The Roles of the Organization of Turkic States (OTS) in International Trade, Logistics and European Union's (EU) Energy Supply Security

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Abstract

While new trade routes may have been discovered, the political, economic, and commercial relations among countries may lead to a desire to reactivate old routes or increase their capacity for active use over time. In the aftermath of the Russia-Ukraine war, which is one of the most significant events happening worldwide, the impact of the Organization of Turkic States (OTS) on global trade, economic, and logistical activities has been examined. In the current research, the qualitative method was employed to conduct an in-depth examination of the role of the OTS in global trade, transportation corridors, and the EU's energy supply security. For this study, secondary sources such as databases, scientific journals, books, national and international news, etc., were utilized. The research particularly highlights the quest for alternative routes in global trade, especially in recent times. In this context, it is noteworthy that Türkiye and the OTS are among the most significant partners. The presence of OTS is evident in almost all North-South and East-West oriented developed trade corridors, which supports this situation qualitatively. Additionally, the presence of OTS member countries with abundant underground resources enables the optimization of both logistics and supply elements together. This study emphasizes the significance of the OTS in the global economy and commercial activities. Particularly, it highlights the crucial role of Türkiye and OTS as a bridge between East and West, especially after the Ukraine-Russia war. The implications for the future underscore the strengths of OTS and its importance in the times to come.

Keywords: Organization of Turkic States (OTS), International Trade, Logistics, Energy Supply Security, BRI

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I. Introduction

Geographical differences, climate conditions, and varying levels of technological advancement have been reasons for the occurrence of commercial activities in different countries. Societies have been closely involved in commercial activities since the beginning of human history (Krugman, 1994). No society lives in isolation, leading to the development of political, social, and economic relations between societies. Particularly after geographical discoveries, new alternative transportation corridors emerged, and with the industrial revolution, the products used diversified. This situation has further facilitated the development of economic and political relations among countries (Seyidoğlu, 2003). Furthermore, with the advancement of technology, both the products involved in buying and selling, the trade corridors, and the logistics processes have undergone changes (Üzümcü and Akdeniz, 2014; Toraman and Öz 2023).

While new trade routes may have been discovered, due to the political relations between countries, there is a desire to revitalize old routes or increase their capacity for active use (Aoyama, 2016). In this context, China's projects to revive the ancient Silk Road are of great importance. The ultimate form of this project is known as the One Belt One Road (OBOR) initiative (Napang et al., 2019). OBOR aims to create trade transportation corridors and undertake infrastructure projects to promote global economic activity (Foo et al., 2020). Within the scope of OBOR, the goal is to make the corridors established in Europe, Africa, and Asia functional, thus creating an efficient transportation infrastructure (Yang et al., 2021).

In this context, OTS holds significant geographical importance, particularly in the context of OBOR and other routes in Asia, Africa, and Europe. The presence of the OTS on important routes will contribute to the increase of economic activities and support economic growth. Besides OBOR, the OTS has proven to be a significant stakeholder in projects such as TRACECA (Transport Corridor Europe-Caucasus-Asia), Pan-European Corridor, Trans-European Transport Network (TEN-T), North-South Transport Corridor, Zengezur Corridor, Central Asia Regional Economic Cooperation (CAREC) Transport Corridor, Middle Corridor, Crossroads of Peace India-Middle East-Europe Economic Corridor (IMEC) and India-Iran-Türkiye-Europe Economic Corridor (IITEC).

New trade routes have not been limited to just land and sea routes. Various pipeline projects have been developed to supply the energy needs of countries. Particularly within the scope of EU's energy supply security, different pipeline projects have been developed (Napang et al., 2019). Russia is one of the most significant energy suppliers to the EU. To reduce dependence on Russia for a substantial portion of its natural gas and oil supply, the EU has undertaken projects with different stakeholders (BP, 2022). Norway, Azerbaijan, and Algeria already provide energy supply to the EU through pipelines. However, in February 2022, following Russia's invasion of Ukraine, an embargo was imposed on Russia (Toraman, 2022). This situation once again emphasized the importance of energy security for the EU.

The role of the OTS in the energy supply security of the EU is of great significance. OTS plays an essential role as an active supplier of gas from Azerbaijan, an alternative source of energy supply with Turkmenistan's gas and Kazakhstan's oil, and as a crucial stakeholder in transporting Mediterranean gas to the EU through Türkiye. Additionally, OTS has proven to be an indispensable partner in delivering and securing the supply of Kazakhstan's oil, Turkmenistan's gas, and Azerbaijan's oil and gas to the EU.

