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TÜRKİYE AS AN ENERGY HUB FOR EUROPE: DYNAMICS AFTER THE RUSSIAN INVASION OF UKRAINE

Dr. Hasan TANRISEVEN

Ankara, 2026

**Türkiye as an Energy Hub for Europe:
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ABSTRACT

This book explores alternative energy sources and routes for Europe after the Russian invasion of Ukraine. Europe, as an industrialised continent, has a great demand for hydrocarbon energy sources, and Russia was the leading oil and gas supplier for European countries until the war. Due to this unprecedented assault, European countries have urgently been seeking non-Russian gas and oil. Although Türkiye currently does not have sufficient gas, due to its close proximity to oil- and gas-rich regions such as the Middle East, the Caspian region and Central Asia, it is capable of delivering gas via pipelines to Europe.

Furthermore, Türkiye has discovered vast gas fields in the Black Sea. Moreover, rich Eastern Mediterranean gas discoveries can only be viable for export to Europe if the states in the region compromise with Türkiye.

This book examines Türkiye's potential role as an energy hub and reliable partner for Europe in solving energy issues. As an exogenous shock, the Russian invasion of Ukraine has substantially increased energy bills and accelerated the cost-of-living crisis in Europe. The delivery of gas via Türkiye to European markets has the potential to alleviate household energy expenses.

The findings highlight the economic, geopolitical, and public policy factors shaping Türkiye's pursuit of an expanded role in facilitating alternative energy routes to Europe amidst the changing dynamics resulting from the Russia-Ukraine conflict.

This research proposes that increased cooperation between Türkiye and European countries will diminish Europe's dependency on Russian gas, which will also reduce Russian leverage from its gas as a political and economic weapon against European countries. This initiative can also potentially be a milestone for the energy security of Europe, bring peace to the region, and facilitate the stopping of illegal migration and many other public policy issues.

To my wife, Ceylan, my son, Ali, and my daughter, Nur.

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After a long, tiring, but at the same time enjoyable period, I am delighted to finalise my book. I was born in Batman, one of Türkiye's energy centres. Naturally, energy issues have always been topics of my studies and conversation. Since I started my PhD at Ankara University in the early 2000s, I have been working on energy policies. I spent three years at Lancaster University and the University of Bristol to investigate energy issues.

As a full-time employee, I found pausing my job for three years and resuming my studies to be very fruitful. While the UK was struggling with strikes fueled by the cost-of-living crisis in the post-COVID era, investigating the energy crisis in Europe provided me with an immense opportunity to expand my knowledge.

I would like to express my gratitude to the lecturers at the School for Policy Studies at the University of Bristol and the Lancaster Environment Centre at Lancaster University, whose classes greatly influenced the direction of my work.

After I graduated from the Faculty of Political Sciences (Mülkiye), I spent an additional ten years in the faculty corridors as a master's and PhD student. I am thankful to the faculty for publishing my book. I also want to thank the faculty dean, Professor Orhan Çelik. It is and will be a privilege for me to be an alumnus of the Faculty of Political Sciences at Ankara University.

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Dr. Hasan TANRISEVEN
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ABBREVIATIONS

BCF	: Billion Cubic Feet
BCM	: Billion Cubic Metres
BGR	: The Federal Institute for Geosciences and Natural on behalf of the German Mineral Resources Agency (DERA)
BOTAS	: Turkish Petroleum Pipeline Corporation
BN	: Billion
CSIS	: Center for Strategic and International Studies
EC	: European Commission
E-C.org	: The Energy-Cummunity.org
EIA	: The U.S. Energy Information Agency
EMRA	: Republic of Türkiye, Energy Market Regulatory Authority
ENP	: European Neighbourhood Policy
EP	: European Parliament
EU	: European Union
GDP	: Gross domestic product
IAEA	: International Atomic Energy Agency
IEA	: International Energy Agency
LNG	: Liquefied Natural Gas
MENR	: Republic of Türkiye Ministry of Energy and Natural Resources
MFA	: Republic of Türkiye Ministry of Foreign Affairs
MTOE	: Million tons of oil equivalents
NATO	: The North Atlantic Treaty Organisation
OECD	: The Organisation for Economic Co-operation and Development
OPEC	: Organisation of the Petroleum Exporting Countries
PRT	: Presidency of the Republic of Türkiye
RES	: Renewable Energy Sources
TANAP	: Trans Anatolian Natural Gas Pipeline Project
TAP	: Trans Adriatic Pipeline
TCF	: Trillion Cubic Feet
TCM	: Trillion Cubic Metres
TOE	: Tons of oil equivalents
TPAO	: Turkish Petroleum Corporation
TPES	: Total Primary Energy Supply
TURKSTAT	: Turkish Statistical Institute
USGS	: The U.S. Geological Survey
Vol	: Volume

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CHAPTER I

INTRODUCTION

Energy is one of the most important fundamental concepts in international relations, policies and economic strategies. Furthermore, energy is fundamental to countries' economic and social development. Along with being a critical input for achieving many social and economic development goals, energy is also a critical foundation of economic growth and social progress (Safdie, 2023; Eisenmenger et al., 2020).

Energy enables modern civilisation. A state's progress can be measured by per-person energy consumption. The paucity of energy resources and conflicts over them demonstrate the severe problem of energy provision and economic development, as the globe needs more energy sources. Energy security has been a transnational endeavour for decades, particularly for nations that rely significantly on imports to meet domestic demand (Lo, 2018). Therefore, energy security and development are global concerns.

The invasion of Ukraine by the Russian Federation has had a major impact on the global energy markets and has led Europe to seek new alternative energy transit routes in an uncertain geopolitical climate (IEA, 2023). With the aim of reducing their dependence on Russian oil and gas, European nations are now asking what viable options are available to meet their energy demands.

According to Eurostat, imports from Russia accounted for 39% of the European Union's gas consumption, 23% of its oil imports and 46% of its coal imports in 2020. Russia was the EU's primary supplier of petroleum fuels and natural gas until the end of 2021. European nations are especially concerned about significant supply disruptions when Russia attacked Ukraine (McBride, 2022). Following Russia's invasion of Ukraine, the European Union enacted a series of sanctions that directly and indirectly affected the trade of oil and natural gas (Bolton, 2023; Eurostat, 2023).

Energy security has three dimensions: producer countries, transit countries and consumer countries (IEA, 2015). Energy-rich countries seek to secure a worthwhile, valuable energy market. The consumer countries, namely European countries, base their security of energy supply on the viable interactions between the producers and the transit countries. Finally, the transit countries seek to

collect taxes and revenues from the energy trade, which is vital for their economies.

This book will examine the following research questions:

- RQ1: After the Russian assault on Ukraine, what are the prospects for Türkiye to emerge as an energy hub for Europe?
- RQ2: What kind of benefits will Türkiye and European countries gain from the cooperation (or partnership?) on energy?

There will be several mutual benefits of energy cooperation.

- Türkiye has an excellent geostrategic location in between many hydrocarbon reserves and the world's foremost consumer countries.
- Türkiye has excellent infrastructure, gas and oil pipelines, LNG storage facilities and the ability to maintain them.
- Türkiye has reliable government institutions and a good political relationship with European countries, meaning that it has the potential to be a reliable long-term partner in securing energy transit. Moreover, cooperation in energy issues will improve bilateral relations in the current public policy issues.

There is very little research analysing Türkiye's role in energy relations between Europe and the world's oil- and gas-producing regions. In this study, Türkiye's role as an energy transit country positioned between the world's hydrocarbon-rich regions and the most significant energy consumer countries will be analysed. Türkiye, a candidate country to join the EU, is also largely dependent on external energy resources, and it is developing its energy policies within the framework of the region's economic, political and security atmosphere. This book will argue that Türkiye, a pivotal country in Eurasia since the 2000s, undoubtedly has had a tremendous impact on energy issues in Europe, the Caucasus, the Mediterranean and the Middle East.

This book will argue that because of Türkiye's geostrategic location, good infrastructure and maintenance capabilities and favourable political relations with European countries, the country has excellent potential to emerge as an energy hub between Europe and the oil- and gas-rich regions of the Central and Western Asia.

It will also argue that the Russian invasion of Ukraine and high tension in the region have revealed that Türkiye, which holds a unique location, is the only country able to facilitate further joint ventures in energy in the region. As the EU tries to overcome its current energy crisis, the 27-member block needs Türkiye

to boost its weak economic growth and energy needs. The conflict between Russia and Ukraine, the financial crisis and the COVID-19 crisis have demonstrated that European countries need Türkiye and that Türkiye needs Europe. Bilateral relations on energy issues will thus contribute to European interests in various aspects. This cooperation will also yield mutual benefits in the sphere of public policy, such as ceasing illegal migration to Europe, mediating grain deals and reducing conflicts and tension in the region.

From this viewpoint, the most important of these issues involves the security of Europe and the critical energy exporters in the region, the stability of those countries and the extent to which external factors and internal and external conflicts affect energy developments.

On the other hand, Türkiye's strategic value has grown since the Eastern Mediterranean and Black Sea gas discoveries. The Eastern Mediterranean can provide Europe with all the gas needed, but only if Türkiye permits it to be delivered via its maritime zones. Furthermore, Caspian and Turkmenistan gas will also be linked in the future, delivered via Türkiye to Europe, and Caspian oil will be transported to the world via Türkiye's port of Ceyhan (Ongun, 2020). It can easily be seen that the potential of Türkiye originates from its geographical position. Türkiye can be an energy corridor between the oil- and natural gas-producing countries and those that consume those hydrocarbons. As an energy hub, Türkiye as a transit route can be considered a 'southern' or 'fourth' corridor'¹ connecting gas producers in the Caucasus, Central Asia and the Middle East to Europe (Mills, 2022a; Winrow, 2009)

Along with its economic emergence in the last decades, Türkiye has become one of the fastest-growing energy markets in the world. Türkiye is the seventeenth-largest economy on the globe, with an approximate GDP of \$1.12 trillion in 2023 (Anadolu Agency, 2024). Türkiye's GDP growth rate was 11% in 2021, 5.6% in 2022 and 4.5% in 2023 (World Bank, 2023; Tuik, 2024). Moreover, it has a long-standing relationship with the West, institutionally through NATO and bilaterally with the US and the EU. For most of the post-1945 period, Türkiye has been firmly embedded in the Western alliance (Kutlay and Öniş, 2021). No other country in the region has the same or comparable geographic advantage (Barysch et al., 2005). As a NATO member, Türkiye has a unique geopolitical role in the Russo–Ukrainian war (Isik, 2022).

This book analyses the quest for alternative energy resources and routes for European countries after Russian aggression into Ukraine. Although Türkiye has no bulk energy sources, its proximity to gas- and oil-rich regions makes it a crucial player in the energy sector. First, the TANAP project is the first non-

1 The other three gas corridors run to Europe from Russia, Norway and North Africa.

Russian gas pipeline, effectively delivering Azerbaijani gas to Europe via Türkiye. Second, East Mediterranean gas can end the EU's dependency on Russian gas, since Europe wants to eliminate its dependency on Russian fossil fuels for the future expansion of its economy.

The assessment of Türkiye's viability in Europe's energy landscape will consider current energy projects, geopolitical relationships, and past energy policies. I will explore Türkiye's energy transportation capabilities and the country's geopolitical and geostrategic position to answer the research questions. Furthermore, I will examine the benefits of collaboration for both parties in the scope of public policies. Türkiye aspires to develop into Europe's energy hub. I will conclude that European countries and Türkiye will benefit from energy cooperation.

Therefore, after the introduction, I will review the relevant literature in the second section. The current gas routes to Europe and alternative routes via Türkiye will be discussed here. The third chapter will provide a Methodology, and secondary data analysis will be used. Furthermore, I will explain which databases will be used. The media outlets will be reviewed, and the pro-government and the opposition to Türkiye's aspiration to be an energy hub will be compared. The public key figures and experts on energy issues' perspectives will be discussed. The collected data will be analysed in the fourth chapter, and recommendations for policymakers will be evaluated in the last chapter. Finally, the book will provide a conclusion.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

Recent unprecedented geopolitical shifts, namely Russia’s assault on Ukraine, have forced European countries to reevaluate the security of their energy supply. Due to their heavy dependence on Russian gas, most European countries have urgently sought alternative energy sources and routes. Since the war began, Türkiye has emerged as a potential energy hub and transit country to provide non-Russian energy sources to Europe. (Eralp, 2023; Novikau and Muhasilović, 2023; Aktaş and Yılmaz, 2022).

This research examines debates regarding energy-shifting policies following the Russian invasion of Ukraine and the subsequent policy shifts in European nations. It examines Türkiye as an energy hub and transit country as an alternative to Russian energy resources. In the literature review, I will examine the Russian invasion of Ukraine as an exogenous factor. This unexpected war in Europe, the first large-scale war on the continent since World War II, can be considered an exogenous shock. I will examine the energy crisis and its effects on Europe’s cost of living crisis and energy poverty problems. I will examine public policymakers’ and scholars’ opinions and arguments in light of Türkiye’s key position as a trade partner of Europe and its geopolitical importance. This book will emphasise Türkiye’s geopolitical and economic importance for Europe as well as the country’s energy infrastructure, pipeline capacity and feasibility.

The main goal of this study is to make sense of Türkiye’s complicated strategic decisions by looking closely at the country’s energy policies. This chapter tries to show how Türkiye might shape the future of energy by looking at similarities with well-known energy players. It also examines how this might affect regional and worldwide dynamics. Strategy-based policies – for example, efforts to diversify energy sources via the Southern Gas Corridor and the Black Sea gas discoveries – have helped Türkiye shape the future of energy. After the Russian invasion of Ukraine, Türkiye has dominantly positioned itself as a significant player. It improves energy security and encourages sustainable development when these steps are taken on a regional and global scale.

2.2. Exogenous Factors

Exogenous factors typically refer to variables outside of an organisation's control. It is indisputable that marketplace circumstances are exogenous variables acting solely as external forces (Isik et al., 2010). The relationship between exogenous and endogenous factors is one of independence (Kenton and Khartit, 2020). Therefore, a variable is considered exogenous if it is independent of other variables in the model. Endogenous variables depend on different variables present in the framework (Indeed, 2022).

Exogenous shocks are events that occur unexpectedly and are predominantly unpredictable, yet have a profoundly adverse effect on communities, regions, or even nations (Hitt et al., 2021). Exogenous shocks, such as geopolitical changes, wars or crises in the region, can have substantial adverse effects on the growth of neighbouring states. These events, characterised by a post-COVID environment, have created a combined, intensified, and interconnected impact. (Ciravegna et al., 2023). Moreover, exogenous factors such as wars and crises provide opportunities for change (Widmaier, Blyth and Seabrooke, 2007).

