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The Role of Energy in Türkiye-Russia Relations: A View from the Perspective of Mutual Dependence

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ABSTRACT *Policies focusing on strategic energy resources play a key role in achieving certain goals of states by integrating them with other areas. Considering the opportunities and threats associated with energy resources, the energy problem may be perceived as a chronic ailment that is difficult to solve for some states. It is also a fact that these resources increase the dependence of states. Energy is seen as a factor that forms the basis of interdependence in Turkish-Russian relations. With the increase in Türkiye's energy needs, its energy relations with Russia have gained great importance in the 21st century. Russia, with its rich energy resources, plays an important role in Türkiye's energy supply, and Türkiye is an important market for Russia's energy exports. This study analyses the energy relations between Türkiye and Russia within the framework of interdependence theory. Despite the tensions in the political arena, energy relations have been and continue to be conducted according to the principle of interdependence. The study introduces the interdependence theory and analyses the energy policies and energy situation of Türkiye and Russia in detail.*

Keywords: Energy Relations, Energy Security, Interdependence, Russia, Türkiye

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Introduction

In the rapidly evolving landscape of global politics, the interplay between interdependence and power dynamics remains a crucial area of study. The rise of new economic powers, shifting alliances, and the resurgence of nationalist policies have further complicated this relationship, making a reexamination of these concepts timely and relevant. In the international relations literature, the term "interdependence" refers to the conditions determined by the interaction between actors in different countries in world politics. In this context, interdependence encompasses the complex conditions caused by the connections and relations between states and societies through many channels of interaction in an international system that is not based on a hierarchical agenda.[1]

Nonetheless, it is important to re-evaluate the issue in light of the significant changes in world politics, particularly American politics, over the past years. As Stanley J. Michalak pointed out in 1979, some authors' views on power and interdependence may reflect the international politics of the 1970s, even if they do not draw analogies.[2] During the late 1980s, the shift from interdependence to a focus on force and security was noted by political scientists, historians, government officials, diplomats, military strategists, defense analysts, economists, journalists, media analysts, and scholars in peace and conflict studies. Indeed, there is widespread acceptance in some quarters that the 1980s were more like the 1950s than the 1970s' and that Hans J. Morgenthau's work is more relevant to the current issues in world politics than power and interdependence.[3]

The views of Hans J. Morgenthau, the founder of the realist approach to international relations, and Kenneth Waltz, an important representative of the neorealist paradigm, have played important roles. Especially Waltz and Robert Gilpin, a neo-realist thinker, emphasized the concept of "power" in the international system while evaluating the nature of international relations. According to Gilpin, power balances between states are important in the interactions in the international system, and large states often determine these power balances. Gilpin argued that power is unevenly distributed and powerful states have a decisive influence on the system. According to him, powerful states are important in determining interactions in the international system and changing its structure. This view emphasizes that the power factor underlies the balances and interactions in international relations.

Gilpin's definition is as follows:

> Over time, the interests of individual actors and the balance of power between them may change because of economic, technological, and other developments. The actors who benefit the most from this change and have the power

> to influence it seek to change the system in their own interests. The new system reflects a new power distribution and interests among the new dominant actors.[4]

Energy pipelines are seen as a result of mutual dependence for both supplier and consumer countries. These pipelines have the potential to provide energy supply security for consumer countries and energy demand security for supplier countries

According to Gilpin, weak states are becoming more dependent on great powers.[5] In an international system dominated by interdependence on a global level, an unfavorable development between two states can have various consequences for both sides. Nevertheless, in all circumstances, the relationship between two states is of greater importance for one party than for the other. One state always has a greater need for the other, which means the other has considerable bargaining power. However, both parties have an interest in maintaining the relationship, which creates a situation of interdependence. In this context, unlike the situation of dependence, which is driven by an asymmetric power relationship of one state versus another, in the conditions of interdependence, both parties may be at different levels but have to exert will and effort to maintain the relationship.[6]

Four key elements help us understand the dimensions of interdependence. These elements include the sources, returns, costs, and symmetry of interdependence. The sources of interdependence are often associated with physical or social phenomena, such as economic and political issues. These sources are the main factors shaping the interdependence between the two parties. The payoffs of interdependence represent the benefits derived from the relationship. These benefits can sometimes end with a zero-sum result, meaning that one party's gain is balanced by the other party's loss. In non-zero-sum relationships, positive-sum and negative-sum outcomes can occur. In positive-sum relationships, both parties gain, while in negative-sum relationships both parties may lose. To illustrate with examples, sharing a small cake may represent a zero-sum relationship, sharing a bigger cake may reflect a positive-sum relationship, and dropping the cake on the floor may represent a negative-sum relationship in which all parties lose. These types of relationships can be found in interdependence, and these elements shape the nature and outcomes of the relationship.[7]

International relations possess a complexity beyond classical realism that emphasizes traditional power balances. Various cooperation platforms fostered by international communication and the institutional structures of these collaborations reflect existing power dynamics. The greater influence of powerful states in international organizations and the observation of asymmet-

Countries engaged in energy trade and interconnected by energy pipelines tend to opt for cooperation and reconciliation due to the costs that potential conflicts might incur

ric relationships can be explained by concepts such as balance of power and hegemony. However, these concepts cannot be solely explained by an order that considers states as the fundamental actors. Therefore, considering the pluralistic perspective of liberalism when addressing the state of mutual dependence assists in better explaining international relations. Dependency signifies a situation in which actors cannot solely make their foreign policy decisions based on their national interests. This situation is sometimes criticized as causing weakness in sovereignty. On the other hand, the interaction at different levels of international communication makes it challenging for states to always act solely on their gains.[8]