In the context of international trade, logistics, and the EU's energy supply security, the role of the member and observer states of the OTS, especially Türkiye, is of great importance in Europe, Africa, and Asia. This importance has become even more evident after the Russia-Ukraine conflict. In the future, the bloc in which OTS will be situated and the measures it takes will have a significant impact on the global economy. States that do not want to remain dependent on China for production are likely to view Türkiye as a potential country. Türkiye stands out as one of the countries where competitive production can be achieved, thanks to its energy resources, proximity to markets, and suitable workforce.

The other sections of the research have touched upon the OTS and its general overview. Subsequently, transportation corridors, which play a crucial role in global trade, have been examined. Furthermore, the EU's energy supply security has been discussed. Lastly, the current study has been completed with the research methodology, discussion, and conclusion sections.

II. Organization of Turkic States (OTS)

The member countries of the Organization of Turkic States (OTS) can be listed as Türkiye, Kazakhstan, Uzbekistan, Azerbaijan, and Kyrgyzstan, while the observer countries include Hungary, Turkmenistan, and the Northern Cyprus. The inception of OTS is considered to be the Summit of Turkish Speaking States in 1992 (OTS, 2023). The foundation of OTS was officially laid with the Nakhchivan Declaration signed by Azerbaijan, Kyrgyzstan, Kazakhstan, and Türkiye in 2009. In the Nakhchivan Declaration, the envisioned unity was defined as the 'Council of Cooperation of Turkish Speaking

Countries.' The declaration aimed to strengthen regional peace, contribute jointly to security and stability, and develop the friendship between the countries through cooperation in various fields, unleashing their potential (Nahçıvan Agreement, 2009).

Subsequently, the first Summit of Turkish Speaking Countries Cooperation Council was held in Almaty between the dates of October 20th and 21st. Following 2011, these summits have been held regularly every year (OTS, 2023).

The cooperation areas of OTS are as follows (OTS, 2023):

- Political Cooperation
- Economic Cooperation
- Customs Cooperation
- Transport Cooperation
- Tourism Cooperation
- Education Cooperation
- Information and Media Cooperation
- Youth and Sports Cooperation
- Diaspora Cooperation
- Cooperation in Information and Communication Technologies (ICT)
- Energy Cooperation
- Health Cooperation
- Migration Cooperation
- Agricultural Cooperation
- Cooperation on Justice
- Cooperation on Humanitarian Issues and Development
- Cooperation in the Field of Human Resources
- Cooperation Among Muslim Religious Institutions
- Cooperation with International Organizations

The geographic area, population, and economic data for the year 2022 of the OTS are provided in Figure 1. Despite being rich in underground resources, production activities have not developed to the desired level within OTS.

Figure 1. OTS'nin Puplic and Economics Statistics

Source: Turkic Economics Outlook (2023)

Table 1: Macroeconomic Indicators (January- March 2023)

		GDP *	Import*	Export*	Industrial Production*	Agricultural Products*
Member States	Azerbaijan	17.829,8	4.029,9	8.239,4	10.917	788,3
	Kazakhstan	51.645,1	13.960,7	18.718,4	24.927,8	1.830
	Kyrgyzstan	2.104	1.462	255.6	1.154	456,4
	UZbekistan	17.337,5	9.090,8	5.688,9	4.642,1	2.049,7
	Türkiye	245.464	96.244	61.538	66.288,2	18.025,4
Observes	Turkmenistan	-	-	-	-	-
	Hungary	44.374,3	42.613,9	43.721,4	7.642	1.135,4
	Northern Cyprus**	1.610,6	1.251	106,8	121,7	135,1

* million dolar,
** 2020-2021.
Source: Turkic Economics Outlook (2023)

Kazakhstan is a country rich in underground resources, constituting 1/5 of the GDP and accounting for 57% of the country's income (Kaiser and Pulsipher, 2007). When looking at the revenues generated, industrial production income is higher compared to agriculture. In 2020, the growth in agriculture was 5,6%, while the growth in the industry was 1,6%. On the other hand, there was a decline of-5,6% in the service sector (Yüce and Keleş, 2022). The decline in the service sector could be attributed to the COVID-19 pandemic. Additionally, having exports exceeding imports indicates a trade surplus (Darke et al., 2022). Due to the Russia-Ukraine conflict, Kazakhstan's exports of petroleum products through the Caspian Pipeline Consortium (CPC) via Russia may face disruptions. Therefore, to achieve sustainable growth, Kazakhstan needs to increase the share of industrial products in its production activities.

Krgyzstan is a small state in terms of population and land area in Central Asia. It is also a country poor in underground resources. Therefore, it needs to shift its production towards more industrial-intensive products. However, limited capital hinders its growth. In the future, with the initiation of OTS's economic cooperation efforts, Krgyzstan is expected to enhance the efficiency of its production activities (Denizci and Marangoz, 2019).