The process of globalisation involves long-term exogenous factors that affect both energy consumption and economic growth (Islam and Islam, 2021). Population growth, rising wealth and technological advancements have all contributed to a more energy-intensive global economy, which has driven this growing demand.

2.3. The Russo–Ukrainian War as an Exogenous Shock

The nations of the world have become deeply interconnected and influenced by conventions, treaties, political economy, and technology (Akanle and Omobowale, 2022). As a consequence of external shocks, policy shifts and mobilisation of populations can be observed at the local level. However, Sabatier (2019) argues that external events are necessary but insufficient for significant policy change. In times of adversity, groups try to protect their environment, health and wealth. Due to the long-term effects of exogenous factors on nature, humans' well-being and health, it is hard to accurately estimate the monetary cost of the damage. Consequently, exogenous shocks lead to significant policy changes in some areas but not in others (Weible et al., 2009).

Russian aggression towards Ukraine has not been a secret. Since 2009, Russia has been showing hostility in many ways, such as turning the gas off to Ukraine (Sullivan, 2022). European countries underestimated the Russian threat, and Russia attacked Ukraine in 2022. Russia has historically been the leading

supplier of gas to European countries, but this situation was disrupted by the Russo–Ukrainian War, which continues to the present day. Although the war is between Russia and its neighbour, Ukraine, a part of the former Soviet Union, it has brought a significant economic shock to world energy and food markets, resulting in unprecedented price increases and supply constraints (Arce, Koester and Nickel, 2023). European countries, the US and its allies imposed economic sanctions on Russia and supported Ukraine, leading to a prolonged and violent conflict that escalated global geopolitical and economic tensions (Gaur et al., 2023).

The energy crisis spread beyond Ukraine and became an intensive problem for the whole of Europe. The subsequent global political discussions on imposing sanctions against Russia have brought to light the significant reliance of many countries on Russian oil and gas, which has become a critical concern. The Balkan and Eastern European countries depend on Russia for up to 90 per cent of their hydrocarbons, which mostly comes in the form of gas (Statista, 2022). On the other hand, up to fifty per cent of the gas consumed in Poland, Italy and Germany comes from Russia (Sgaravatti et al., 2022).

Since the beginning of the war, the cost of living in Europe has increased significantly. Due to its impact on energy and food prices, not only states but also households have deeply felt the consequences of the war. As a result, European nations have scrambled to devise and enact new energy strategies rapidly and find new solutions to their energy crises. After the assault on Ukraine, the most debated subject in Europe’s public policy has been the security of the gas supply (Kneebone, 2023).

2.4. Geopolitics and the Security of Energy

What is the nature of geopolitics, and to what extent is the geopolitics of energy and energy security vital for the European Union? Geopolitics was initially linked to geography and resources, but its meaning has evolved since Kjellén coined the term over a century ago. Kjellén originally stated geopolitics was ‘the theory of the state as a geographical organism or phenomenon in space’ (cited in Cahnman 1943, p. 55).

Geography and political, military and economic incentives impact geopolitical activities. Pastural (2015) asserts that geopolitics and energy have a close relationship. Furthermore, fossil fuel consumption has significantly affected the global energy network, economic growth and the modern way of life, multiplying global energy utilisation five hundred times since the 1800s (Syvitski et al., 2020). The Industrial Revolution, fuelled by coal and steam power,

significantly influenced nineteenth-century geopolitics, with oil production and trade becoming an essential aspect of twentieth-century power dynamics. The geopolitics of energy has been primarily driven by oil and gas since the 1960s (Oxford Energy, 2021); furthermore, energy geopolitics has centred on fossil fuels, especially oil (Van de Graaf, 2021). The geopolitical concentration of fossil fuels has significantly impacted nations' wealth and security (Irena, 2019).

The geopolitics of energy can be described as the impact of energy flows on the power and influence of nations (*The Economist*, 2018). In this book, the term 'geopolitics' will be used to emphasise both the importance of energy security and geography as well as the role of states and the international power amongst them. Energy geopolitics pertains to the ability of a nation to leverage its energy control for geopolitical gain. As a result, a country's geopolitical context and goals dominate its energy strategy (Ma et al., 2019).

Essential elements – for example, the richness of energy sources, GDP, population, land size, geostrategic location, military power and soft power – can influence energy geopolitics (Irene, 2019). Russia is the world's largest gas and second-largest oil producer, and Europe cutting its oil and gas trade with Russia and transitioning from Russian fossil fuels to other regions' energy resources is significantly shifting Europe's energy geopolitics.

European countries have tried reducing their fossil fuel consumption. On the other hand, they have been desperately looking for new energy routes and sources. As a result, energy prices have soared and public policy producers have tried to find new solutions to Europe's energy crisis. Those shifts have created irreversible changes in global energy politics.

Hydrocarbon discoveries in the Eastern Mediterranean have prompted geopolitical changes and changes in international relations. Energy, specifically natural gas, could reduce regional animosities, improve cooperation and even promote the resolution of the conflict over the island of Cyprus. In policy discussions, it is essential to consider the numerous benefits of these discoveries (Tziarras, 2021).

2.5. Energy Security Dimensions

Energy security, a crucial aspect of global security, has evolved from a 1973 crisis-based model focusing on oil supply disruptions to encompass the entire energy supply chain and infrastructure. Moreover, diversifying energy sources will remain vital to ensuring security for oil and gas (Yergin, 2006).

Looking closely at the three essential parts of energy security – producing countries, transit countries and user countries – the pros and cons of Türkiye’s possible role as a central energy hub can be seen. Türkiye is a crucial transport country because it is located between areas with with ample oil supplies of oil supplies and countries that consume it. Türkiye can facilitate the movement of energy supplies from production hubs to consumer markets within the EU. As it can offer such a large array of services, Türkiye is an integral part of energy security because it simplifies the process of moving materials. Türkiye thus has the opportunity to improve its economic situation and make a big difference in the security and strength of the global energy design as a whole (Villac Filho, 2022).

2.6. Energy Consumption and Dependency of Europe

Understanding how energy use affects public policy and international relations is essential when determining Türkiye’s possible role as a central energy hub. As it will be explained in detail in the fourth chapter, Europe relies heavily on Russian energy sources, revealing a harsh truth (Ratner et al., 2021). European countries are vulnerable because they depend so much on Russian raw materials, such as grain, gas and oil. This reveals how important it is for them to find alternative sources. As a result of geopolitical events like Russia’s invasion of Ukraine, there is a strong sense of urgency to find strategic alternatives and explore Türkiye’s ability to play a vital role in changing Europe’s energy landscape. The EU imports a significant share of its energy resources directly from Russia, including natural gas (44%), crude oil (28%) and coal (52%) in 2021 (Eurostat, 2023c). Russia relies on the EU for its exports and many emerging markets and developing economies (EMDE) heavily rely on food supplies from Russia and Ukraine (Baffes and Nagle, 2022).

2.7. Türkiye’s Strategic Importance

2.7.1. Türkiye as an Improving Energy Hub

Türkiye’s energy goals and strategic position have become very clear. The war between Russia and Ukraine has caused natural gas supplies to Europe to be interrupted on occasion, primarily through pipelines that go through Ukrainian territory (Osička and Černoč, 2022). As a result, European countries have been actively looking for other energy sources and paths to reduce their reliance on Russian energy. Türkiye is in an excellent location for energy transit lines because it is at the intersection of Europe and Asia (Sonmez, 2021). The country is seeking to become an energy hub for the transfer of natural gas, avoiding the

usual route through Ukraine and connecting energy-rich areas to markets in Europe. This is a positive development for the region's economy and energy security.

2.7.2. Türkiye's Strategic Position

The EU is maintaining energy dialogues and partnerships with transit and supplier nations, such as Türkiye; these entail routine gatherings of ministerial and expert-level representatives from both parties (Russel, 2020).

Türkiye's proximity to the Middle East and the Caspian basin makes it a possible transit hub for 72 per cent of the world's proven gas and 73 per cent of its proven oil reserves, enabling it to facilitate energy security and diversified supply routes for Europe (Andrei, 2022; Novikau and Muhasilović, 2023). Ankara has also been active in new gas markets, building terminals for importing LNG and offering access to markets from Algeria, Egypt, Nigeria and the United States (Siccardi, 2024; Gumbatov, 2020).

The EU is seeking to diversify its energy sources and increase the security of its energy supply (European Parliament, 2023). The bloc has been trying to cooperate on energy issues with Türkiye, Azerbaijan, the Middle East and the MENA regions (EEAS, 2021). Europe and Türkiye are working to strengthen integration and cooperation in the Southern Caucasus, aiming to boost energy cooperation. This includes strengthening the connection between Europe, Türkiye and Azerbaijan, expanding the SGC (TANAP-TAP) capacity and importing more non-Russian gas to European countries (Geri, 2023).

2.7.3. Advantages of Türkiye as an Energy Hub and Transit Country

Türkiye and the partner countries traverse 3,500 kilometres, encompassing four pipelines (the SCP, TANAP, ICGB and TAP), three seas (the Caspian Sea, the Aegean Sea, the Adriatic Sea) and seven countries (Azerbaijan, Georgia, Türkiye, Bulgaria, Greece, Albania and Italy) and a sum of £28.2 (US\$35) billion in investments (BP, 2017 and 2020, TAP, 2023). Moreover, Türkiye presents lucrative energy investment opportunities; therefore, the energy sector will continue attracting investors in upcoming years (García De La Cruz and Palau, 2023).

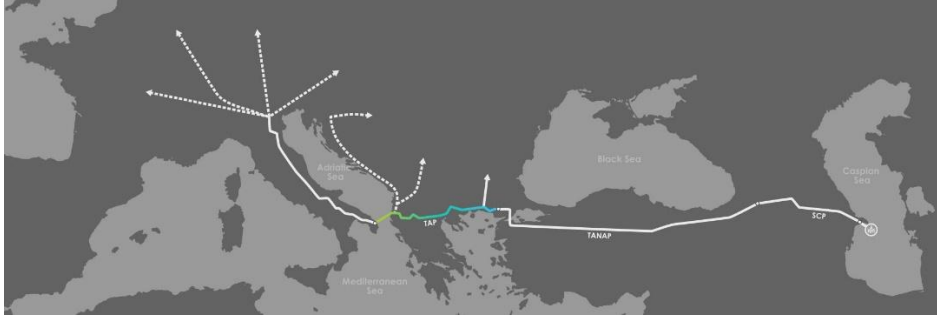


Figure 2.1. The Southern Gas Corridor delivers Shah Deniz gas to Europe, Source: BP, 2020; TAP, 2023

On the other hand, Türkiye has discovered over \$500 billion worth of natural gas in the Black Sea, with 710 billion cubic metres of reserves, providing enough energy for households and industrial consumption for the next 35 years (Sharma, 2023). Türkiye's Black Sea exploration success and strategic location for interregional hydrocarbon pipelines make it a significant player in shaping the geopolitical landscape, particularly in the natural gas sector (Ackerman, 2022).

2.7.4 Infrastructure and Connectivity

Türkiye's broader pipeline infrastructure must be examined in light of these new prospective opportunities. The Turkish Straits are a network of channels in Türkiye that link the Black Sea to the Mediterranean Sea and thus, to global markets (Melvin and Seskuria, 2022; Turkish MFA, 2018). They comprise the Bosphorus, the Sea of Marmara and the Dardanelles, all of which are subject to the regime of internal waters and situated within the sovereign sea territory of Türkiye (Yergin, 2006). Passing through Istanbul, it is one of the busiest straits globally due to trade between livestock, grain and energy sources (Sagers et al., 2011). Petroleum transportation is among the most strategically significant resource circulations in the world economy (Rodrigue, 2004).

Furthermore, concerning hydrocarbon transportation, Türkiye again assumes a position of particular significance. Energy transport corridor regulation can be nearly as crucial as energy supply regulation. Türkiye is presently traversed by an extensive network of pipelines that transport gas and oil along the east–west and north–south energy corridors. Currently, two primary international oil pipelines connect Ceyhan, Türkiye, to Kirkuk, Iraq, and Baku, Azerbaijan (Bruno, 2008; Guo, Huang, and Wu, 2019).

2.8. Public Policy Issues and Attitudes to Energy Crisis

Exploring the different policy approaches countries use to manage and get to oil and gas supplies is very important for deciphering the complicated world of energy security. This analysis considers Türkiye's energy strategies within the region's more significant economic, political and security framework. Türkiye's energy policies show many aspects of its long-term goals and strategic positioning (Takácsné Tóth, 2023).

Emerging economies like Türkiye prioritise their public policy agendas in the scope of energy security for the country's future economic development, which demands a stable, reliable, and uninterrupted energy supply (Biresellioğlu et al., 2017). Moreover, energy usage is essential for households. Therefore, the Turkish government must consider supplying energy, namely gas and electricity, to residents at affordable prices.

Türkiye's energy strategies are based on a careful balance of economic growth and political power, which protects its energy assets. In a bid to boost Türkiye's economic standing, it is trying to manage its energy supplies efficiently. Türkiye conducts energy diplomacy by looking at 'big players' such as OPEC and Russia for ideas. In this field, controlling energy resources is essential for business and can also be used to make an impact and gain political influence (Ratner et al., 2021).

Europe's energy usage is heavily reliant on the construction industry, with buildings accounting for 40% of overall consumption and 55% of gas demand in the EU (González-Torres et al., 2022; EC, 2020b). Since the Ukrainian–Russian War, as the escalating cost of gas continues to exacerbate the energy crisis, governments and public policymakers have sought ways to promptly reduce the energy bills and implement governmental support measures (Euroelectric, 2022).

Moreover, the cost-of-living crisis is closely linked to energy prices, as energy bills influence household expenses. Energy prices affect consumer price index (CPI) inflation through the price of car fuel and domestic energy sources, including electricity, gas, oil, coal, wood, petrol, diesel and oil (Dixon, 2022). Instability, particularly price increases, can also lead to inflation, wage rate reductions and unemployment (Wang et al., 2019). Every government implements public policies to supply energy at affordable prices. This can facilitate better outcomes from large-scale investment in energy programs (IEA, 2021).

The following sub-sections will examine the strategies for solving the recent energy crisis as a public policy problem. First, cost of living will be examined, followed by the grain deal, which Türkiye meditated. Then, energy

poverty and unemployment will be discussed. The interconnected nature of public policy issues, economic implications and energy security issues will also be evaluated.