Keohane and Nye, while addressing the concept of mutual dependence within a theoretical framework, focus on the relationship between power and mutual dependence by choosing the title of their study as *Power and Interdependence*. They emphasize the necessity of a clear understanding of the relationship between power and mutual dependence, arguing that Morgenthau, a prominent figure in the realistic school, overlooked the functional relationship between political, military, and economic power. In this context, they note the need for certain concepts that shape the relations of parties under the conditions of mutual dependence on the international system. Among these concepts, there are factors such as the bargaining power of the parties, sensitivity to the relationship of mutual dependence, and the degree of vulnerability. For example, Steve Chan, a scholar in the field of international relations and political science, explains these relations in the context of major states' requirements for Middle Eastern oil. The sensitivity of the U.S., Japan, and European states to Middle Eastern oil may be nearly the same, but the degree to which these countries are affected by the oil resources in the region differs. Japan is the most affected since it imports about 75 percent of Middle Eastern oil; on the other hand, European states import approximately 65 percent, and the U.S. is about 25 percent reliant. Therefore, Japan would hold the most bargaining power in negotiations with Middle Eastern countries. This situation, illustrated by the example, highlights the complexity of the relationship between power and mutual dependence. It demonstrates how parties' perceptions of mutual dependence affect their bargaining power in their relationships.[9]

From a liberal perspective, energy pipelines are considered a factor that promotes international cooperation. According to this approach, energy security is an important issue for both supplier and consumer countries. Energy

security includes two main concepts: "energy supply security" for consumer countries and "energy demand security" for supplier countries. According to the International Energy Agency, energy supply security refers to appropriately priced and uninterrupted access to energy resources. In contrast, energy demand security involves supplier countries with stable and regular demand at competitive market prices.[10] Energy pipelines are seen as a result of mutual dependence for both supplier and consumer countries. These pipelines have the potential to provide energy supply security for consumer countries and energy demand security for supplier countries. However, the irreversible high costs and long-term commitments of energy pipelines may increase the cost of exiting this dependence. Therefore, parties, being aware of the mutual dependence provided by energy pipelines, may prefer cooperation and compromise strategies over conflict.

Mutual dependence can influence the behavior of countries with certain limitations and may restrict their autonomy. Countries engaged in energy trade and interconnected by energy pipelines tend to opt for cooperation and reconciliation due to the costs that potential conflicts might incur. However, collaboration may not always be possible in every situation. Some actors, considering their long-term strategic interests, may choose to endure short-term costs and opt to withdraw from dependence. However, cooperation may not always be achieved; sometimes, actors may choose conflict over compromise and cooperation. Particularly, actors prioritizing long-term political and strategic interests may choose to withdraw from dependence by enduring short-term costs.[11] In this context, it can be said that relations between countries connected by energy pipelines are shaped within a framework that considers the benefits and costs introduced by mutual dependence, and actors' preferences for conflict and cooperation rely on a complex equation.

Despite extensive literature on power dynamics and interdependence, there remains a lack of comprehensive analysis that integrates the evolving nature of global politics with the changing notions of power and interdependence. This article aims to fill this gap by providing a nuanced understanding of these concepts in the context of contemporary international relations.

Utilizing a combination of neo-realist and liberal perspectives, this study employs a qualitative analysis of historical and contemporary political events, with a particular focus on energy politics, to explore the shifting dynamics of power and interdependence. The article is structured as follows: First, we revisit the theories of Morgenthau and Waltz to understand their relevance in current international politics. Next, we explore the concept of mutual dependence in energy politics through the lens of various international relations scholars. Subsequently, we delve into the specific case study of Türkiye-Russia energy relations, highlighting the complexities of interdependence in this

Erdoğan and Putin participated in a ceremony commemorating the completion of the TurkStream Natural Gas Pipeline, set to transport Russian natural gas to Türkiye and further into Europe, on January 8, 2020.

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context. Finally, we conclude with insights on how these dynamics inform our understanding of contemporary international relations.

Russia's Energy Potential and Energy Geopolitics

Russia is an important player in the world energy market. In 2021, revenues from oil and gas, which accounted for 45 percent of Russia's federal budget, had an important place in the country's economy. In 2021, Russia's crude oil and condensate production totaled 10.5 million barrels daily, corresponding to 14 percent of the world's total supply. Russia has oil and gas production facilities throughout the country, but most are concentrated in Western and Eastern Siberia. The largest importer of Russian crude oil today is China.[12]

Taking a step back from Russia's energy potential, according to 2011 data, the energy sector accounted for more than 67 percent of Russia's export revenues. In the last two decades, Russia's economy has become dependent on oil and natural gas production revenues.[13]

According to 2016 data, Russia was the world's fourth-largest producer of nuclear energy and ranked fifth among the countries with the largest nuclear capacity. As of 2017, Russia was second only to China after commissioning seven nuclear reactors under construction.[14] In 2018, Russia exported 200.8 billion cubic meters of natural gas to European countries. Approximately 81

percent of these natural gas exports were to Western European countries. Türkiye also has an important place in countries buying natural gas from Russia. Germany and Türkiye rank first among the countries where Russia exports the most natural gas.[15]

Russia has developed an alternative energy logistics network to market its energy resources to countries worldwide. Generally, natural gas pipelines extend from East to West.[16]

Russia competes with China, which is rising as an economic power in the Eastern Eurasian geography and is effective in utilizing the region's energy resources, and with the world's largest Western energy companies operating in the region

The energy sector can be perceived as the engine of the Russian economy. Russia derives its main source of income largely from oil and natural gas. In 2000, after Vladimir Putin came to power, radical decisions made in the energy sector paved the way for the country in economic terms in the following years. As a state, Russia not only develops the "rules of the game" but also pursues a policy of intervening in the energy sector at any time. Rosneft produces about 50 percent of the country's oil, while Gazprom holds 75 percent of the country's entire natural gas production. In addition, the power of private companies in the energy sector is significant, although not as much as the state.[17]