Uzbekistan is one of the rare landlocked countries in Central Asia. It has recently been exporting its significant underground resource, natural gas, to neighboring countries. Additionally, Uzbekistan is an important cotton producer. In this context, the Uzbekistan government aims to increase its revenues by taking strategic measures in cotton production (Demirci, 2022).

As a founding member of OTS, Türkiye holds the largest share in terms of economy and population. Due to its geographical proximity to the EU, Türkiye has developed strong trade relations with European countries (Kramer, 2019). Despite being poor in underground resources, Türkiye has experienced positive developments in recent years. However, its largest import item is energy (Toraman, 2022). Therefore, diversifying energy suppliers is crucial for energy supply security. Türkiye has the advantage of its geographical location (Töngür et al., 2020). It has access to energy supplies from various neighboring countries. Türkiye also has more production capabilities compared to other union states. However, the rise in energy prices has led to a loss of its competitive position in international markets (Turkic Economics Outlook, 2023).

Turkmenistan, Hungary, and Northern Cyprus make up the observer countries of OTS. Turkmenistan is a country rich in underground resources with a coastline

on the Caspian Sea. There is limited data available on Turkmenistan, with only a growth rate of 6,2% reported (Turkic Economics Outlook, 2023). Natural gas reserves constitute a significant portion of the country's income. After the Russia-Ukraine conflict, the focus has been on Turkmenistan's ability to export natural gas to Europe via the TANAP and TAP pipelines (Raimondi, 2019).

Hungary is a Central European country that is a member of NATO, OECD, and the EU. Hungary is considered among the rising economies according to IMF reports (Naimoğlu et al., 2022). When examining Hungary's export and import figures, it does not have a trade deficit. In this regard, Hungary has the potential for sustainable growth.

Northern Cyprus is an island country located in the Mediterranean. Although it ranks last in terms of economic size among OTS member countries, it holds critical importance due to its geographical location. Northern Cyprus is of geopolitical and geostrategic significance, making it an important partner within OTS (Turkic Economics Outlook, 2023).

When considering OTS countries individually, their economic sizes are relatively limited. However, when viewed as a whole, OTS maintains its significant role in transportation corridors, international trade, and regional economy. Furthermore, the importance of the transit transportation corridor between Asia and Europe, as well as energy supply security, has become evident after the Russia-Ukraine crisis. The agreement signed between Türkiye and Libya for the transfer of Mediterranean gas to the EU by OTS members has become a highly crucial matter (Toraman, 2022). These recent significant events demonstrate that OTS is an influential force both regionally and globally.

International Trade (Transport) Corridors

Commercial activities have been conducted from the past to the present. When societies cannot meet their wants and needs with their own resources and capabilities, they engage in commercial activities with different countries to fulfill those gaps. However, the most crucial aspect of completing this process is the transportation and logistics infrastructure of the countries (Qadir and Dosmagambet, 2020). In this context, countries have participated in developing both their own transportation networks and regional and global infrastructure improvement activities. Among these, the ones that are particularly important within the scope of the current topic are Turkic Economics Outlook (2023).

- One Belt One Road (OBOR), Belt and Road Initiative (BRI)
- Transport Corridor Europe-Caucasus-Asia (TRACECA)
- Pan-European Corridor
- Trans-Eouropean Transport Network (TEN-T)
- North-South Transport Corridor
- Zengezur Corridor
- Central Asia Regional Economic Cooperation (CAREC) Transport Corridor
- Middle Corridor
- Crossroads of Peace
- India-Middle East-Europe Economic Corridor (IMEC)
- India-Iran-Türkiye-Europe Economic Corridor (IITEC)
- Development Road (BAE-Iraq-Türkiye-Europe)

The effective transportation corridors in the regions where OTS is influential are shown in Figure 2. One Belt One Road (OBOR) can be described as the most current version of the Silk Road. OBOR is an integrated transportation corridor comprising road, sea, rail, and pipeline networks (Yılmaz, 2020). OBOR plays a significant role in facilitating the flow of goods to Europe and ensuring China's raw material and energy supply security. It is implemented in three different stages: the northern and central corridors primarily use land and railways, while the southern corridor is more focused on sea routes. Additionally, OBOR could potentially enhance China's economic and financial influence in Central Asia and make countries dependent on China in terms of production. Researchers view OBOR as China's effort to become a hegemonic power not only in Asia but worldwide (Napang et al., 2019). Therefore, countries in the region may need to collaborate with different unions and organizations in their production and trade activities (Chaziza, 2021). In this context, the founding and observer countries of OTS in Central Asia could provide an alternative to China's monopolization. When the integration provided through cooperation in the areas covered by Articles 1, 2, 3, 4, and 9 of OTS is completed, it will create a new alternative in production as they possess underground energy resources and are situated at the intersection of transportation corridors.