2.9. The Cost of Living

Global energy prices have been rising since mid-2021 due to post-pandemic recovery and pent-up demand, especially in Europe, due to Russia's invasion of Ukraine. This invasion has impacted the cost of living in one of three ways: via adjustments to the tax rate, utility and energy costs, and overall inflation.

Europe has faced a 15-fold surge in wholesale electricity and gas prices. This crisis could worsen, causing gas shortages and a significant recession, affecting households and businesses (Zettelmeyer et al., 2022; Jack, 2024).

On the other hand, in recent years, the Turkish lira has gradually depreciated, halving its value in just one year (Michaelson, 2023). Year-over-year inflation in the country peaked at 58.9% in August (Euronews, 2023). Türkiye has tried to mitigate the effects of the cost of living crisis via newly discovered gas resources. A detailed analysis of this will be provided in the fourth chapter.

2.10. Job Creation

Energy infrastructure projects such as pipelines, port developments, gas distribution centres and energy facilities are not only investment opportunities but also instruments for job creation. For instance, the Southern Gas Corridor created 35,000 jobs (SGC, 2023).

New pipelines would provide states with access to domestic oil or gas, direct foreign investment, job creation, significant transit revenues, and energy flows for political purposes (Baghat, 2006). As a result, the new opportunities to create more jobs and the reduction of consumers' energy costs will improve consumers' living conditions.

2.11. Energy Poverty

Increases in energy prices are anticipated to disproportionately affect households with lower incomes, as they are more likely to be fuel-impaired and spend a greater percentage of their income on utility bills (The ONS, 2022).

Energy poverty is defined as a lack of access to modern energy resources and services, affecting households when total energy expenses exceed 25% of their budget (Pehlivan, 2022). The existing body of literature about energy poverty in Türkiye is comparatively scant, and energy poverty research in Türkiye has been conducted since 2015 (Gunay and Kayacan, 2023).

Increasing prices and living expenses have made it difficult for the Turkish people to maintain their standard of living in recent years. Yildizel speculates that Türkiye has been adversely affected by the worldwide energy crisis and that the escalation of energy costs will render more individuals energy-impooverished. In addition, she asserted that rising energy costs have impacted food prices (Günay and Kayacan, 2021).

Similarly, the statistics demonstrate that energy poverty has also escalated in European countries. Eurostat reveals that the energy crisis caused by Russia's Ukraine conflict is affecting EU citizens, with 9.3% of the population unable to maintain adequate warmth in 2022, up from 6.9% the previous year (Elissaiou, 2023).

2.12. The Russo–Ukrainian War as an Exogenous Shock and Energy Poverty

The concept of an exogenous shock refers to an external event that significantly disrupts a system's equilibrium. It is an unintentional, unpredictable event that significantly impacts a market, community, or country without its own initiative. (Miklian and Hoelscher, 2022). An external shock refers to an unexpected incident that is outside the realm of control of authorities and has a notable adverse effect on the economy (IMF, 2003). Geopolitical risks, which include wars, are accepted as exogenous factors (He, 2023).

As a significant exogenous shock, Ukraine's invasion by Russia triggered the first global energy crisis in the twenty-first century, affecting the global energy sector. Energy poverty, exacerbated by the Russo–Ukrainian war-induced security vulnerabilities, is a significant issue affecting low-income communities (Guan et al., 2023). Despite price support measures, the war nearly doubled household energy costs worldwide (Brown et al., 2023).

The inability to access reliable, affordable energy services and governments often prioritising access to energy over other primary necessities further exacerbates existing poverty and hinders development opportunities (GGI, 2024).



Figure 2.2. Energy Dependency Factors, Source: Damen, 2023

Inflation, governmental and private debt and an escalation of the cost of living crisis are all results of the energy market crisis. These produce more problems for governments and citizens and could destabilise the European energy market (Damen, 2023).

The Russo–Ukrainian war contributed to rising wholesale natural gas prices; however, the spike in natural gas prices in Europe has been attributed to several factors, including global reductions in natural gas production, rising global gas consumption and low natural gas storage levels globally (Field, 2021).

2.13. The Grain Deal

Food security is complexly intertwined with the accessibility and utilisation of energy, land and water (Akanle et al., 2021). The production and trade of several commodities, including fertilisers and grains, have been disrupted by the Russo–Ukrainian war because Russia and Ukraine are the leading exporters of wheat and many minerals, including iron, aluminium and nickel. The blockade of Ukrainian ports on the Black Sea has stopped 90% of Ukraine’s wheat exports. The war could significantly impact the European Union, some emerging markets and developing economies (Baffes and Nagle, 2022).

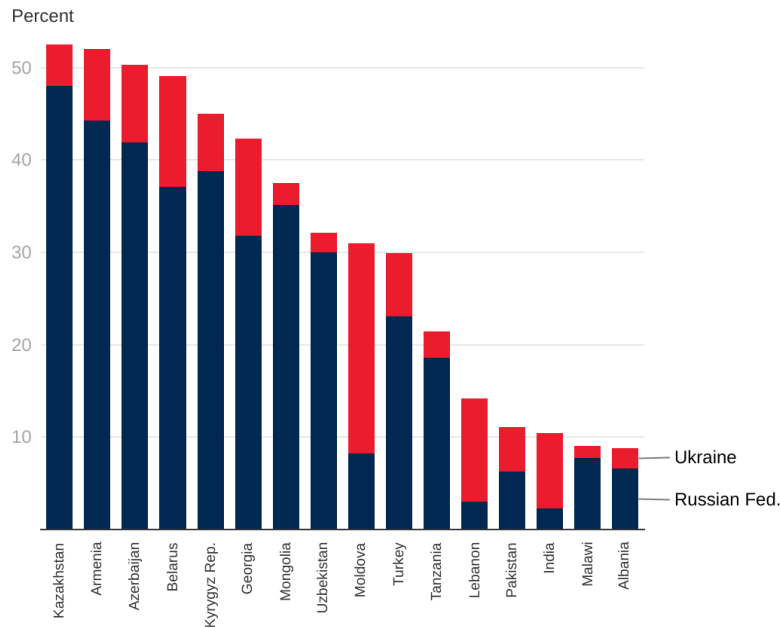


Figure 2.3 The dependence of food supply on imports from Russia and Ukraine, Source: World Bank, 2022

The Black Sea grain initiative, negotiated between Türkiye, the UN and Russia, aims to ensure Ukraine’s grain can leave its southern ports via the Bosphorus (Wintour, 2023). Türkiye’s Black Sea Grain Initiative significantly mitigated the global food crisis (Figure 2.3.), aiming to alleviate it and enhance Ankara’s image as a leading player in the Global South (Isachenko, 2023). Türkiye attaches great value to the grain corridor, enhancing its food security and international prestige. The deal has defied sceptics, with up to ten million tons of grain shipped out of Ukraine in its first three months (Bechev, 2023).

2.14. Irregular Migration

Türkiye is the European Union’s strategic partner in addressing crucial matters such as climate, migration, security, counterterrorism and the economy (EEAS, 2021a). Moreover, European governments have been tackling an influx of irregular migrants and asylum seekers for a decade.

The country's strategic location has made it a crucial destination to block refugees' and migrants' movement towards Europe, and the country hosts over four million refugees, the highest number of any country in the world.

The EU and Türkiye have committed to ending irregular migration from Türkiye to the EU, breaking the smuggler business model and offering migrants alternative options. The EU Facility for Refugees in Türkiye was established, mobilising EUR 6 billion in two tranches to support refugees in education, health, social and economic support (EC, 2024). Cooperation in public policy issues like migration may ease collaboration in energy problems for both parties.

CHAPTER III

METHODOLOGY

3.1. Introduction

This chapter outlines the methodology of Türkiye's critical role in delivering non-Russian gas and oil to Europe, considering the Russian invasion of Ukraine as an exogenous shock. There is a significant body of research on this topic, due to the unexpected war that erupted just three years ago. Moreover, gas fields have only been discovered in the Black Sea during the last 2–3 years, and the dispute over Mediterranean gas has not yet been resolved. This chapter will outline the research goals and questions, research design, data collection and sampling as well as provide a framework for relevant public policy analysis. I will use secondary data analysis and focus on public policies.

3.2. Research Design

The research design, including data analysis, is crucial in conducting research. It involves an ontological and epistemological view, selecting a method, sampling, data collection and ethical implications. It also highlights limitations and suggests alternatives for future research. Research methodology involves specific procedures for identifying, selecting, processing and analysing information about a topic, ensuring validity and reliability in a study's analysis (Heever, 2020).

A research strategy is a plan or framework used to carry out the task of finding and assessing information (Malhotra, 2017). The study will be undertaken in four major phases sequentially. Phase 1 conducts an intensive literature review, Synthesising academic studies and data on Europe and Türkiye's energy relationship pre-Ukraine war. Phase 2 narrows the analysis to the contemporaneous impact of the Russia–Ukraine conflict on Europe's energy imports, prices and policy reactions. Phase 3 will project scenarios for Türkiye to replace Russian gas supplies to Europe by leveraging pipelines and mitigating energy poverty. Phase 4 will evaluate Türkiye's gas discoveries in the Black Sea as a public policy tool just before the general elections held in May 2023.

Overall, this book involves the integration of multiple methods or strategies in a coherent manner. The research adopts a qualitative text analysis methodology to investigate these questions, using a document analysis of academic literature, policy reports and datasets relevant to Türkiye's energy sector. A comparative public policy analysis approach is utilised to assess the feasibility and benefits of Türkiye adopting an enhanced role as an energy transit state. The methodology enables a comprehensive analysis of the technical, geopolitical and economic factors impacting Türkiye's position at the nexus between energy producers in the Middle East and Caspian and European consumer markets.

3.3. Sampling

A researcher should identify the primary issues, debates, and vague points in the literature review of their book. I will analyse secondary data, which include scholarly books, academic journal articles, web articles and journalists' columns, to develop answers to the research questions. The search will be conducted using a variety of search engines and databases, including the University of Bristol library, Google Scholar, JSTOR, and Elsevier. Official Turkish documents, like Turk Stats, plans and policy papers, will also be used. Original interviews will not be conducted, but interviews with specialists that have been conducted previously will be used. I will not use primary data collection because the topic is too broad and the time to complete this project and its total word count are both limited. Furthermore, it requires a budget and extensive work. Therefore, after the literature review, I will search for relevant academic pieces and journals, both Turkish and international. National and institutional Turkish documents will also be used.

A qualitative document analysis methodology will be adopted, gathering data from three bodies of secondary sources. First, academic studies that focus on Türkiye as a potential energy hub and Europe's energy crisis will be explored. Second, renowned public policy magazines will be searched for related content, academic journal articles and book chapters, mainly published after Russia's February 2022 invasion of Ukraine, focusing on Türkiye's energy sector and geostrategic position. Finally, energy production and transit datasets from the Turkish government and international sources will also be explored to quantify relevant trends.

Moreover, the mix of document types provides recent scholarly perspectives, quantitative data and policy-oriented analyses to enable a rich, triangulated assessment of the research questions. The focus is on literature published after early 2022, providing insights into how the Ukraine crisis has

reshaped debates around Türkiye’s energy transit options in a fast-moving geopolitical context.

The sampling technique used in this study includes temporal dimensions to account for the evolving nature of the research topics. Historical data covering the period from the start of the assault in February 2022 to the end of 2023 will be utilised, allowing for an analysis of Türkiye’s energy landscape during this time period, which extends over a total of 22 months.

Overall, the articles and newspapers reviewed in this book will be both Turkish and international. Furthermore, the Turkish media can be divided into pro-government outlets and much smaller opposition newspapers. According to international press organisations like Chatham House and Reporters Without Borders, the Turkish government controls ninety per cent of Turkish media (RFS, 2023; Kizilkaya, 2023; Yezdani, 2023). I want to expose different perspectives on the issues. This book explores the theoretical foundations of articles, ensuring their accuracy and verifiability without compromising the truthfulness or rightness of the word.

3.4. Data Collection

Secondary data analysis will be used in this book. The data set will comprehensively view Türkiye’s potential as a European energy hub, utilising statistics, scholarly publications and government papers.

Secondary data analysis (SDA) of quantitative data has become widespread and is recommended across disciplines. SDA involves investigators using data from other researchers to address research questions, requiring knowledge of their area to identify suitable datasets from various sources (Wickham, 2019).

I will review the collected scholarly peer-reviewed pieces and the energy datasets that focus on Europe’s long-term dependence on Russian gas imports. At the same time, Türkiye’s energy sector capacity and general gas security frameworks will be explored. Public policy and foreign policy journals help to gauge different perspectives on energy issues besides the international relations and political dimensions (Ruggiano and Perry, 2019). The resources via the university’s library pave the way for access to credible energy economics, energy policy and security studies outlets. The data repositories used are the International Energy Agency (IEA), the statistical office of the European Union (Eurostat), the British Petroleum (BP) Statistical Review of World Energy (2022 and 2023), the US Energy Information Administration (EIA), Türkiye’s Energy

Market Regulatory Authority (EMRA), and Turkstats, the Turkish Ministry of Energy and Natural Sources.

3.5. Data Analysis

Using the databases and compiled literature, the subsequent stage compares the gas supply and prices before and after the conflict. The Russia–Ukraine conflict as an exogenous factor will be evaluated. As a result of high inflation and unaffordability, the public data on the fluctuating levels of energy poverty in Europe during the crisis underscores the repercussions for public policy. Valuable indicators of Türkiye’s energy centre potential include data on its current and future pipeline infrastructure capacity, production patterns and ongoing construction endeavours. The case for increased Turkish gas exports to Europe was evaluated using a cost–benefit analysis. Türkiye’s proximity benefits compared to its leading alternative suppliers are reflected in its spatial mapping.

Approximately 400 documents were searched and identified through searches of academic databases, repositories and websites of relevant organisations. Approximately a quarter of these documents were written after the Russo-Ukrainian War. The search terms included ‘Russia’, ‘Gas’, ‘Türkiye energy’, ‘Türkiye gas transit’, ‘Türkiye LNG hub’, ‘Türkiye pipelines’ and ‘Türkiye Europe energy relations’. The sources were selected based on their relevance to Türkiye’s energy sector and transit potential, with a focus on public policy analysis.

Data analysis adopts a critical perspective, situating its findings on Türkiye’s energy sector in their contemporary geopolitical and policy context after Russia’s assault on Ukraine. Geostrategic risks and uncertainties are highlighted, avoiding deterministic assessments of Türkiye’s future energy role. This synthesised analysis aims to inform policymaking while acknowledging complex regional realities.