As a result of Putin's policy on energy transmission lines, Russia has gained greater international influence. Russia's energy policy covers the Eurasian geography. Energy pipelines extend to many countries, from Western Siberia to Western Europe and Central Asia to the Eastern Mediterranean. For this reason, to maintain its influence in a wide geography, it also needs to maintain its political effectiveness. Russia competes with China, which is rising as an economic power in the Eastern Eurasian geography and is effective in utilizing the region's energy resources, and with the world's largest Western energy companies operating in the region.[18]

The most important strategic initiatives in Russia's energy industry can be listed as follows:

(i) Creation of oil and gas industrial complexes in the East of the country (diversification of energy export flows to Asia-Pacific countries);
(ii) Exploration of the Arctic continental shelf and the Southern territories to overcome the decline in oil production and, at the same time, to maintain the continuity of oil and gas production;
(iii) Developing hard-to-reach energy areas (providing tax breaks as a state);
(iv) Developing energy infrastructure and ensuring regional diversification;

(v) Increase the promotion of renewable energy;
(vi) Ensuring energy saving.[19]

Russia is moving to reduce Ukraine's influence as a transit country by halting the operation of the South Stream Gas Pipeline route. By constructing the TurkStream project in place of the South Stream Pipeline, Russia plans to deliver natural gas to Türkiye and Europe. Thus, by diversifying its oil and natural gas markets, Russia aims to become independent from mutual dependence on a single country and pursue a policy of avoiding possible international crises and securing itself.[20] Additionally, rather than solely being subject to the European market, Russia diversifies by constructing energy pipelines to Asia-Pacific countries, primarily China and Japan, from its Northeast to the West. In short, Russia seeks to balance the European energy market by opening up to markets in Asia-Pacific countries without being entirely reliant on them.

According to the Kremlin, the development of Russia's Far East region and the energy resources means Northeast Asia's supply and demand dynamics are intertwined. The region's economic growth is particularly dependent on energy connectivity with Northeast Asian countries such as China, Japan, and Korea. In the coming years, China is expected to import 10 million barrels of oil per day, making it the region's most important energy supplier.[21]

For Russia, pipelines to the Eastern regions of the country are of great importance in terms of opening up to the Northeast Asian energy market and contributing to the development of the region. In particular, the Eastern Siberia-Pacific Ocean Oil Pipeline (ESPO) was built in the interests of Russia's Far East region.[22]

According to *Our World in Data*, Russia's main sources in its energy profile consist of oil, natural gas, and nuclear energy. Moreover, hydroelectric energy from renewable energy sources also holds a significant place.[23] As Russia emerged as a significant player in global energy production and consumption in 2021, following the war against Ukraine on February 24, 2022, it has faced a series of severe sanctions from the U.S. and the European Union. Particularly, the EU has banned imports of crude oil and petroleum products from Russia. Eventually, the G7 countries decided to implement a price cap on oil from Russia. Simultaneously, many international energy companies have restricted and withdrawn their operations in Russia. This situation has reduced energy flow from Russia to Europe while increasing trade with other countries such as China and India.[24]

With abundant reserves, Russia is the world's largest natural gas exporter and the second-largest oil exporter. It also ranks third in terms of energy consumption. Russia's potential is recognized as a strategic power in the world's global energy market.[25] The Russian energy policy plays a major role in becoming

more effective internationally and expanding its influence. The strategy involves using energy resources to maintain its influence across a vast geography and uphold its political efficacy. Furthermore, the power of private companies in the energy sector is directed in accordance with the state's policies.

By diversifying its oil and natural gas markets, Russia aims to become independent from mutual dependence on a single country and pursue a policy of avoiding possible international crises and securing itself

Türkiye's Energy Profile and Strategy

Türkiye's energy demand has been rapidly increasing in recent years. It is highly dependent on external sources to meet its energy needs. One of the main objectives of Türkiye's energy strategy is to ensure energy supply security by diversifying routes and sources. It also aims to become a regional energy trading center. As a result, it places significant importance on the development of renewable energy sources.[26] As of the end of 2022, 54 percent of its installed capacity consists of renewable sources. A significant portion of Türkiye's total natural gas needs is met through imported natural gas.[27]

Türkiye's geographical location plays a critical role in the energy sector. Considering its proximity to regions rich in energy resources, such as Russia, the Black Sea, the Caucasus, Iran, Middle Eastern countries, and the Eastern Mediterranean, the country can serve as an energy transit point. This strategic position makes Türkiye a crucial player in terms of energy security and regional energy cooperation. The Ukraine-Russia war has further emphasized Türkiye's role in this regard. Additionally, Türkiye's acceleration of natural gas agreements with countries like Israel and Iraq is considered a positive step in diversifying and securing Europe's energy supply. By importing natural gas and oil from various regions through various pipelines, Türkiye not only satisfies its energy demand but also acts as a bridge for those wanting to trade energy with European countries. This strategy not only aims to fulfill Türkiye's energy demand but also encourages regional energy cooperation and paves the way for the country to become an international actor in the energy sector.[28]

In recent years, Türkiye has taken significant steps in becoming a transit country in the natural gas field after oil. Particularly, Russia and Azerbaijan are in the process of completing two separate energy pipeline projects through Türkiye to transport their natural gas to Europe. Moreover, Iran and Iraq are developing projects to transport their natural gas to the same markets through Türkiye. The agenda of these pipelines and the positioning of Türkiye as a transit country allows the country to leverage the opportunities provided by its

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geographical location and the experience it has accumulated in the past. By using this potential, Türkiye aims to become not only a transit country but also an energy center supplying European markets.