TRACECA is a project aimed at developing transportation networks supported by Europe. The project's inception can be traced back to the Brussels Conference in 1993. Initially, the project involved the European Union (EU), Central Asian states (Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, and Turkmenistan), and Caucasian countries (Georgia, Azerbaijan, and Armenia). Later, Ukraine, Moldova, Bulgaria, Romania, Türkiye, and Iran also became part of the project (Kaw, 2019). TRACECA serves as both a project developed by the EU to reduce its dependency on Russia and a means to shorten travel time and facilitate freight transportation through railways, sea routes, and highways, thereby contributing to economic cooperation among member countries (Ibrahimov, 2016). Important stakeholders of TRACECA consist of OTS members. Therefore, TRACECA and other transportation corridors need to have close collaboration with OTS members. Especially after the Russia-Ukraine conflict, disruptions in the Black Sea and northern regions might potentially lead to EU-bound TRACECA routes being redirected through Türkiye.

The Pan-European Corridor and Trans-European Transport Network (TEN-T) projects involve the integration of transportation networks of the EU and neighboring countries (Czech, 2021). While the Pan-European project mainly focuses on the EU's internal transportation network, TEN-T encompasses transportation connections between the EU and neighboring countries. These projects are essential for completing the transportation integration of EU countries and countries in different regions to facilitate the economic and trade activities of the EU (Bezpalov et al., 2022). One of the alternative connections between the EU

and Asia is through Türkiye. Especially, after the Russia-Ukraine conflict, disruptions in the Black Sea and northern routes have increased the importance of Türkiye and OTS in the EU's connectivity options.

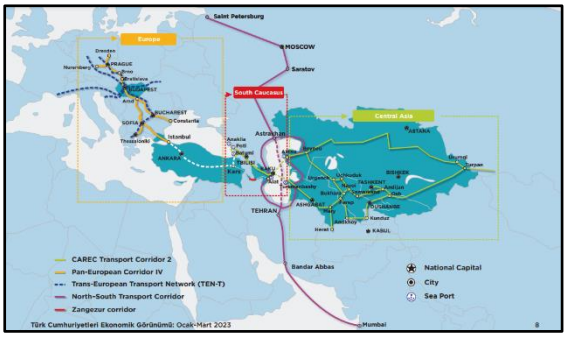

Figure 2. Transport Corridors

Source: Turkic Economics Outlook (2023)

The North-South Transport Corridor (INSTC) is a transportation network that extends in the north-south direction with a total length of 7,200 km. Its main route starts from India and extends through Iran and Azerbaijan towards Russia (Sharma, 2021). INSTC aims to reduce transportation and shipping costs and shorten the transit time between India and Russia (Sahakyan, 2020). Besides providing India with road access to the region, the project plays a crucial role in achieving commercial and economic integration in the region. With the INSTC project, India's reach will extend up to Russia and Eastern Europe, diversifying the supply process and potentially offering an alternative supplier to China (Khan, 2021). Azerbaijan's active role in this project further demonstrates the significance of OTS's geographical position.

The Zengezur Corridor was established to establish a connection between Azerbaijan and the Nakhchivan Autonomous Republic following the Azerbaijan-Armenia war (Aghayev, 2023). The corridor serves as an alternative to the existing railway, road, and pipeline routes between Azerbaijan, Georgia, and Türkiye (Gawliczek & Iskandarov, 2023). Particularly after the Russia-Ukraine conflict, as the EU seeks alternative routes, the active utilization of the Zengezur Corridor, as an alternative to Türkiye's Central corridor, becomes highly important (Valiyev, 2023). Türkiye's role as an indispensable partner in the formation and use of transportation corridors between Central Asia and Europe is once again highlighted through the Zengezur Corridor. Moreover, the Zengezur Corridor is vital for the integration of transportation, logistics, commercial, and economic activities within OTS (Toraman, 2022).

The Central Asia Regional Economic Cooperation (CAREC) Transport Corridor was established in 2001 to enhance regional cooperation, trade activities, and foster economic growth in the region. Integration and development of transportation networks are crucial for the development of regional trade (Kalyuzhnova and Holzhacker, 2021). This project, which improves the connectivity among the countries in the region, will facilitate the development of regional trade and increase the competitiveness of the region. However, when examining the data, it is observed that CAREC has positively influenced the region's trade with countries outside the region, rather than boosting the intra-regional economy. Additionally, China's trade with distant countries has increased more than with CAREC countries (Kim et al., 2022).