Qualitative research has increasingly utilised document analysis in institutional documents. However, there is a lack of detail in the literature regarding the procedure and outcomes, and it appears that document analysis has not always been effectively used in the research process. Records are created, distributed and employed in socially structured ways, allowing for a comprehensive understanding of the subject matter (Bowen, 2009). Qualitative research is increasingly valued for its rigorous and methodical approach, requiring precise, consistent and exhaustive data analysis. To be trustworthy, researchers must record, systematise and disclose methods with sufficient detail.

However, the sophisticated tools available for rigorous thematic analysis are limited (Nowel et al., 2017).

This study utilises a comparative public policy analysis approach to evaluate research data based on the study's aims of investigating Türkiye's feasibility and advantages as an enhanced energy transit country to Europe.

The book's thematic analysis of documents generates empirical evidence based on Türkiye's energy sector profile, drivers and relationships. Evidence is compared with data on European energy demands, examining alignments and disconnects. A case study analysis illuminates implications for Turkish public policy in aiming to position Türkiye as a strategic energy transit state. Recommendations are generated based on evidence of prospective benefits for both Türkiye's interests and Europe's energy diversification needs.

The secondary data analytics provide a platform to simulate post-crisis alternatives balancing Russian gas shortcuts with more significant gas inflows from Türkiye and other peripheral suppliers to match Europe's short- and long-term import requirements. This research weighs competitive and cooperative outcomes of gas trade across players like European countries, Türkiye and Azerbaijan.

Moreover, the energy poverty alleviation mechanisms are spotlighted in public policy toolkits like government subsidies and efficiency investments. A final policy roadmap synthesises evidence-based recommendations, priorities and strategic timelines to facilitate a smooth energy transition for Europe and eliminate Russian leverage via its gas exports.

3.6. Ethical considerations

I filed my application for ethical approval, which included the specifics of this study and the University of Bristol's ethics committee approved it. Bryman and Bell (2007) emphasise the importance of ethical considerations in research. They advise against deception, exaggeration, conflicts of interest and misleading information. They also stress honesty and transparency in communication and avoid biased representation of data findings.

In this study, I will not use primary data collection. Therefore, I will not be required to take ethical considerations, such as anonymity, consent and confidentiality of participants into account.

One of the critical issues when writing a book is to avoid all forms of plagiarism. Plagiarism can be defined as taking credit and owning others' ideas and texts, which is considered a breach of ethical and professional standards.

Researchers must adhere to intellectual rights principles, referencing sources, marking quotes and attributing paraphrased lines of text (Efendić, 2015). I will comply with these rules while writing my book.

3.7 Challenges and limitations

This study looks closely at geopolitical conflicts to see how they might affect Türkiye's ability to be a dependable and stable energy route. While writing my book, I focused on the public good through data gathering and integrated policy analysis. Incorporating secondary data grants researchers who have conducted the fundamental surveys supplementary knowledge to validate the progression of their original inquiries. However, secondary data may not encompass the desired information (Pederson et al., 2020).

Therefore, it is important to acknowledge the methodology's limitations. The study relies exclusively on available secondary document sources without original data collection. Literature availability may constrain some areas of inquiry. Subjectivity is also inherent in qualitative coding and thematic analysis based on the researcher's interpretations. Transparency in research is crucial for trustworthiness and the identification of specific circumstances associated with the findings, ensuring the study's repeatability and transferability (Buckley et al., 2022). Therefore, providing transparency on data sources and the coding process aims to strengthen reliability.

Due to time constraints and a limit of 15,000 words, I had to focus on public policy instruments relevant to my book topic – however, the subject matter involved domestic and global affairs. As a result, I also highlighted a number of essential elements that influenced public policies. Nonetheless, every relevant consideration was made in order to create an academically useful book and to do sufficient research to yield accurate and informative results.

CHAPTER IV

ANALYSIS

4.1. Introduction

This chapter will explore the energy crisis in Europe. The Russian invasion of Ukraine and its consequences will be explained. The war's multifaceted impact on energy security and the solution for high energy prices and cost of living crisis will be evaluated. Furthermore, Europe's significant energy challenges (the growing reliance on imports, depletion of energy resources and need for secure energy access) will be analysed.

Moreover, the oil and gas of the East Mediterranean basin and the Caspian Sea will be investigated as alternatives to Russian fossil fuels. As a case study, the public policy tools surrounding energy usage in Türkiye will be evaluated. The public policy surrounding the usage of the gas discoveries in the Black Sea will be analysed as a tool to reduce the cost of living measures by the Turkish government. Finally, Türkiye's position and ambition to be an energy hub between energy-hungry Europe and energy-rich regions will be discussed.

4.2. The Energy Needs of Europe and Energy Security

Energy security means affordable and reliable access to sufficient energy sources. The International Energy Agency defines it as the uninterrupted availability of energy sources at an affordable price (IEA, 2020c). Energy security is a complex issue influenced by various inherently geopolitical factors, with relations among nations affecting energy security policies (Lodhi, 2008). Due to the dependence of industrialised economies on geographically concentrated energy resources, their concerns include energy supply disruptions and price hikes. Economic factors also play a crucial role in defining the geopolitical pursuits of countries (Hayes and Victor, 2006).

Energy security is critical for every country, ensuring the availability of various energy types for final uses in the required quantities and locations over short-, mid- and long-term time horizons. This involves access to commodity sources, transportation, transformation into secondary commodities and distribution within the country using appropriate infrastructure. Energy security

depends on supply (obtaining energy commodities locally or importing from abroad) and demand (flexibility in end-use demand) (Bompard et al., 2017).

Depending on their vulnerability and capability to influence the global market, the meaning of energy security holds a different significance for producers, consumers, states and corporations. Historically, energy supply disruptions and price increases have been the two primary concerns of energy security (Lodhi, 2008).

Coal was Europe's primary energy source at the beginning of the twentieth century, but after the 1950s, the demand for petroleum products rose sharply (Lovins, 2010). In the second part of the twentieth century, natural gas became popular. Natural gas, once used for heating, cooking and electricity generation, now accounts for over half of the world's energy supply, with pipelines enabling its widespread use (Apga, 2023).

Most European countries are not independent of foreign energy supplies. Furthermore, all 27 EU member states and the UK heavily rely on other countries for their energy supply, with none having a positive energy trade balance (Högselius and Kaijser, 2019). European countries (excluding Russia) possess only 11.6 Bbbl (billion barrels) of the world's proven oil reserves of 1.71 Ttbb (trillion barrels), which represents only 0.006 per cent of the world's reserves; furthermore, European countries are currently experiencing their lowest level of oil and gas production in history (Craig et al., 2018).

Europe faces an unprecedented crisis due to the significant reduction in imports of Russian gas supplies, leading to increased gas costs and potential gas shortages. To address this crisis, European governments are implementing policies such as retail price caps, regulated tariffs and support programs for energy-intensive companies. These measures aim to stabilise wholesale prices and ensure energy security (Zettermeyer et al., 2022).

The security and affordability of the energy supply has thus become one of the primary concerns of policymakers, particularly in European countries that are highly reliant on energy imports.

4.3. The Energy Dependency of Europe

Russia had been a reliable gas provider to European countries for over half a century, meeting its contractual agreements even during the Cold War. As Europe designed an economic engine founded on exports and inexpensive energy, Russia began to play an increasingly significant role in many European countries' continued development (Pandey, 2023). Russian dominance of the

European gas market gave the country tremendous leverage over its European neighbours.

Europe's energy dependence has a significant impact on its economy. The Russian Federation was the EU's fifth-largest trading partner,² with a two-way trade in goods valued at 257.5 billion euros in 2021. Furthermore, the imports of the EU totalled 158.5 billion euros and were dominated by petroleum and mining products (EC, 2022b). Furthermore, the EU was Russia's largest trading partner. Oil and gas exports generated a considerable amount of revenue for the state, accounting for more than 50% of the consolidated budget (Bogoviz et al., 2018, p.1)

Russia's escalating geopolitical assertiveness had a substantial energy component until its assault on Ukraine. Russian state company Gazprom monopolises gas exports to Western European countries. Moreover, Central Asian pipelines enable the Russian Federation to exert political and economic influence (Dreyer et al., 2014).

2 Türkiye is the EU's sixth-largest trading partner (EC, 2021b).

TÜRKİYE AS AN ENERGY HUB FOR EUROPE: DYNAMICS AFTER THE RUSSIAN INVASION OF UKRAINE

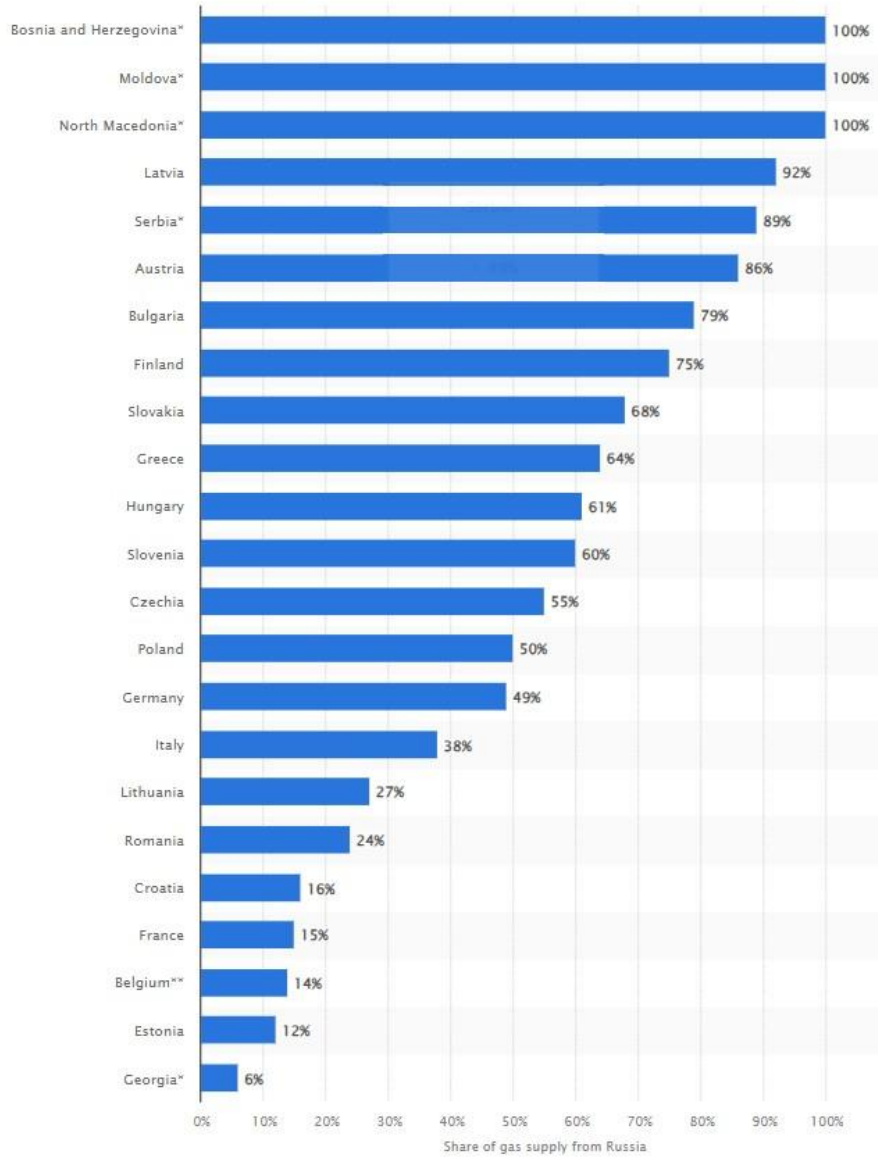


Figure 4.1 Russian Gas Dependency of European Countries. Source: Statista, 2023a

Table 4.1 demonstrates that until Russia’s aggression against Ukraine, it was the only gas source for some European countries, such as Bosnia, Moldova

and North Macedonia. Even Germany bought almost half of its gas from Russia (Statista, 2023a).

The EU mainly depends on Russia for imports of crude oil, natural gas and solid fuels (see figures 4.1). In 2018, around 40% of natural gas imports, 27% of oil imports³ and 46 per cent of coal imports to the EU came from Russia (EC, 2020a; Bolton, 2023); furthermore, Gazprom supplied 200.8 billion cubic metres of gas to European countries, with 81% heading to Western Europe. Russia was the largest natural gas supplier to the EU in 2019 and 2020, supplying 47% and 40% of its gas, respectively (EC, 2020c; IEA, 2022a).

Almost 60 per cent of the EU's gas consumption was imported in 2018 (Wettengel, 2020). Moreover, the 27-member block imported 94.6 per cent of its crude oil and petroleum products in that year (EC, 2020a) and 91.67 per cent in 2021. This amounted to 446.5 million tons, and a quarter of this was imported from Russia (Eurostat, 2023b).

The pattern has not changed throughout the years. The EU imported approximately 58 per cent of its energy needs in 2020. Moreover, 46 per cent of its natural gas, 26 per cent of oil and 53 per cent of coal were imported from Russia. These accounted for 41 per cent of European Union's total energy (Eurostat, 2022).

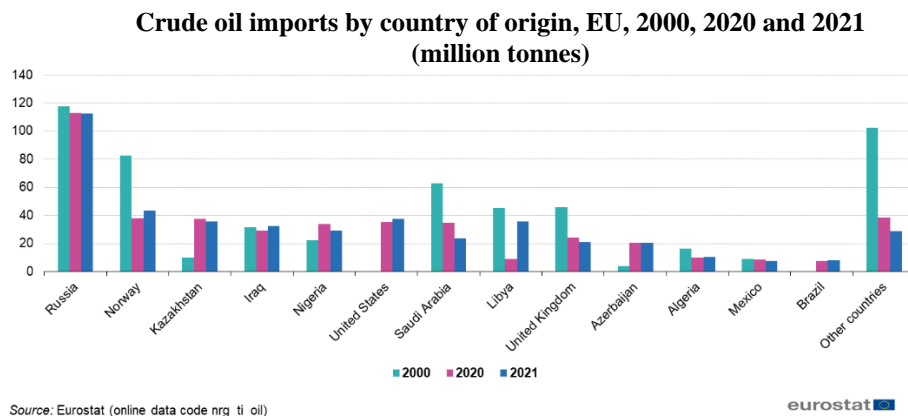


Figure 4.2. Crude Oil Imports by Country of Origin, Source: Eurostat, 2023b

As shown in figure 4.2, Russia was the leading supplier of petroleum oil in 2021 and a quarter of the additional EU crude oil imports came from Russia

3 28% in 2019 and 26.4% in 2020

(EC, 2022a; Eurostat 2022b). The European Union’s gas import dependency rate was higher than its oil dependency rate by 97 per cent (Eurostat, 2023c).