However, taking on the role of an energy hub does not solely depend on being a geographical transit country. Türkiye will inevitably face challenges in achieving this goal due to a lack of sufficient energy resources, limited domestic energy production, significant dependence on natural gas imports, and supplier countries increasing the risk of energy supply security. Moreover, the absence of a developed energy infrastructure and a liberalized energy market are some of the obstacles on Türkiye's path to becoming an energy hub. Overcoming these challenges is crucial and ranks among the significant steps Türkiye needs to take to develop its energy policies and promote regional energy cooperation.[29]

In Türkiye, significant and effective activities are being carried out in the context of a multilateral energy policy for the country's economic development and the consolidation of regional security. Since the early 2000s, by contributing to major energy projects initiated in the Eurasian region and pursuing a multilateral energy policy, Türkiye has become a regional and internationally influential actor bridging the East and the West. It appears that in this region, energy resources such as oil and natural gas are moving toward a position that will change ancient rules between countries. The importance of energy diplomacy is highly influential in this region. Simultaneously, intergovernmental energy diplomacy must be maintained harmoniously. Aware of this, Türkiye diligently strives to conduct multilateral energy diplomacy for the region's security. Türkiye is meticulously working to ensure the reliable arrival of energy resources to its territory and directing them to European markets. The projects launched with Türkiye's support include:

(i) Iraq-Türkiye Oil Pipeline,
(ii) Baku-Tbilisi-Ceyhan Main Export Oil Pipeline,
(iii) Trans-Anatolian Natural Gas Pipeline Project (TANAP),
(iv) TurkStream Gas Pipeline Project.[30]

Türkiye's demand for energy resources is continuously increasing due to the development of the country's economy and population growth. Since 2002, Türkiye has been the leading country in electricity supply among Organiza-

tion for Economic Co-operation and Development (OECD) member countries with a growth rate of 5.5 percent. As of January 2019, it has exceeded 88 GW and the increase has tripled in the last 15 years.[31]

In 2017, the total primary energy supply was 145.3 million tonnes of oil equivalent (tpe), of which 33.6 million tpe was used in the conversion and energy sector, while 111.6 million tpe was realized as total final energy consumption. Natural gas ranks first in the total primary energy supply in Türkiye with a ratio of 30.5 percent. Second place belongs to oil with 30.5 percent, followed by coal with 27.2 percent.

The country's energy demand is constantly increasing with economic and population growth. Türkiye is one of the leading countries among OECD members in electricity supply and meets most of its energy needs from natural gas, oil, and coal. Türkiye's energy demand, closely linked to its economic and population growth, remains heavily dependent on fossil fuel imports, particularly oil (93 percent imported) and gas (99 percent imported). Efforts to reduce this dependency include expanding domestic exploration and diversifying energy sources. Notably, renewable energy has seen significant growth, with renewable electricity generation tripling in the last decade, reaching 44 percent of the total power generation in 2019. Türkiye also pursues nuclear energy development, with the first nuclear power plant (Akkuyu NPP) under construction. However, the country's reliance on coal-fired generation and the environmental impact of its energy policies, particularly concerning coal, pose challenges for its long-term emissions trajectory and alignment with global climate goals.[32]

Türkiye's energy policies are geared toward increasing the use of environmentally friendly and sustainable energy resources.[33] Moreover, the country emphasizes regional and international energy diplomacy by adopting a multilateral approach to energy trade. Türkiye is moving toward becoming an energy trading center by supporting energy projects and making strategic moves. Türkiye's energy policy in 2023 is characterized by a significant reliance on energy imports, particularly from Russia, with coal and natural gas imports reaching high levels due to global price increases. To enhance energy security and reduce dependency on these imports, Türkiye has discovered substantial natural gas reserves in the Black Sea and is increasingly focusing on renewable energy, with renewables accounting for nearly 50 percent of its electricity production in 2022. Additionally, Türkiye is developing a national energy plan and a hydrogen strategy, aiming to integrate green hydrogen into its energy mix and planning for nuclear energy to contribute 11.1 percent to its total power production by 2035.[34]

Türkiye's geographical location, economic growth, and strategic approach to energy make it an important energy actor in the region and the international

Türkiye, on December 12, 2023, granted permission to Akkuyu Nuclear Company to operate the first power unit of the country's first nuclear power plant.

AKKUYU NÜKLEER AŞ / AA

arena. Successful implementation of energy policies is critical for Türkiye to ensure energy security and further strengthen its role in energy trade.

Energy-Based Relations between Türkiye and Russia

As in the past, energy remains one of the most determining factors in today's international relations, constituting one of the most critical areas of economic mutual interdependence between countries. One of the main reasons behind this fundamental truth is the indispensable role of energy in global trade. The expectation of continuous energy consumption growth further strengthens energy's central role in world trade.[35]

During the Cold War period, due to its geographical location, Türkiye was included as a significant part of the security system established by the West. However, changes in the balance of power in the international system since the late 1980s have made Türkiye and Russia both rivals and cooperating actors in the triangle of the Caucasus, the Middle East, and the Balkans.[36]

Energy relations between Russia and Türkiye date back to the 1980s and are noteworthy for their political-economic dimensions. One of the most important reasons for the annual increase in bilateral trade volume between the two countries includes Türkiye's natural gas imports from Russia. The first natural gas agreement between Türkiye and Russia was signed on September 18,