The Middle Corridor is a transportation corridor that extends from Türkiye to the Asian continent. It passes through Türkiye, Georgia, and Azerbaijan, reaching Central Asian countries (Chaziza, 2021). The Middle Corridor provides uninterrupted transportation through railway connections from Türkiye to China. Türkiye, located at the intersection of the East and West, is considered a bridge for global transportation corridors. With its role in connecting Asia and Europe, the Middle Corridor holds a significant position among global transportation corridors (Çolakoğlu, 2019). In the future, the Middle Corridor will continue to develop not only through railway connections but also with road and pipeline projects. In this context, it can be said that Türkiye, along with OTS, is at the center of global trade and economic activities.

Crossroads of Peace is a transportation corridor project. This project ensures the connection of Armenia and neighboring countries in the east-west and north-south axes. At the International Silk Road conference, the Crossroads of Peace project was presented by Nikol Pashinyan on October 26, 2023. The Crossroads of Peace project plans to activate railway and highways at the Kayan and Sotk points with Azerbaijan, at the Meghri point with Iran, at the Angeghakot and Yeraskh points with Nakhchivan, and finally at the Akhurik and Margara points with Türkiye. Additionally, railway construction is planned between Agarak and Nrnadzor, known as the Zangezur corridor. Crossroads of Peace includes roads, railways, airways, pipelines, cables, and power lines.

The India-Middle East-Europe Economic Corridor (IMEC), announced by India at the G20 summit held in India (Siddiqa, 2023), is a corridor that starts from India and extends to Europe via the United Arab Emirates, Saudi Arabia, Israel, and Greece. The feasibility of the corridor has become controversial due to the unrest in Israel. The turmoil in the Gulf has affected ship passages through the Red Sea. Therefore, it has brought the evaluation of alternative routes to the agenda. Here, Türkiye is an indispensable partner for transportation corridors due to its location. Finally, the development road will create an alternative route for the IMEC project, which is likely to be postponed due to the turmoil in Israel.

India-Iran-Türkiye-Europe Economic Corridor (IITEC), is the one that starts from India and extends to Europe via Iran, Nakhchivan, and Türkiye. IITEC is of an alternative nature to IMEC. The incident that started in Israel have deeply affected the Gulf (Toraman, 2023). This situation has prompted the determination of alternative routes for trade ships passing through the Red Sea. Commercial ships have redirected their routes to the Cape Town, resulting in extended transportation times. Furthermore, this situation causes problems in the integration of Israel, which is on the route of IMEC, into the project. Due to the problems occurring in the Red Sea and the Gulf, the most suitable route between India and Europe is once again compelled to pass through Türkiye. The IITEC project is only a proposal and is not being worked on by governments.

The Development Road (BAE-Iraq-Türkiye) is the route planned to pass through Iraq between BAE and Türkiye. This road is planned to consist of a highway and a railway (TCCB, 2024). The Development Road is an alternative route for Europe, Basra to Türkiye. Towards

the end of 2023 and into 2024, with the disruption of maritime trade through the Red Sea and the Suez Canal, alternatives are being considered. Additionally, due to the conflict between Russia and Ukraine, the northern part of the Silk Road cannot be used. Therefore, IMEC, Middle Corridor and IITEC are among the most important alternatives for crossings to Europe. Generally, it can be said that Türkiye is an indispensable partner of global trade routes.

EU's Energy Supply Security

With the Industrial Revolution, the process of mass production began. Furthermore, as the population increased and people's desires and needs grew, producers continued their activities by increasing their capacity (Yoo & 2006). Factories and businesses sought to be close to energy, which is a fundamental input in production, to ensure the sustainability of their operations (Hrayshat, 2007). Policymakers have also taken significant steps to address the energy needs of their citizens and businesses at a strategic level. Countries implement various methods to meet their energy needs based on their underground resources, geographical location, production capabilities, and capacities (Fthenakis & Kim 2009). These methods include (Dincer 2011);

- Thermal Power Plants (Energy is generated using fossil fuels such as coal, natural gas, or oil)
- Nuclear Power Plants (Energy is typically produced using radioactive elements like uranium or plutonium)
- Hydroelectric Power Plants (Energy is converted from water power using dams)
- Wind Turbines (Energy is converted from wind power using wind turbines)
- Solar Panels (Energy is generated using sunlight)
- Geothermal Energy (Energy is produced using underground hot water sources)
- Biomass Energy (Energy is produced by processing waste materials)
- Tidal Energy (Energy generated from tidal movements in the sea)

With the increase in population, the quantity of production has also risen. However, this increase in production has led to environmental pollution. In this context, ensuring energy supply and the use of renewable energy sources have become crucial for meeting daily human needs, as well as for economic development and sustainable growth through the production of businesses (Gökgöz and Güvercin, 2018). Energy security refers to the uninterrupted and affordable availability of energy resources (IEA, 2023). Energy security also encompasses the sustainable procurement of energy alongside its continuous provision (Connolly et al., 2016).