Extra-EU imports of natural gas, transit from neighbouring countries, 2021-2022

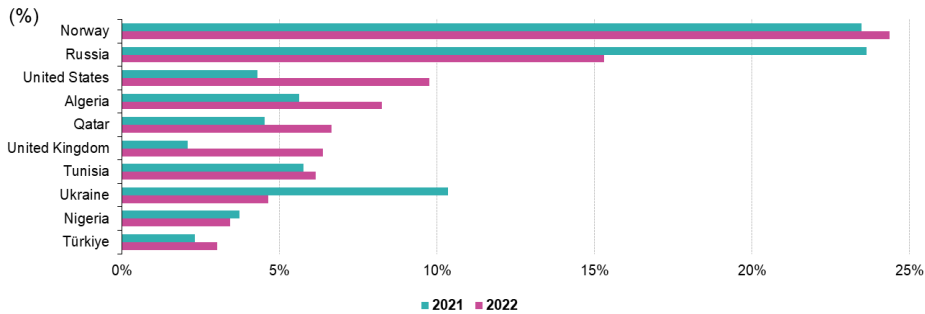


Figure 4.3. Imports of Natural Gas from Outside of Europe, Source: Eurostat, 2023c

Figure 4.3. demonstrates that 83% of the European Union’s gas was imported in 2021. However, after the Russian invasion of Ukraine, the EU desperately looked for other non-Russian sources. Nevertheless, Russia was still the largest gas supplier of the EU, providing a quarter (24.65 per cent) of the resource inputs for the bloc (Eurostat, 2022; EC, 2023a)

Furthermore, Russia’s natural gas exports in 2021 accounted for 38% of the EU 27’s total demand, but after the Ukraine invasion, this share dropped to 18% (McWilliams et al., 2023).

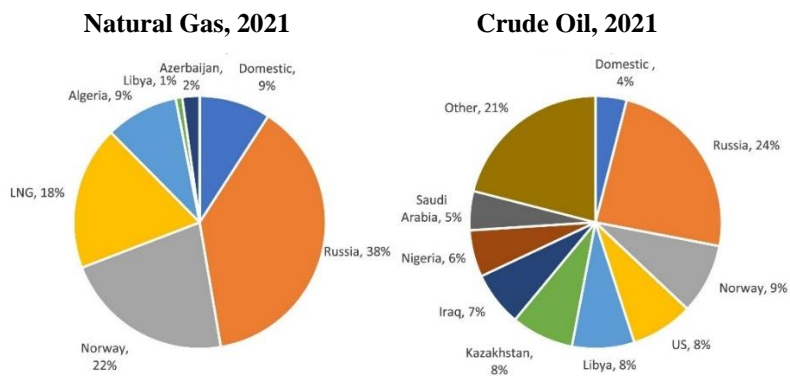


Figure 4.4. The EU’s Gas and Oil Imports. Source: Eurostat, 2022

The import structure dramatically changed after February 24, 2022 (EC, 2022b). Russia’s invasion of Ukraine prompted a significant shift, with Russia cutting over 80% of its natural gas supplies. The European countries replied to this move by ending 90% of their crude oil and oil product imports from Russia (McWilliams et al., 2023b).



Figure 4.5. Nord Stream 1 and 2 from Russia. Source: Gazprom, 2022

The Russian invasion of Ukraine severely impacted European gas exports, leading to reduced reliance on Russian gas. Gazprom exported 33% less gas between January and July 2022, while Germany suspended Nord Stream 2 certification. Russia shut down all gas supplies via Nord Stream 1 (Figure 4.5.),

which was the largest pipeline to deliver gas to Europe, in September 2022 (BBC, 2022).

Due to supply concerns, global energy prices increased significantly in 2022 and the consumption of oil, gas and coal as a proportion of primary energy remained at 82%. Especially in Europe, natural gas prices rose to record highs by tripling in 2022 (Energy Institute, 2023). This means that finding different gas and oil alternatives to Russian fossil fuels is crucial.

4.4 Gas Shortage and its Effect on Public Policy

European countries remain locked in at least a limited level of energy trade with Russia in the short term for three reasons: geographical proximity, existing infrastructure and Russia's energy volumes (Popovic, 2020). On the other hand, since Russia is not a reliable partner, excessive dependence on its gas, oil and coal imports will change dramatically for some countries as the search for alternative energy sources progresses (Wettengel, 2023).

As stated by the European Union, one of the five primary goals of the EU's energy policy is to diversify Europe's energy sources in order to ensure energy security. Therefore, in the long run, European countries must aim to diversify their energy supply routes (EC, 2015). In addition, the geopolitical energy supply crisis has led to new political programs aimed at weaning Europe off Russian fossil fuels. Despite sustainable transitions, fossil fuels still dominate energy use in Europe, and spikes in consumer energy prices and cost-of-living crises have exacerbated the EU's dependency on Russian resources (Kuzemko et al., 2022).

Natural gas is critically important for Europe because domestic production is insufficient to meet demand. In 2021, the EU consumed approximately 412 billion cubic metres of natural gas, highlighting the scale of its reliance. Furthermore, the members of the EU import more than four-fifths of their needs. Second, natural gas is primarily utilised for energy production, household heating and industrial processes. As shown in Figure 4.6, a third of homes use gas to heat their houses and heating is undoubtedly the most sizable portion of natural gas consumption (Gebart, 2023; Easac, 2023). The figure demonstrates that gas in the EU is predominantly used for electricity and heat generation, with households accounting for 24% of usage, followed by the industry and service sectors.

The gas crisis in Europe has caused extraordinarily high and unstable prices as well as reduced gas availability, which has resulted in risks of shortage during last year's winter (Łoskot-Strachota and Michalski, 2023). This shows that a prolonged Russian gas shutdown in Europe could lead to high prices and significant shortages in some countries, particularly in Central and Eastern

Europe (Di Bella et al., 2022). Policymakers are concerned about the economic impacts of a total embargo on Russian fossil energy imports, particularly in the EU. The sanctions against Russia could jeopardise the EU’s energy supply sustainability and welfare. The current embargo on Russian fossil fuels has significantly increased EU residents’ energy prices and welfare costs (Perdana et al., 2022).

Europeans have spent €517–831 billion euros on excess fossil fuel costs due to higher prices since the Russo–Ukraine war began. This excess was attributed to elevated energy costs and government spending on energy-related infrastructure and policies. Although energy prices partially fell as of June 2023, excess energy costs accumulated, amounting to over €1 trillion (Colgar et al., 2023). This situation has led to a doubling of wholesale gas prices in Europe and a rise in UK gas prices, affecting household budgets and manufacturing costs. Gas shortages have hit European economies, which have suffered from skyrocketing gas prices (Zachman et al., 2022).

As a result, following Russia’s incursion into Ukraine, European countries shifted their attention predominantly to short-term measures to reduce reliance on Russian natural gas and long-term public policy measures to tackle the energy crisis.

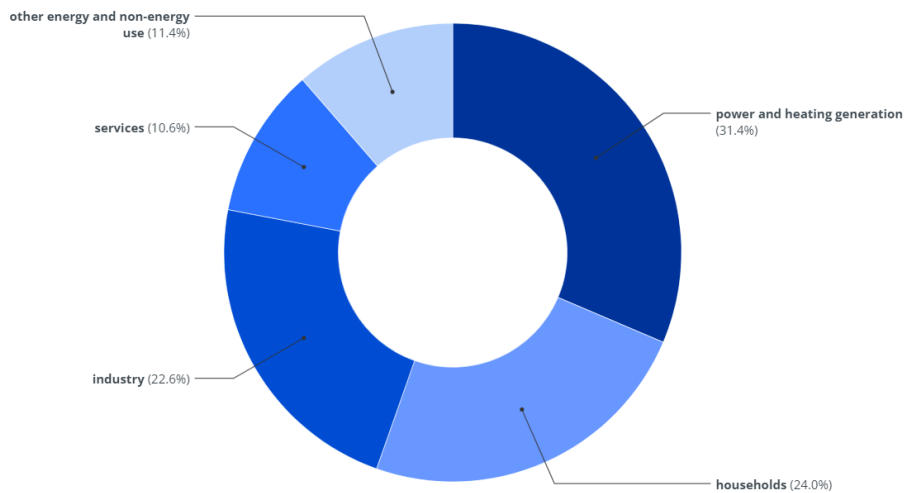


Figure 4.6. Natural Gas Consumption of the European Union. Source: EC, 2023a

Necessary steps needed to be taken to protect consumers from the rising cost of energy prices. Therefore, governments have had to step up to tackle the energy crisis. First, EU member countries have decided to lower their gas usage by 15%. With this step, they aimed to increase the energy security of Europe (EC, 2022). Moreover, Germany, one of the countries in Europe most dependent on Russian gas, is raising its coal consumption and prolonging the lifespan of the power plants it had planned to close (BBC, 2022).

Finally, an IMF analysis suggests that increasing import capacity and transporting gas from various sources would solve the gas shortage (Di Bella et al., 2022). Establishing unity among nations would assist in lessening the effects of a cessation of activity in the most disadvantaged countries.

4.5. Alternatives to Russian Fossil Fuels and Energy Prices

REPower EU is the name of the European Commission's action plan to import gas, oil and coal sources from alternative countries instead of Russian energy (Lambert et al., 2023; Euronews, 2022). It intends to eliminate Russian gas from the EU market. REpowerEU has three dimensions: saving energy, producing clean energy and diversifying Europe's energy supplies (EC, 2022d).

On the other hand, European governments have attempted to manage household budgets by regulating energy prices and subsidising businesses. However, if energy prices remain high, emergency measures may require government borrowing, shifting subsidies onto future taxpayers. If gas prices remain high due to Russian gas removal, Europe will need to increase energy savings and alternative energy sources, incentivising investment in energy efficiency (Cornago, Springfold, 2023). The plan strongly emphasises that skyrocketing household energy bills and cost-of-living crises are the foundation for many new policy commitments (IEA, 2023).

Moreover, 85 per cent of Europeans support the EU swiftly reducing its reliance on Russian fossil fuels in support of Ukraine (EC, 2022e). Therefore, finding alternatives to Russian oil and gas is not only an economic matter but also a social and political issue for the Europeans. Moreover, an IMF report argues that European states should accelerate increasing their gas supply from alternative sources and mitigate the adverse effects on socially and economically disadvantaged households (Flanagan et al., 2022).

EU diversification away from Russian natural gas is far more critical than from Russian oil, as oil does not provide Russia with as much political and economic leverage. Oil does not experience the same fragmentation and

regionalisation of price as gas, making transporting and selling it to markets worldwide easier and cheaper. Russia's dominant position in European gas markets gives it pricing power and the upper hand in negotiating long-term contracts. It allows Gazprom to write contracts that peg prices to petroleum products with clauses protecting the seller (Anderson, 2008). The European Union aims to eliminate Russian fossil fuel imports by 2027, with progress made in oil and coal sanctions. However, natural gas imports remain high, due to the EU's dependence. A coherent strategy is needed for LNG imports (McWilliams et al., 2023b).

Some have argued that Russian gas usage could be replaced by coal (Lau et al., 2022). The demand for Russian gas in Europe can be reduced by 18–20 per cent by using coal or dual-fuel power plants, replacing around two per cent of EU energy consumption with coal (Benatia, 2022). This alternative could lead to the resumption of old coal-fired power stations, which clashes with current world politics, such as tackling global warming, climate change and green energy targets (Flanagan et al., 2022). Therefore, coal's resurgence in Europe is expected to be short-lived (Simon, 2023).

Moreover, the third pillar of the REPowerEU strategy is to 'diversify energy sources' because, in the short- to medium-term, European countries will continue to rely on gas (Kuzemko, 2022). The plan aims to secure reliable gas suppliers, build long-term partnerships and enhance energy cooperation with countries such as Azerbaijan. The plan guides reforms and investments up to 2030, replacing Russian fossil fuels and diversifying the EU's energy mix (Wierink, 2022).

4.6. Türkiye's Energy Outlook

The increasing demand for natural gas, Türkiye's geographic location and the country's ambition to become a regional energy hub for Europe are at the forefront of its geo-economic strategy. Strategically located between two continents, Türkiye is a significant oil and gas transit nation, which is crucial to its import dependence and to regional energy security (Austvik and Rzayeva, 2017). Since the early 1990s, Turkish policymakers have frequently referred to the country's geopolitical position to emphasise Türkiye's strategic significance in Eurasia (Erşen and Çelikpala, 2019).

Kemp and Harkavy first used the phrase 'strategic energy ellipse' to describe the importance of two oil and gas basins in the Caspian Sea and Persian Gulf regions (Naji, 2011). More than 70 per cent of global conventional oil and natural gas reserves are concentrated inside a so-called 'Strategic Ellipse' (Figure

4.7.), stretching from the Middle East to north-western Siberia (Michaux, 2019). Türkiye is located close to 72% of the world's proven gas and 73% of its proven oil reserves (Figure 4.8), particularly those in the Middle East and the Caspian Sea basin (Borelli, 2023; MFA, 2012).⁴

According to BP's Statistical Review of World Energy (2020), Türkiye is a significant global energy hub for the European gas market. The country forms a natural energy bridge between the source countries and consumer markets. It stands as a critical country for ensuring regional energy security through the diversification of supply sources and routes, considerations that have gained increased importance in the European Union (EC, 2013a). In addition, the location of Türkiye makes it an important energy transit country between Asia and Europe, with a total area of 783,562 km².

The energy market is also a rapidly expanding sector in the Turkish economy (Askar, 2011; Kilinc, 2019). The last decade has witnessed significant economic growth in Türkiye, which has happened in parallel with its emergence as one of the most rapidly expanding energy markets on a global scale. The IEA and OECD predict that Türkiye's energy demand will double over the next decade and this trend is expected to continue over the medium and long term (PTRT, 2020b).