1984. The agreement was made with the former Soviet Union regarding natural gas shipments, and "Soyuzgazexport," the Soviet's authorized organization, was tasked with determining the details and price of natural gas shipments and making commercial contracts. In Türkiye, studies on this issue were conducted by BOTAŞ, and with the *Natural Gas Usage Study* conducted in 1985, the consumption potential and pipeline route were determined. As a result of this study, the Northwest Anatolia region was selected as a suitable area,[37] and the construction of the Trans Balkan Natural Gas Pipeline (Western line), the first natural gas pipeline from Russia to Türkiye, commenced. This pipeline, designed to pass through Ukraine, Romania, and Bulgaria to reach Türkiye, started the export of 6 billion cubic meters of natural gas annually in 1987.[38] This pipeline, entering from the Bulgarian border and reaching Ankara, is 845 kilometers long.[39]

Türkiye's geographical location, especially the presence of the Turkish Straits, signifies that it could potentially transport energy resources from the Caspian region as an alternative route to the global energy markets

In 1998, through a second agreement among national energy companies, the capacity of the Western line was increased to 8 billion cubic meters. Within the framework of the liberalization of the Turkish gas market and the acceptance of new private sector participants, Gazprom Export LLC signed contracts with Turkish private companies in 2007 and 2012 for the long-term supply of Russian natural gas to Türkiye. Some contracts will remain valid until 2042. In 2020, the volume of Russian gas supply to the Turkish market reached 16.4 billion cubic meters. Also, in 2020, an agreement was made for the first time via the Gazprom Export Electronic Trading Platform to supply gas to the Turkish market through the Malkoçlar point, which involves 0.7 million cubic meters of gas.[40]

Russia supplying natural gas to Türkiye does not hinder regional competition between the two countries. Since the mid-1990s, Türkiye's importance in regional energy projects has increased. The collapse of the Soviet Union and the transformation of Kazakhstan, Turkmenistan, and Azerbaijan into independent states in the Caspian Sea region led these countries to aim to present their oil and natural gas resources to the world energy markets. This goal made Türkiye strategically more important as a transit country. Türkiye's geographical location, especially the presence of the Turkish Straits, signifies that it could potentially transport energy resources from the Caspian region as an alternative route to the global energy markets. This situation increases the importance of Türkiye as a regional energy transit point. However, this new role, especially as a transit country competing with other countries like Russia and Iran, has led to emerging competition.[41]

Since the early 2000s, Turkish-Russian relations have undergone a rapid improvement, evolving into a phase described as a period of multifaceted cooperation

One of the projects in which competition between Türkiye and Russia first emerged was the BTC project proposed by a British company in 1989. The BTC project aimed to transport oil from Azerbaijan to Türkiye through Georgia. This project led to opposition from Russia as it bypassed its energy transport lines and enabled access of Azerbaijani oil to global energy markets. However, after a lengthy process, the BTC project was completed in 2006, delivering Azerbaijani oil to the Ceyhan Port on Türkiye's Mediterranean coast. This situation limits Russia's energy sovereignty in the region. The BTC project could also contribute to the revival of the historic Silk Road. While promoting regional cooperation and development, it highlights Türkiye's pivotal role in energy corridors.

Russia opposed the Trans-Caspian Natural Gas Pipeline project, which aims to transport Turkmenistan's natural gas to Azerbaijan and then to European countries via Türkiye, on the grounds that it would negatively affect its energy policies and national interests. Viktor Chernomyrdin, then-Prime Minister and one of Russia's most influential figures in the energy field, proposed the Blue Stream project to compete with the Trans-Caspian project and facilitated an agreement between the two countries through effective lobbying activities. Within this scope, the third natural gas purchasing agreement was signed between Russia and Türkiye on December 15, 1997, deciding on the construction of the Blue Stream. The pipeline, built directly between Russia and Türkiye, bypassing any transit country by crossing the Black Sea, spans 25 years, initiating the export of 16 billion cubic meters of natural gas to Türkiye annually.[42]

The financing and construction of the part of the gas pipeline within the territory of the Russian Federation, as well as the passage through the Black Sea, were carried out by Gazprom, while the financing and construction of the Turkish section were under the responsibility of BOTAŞ.[43]

The Blue Stream has become a project that strengthens economic cooperation between Türkiye and Russia. The two countries increased their economic collaboration through joint energy projects, turning Türkiye into one of Russia's most significant energy partners. While the project's energy and economic dimensions are prominent for Türkiye, it is part of Russia's efforts to regain global power and its role in Eurasian geopolitics.

Since the early 2000s, Turkish-Russian relations have undergone a rapid improvement, evolving into a phase described as a period of multifaceted cooperation. This period reflects a significant change in Türkiye's perception of

Russia in its foreign policy. The main driving force behind this rapprochement has been the growth in economic relations. The increase in energy imports laid the foundation for rapidly growing economic relations between Türkiye and Russia. In 2011, the two countries lifted visa requirements and evaluated the idea of using national currencies in bilateral trade and establishing a joint investment bank to increase economic cooperation.

As a result of deepening economic cooperation and a changing strategic environment, a development emerged where geopolitical interests became compatible. Long-term trends in Türkiye's economic and military indicators significantly reduced Russia's threat perception and sensitivity, resulting in a mitigating effect on bilateral competition. This new situation was defined by the "Eurasian Action Plan" agreement signed by the foreign ministers of the two countries in November 2001 and influenced the dynamics of Turkish-Russian relations in subsequent years. Türkiye gained more confidence in dealing with Russia at the bilateral level and began moving toward a stage where it no longer needed Western assistance to counter Russia's challenges. Similarly, the decrease in the weight of pan-Turkism in Türkiye's foreign policy agenda toward the end of the 1990s was a source of relief for Russian strategists. Türkiye adopted a pragmatic approach to protect its economic interests in the region, moving away from negative political rhetoric in its interaction with the newly independent states.[44]

The Nabucco project is a significant initiative for the transportation of energy resources from the Caspian Sea to European markets following the Baku-Tbilisi-Ceyhan Pipeline. It held great importance for Europe's and Türkiye's energy security as it had the potential to reduce Europe's dependence on Russian natural gas. The project was seen by the U.S. and EU as an alternative natural gas pipeline to reduce Russia's monopoly on natural gas pipelines in Eurasia and to diversify Western energy supply sources.[45]

This project has increased Türkiye's significance as an energy transit country and gained a critical position in energy transport routes. Additionally, Nabucco would encourage more competition in energy markets by offering an alternative option for energy resources to Russia. The competition of such projects is highly crucial in shaping Türkiye's energy policies and regional role.