Energy supply and sustainable energy procurement are critical issues for many countries. In the context of this research, the energy security of the European Union (EU) has been considered. According to the Energy Union's announcement in 2015, the EU's energy policy is based on three main pillars, which are illustrated in Figure 3.

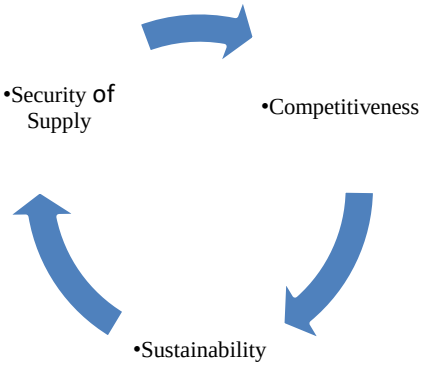

Figure 3. EU Energy Policy

Source: Energy Union (2015)

The European Council initiated the Energy Union's first steps in 2015. This union aims to bring together all elements of energy policies and provide an integrated, sustainable, and consistent approach. Within this context, it prioritizes energy efficiency (energy efficiency first). The Energy Union is built on three main pillars and five sub-dimensions of the EU's energy policy. In Figure 3, the key factors emphasized by the EU are listed as competitiveness, sustainability, and security of supply (Energy Union, 2015).

Figure 4. EU Energy Policy and Supportive Dimensions

Source: Energy Union (2015)

The 5 sub-dimensions supporting the EU's fundamental energy policies are energy security, the internal energy market, energy efficiency, decarbonization of the economy, and research, innovation, and competitiveness (Energy Union, 2015). Energy efficiency is at the core of these dimensions, and it is present throughout all 5 sub-dimensions. Particularly, research and innovation play a crucial role in future energy efficiency and diversification. In this context, the European Union has placed significant emphasis on renewable energy investments to address energy security, energy supply security, and environmental concerns.

However, despite widespread ideas about shifting energy supply to renewable sources instead of traditional methods in the future, there are still many uncertainties in this regard (Mišík, 2022). Especially after 2020, there has been a surge in energy prices, and this trend continued post-2021 due to factors such as the pandemic, production, and consumption (BP, 2022). This situation has sparked debates on energy security. Some experts argue that the investments in renewable energy sources have not yielded the expected gains, while others advocate that investing more in renewable energy can overcome the challenges posed by the price increase (Connolly et al., 2016). In light of the rising energy prices, the EU was compelled to take measures. In this context, the European Council announced its support for small businesses and citizens in the autumn of 2021 (European Council, 2021).

The increase in energy prices and the war between Russia and Ukraine in 2022 have brought different challenges to the EU's energy supply security. Post-war, the energy supply security issues for the EU have deepened. Initially, the EU applied economic sanctions to Russian oligarchs, but later the sanctions began to affect the entire Russian Federation (McWilliams et al., 2022). In this context, the EU aims to enhance both energy efficiency and diversify energy supply sources to ensure energy supply security. To achieve this, the EU has signed various agreements to increase the volume of liquefied natural gas (LNG) and natural gas imports through existing pipelines (Mišík, 2022).

Before suggesting that the OTS could be a solution partner for the EU's energy supply security, it is necessary to examine some statistics. When analyzing BP's "Statistical Review of World Energy" report for 2022, the EU's energy needs can be clearly seen, with a specific focus on natural gas. According to BP's data, the EU's annual natural gas consumption is 341 billion cubic meters (bcm). Out of this total consumption, 232.8 bcm is delivered through pipelines, while 108.2 bcm is imported as LNG. Russia supplies 167 bcm of the EU's total natural gas consumption (BP, 2022).

After the recent 10th EU-US Energy Council meeting held in Brussels, the statements made provide important information regarding the EU's energy supply security. Particularly, the 13th statement reads as follows: "The Council recognized the importance of energy relations and notably the role of gas and renewable energy supplies to the EU from and through regions such as the South Caucasus, Black Sea, Eastern Mediterranean, and North Africa. The pivotal role of reliable energy partners in these regions calls for mutually beneficial cooperation on security of energy supplies as well as enhanced cooperation on critical infrastructure." is as follows. It clearly demonstrates the EU's desire to collaborate with different allies that could serve as alternatives to Russian oil and natural gas (Europa, 2023).

