplomat.com/2019/09/the-khorgos-hype-on-the-belt-and-road>
24. UNESCAP (2003). Review of Developments in Transport in the ESCAP Region. [cited February 20, 2023]. Available: <https://www.unescap.org/sites/default/files/publications/Review2003.pdf>
25. Viking Rail (2015). Intermodal VIKING Project-Implementation of Traditional Silk Way Opportunities. [cited February 20, 2023]. Available: https://fiata.com/fileadmin/user_upload/documents/recent_views/Working_Group_UIC_FIATA/7_UIC-FIATA_Vienna_23-24_April_2015_Presentation_Ivan_Liptuga.pdf
26. Wang, M. L., Choi, C. H., Wang, M. L., & Choi, C. H. (2018). How logistics performance promote the international trade volume? A comparative analysis of developing and developed countries. *International Journal of Logistics Economics and Globalisation*, 7(1), 49-70. <https://doi.org/10.1504/IJLEG.2018.10011610>

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