However, despite being on the agenda for a long time, two significant problems persist: the unresolved issues between the parties and the absence of a gas source to implement the Nabucco project.[46] The South Stream project has faced obstacles, particularly concerning its route. Certain changes in Bulgaria and Serbia have delayed Russia's plans to implement the South Stream. However, Türkiye allowing geological surveys for Russia's South Stream project in its own economic zone facilitated Russia's work and increased the likelihood of the South Stream project being realized.

As energy cooperation between the two countries developed, Türkiye continued with projects aimed at reducing its dependency on natural gas imports from Russia, diversifying its natural gas supply, and strengthening its role as a transit country. Particularly, the oil cooperation initiated with Azerbaijan expanded into the natural gas domain, leading to the construction of the Baku-Tbilisi-Erzurum Pipeline in 2007. The activation of this pipeline facilitated the delivery of natural gas from the Caspian region to Türkiye, positioning Azerbaijan as the third-largest supplier of natural gas to Türkiye after Russia and Iran. Simultaneously, with the construction of the Türkiye-Greece Gas Pipeline within the same year, Azerbaijani natural gas began to be exported to Greece, a member of the European Union, for the first time through Türkiye. Thus, Azerbaijan gained the right to export its natural gas to third countries via Türkiye, contributing to Türkiye's role as a transit country.[47]

Another significant step in enhancing energy cooperation between Azerbaijan and Türkiye, which is of interest to Russia, is the TANAP project. This idea was initially introduced in 2011, resulting in an agreement between the Azerbaijani and Turkish governments for the sale of gas to Türkiye and the transit of gas from Azerbaijan through Türkiye.

TANAP draws attention with its 1,811-kilometer length and 56-inch diameter, and it stands as the longest natural gas pipeline between Türkiye, the Middle East, and Europe. The project aims to transport natural gas produced in Azerbaijan's Shah Deniz field primarily to Türkiye and then to Europe.[48]

Russia, which tends to use energy as a tool in foreign policy and strives to maintain its energy monopoly, tends to oppose measures aimed at increasing resource diversity and projects developed outside its control. Similar to its negative approach toward the Nabucco project for comparable reasons, Russia views the delivery of Caspian energy resources to European markets through a new East-West energy corridor like the Nabucco project as bypassing its interests. On the other hand, Türkiye granting permission to Russia to use its exclusive economic zone in the Black Sea for the South Stream project, followed by awarding the nuclear power plant tender to Russia, revived the Samsun-Ceyhan Pipeline project. Moreover, Russia forwarded a proposal to Ankara for laying a second pipeline parallel to the Blue Stream Gas Pipeline.[49]

The construction of the project commenced in 2015 and was completed in 2018. Gas flow began in 2020 with the completion of the Trans Adriatic Pipeline (TAP). Türkiye's role in the East-West energy corridor was significantly strengthened, especially with TANAP. However, TANAP was considered a project against Russia's energy market policies. Particularly, Europe's reduced energy dependency due to TANAP resulted in Russia losing a significant market share. Russia complained that Türkiye did not serve as a secure transit

country as it bypassed Russia, considering Türkiye's support for the Nabucco project and reaching an agreement with Azerbaijan on TANAP. This situation led to both economic and political weakening for Russia.[50]

Türkiye has recently become involved in international energy competition and policies. Particularly, the TANAP project will weaken Russia's dominant role in the international energy market

Transporting energy reserves from Central Asia and the Caucasus to Europe has become a competitive arena in the East-West energy supply and demand balance. The shaping of global energy policies is determined primarily by energy transit routes and supplier diversity. In this realm, Russia continues to be a dominant player with its existing pipeline networks. However, due to its geographical location, Türkiye stands as the most significant alternative route for Europe. Therefore, Türkiye is involved in the global energy market not only in terms of energy reserves but also by hosting energy transit routes.

Türkiye has recently become involved in international energy competition and policies. Particularly, the TANAP project will weaken Russia's dominant role in the international energy market. However, for the success of this project, Türkiye and Azerbaijan need to consider critical issues such as sufficient gas supply and route security.[51] As Türkiye holds a 30 percent stake in the TANAP project, it has the potential to lower energy prices.[52]

After the cancellation of the South Stream project in 2014, the natural gas transportation project that emerged was named the Russia-Türkiye-Europe Gas Pipeline and briefly referred to as the TurkStream. This project was initially brought up in 2014. Toward the end of the same year, during Putin's visit to Türkiye, a protocol was signed between the Russian gas company Gazprom and Botaş. This protocol laid the foundation for the TurkStream project and was a significant step toward its realization. The project consisted of two lines, each with a 15.75 billion cubic meters capacity.[53] Despite causing surprise in Europe, this decision did not result in any losses for Türkiye, which did not join the sanctions; instead, it led to new gains. Through this pipeline, the dependency of Türkiye and a range of Southern European countries on the Western Line coming via Ukraine would significantly decrease or be eliminated. Despite various problems between Türkiye and Russia, particularly related to Syria in 2015-2016, agreements between the two countries were ratified by parliaments, and the pipeline construction began in May 2017.[54]

Following the swift progress in the TurkStream project, another significant development in energy cooperation between Türkiye and Russia occurred in the field of nuclear energy. Türkiye prioritized the Akkuyu NPP project among its

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investments and offered a series of advantages, such as tax exemptions, to the firms executing the project. With this support, Türkiye reinforced its cooperation in nuclear energy and contributed to the project's rapid progress.[55]

Collaboration in nuclear energy began with an agreement signed between the energy ministers of the two countries in 2010. Following this agreement, another agreement was signed between the leaders of Türkiye and Russia, outlining cooperation in constructing a nuclear facility. In this regard, Turkish engineering candidates were sent to Russia for training at the Akkuyu NPP, and the necessary legal infrastructure was established in Türkiye to support the nuclear facility.