The role of the OTS in the energy supply security of the EU has been initially examined through the transfer process of energy resources in the Mediterranean to the EU, specifically focusing on Türkiye and the Northern Cyprus. Subsequently, the transfer process of Kazakhstan oil and Turkmenistan gas to the EU has been examined in the context of the Anatolian Natural Gas Pipeline (TANAP), Trans Adriatic Pipeline (TAP), and Baku-Tbilisi-Ceyhan (BTC) oil pipeline.

The agreement for the transfer of gas from the Mediterranean to the EU through the EastMed (Eastern Mediterranean Pipeline) project was signed in 2020 between Israel, South Cyprus, and Greece. The EastMed project was expected to play an important role in the EU's energy supply security (Apodaca and Greensfelder, 2019). However, the project became controversial after the Exclusive Economic Zone (EEZ) agreement was signed between Türkiye and Libya in 2019 (Yayci, 2011). According to this agreement, each country was designated as the sole dominant authority in its respective maritime areas. Following the EEZ agreement, the United States changed its views on the feasibility and sustainability of the EastMed project and withdrew its support (Jpost, 2022). Nevertheless, this did not diminish the significance of gas in the Mediterranean for the EU's energy supply security. The important role of Mediterranean gas in the EU's energy supply security can be reinforced through the involvement of different actors and may be realized in the future.

Figure 5. Potential routes Mediterranean natural gas to Europe

Source: Tsakiris (2018)

After the realization that the EastMed pipeline project was not feasible, the transfer of gas from the Mediterranean to the EU through different projects became a subject of research. For instance, in 2022, a study proposed the Tr-Med pipeline. The Tr-Med project aims to connect the natural gas in the Mediterranean Basin to the TANAP and TAP projects, enabling the transfer of gas to the EU (Toraman, 2022). In this context, it is evident that Türkiye and Northern Cyprus will play a significant role in projects like Tr-Med, making OTS an important stakeholder in the EU's energy supply security.

On the other hand, CPC is known as one of the significant energy supply lines for the EU. CPC is a pipeline that allows Kazakhstan's oil to be sent to the EU through Russia (Lee and Kalyuzhnova, 2021). Kazakhstan holds about 3,3% of the world's oil reserves and 1.7% of the world's natural gas reserves. A large portion of Kazakhstan's oil is exported to the global market through CPC. Approximately 60% of Kazakhstan's total export revenue comes from oil exports, highlighting the importance of oil in its economy (Kaiser and Pulsipher, 2007). While CPC has actively served to meet a portion of the EU's energy demand until recently, it has faced some disruptions, leading Kazakhstan to explore alternative means for its oil exports (CESD, 2022). As shown in Figure 4, BTC is one of the significant alternatives for Kazakhstan's oil exports. BTC is a pipeline established in 2006 for the transportation of Azerbaijan's oil and is currently in use (Mikail et al., 2020).

Figure 6. Planned new route of Kazakhstan's oil

Soruce: TRT World (2023), DW (2023)

In an interview with experts, it was revealed that after the United States (U.S.) imposed an embargo on Iran, Kazakh oil was transported through BTC. In fact, between 2018 and 2021, the transportation of Kazakh oil through BTC tripled (TRT World, 2023). It is important to note that the transportation of Kazakh oil through BTC was not a novel project, it had been considered before. This further emphasizes the role of OTS in the transportation of Kazakh oil to the EU.

Another resource-rich country within OTS is Turkmenistan. It is known to have total reserves of 50 trillion cubic meters (tcm) of natural gas, with an annual production of 75 bcm. Currently, Turkmenistan's gas is exported to Russia and Iran. However, for the European Union's energy supply security and diversification of energy sources, the transfer of Turkmenistan's gas to the EU via Türkiye is of significant importance (Raimondi, 2019).

Figure 7. Potential routes of the Trans-Caspian Gas Pipeline

Soruce: IENE (2023)

Finally, Azerbaijan is one of the significant energy partners of the EU through the TANAP, TAP, and BTC projects. With 7 billion tons of oil and 2,6 tcm of natural gas reserves, Azerbaijan contributes to the EU's energy supply as a country with natural energy resources (Veliyev, 2022). Especially after the Russia-Ukraine conflict, the EU aimed to diversify its energy supply sources to ensure energy security. In this context, the EU made efforts to increase shipments of natural gas imports, primarily from Azerbaijan, Norway, and Qatar. However, due to the limited production capacity of these countries to fully replace the energy received from Russia, a partial capacity increase was agreed upon (BBC, 2022; Reuters, 2022). Azerbaijan plays a dual role in the world energy market. Tt is both a transit country for natural gas and oil through the Caspian Sea and an exporter with its own natural resources.