Türkiye's total primary energy supply (TPES) has risen considerably from 24.4 million tonnes of oil equivalent (MTOE) in 1973 to 144.2 MTOE in 2018, at a compound annual growth rate of 4% (IEA, 2020a). In addition, Türkiye's energy demand has increased rapidly over the last two decades (EIA, 2022) and this upward trend is expected to increase in the future. The total primary energy supply (TPES) will probably grow at a compound annual growth rate of around 4.5% from 2015 to 2030, rising to over 237 MTOE in 2030 (IEA, 2013d). According to the International Energy Agency (IEA) and Türkiye's BOTAS, energy use in Türkiye is expected to double over the next decade (IEA 2013b, BOTAS 2013). An Oxford⁵ paper on the Turkish domestic natural gas market published in 2014 forecasts that gas demand in Türkiye will grow modestly but steadily and reach 67–70 bcm/year by 2030 (Rzayeva, 2014, 2017). Over the last few years, Türkiye's economy has slowed down compared to the boom that started in the 1990s, but fundamental energy demand remains strong (Sartori,

4 Middle Eastern nations possess an estimated 800 billion barrels (bb) of crude oil, which is roughly half of the world's total reserves, and 80 trillion cubic metres (tcm) of natural gas, which is approximately 40 per cent of the world's total (Sorkhabi, 2014). On the other hand, the Caspian Basin has an estimated 48 bb of oil and 8.27 tcm of gas in proven and probable reserves (IEA, 2013). The Caspian Sea thus holds three per cent of the world's oil and seven per cent of the world's gas reserves.

5 The Oxford Institute for Energy Studies

2021). Gas flows from the Middle East, the Gulf region and the Caspian Sea are also anticipated to assist in meeting the country's growing energy demands (Tastan, 2022; Winrow, 2009).

The process of economic development in developing countries has involved the strong growth of energy demand over the last 50 years. This is especially the case since the 2000s when developing countries have significantly increased their energy consumption, with over six billion people using more energy for locally consumed goods and services. This shift from manufacturing goods for export to supporting local consumption is driven by economic and social development, targeting even more significant energy use (Benoit, 2019; Jobert and Karanfil, 2007; IEA, 2013c; Boluk and Koc, 2011; Kilic and Kaya, 2007).



Figure 4.7. The Strategic Ellipse and the Heartland. Source: BGR, 2023

According to the World Bank, the gross domestic product (GDP) of Türkiye has increased from a level of US\$266 billion in 2000 to US\$989 billion in 2015 and US\$906 billion in 2022 (World Bank, 2020a and 2023).

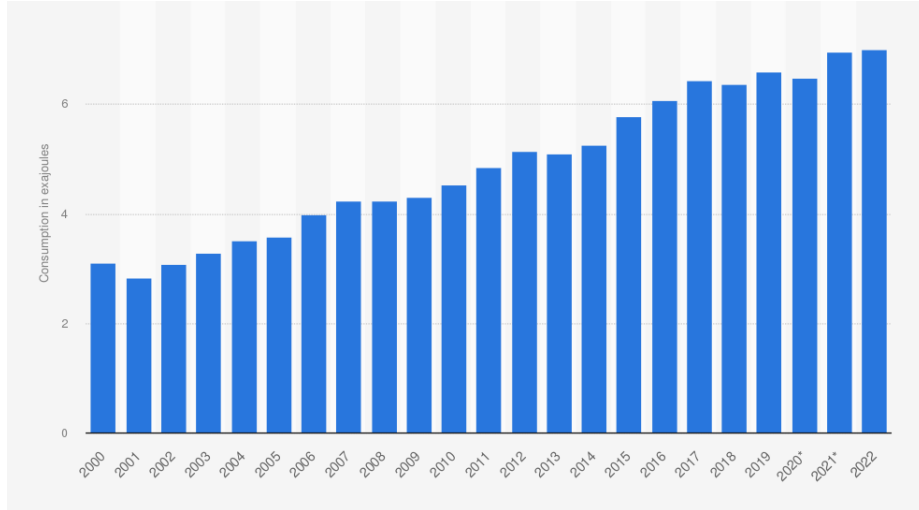


Figure 4.8. Türkiye's Primary Energy Consumption in the Last Two Decades. Sources: Energy Institute, 2023; Statista, 2023b

This solid economic growth has dramatically boosted the country's primary energy consumption, from 50 MTOE in 1990 to 272.5 MTOE in 2019 (IEA, 2020a). In order to satisfy this rapidly increasing energy need, over the last decade, Türkiye has mainly focused on natural gas. For this reason, Türkiye's natural gas consumption has grown dramatically from a level of 15 billion cubic metres (bcm) in 2000 to a level of 51.2 bcm in 2022, making the country the most dynamic natural gas market in the OECD region. As shown in Figure 4.8, the gas consumption of Türkiye has increased by 18 per cent in the last decade (Energy Institute, 2023; MENR, 2020c). As Türkiye's energy consumption and need have increased throughout the years, it has become the sixteenth largest energy consumer in the world (Figure 4.9.). At the same time, fossil fuels such as oil and coal remain the major sources of primary energy fuels (Statista, 2023c).

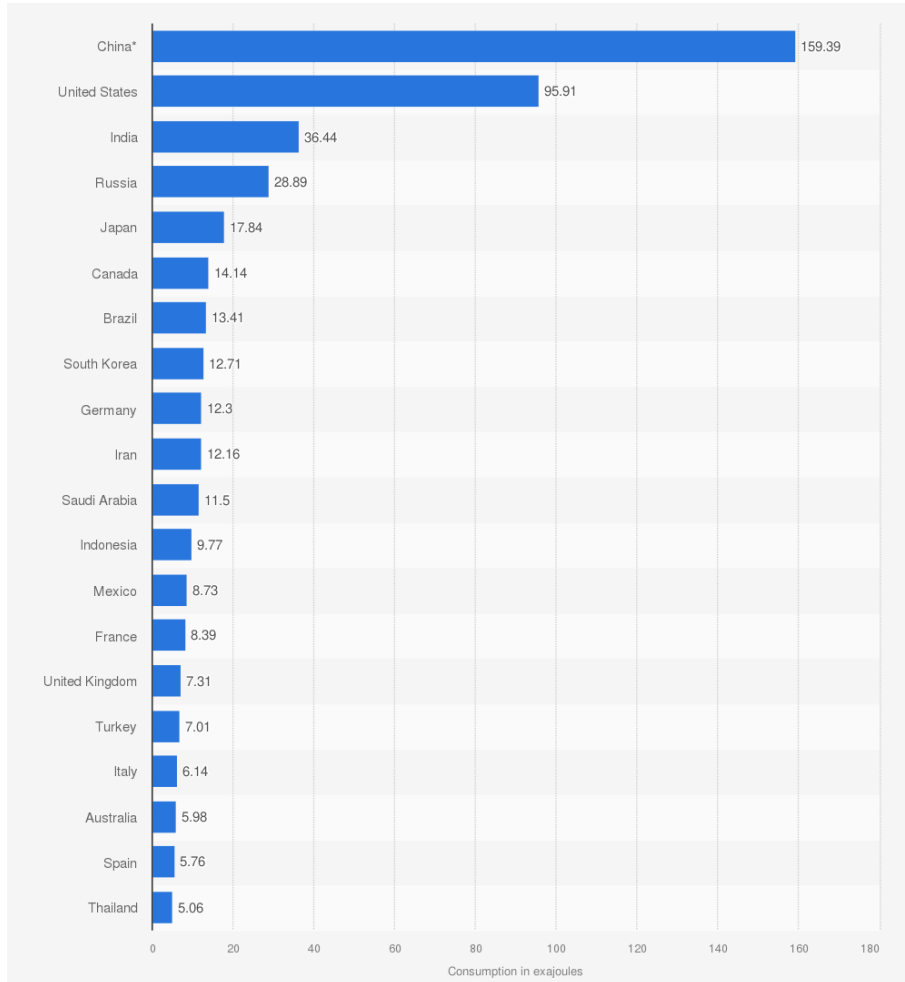


Figure 4.9. Global Primary Energy Consumption in the Year 2022, by Country. Source: Statista, 2023c

4.7. Diversifying Oil and Gas and Türkiye's Position

Worldwide developments with significant geopolitical implications have led to substantial changes in international power relations, with consequences for foreign and regional order. The first development stated by IEA (2010c, 2011b) is that the age of cheap oil is over and the long-term trend in energy prices is rising (Slay, 2022). The second is the growing energy importance of the Middle East, home to most of the world's remaining oil and gas reserves in the Caspian

region, Central Asia and Russia. The third is the changed role of Türkiye as an energy corridor in supplying energy. Türkiye, strategically located at the crossroads of Europe and Asia, is a key player in Eurasia's energy geopolitics, presenting itself as an energy transport centre (Borelli, 2023). Türkiye's proximity to leading oil and gas suppliers makes its geopolitical position unique.

4.8. The Southern Gas Corridor (SCP-TANAP-TAP)

The Middle East, the Caspian Sea and Central Asia are the world's most vital energy-producing regions (EIA, 2013 and 2019; Jaffe, 1998; Hill and Spector, 2001). These regions, which hold the globe's largest proven oil and natural gas reserves, are well connected to one of Europe's major consumer markets. Türkiye offers the shortest and cheapest route from the world's two most gas-rich regions to the world's largest gas market region, which provides it with certain advantages (Bahgat, 2002). It is regarded as a critical East–West energy hub (Souleimanov and Kraus 2012). Türkiye aspires to become a powerful and dependable energy force in its region and enjoys a favourable geographic location with respect to the hydrocarbon and natural gas reserves nearby (Kaleshar, 2019).



Figure 4.10. The Southern Gas Corridor (SCP-TANAP-TAP), Source: SOCAR, 2023

Sixty per cent of the gas trade is conducted through pipelines (De Jong and Haesebrouck, 2023). Supply shortages and Türkiye's aspiration to be an energy

corridor prompted it to undertake new pipeline projects. The reliance on pipelines makes Türkiye a key state where natural gas can be transmitted from producers to consumers. New pipeline projects, such as the Trans-Anatolian Natural Gas Pipeline Project (TANAP) and the Southern Gas Corridor, consist of a series of mega-projects that transport Caspian Sea gas to the heart of Europe for the first time via pipelines spanning approximately 3,500 kilometres (BP, 2017).

In other words, the TANAP transports gas across Türkiye and then the Trans-Adriatic Pipeline (TAP) carries it from the Turkish–Greek border to Italy. The TANAP and TAP have connected projects that have delivered non-Russian gas and are the first to open a new energy route in Europe. Several pipeline projects have been proposed, most of which envision that Türkiye would play a vital role (Ministry of Energy of Azerbaijan, 2023). Furthermore, as shown in figure 4.10., TANAP-TAP can deliver gas to Balkan countries, such as Croatia, Bosnia and Herzegovina, Montenegro and Albania, which rely heavily on Russian gas (TAP, 2023).

Caspian offshore hydrocarbon reserves total approximately 50 billion barrels of oil and 8.4 trillion cubic metres of gas, which is nearly equivalent to the USA’s total proven gas reserves (Okumus, 2018). The European Commission has signed a deal with Azerbaijan to double natural gas imports by 2027, aiming to reduce the EU’s reliance on Russian energy. The deal aims to increase the Azeri natural gas supply to at least 20 billion cubic metres annually in 15 years (Howey, 2023). The TANAP-TAP projects will deliver the Azeri gas via Türkiye to Europe (Euronews, 2022b). Tagliapietra (2022) also suggests that one of the European countries’ reliable sources of gas can be Azerbaijan.

A massive project to send Azerbaijani gas to Europe via the Southern Gas Corridor through Türkiye is boosting energy security in these regions and nations. Europe’s Southern Gas Corridor project aims to diversify energy supplies by utilising alternative transport infrastructures, contributing to energy security and competition. This strategically planned project reduces potential damage and improves European gas supply competition (Socar, 2023).

As for Central Asia, Turkmenistan’s gas can be linked to the TANAP through a trans-Caspian pipeline, which will enhance the first non-Russian gas pipeline to Europe (Okumus, 2018). The EU welcomes the joining of Turkmenistan to the SGC project via the proposed Trans-Caspian Pipeline, which would transport natural gas from Turkmenistan to Azerbaijan under the Caspian Sea (Gumbatov, 2020).

4.9. East Mediterranean Gas

Recent offshore natural gas discoveries in the eastern Mediterranean have focused international attention on the potential political and economic consequences of these resources for the region and beyond (Çiraklı, 2020). The natural gas-rich eastern Mediterranean region is geopolitically significant. The US Geological Survey estimated that the undiscovered, technically recoverable resources are 879 million barrels of conventional oil and 286.2 trillion cubic feet of conventional gas (Schenk et al., 2021).

For the states in this region, gas is vital for improving the security of energy. The USGS estimates that the Levant gas field in the Southeast Mediterranean has 122.4 trillion cubic feet of gas (Largue, 2023).

Thanks to its proximity, Europe is the ideal external market for eastern Mediterranean gas. As a cleaner energy source and a means of diversifying EU supply and routes, natural gas aligns effectively with the EU’s energy plan. Moreover, alternative energy sources in the Mediterranean may aid European countries’ efforts to lessen their reliance on Russian energy supplies (Badarin and Schumacher, 2022).

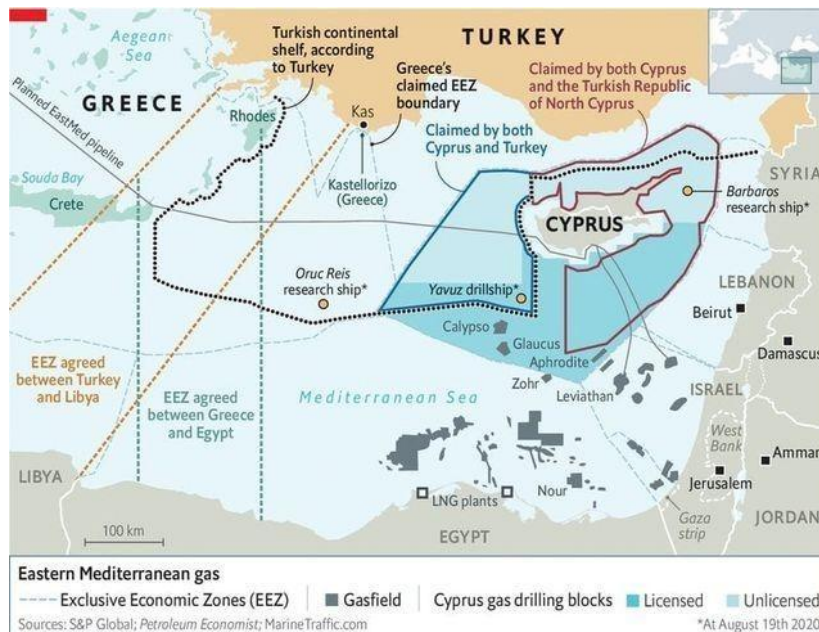


Figure 4.11. Exclusive Economic Zones in the Eastern Mediterranean, Source: The Economist, 2020

The geopolitical and economic ties between Türkiye and a diverse array of regional actors with varying interests pose both challenges and opportunities for relations between the European Union and Türkiye (Turhan and Tekin, 2023). A gas pipeline to Türkiye would be the shortest route to Europe (Cohen, 2023).