Türkiye's interest in nuclear energy stems from the aim to reduce energy dependence, minimize environmental impacts, and meet energy needs based on reliable energy sources. In this context, the Akkuyu NPP project between Türkiye and Russia is part of efforts to increase energy supply security and provide energy production in an environmentally friendly manner.[56]

Despite certain tense periods in Türkiye-Russia relations, the continuity of the Akkuyu NPP project highlights the significance of energy cooperation between Türkiye and Russia, especially in projects related to nuclear energy. This project is considered a significant step toward securing energy from reliable sources.

The foundation of the Akkuyu plant was laid by Putin and Erdoğan on April 3, 2018, during Putin's visit to Türkiye.[57] The Project Company (Akkuyu Nuclear Inc.) was established and started its activities on December 13, 2010. The project company is 100 percent Russian capital-based but operates as a joint-stock company subject to the laws of the Republic of Türkiye.[58]

The "build-operate-own" model of the Russian State Atomic Energy Corporation (Rosatom) is a novel approach applied for the first time in the nuclear industry. According to this model, upon completion of the Akkuyu NPP's construction, it will not be handed over to Türkiye and will remain under the control of Rosatom. When the project becomes operational, Türkiye commits to paying Rosatom 12.35 cents per kilowatt hour for energy. Major energy projects, including Akkuyu NPP, continue to hold significant importance for relations between the two countries.

Speaking at the 12th International Nuclear Energy Exhibition "Atomexpo 2022," Alexey Likhachev, the general director of Rosatom, which is undertaking the

construction of this NPP, emphasized that Akkuyu NPP is the largest nuclear power plant construction site in the world and the only site where four reactors are being built simultaneously. According to Likhachev, this project will make Türkiye a nuclear technology state. The sanctions against Russia will not have any negative impact on the project.[59]

Akkuyu' has become a subject of ongoing debate over the years. In this process, there have been serious debates about the reliability of nuclear energy to meet the country's energy needs. At the same time, recent nuclear accidents around the world have changed people's perspectives on nuclear energy; in particular, the accidents in Chernobyl in Russia and Fukushima in Japan have fueled these debates.

For example, Tolga Yarman, an expert on the subject, has drawn attention to the risks of nuclear power plants, recalling the major nuclear accidents at Three Mile Island (1979), Chernobyl (1986), and Fukushima (2011). On the contrary, nuclear physicist Dr. Necmi Dayday argues that the decision on whether or not to build a nuclear power plant cannot be based on reactor accidents and their possible consequences. Dayday argues that given the number of reactors in service worldwide for many years, accidents are very rare and this should be taken into account.[60]

Sinan Ülgen, director of the Center for Economic and Foreign Policy Studies, emphasizes the importance for Russia to continue the Akkuyu NPP project, a substantial investment made by Russia, and the need to recover its investment. However, Ülgen questions whether Russia would opt for the same investment model again and believes that Türkiye's decision to partner with Russia after the Ukraine war has a different political dimension. Yuriy Mavashev, president of the Russia-based think tank Center for New Türkiye Studies (YETAM), assessing the significance of the Akkuyu NPP project for Russia, states: "Akkuyu is an indicator that Russia cannot be completely erased in the eyes of the world, it cannot be entirely isolated … Russia believes that Türkiye's energy market is heading in the right direction. Despite the Ukraine war, I see no reason for Russia not to continue similar projects."[61]

Despite the efforts of the EU to reduce dependence on Russian gas, as of 2022, it is observed that 25 percent of the EU's total gas imports still come from Russia. Due to problems faced in the North Stream and the failure to materialize alternative projects like the South Stream, the TurkStream Pipeline has become crucial for the flow of Russian gas to Europe. Putin has supported Türkiye taking on a role as a new gas hub or gas supply center following the Ukraine war. Similarly, President Erdoğan also advocates for the establishment of a gas center in Türkiye and facilitating European purchases of Russian gas.[62]

Despite the various tensions between Türkiye and Russia, ranging from the war in Georgia to Syria, it has essentially been a strategic choice for the Kremlin to keep economic cooperation separate from political conflicts. As long as the benefits derived from the continuation of economic relations outweigh the damage caused by political conflicts, Russia plans to continue trade despite political conflict. If the differences with Türkiye deepen, the Kremlin's cost-benefit calculation could change. In cases where it is more beneficial to escalate the conflict, such as in the case of the November 24, 2015 jet crisis, Russia's choice will be whether or not to use the power derived from asymmetry as a means of pressure on Türkiye. In any case, Russia, as the advantageous actor in the asymmetric dependency relationship, is in a position to choose between alternative strategies.