Another research conducted on the EU's energy supply security also presents Iran and Iraq's natural gas as alternatives alongside OTS. However, the conclusion of the research highlights Türkiye as the most crucial country in the EU's energy supply. An energy agreement without Türkiye is considered unsustainable, mainly due to its geographical location. Despite being resource-poor in terms of energy, Türkiye's strategic geographical position makes it an indispensable partner for the EU's energy supply security (Jafarzadeh et al., 2021). On the other hand, potential issues related to new pipeline projects for Turkmenistan's natural gas and Kazakhstan's oil exports through the Caspian Sea, arising from undefined legal reasons, should not be disregarded. Additionally, considering the overall picture, other countries in the region such as Iran, Iraq, Israel, Libya, Lebanon, and Egypt may also play significant roles in the energy supply. However, these countries would need to cooperate with Türkiye during the process of exporting natural gas or oil to the EU due to Türkiye's strategic geographical position. Implementing an energy pipeline project without Türkiye's involvement would not be feasible. Moreover, importing energy from OTS member countries is considered more reliable than from other regional countries. In this context, Türkiye, as one of the founding members of OTS, has been confirmed to be highly important for the EU's energy supply security.

III. Research Methodology

In the current research, a qualitative research method was utilized (Yıldırım & Şimşek, 1999). The qualitative method is employed to understand complex and independent interactions in a subject matter and to conduct in-depth analysis (DiCicco-Bloom & Crabtree, 2006; Toraman et al., 2023). This method is based on explanatory analytical foundations, which means that the data used in the research is generally obtained from visual, written, and oral secondary sources and explained based on various theories (Patton, 2005). In this study, the qualitative method was used to conduct a thorough examination of OTS's role in global trade, transportation corridors, and the EU's energy supply security. Discussions were carried out to better comprehend the subject matter and to explore the role of OTS in the identified topics. Various secondary sources such as databases, scientific journals, books, national and international news, etc. were utilized in this study.

IV. Discussion and Conclusion

The economic, political, and commercial activities developed by ancient civilizations have continued to the present day. Currently, the Silk Road (OBOR), which provides transportation and logistics between China and Europe, was also used as a trade corridor during the ancient Roman era. The geographical explorations and the Industrial Revolution have diversified transportation corridors and modernized logistics activities with the intensive use of technology.

Over time, strategic collaborations between countries have led to the establishment of international and regional trade corridors, promoting increased global economic activity. Some of the well-known examples of

current collaborations include OBOR, Pan-European Corridor, TEN-T, TRACECA, and others. On the other hand, conflicts of interest between countries have resulted in changes in the routes of transportation corridors. Examples of this can be seen in projects like TANAP, BTC, and the unrealized EastMed project.

Furthermore, in the aftermath of the recent Russia-Ukraine war, countries are investing in transportation infrastructure and developing projects on alternative routes to enhance their trade activities. In this context, the EU is actively seeking alternative energy sources to reduce its dependency on Russia for energy supply security. The transfer of Kazakhstan's oil and Turkmenistan's gas via Türkiye is of significant importance in this regard. On the other hand, the EastMed project has become unfeasible due to the EEZ agreement between Türkiye and Libya. As a result, discussions have been taking place at the level of the presidents of Türkiye and Israel regarding the transfer of natural gas from the Mediterranean basin via Türkiye. Additionally, the sustainability of the northern corridor of the OBOR project is being questioned due to the embargo imposed on Russia. In both the North-South and East-West transportation corridors, Türkiye, as a member of the OTS, holds a crucial position.

After the Karabakh war between Azerbaijan and Armenia, the Zangezur corridor established between Azerbaijan and Nakhchivan also serves as an alternative to the transportation corridors created between Azerbaijan, Georgia, and Türkiye. The Zangezur corridor can be considered a crucial transportation link in both the Middle Corridor and the OBOR integration. Geographically, it is a significant intersection point for the members and observers of the OTS.

The IITEC and Crossroads of Peace projects once again demonstrate that Türkiye is at the intersection of international transportation corridors. This situation indicates that Türkiye is an indispensable power. Although the OTS's size in the global economy is limited, its advantage in geographical location and rich energy resources indicates that it will be among the important unions in the future. While the Russia-Ukraine war continues, the OTS plays an important role in diversifying global trade corridors to ensure the EU's energy supply security.

In the future, different Turkic elements from various regions may be encouraged to join the OTS as observer members. This integration would enhance the OTS's impact on the global economy. Additionally, Türkiye's efforts on the Digital Turkish Lira (DTL) could accelerate economic and trade integration within the OTS through the use of DTL or related tokens (Toraman, 2019). Ultimately, it is evident that the OTS is an indispensable partner in global trade, economic, and logistical activities, and it has the potential to increase its effectiveness in collaboration with international organizations in the future.

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