Energy security and economic prosperity in this eastern Mediterranean can be achieved by resolving long-standing political and geopolitical conflicts and focusing on the discovery of hydrocarbons. Addressing these issues can positively impact the region's dynamics, promoting international cooperation and stability (Tziarras, 2021). Regional rivalries and conflicts made constructing new pipeline connections with Europe complex for a decade (Nie and Mills, 2023), but Türkiye has recently improved relations with Israel, Egypt and Greece (Reuters, 2022; Teller, 2023; Esen, 2022).

Therefore, As shown in Figure 4.11, including Türkiye in the East Mediterranean Gas Forum will pave the way to solving exclusive economic zone problems. It should be emphasised that a win-win solution will not only yield concrete benefits for the countries in the region but also create an opportunity for European countries to gain access to abundant non-Russian gas resources.

4.10. The Black Sea Gas Discovery as a Public Policy Tool

To what extent can energy sources be used as a social and public policy tool to influence citizens' votes? A new gas field discovery named Sakarya in the Tuna-1 block of the Black Sea has been announced by President Erdoğan of Türkiye. The field contains immense gas reservoirs of 710 bcm of gas (PRT, 2020, 2022a, 2022b, 2023b; Reuters, 2022b). The discovery has sparked excitement in Türkiye, as the country is aiming to reduce its dependence on gas imports and become a gas hub in Southeast Europe. The discovery could provide an opportunity for Türkiye to increase domestic production and reduce its reliance on imported gas. As demonstrated in Figure 4.12., an estimate for future production is 6–8 bcm/year, which is 30 per cent of Türkiye's annual natural gas consumption (Fuentes and Thamilselvan, 2023; PRT, 2023b).

TÜRKİYE AS AN ENERGY HUB FOR EUROPE: DYNAMICS AFTER THE RUSSIAN INVASION OF UKRAINE

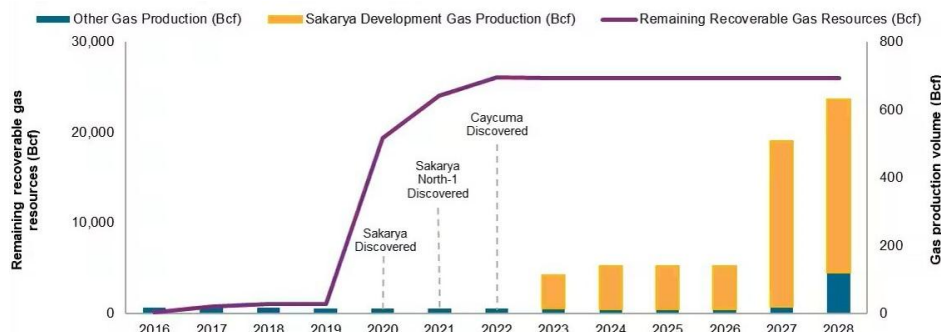


Figure 4.12. Türkiye’s Gas Production Profile in the Black Sea, Source: S&P Global, 2023

Türkiye’s aspiration to be an energy hub is not only a matter of international relations but also of using it as a public policy tool. The cost of living crisis was a critical global issue in 2022 and 2023. Energy policies must prioritise providing affordable energy options for impoverished people (Karekezi et al., 2012).

In recent years, natural gas was Türkiye’s foremost primary energy source, comprising 30 per cent of its domestic consumption (Łoskot-Strachota and Michalski, 2023). Households face added financial pressure due to rising energy prices (Peachey, 2024). Due to high inflation and unemployment problems, many householders are influenced by the cost of living crisis. The Turkish economy encountered adverse macroeconomic consequences, including a depreciation of the Turkish Lira, an increase in the cost of living and energy prices and other repercussions after the economic challenges that originated in the mid-2010s (Cohen, 2022).

Türkiye announced the discoveries of sizable new gas fields in the Black Sea in 2020–2023 (Anadolu Agency, 2021b, *Financial Times*, 2023). Just before the parliamentary and presidential elections, President Erdoğan announced that natural gas would be free for households (Presidency of the Republic of Türkiye, 2022a, 2022b, 2023).

Low-income communities were facing fuel poverty due to the unaffordable cost of energy bills (Anderson, 2022). The increase in fuel prices has a direct impact on household fuel expenses. Therefore, free gas just before the general election tempted the voters.

Pro-government media outlets claimed that Türkiye has begun producing natural gas from the Sakarya reservoir, which should reduce the nation’s reliance

on imports and lower consumer energy costs (Daily Sabah, 2023a). Clearly, the discovery of natural gas is being used as a public policy tool by the government, but the reflections were different by the pro-government and opposition media.

Pro-government media:

Anadolu Agency (The official State news agency): ‘Türkiye will meet nearly 30% of annual natural gas need from Black Sea reserves, says President’ (Anadolu Agency, 2023).

Daily Sabah: ‘Free Black Sea gas pledge to save Turkish households \$1.9B’ (Daily Sabah, 2023b).

Hürriyet Daily News: ‘Black Sea gas historic milestone to energy independence: Erdoğan’, (Hürriyet Daily News, 2023).

TRT World (The State TV): ‘Türkiye to provide nearly 30% of annual natural gas from Black Sea reserves’ (TRT World, 2023).

(As these publications operate exclusively in English, no Turkish headlines were utilised in this study.)

The opposition:

Sözcü TV: ‘Karadeniz Gazı’ da Rusya’dan İthalmiş. ‘Bu da Yalanmış’

‘Black Sea gas was imported from Russia. This is a lie too’ (Sözcü TV, 2023).

Birgün: ‘Bedava ‘seçim gazı’ yerli değil ithalmiş’ (Birgün, 2023)

Free election gas was not domestic production; it was imported.

Medyascope: ‘Erdoğan’ın seçim vaadi olan ‘ücretsiz’ doğalgaz, emeklinin ve memurun cebinden çıkacak’ (Medyascope, 2023)

‘Erdoğan’s election promise of ‘free’ natural gas will come out of the pockets of retirees and civil servants’.

Artı Gerçek: ‘Seçime 30 gün kala: Erdoğan’dan bir ‘gaz’ müjdesi daha’ (Artigercek, 2023).

‘30 days before the election: Another ‘gas’ good news from Erdoğan’

Para Analiz: ‘Erdoğan’dan seçimi kazanmak için son hamle: Doğal gaz bedava’ (Para Analiz, 2023)

‘Last move from Erdoğan to win the election: Natural gas is free’.

The International Media:

Financial Times: ‘Türkiye to make inaugural deliveries from big Black Sea gas discovery.

Recep Tayyip Erdoğan is hoping that a boost for energy sector will burnish his credentials in May election’ (Financial Times, 2023a). The Turkish President, weeks before a fiercely contested election, stated that his government would reduce energy bills for businesses and consumers as his latest effort to alleviate the global economic crisis caused by the high cost of living (Financial Times, 2023b).

Reuters: ‘Erdoğan offers free gas pre-election after first Black Sea field shipment’ (Reuters, 2023a).

Reuters: ‘Erdoğan to slash Türkiye’s energy bills ahead of tough election. Government seeks to win favour among voters by reducing costs for consumers and businesses’ (Reuters, 2023b).

Middle East Eye: ‘Türkiye elections: Erdoğan offers free Black Sea gas to residential areas. President pumps first locally produced gas to Türkiye’s energy network, offering some free gas to residential areas weeks before the May 14 vote’ (Middle East Eye, 2023)

Politico: ‘Erdoğan plays energy card in Turkish election – with Putin’s help.

Erdoğan’s claims of increased energy independence before the May 14 vote mask a heavy dependence on Russia (Politico, 2023).

4.11. Relations and Public Policy Issues between Türkiye and Europe

Energy is not the only issue between Türkiye and European countries. Türkiye applied for membership in the European Economic Community (EEC), *the antecedent of the European Union*, on 14 April 1987 and was granted EU candidate status on 11 December 1999 (Directorate for EU Affairs, 2023). Although the Ankara Association Agreement was signed in 1963, Türkiye’s formal engagement with European integration actually began in 1959 with its initial application. This partnership eventually paved the way for the Customs Union in 1995 (Eeas, 2021).

The accession talks with Türkiye have been at a standstill since 2018 by the Council's decision. Türkiye remains a vital ally of the European Union as a candidate nation and reaffirms its aspiration for EU accession as a strategic objective (Eumonitor, 2023). Moreover, regarding matters like immigration, security, economics and counterterrorism, Türkiye is an important strategic ally of the EU (EC, 2022b).

The 2016 EU–Türkiye Statement, despite challenges, remains the critical framework for cooperation on migration, hosting 3.6 million refugees and playing a pivotal role in addressing migration along the Eastern Mediterranean route (Camara, 2021). Moreover, the EU and Türkiye are key trade partners. As the EU's seventh-largest trading partner, Türkiye accounts for 3.3% of total EU trade; conversely, the EU is a vital partner for Türkiye, representing 26% of its imports and 41% of its exports in 2022 (EC, 2023g). In addition, approximately 5.5 million Turkish nationals live in EU member states (Turkish MFA, 2024).

As a result, Türkiye is and will be an important strategic partner for the European Union, benefiting mutually in international relations, bilateral trade, energy supply, security, border control, employment, and preventing irregular immigration. Despite challenges during negotiations, Türkiye's vital role in the EU's political and economic stability is evident, advancing their relationship in both parties' economic, political, and strategic interests.

CHAPTER V

CONCLUSION

In this section, I will conclude with some final remarks and make policy recommendations regarding the current energy crisis. This book explores Europe's alternative routes and sources for obtaining energy through Türkiye since the the Russia–Ukraine war broke out in February 2022 and the energy and cost of living crises emerged. I broadly analysed secondary data and policy-relevant case studies in Türkiye and evaluated the possibilities for energy cooperation between energy-hungry European countries and Türkiye, which is a cooperative neighbour and natural transit partner for several gas- and oil- rich countries in the neighbourhood.

The energy crisis is a complex process which emerged for many different reasons. The Russian assault on Ukraine caused a sharp rise in energy prices, as the country used gas as a strategic weapon (European Council, 2023). As an exogenous shock, the energy crisis has been deemed a substantial problem and has become one of the top priorities of European government agendas since the war broke out.

The incursion of Russia into Ukraine has prompted many geopolitical uncertainties, inducing political decisions and market fluctuations (Izzeldin et al., 2022). The war has sharply raised commodity prices, affecting households, industry and the economy (Arndt et al., 2023; Emediegwu, 2024). Rising commodity prices, primarily due to the conflict between Russia and Ukraine, have significantly impacted the global economy, increasing the cost of living crisis and slowing down economic growth, particularly in the gas and oil sector, in which Russia currently supplies 10% of the world's oil needs (Rizaldi et al., 2023). Furthermore, Russia has the world's largest gas reserves and exports the largest amount of gas to of any country in the world (IEA, 2022c).

Europe obtains 70 per cent of its energy needs from fossil fuels (Eurostat, 2023c), and this number has only increased since 2022 (EC, 2024). European countries heavily rely on natural gas as their primary energy source for generating electricity. However, limited resources and pipeline trading with neighbouring countries, particularly Russia, have led to increased reliance on natural gas in 2022 (Statista, 2023d).

The Russian invasion of Ukraine has changed the face of international energy politics (IEA, 2022a; Viñuales, 2023; Montgomery, 2023; Steffen and Patt, 2022). Even before the war, European policymakers were highly concerned

with energy independence, which is a considerable requirement for political security (Brown et al., 2023). The war revealed that European countries must wean Europe off Russian hydrocarbon dependency to avoid the adverse effects of the energy turmoil (Falkner, 2023).

The current conflict between Russia and Ukraine has significantly amplified apprehensions regarding gas supply security, thereby affecting the accessibility and affordability of this resource for domestic consumers due to elevated costs and inadequate capabilities for production, storage and import diversification (Kotek et al., 2023). As a result of the war, the world has been experiencing an energy crisis on every continent.

Therefore, following the invasion, European nations initiated an extensive plan to replace Russian energy supplies and cut down on energy use. The invasion of Ukraine forced a significant and urgent review of the energy supply structure of the European Union and European nations have been searching for other energy sources and pathways. The EU implemented a program to purchase fossil fuels from non-Russian sources, which is called REPower EU (EC, 2022d).

Türkiye has been acknowledged by many policymakers to have the potential to become a vital European ally and energy supplier because of its distinct geopolitical and geostrategic location in close proximity to oil- and gas-rich regions as well as its strategic energy transit routes and infrastructure. Furthermore, with its growing economy and energy needs, the country represents an excellent alternative to Russian gas, oil and coal. Although Türkiye does not have rich domestic hydrocarbon resources, it has become an energy centre due to its geography, which facilitates the convergence of its neighbours' oil and gas pipelines (Aydıntaşbaş, 2020).

Türkiye's ambition is to acquire a significant role in regional energy supply and demand, which is efficiently and precisely viable and motivated by geopolitical considerations. The country's unique position at the crossroads of several crucial oil and gas pipelines and its liquefied natural gas (LNG) terminals and tank capacity can facilitate it as a regional energy hub (Gaber, 2022). To succeed in the country's attempt to become an energy centre, Türkiye can deliver non-Russian gas to Europe, which can be a central component of the plan. Moreover, Türkiye has established a strategic objective to expand its routes and sources in order to fortify its energy supply security and emerge as a prominent gas hub for the European region (Largue, 2023). Given Türkiye's pivotal position, it has several advantages that will aid its endeavour to establish itself as a key energy hub.

First, Türkiye has an extensive network of energy pipelines and a crucial geographic location. Situated near energy-rich Turkic countries like Azerbaijan, Turkmenistan and the other oil and gas-rich neighbours Iran, Iraq and Russia, it

forms a connection between energy-hungry Europe and energy-rich Asia (Austvik and Rzayeva, 2016; Ackerman, 2022).

Moreover, Türkiye, a key hub for hydrocarbons, mainly gas, is crucial for Europe's energy needs. The EU's narratives on Türkiye's role in European energy security reveal its focus on diversifying routes and extending liberal values. The geopolitical dispute between Europe and Russia has raised supply security concerns, prompting the EU to accelerate diversification efforts (Korkmaz, 2021).