For Türkiye, on the other hand, the compartmentalization strategy is not a free choice based on a profit-loss calculation, but a necessity imposed by the asymmetric nature of the relationship with Russia. Accordingly, in the event of a political crisis with Russia, Türkiye would not only lose the absolute benefits from trade but also face economic and political risks stemming from its natural gas dependence. In this context, it is not a choice but a necessity for Ankara to prevent political crises from spilling over into the economic sphere. This is because the cost of exit from the interdependence relationship is higher for Türkiye. In other words, Türkiye's position in the asymmetric dependency relationship with Russia narrows its strategic choice set and blurs the line between compartmentalization and appeasement policies. In this framework, it can be assessed that the energy-based asymmetry between Türkiye and Russia points to a power hierarchy between the two actors, as predicted by realist approaches, and is a factor that paves the way for conflict rather than cooperation in the long run.[63]

Nye and Keohane's interdependence approach is a theory based on three main features: technological developments, the insufficiency of military power alone, and the change in the hierarchy of priorities in international relations. This approach emphasizes the importance of interdependence in inter-state relations. It is a fundamental principle of the theory that in the event of a breakdown of interdependence, both sides suffer.

For instance, there are discussions about Russia's use of energy as a tool in its foreign policy. It is observed that Russia occasionally employs energy as a method of punishment within the perspective of mutual dependence. The natural gas issues with Ukraine are considered a consequence of energy becoming a tool in foreign policy. However, in its relations with Türkiye, Russia has not resorted to using energy as a tool for sanctions or coercion. Despite Türkiye experiencing gas supply issues from Iran during the winter months, Russia has provided additional support for gas supply through the Blue Stream Pipeline. There seems to be no inclination toward using energy as a pressure tactic against Türkiye.

Türkiye's position in the asymmetric dependency relationship with Russia narrows its strategic choice set and blurs the line between compartmentalization and appeasement policies

Akkuyu NPP, Türkiye's first nuclear power plant, has achieved "nuclear facility" status with the delivery of new nuclear fuel today. As the countdown begins for the commissioning of the first unit, it aims to start generating electricity from nuclear energy at the beginning of next year. Akkuyu NPP will consist of four 1,200-megawatt VVER-1200 type "III+" generation reactors with a total installed capacity of 4,800 megawatts. When operating at full capacity, the plant is projected to generate approximately 35 billion kilowatt-hours of electricity per year, meeting about 10 percent of Türkiye's electricity demand. Akkuyu NPP's projected 60-year operation period could be extended by another 20 years.[64]

However, both approaches recognize that interdependence is important in a globalized world and that states, societies, and actors are becoming more interdependent. An example of this is Türkiye's high dependence on Russian energy supplies. Nonetheless, Türkiye has ambitions to diversify its energy sources and achieve nuclear power plant technology. On the other hand, as much as Türkiye is dependent on Russia, Russia is becoming increasingly dependent on Türkiye in terms of energy distribution lines and Türkiye's energy outlet. This relationship is both political in nature and provides economic gains. Moreover, the commercial value of a nuclear power plant to be built in NATO member Türkiye should also be taken into account. However, it is important not to see interdependence only as a relationship of balancing interests. Both sides could be affected by a deterioration of this relationship. Türkiye's adoption of nuclear energy could reduce its energy dependence and provide energy supply diversity. This could increase Türkiye's energy security and offer a sustainable energy source.[65]

The lack of an institutional framework for nuclear power plant projects between Türkiye and Russia and insufficient support via state policy has resulted in failure in the past. However, in the end, Türkiye's Akkuyu NPP agreement with Russia was realized with the decision to carry out this project.

This shows that Türkiye has been endeavoring to build nuclear power plants for a long time to contribute to energy supply diversity and independence. The main reasons for Türkiye's preference for nuclear energy cooperation with Russia are factors such as providing financial resources, working together with Turkish companies, concluding an inter-state agreement, and making the appropriate offer. As a result, this cooperation has brought Türkiye into a relationship of interdependence with Russia and has led to different opin-

By diversifying its energy sources and routes, Türkiye can potentially reduce the risks associated with its heavy reliance on Russian energy imports, contributing to regional energy security and fostering greater economic stability

ions among experts in the field on the impact of this situation on Türkiye's position.

Conclusion

In conclusion, this paper delves into the complex and nuanced energy relationship between Türkiye and Russia, offering a comprehensive analysis of their interdependent dynamics. The study establishes Türkiye's substantial reliance on Russian natural gas, highlighting its energy vulnerability and the geopolitical complexities inherent in such dependence. This situation presents both economic challenges and strategic opportunities for Türkiye, particularly in the context of navigating its energy security within the broader framework of its reliance on Russia. The paper also reveals that Russia's perspective on Türkiye transcends mere energy transactions. Türkiye is seen as not only a major energy market but also a crucial transit route for Russia, integral to its strategy of energy export and geopolitical influence. This dual role amplifies Türkiye's strategic importance in Russia's energy policy, resulting in an asymmetric yet mutually dependent relationship.

Furthermore, the paper discusses the interplay between economic interdependence and broader political considerations, situating the intricate web of energy relations between Türkiye and Russia within a larger geopolitical context. The impact of international developments, such as the Russia-Ukraine conflict, exemplifies how bilateral energy relations can be influenced by and contribute to global power dynamics. In synthesizing these insights, the paper posits that Türkiye-Russia energy relations are best understood through the lens of asymmetric interdependence. While Türkiye's dependency on Russian energy imports is clear, Russia's reliance on Türkiye as a critical transit hub is equally significant. This dynamic creates a complex interplay where both nations are aware of their mutual reliance and continuously strive to balance their interests and mitigate associated risks.

The conclusion underscores the imperative for Türkiye to leverage its strategic geographic position to enhance its role as an energy hub. By diversifying its energy sources and routes, Türkiye can potentially reduce the risks associated with its heavy reliance on Russian energy imports, contributing to regional energy security and fostering greater economic stability. This strategic move could shift the current dynamics of asymmetric interdependence, creating a more balanced and secure energy landscape for Türkiye and the region.

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