Türkiye is focusing on establishing itself as a significant natural gas hub and aiming to establish itself as a regional power. Türkiye's gas diplomacy is crucial for its relations with Russia and Europe, as European countries are seeking non-Russian hydrocarbons in the short and medium term (Kardaś, 2023).

New extraction techniques, newly discovered reserves and evolving transportation routes all have an impact on public policies relating to natural gas. Rich gas states prioritise trade and transportation to use them as international policy tools. However, these countries also control supply routes to valuable markets, leading to collaboration or disputes. The security of the natural gas supply is anticipated to serve as a crucial factor guiding national and international policies. Türkiye, geographically close to over two-thirds of global energy reserves and the EU, plays a crucial role in this supply route (Gribincea et al., 2022).

Second, Türkiye has become an energy hub, mainly through the transport of Caspian and Middle Eastern hydrocarbon through Anatolia and corresponds to the European Union's diversification goals. This cooperation between the two parties' security of supply overlaps; as Türkiye's narrative suggests, the EU's aspiration to diversify will confer opportunities for Türkiye (Tastan, 2022; Korkmaz, 2021).

Third, Türkiye has recently shaken hands with Greece, Israel and Egypt and is the country that has been striving most ardently to resolve long-lasting geopolitical issues in the Eastern Mediterranean. Delivering East Mediterranean gas to Europe via Türkiye by constructing a new pipeline could also become commercially viable and politically feasible (Acer, 2024; Teller, 2023; Tagliapietra, 2020). The Eastern Mediterranean's natural gas supply has the potential to provide energy relief, given the 27-member bloc's energy supply target and the current Russian assault on Ukraine (Badarin and Schumacher, 2022).

Türkiye is powerfully targeting its establishment as a gas hub by developing more pipeline connections with the Caspian region, Turkmenistan, Iran, Egypt and possibly Israel. Talks have been held on doubling the capacity of

the TANAP pipeline and shipments from Turkmenistan to Türkiye. In addition, cooperation with Greece, Egypt and Israel is being strengthened.

Fourth, Türkiye has continued to allocate resources towards establishing itself as a prominent natural gas centre, leveraging its pre-existing gas storage facilities, LNG terminals, pipelines, balancing systems and gas exchange systems. The National Petroleum Company of Türkiye (TPAO) has recently discovered rich natural gas fields in the Black Sea (EC, 2023k). The planned domestic gas production in this area and the potential gas exports arising from this could further boost Türkiye's energy export potential (Loskot Strachota and Michalski, 2023). In addition, energy is a potent public policy tool. The discovery of Black Sea gas alongside the provision of the free gas for the nearby residents have created immense influence among people with low incomes in Türkiye.

Thus, following the geopolitical shifts of the past three years and the Russian invasion of Ukraine, the European Union has resolved to reduce its reliance on Russian energy. It is imperative to note that Türkiye maintains a pivotal role in securing energy for Europe, owing to its unique geographical position. This wholly new geopolitical environment inevitably has caused a reshuffle of the deck regarding EU–Türkiye relations (Pierini, 2023).

It is crystal clear that Türkiye's geostrategic importance has significantly impacted its relations with the Western countries in recent times. As the European Commission stated, Türkiye remains a crucial strategic ally in the realm of food security on a global scale, boasting a significant role as a leading agriculture producer (EC, 2022c). Furthermore, through cooperation in areas like migration and trade, Türkiye has rationally used its geostrategic strength, stating that the invasion is a war and expressing its loyalty to NATO (Eralp, 2023).

Moreover, Türkiye is a geopolitically and economically significant nation that shares territorial or maritime borders with Europe, Russia and four Middle Eastern countries, despite receiving considerably less attention than it merits. It is the only member of NATO with a Muslim majority and possesses the second-largest military in the alliance after the United States. Given its strategic importance, any instability within Türkiye has ramifications that extend well beyond its territorial boundaries (Krueger, 2021).

Türkiye is an indispensable partner of the EU in the domains of security, economy and energy (Magri, 2018). Therefore, Türkiye can address the European countries' need for energy sources and mitigate their dependency on Russian gas. Energy cooperation will alleviate high energy prices and the cost of living crisis for all of Europe. Moreover, this cooperation will not only create energy cooperation but also pave the way for broader collaboration in food security and irregular migration control and bring peace to the most volatile regions, such as the East Mediterranean.

REFERENCES

- Acer, Y. (2024). *Turkey's Greece Policy: Impact on the Balance of Power in the Aegean*. [online] Politics Today. Available at: <https://politicstoday.org/turkey-greece-policy-the-aegean-sea/>. Accessed 26/03/2024
- Ackerman, W. (2022). *Turkey: A new emerging gas player with resources and infrastructure*. [online] Middle East Institute. Available at: <https://www.mei.edu/publications/turkey-new-emerging-gas-player-resources-and-infrastructure>. Accessed 22/11/2023
- Adams, T., (2004). *Caspian energy development*, The Caspian politics, energy and security, edited by Shirin Akiner, Routledge.
- AIE, (2012). *Treaty Establishing the European Coal and Steel Community*. Paris, 18 April 1951, <http://aei.pitt.edu/37145/>
- Akanle, O., Nkpe, D. O., Olaniyan, O. I. (2021). Coronavirus Pandemic, Intervention Funds and Cybercrime. *The African Journal for the Psychological Study of Social Issues*, 24(2), 30-48.
- Akanle, O. and Omobowale, A.O. (2022). Contemporary Issues in Public Policy. *Public Policy and Research in Africa*, pp.123–158. doi:https://doi.org/10.1007/978-3-030-99724-3_6.
- Aktaş, S., Yılmaz, B. (2022). Turkey's energy security in the aftermath of the Russia-Ukraine war: Challenges and opportunities. *Eurasian Studies*, 1-19.
- Ala'Aldeen, D., Palani, K., Babunashvili, G., Balisdell, J. (2018). Europe and Turkey: Between energy demand and supply. In *EU and Turkish Energy Interests in the Caspian and Middle East Region* (pp. 1–6). Middle East Research Institute. <http://www.jstor.org/stable/resrep19961.3>
- Alekseenkova, E. (2021). *Eastern Mediterranean in Uncharted Waters: Perspectives on Emerging Geopolitical Realities* (pp. 80-89, Rep.) (Tanchum M., Ed.). Konrad Adenauer Stiftung. doi:10.2307/resrep28863.11
- Alemdar, Z., (2016). Three Scenarios for Turkey-EU Relations after July 15th, <https://www.europeanleadershipnetwork.org/commentary/three-scenarios-for-turkey-eu-relations-after-july-15th/> Accessed 11/05/2023
- Alphan, B., (2021). Europeanization and EU–Turkey Relations: Three Domains, Four Periods, *EU-Turkey Relations Theories, Institutions, and Policies*, Ed. By Reiners, W., Turhan, E., Palgrave Macmillan

- Anadolu Agency, (2021a). EU conclusion on Turkey' important step in right direction, <https://www.aa.com.tr/en/europe/eu-conclusion-on-turkey-important-step-in-right-direction-/2188590> Accessed 28/05/2023
- Anadolu agency. (2021b). *Turkish president announces new gas reserves find in Black Sea*. [online] Available at: <https://www.aa.com.tr/en/economy/turkish-president-announces-new-gas-reserves-find-in-black-sea/2264238> Accessed 6/11/2023
- Anadolu agency. (2023). *Türkiye will meet nearly 30% of annual natural gas need from Black Sea reserves, says president*. [online] Available at: <https://www.aa.com.tr/en/turkiye/turkiye-will-meet-nearly-30-of-annual-natural-gas-need-from-black-sea-reserves-says-president/2877861> Accessed 6/11/2023
- Anadolu Agency. (2024). *Despite troubles, Türkiye manages to become one of world's largest economies over 100 years*. [online] Available at: <https://www.aa.com.tr/en/economy/despite-troubles-turkiye-manages-to-become-one-of-worlds-largest-economies-over-100-years/3036651> Accessed 1/04/2024
- Anderson, H. (2022). *Rising energy bills to 'devastate' poorest families | Joseph Rowntree Foundation*. [online] Available at: <https://www.jrf.org.uk/news/rising-energy-bills-to-devastate-poorest-families>. Accessed 13/02/2024
- Anderson, R.J. (2008). *Europe's Dependence on Russian Natural Gas: Perspectives and Recommendations for a Long-term Strategy*. [online] www.marshallcenter.org. Available at: <https://www.marshallcenter.org/en/publications/occasional-papers/europes-dependence-russian-natural-gas-perspectives-and-recommendations-long-term-strategy-0> Accessed 14/08/2023
- Apga. (2023). *A Brief History of Natural Gas* - www.apga.org. American Public Gas Association. [online] Available at: <https://www.apga.org/apgamainsite/aboutus/facts/history-of-natural-gas#:~:text=The%20first%20commercialized%20natural%20gas>. Accessed 22/09/2023
- Arbay, D. (2020). *The Modernization of the European Union's Customs Union with Turkey*, *Centre for Applied Turkey Studies (Cats)*, Wp Nr. 05, September 2020
- Arce, Ó., Koester, G. and Nickel, C. (2023). *One year since Russia's invasion of Ukraine – the effects on euro area inflation*. *European Central Bank*. [online] Available at: <https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog20230224~3b75362af3.en.html> Accessed 22/11/2023
- Arndt, C., Diao, X., Dorosh, P., Pauw, K., and Thurlow, J. (2023). *The Ukraine war and rising commodity prices: Implications for developing countries*. *Global Food Security*, 36. <https://doi.org/10.1016/j.gfs.2023.100680>
- Artı Gerçek. (2023). *Seçime 30 gün kala: Erdoğan'dan bir 'gaz' müjdesi daha*. [online] Available at: <https://artigercek.com/politika/secime-30-gun-kala-erdogandan-bir-gaz-mujdesi-daha-246375h> Accessed 6/11/2023

REFERENCES

- Austvik, O. and Rzayeva, G. (2016). Turkey in the Geopolitics of Natural Gas. *M-RCBG Associate Working Paper Series | No. 66* [online] Available at: https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/files/66_final.pdf. Accessed 15/08/2023
- Austvik, O., G. and Rzayeva, G., (2017). Turkey in the geopolitics of energy, *Energy Policy*, 107, p. 539–547
- Aydin, C.I., (2019). "Identifying Ecological Distribution Conflicts around the Inter-Regional Flow of Energy in Turkey: A Mapping Exercise." *Frontiers in Energy Research* 7: 33.
- Aydin, U. and D. Azhgaliyeva. (2019). Assessing Energy Security in the Caspian Region: The Geopolitical Implications for European Energy Strategy. ADBI Working Paper 1011. Tokyo: Asian Development Bank Institute. <https://www.adb.org/publications/assessing-energy-security-caspian-region> Accessed 01/06/2023
- Aydin, Y., (2020). Modernisation of the E.U.–Turkey Customs Union, Centre for Applied Turkey Studies (Cats)| Wp Nr. 03, July 2020, https://www.cats-network.eu/publications/products/arbeitspapiere/CATS_Working_Paper_Nr_3_Yasar_Aydin.pdf Accessed 16/06/2023
- Aydıntaşbaş, A. (2020). *Under the waves: Turkey's Black Sea gas discovery and relations with Europe*. [online] ECFR. Available at: https://ecfr.eu/article/commentary_under_the_waves_turkeys_black_sea_gas_discovery_and_relations_wi/ Accessed 22/11/2023
- Baconi, T. (2017). *Pipelines and Pipedreams: How The EU. Can Support a Regional Gas Hub in the Eastern Mediterranean* (Rep.). European Council on Foreign Relations. doi:10.2307/resrep21555
- Badarin, E. and Schumacher, T. (2022) The Eastern Mediterranean Energy Bonanza: A Piece in the Regional and Global Geopolitical Puzzle, and the Role of the European Union. *Comparative Southeast European Studies*, Vol. 70 (Issue 3), pp. 414-438. <https://doi.org/10.1515/soeu-2022-0036>
- Baffes, J. and Nagle, P. (2022). *Commodity prices surge due to the war in Ukraine*. [online] [blogs.worldbank.org](https://blogs.worldbank.org/developmenttalk/commodity-prices-surge-due-war-ukraine). Available at: <https://blogs.worldbank.org/developmenttalk/commodity-prices-surge-due-war-ukraine>. Accessed 27/12/2023
- Bagheri, A., (2023). *Turkey's Position in Energy Geopolitical Change – MEPEI*. [online] Available at: <https://mepci.com/turkeys-position-in-energy-geopolitical-change/> [Accessed 24 Nov. 2023].
- Balta, E., Çelikpala, M., (2020). Turkey and Russia: Historical patterns and contemporary trends in bilateral relations. In: G. M. Tezcür (ed.), *The Oxford Handbook of Turkish Politics*. Oxford University Press. DOI: 10.1093/oxfordhb/9780190064891.013.12

- Barysch, K., Everts, S., Grabbe, H. (2005). *Why Europe should embrace Turkey?* Centre for European Reform. Available at: <https://www.cer.eu/publications/archive/report/2005/why-europe-should-embrace-turkey> Accessed 09/05/2023
- BBC (2022). Nord Stream 2: How does the pipeline fit into Ukraine-Russia crisis? *BBC News*. [online] 27 Jan. Available at: <https://www.bbc.co.uk/news/world-europe-60131520>. Accessed 02/09/2023
- Bechev, D., (2021). Turkey's energy relations with Russia: How should the West respond?, *Middle East Institute*, Turkey's energy relations with Russia: How should the West respond? Accessed 24/04/2023
- Bechev, D., (2023). Worst of Friends, Best of Rivals: Agency vs Structure in Turkey-Russia Relations. *Uluslararası İlişkiler*, [online] Available at: <https://www.uidergisi.com.tr/yazilar/worst-of-friends-best-of-rivals-agency-vs-structure-in-turkey-russia-relations-dimitar-bechev> [Accessed 20 Nov. 2023].
- Benatia, D., (2022). *Climate: goodbye Russian gas, hello coal*. Polytechnique Insights. [online] Available at: <https://www.polytechnique-insights.com/en/braincamps/geopolitics/industry-autonomy-scarcity-the-ripples-of-war-in-ukraine/climate-goodbye-russian-gas-hello-coal/#:~:text=country%20to%20another.-> [Accessed 14 Oct. 2023].
- Benoit, C. | (2019). *Energy and Development in a Changing World: A Framework for the 21st Century*. [online] Center on Global Energy Policy at Columbia University | SIPA. Available at: <https://www.energypolicy.columbia.edu/publications/energy-and-development-changing-world-framework-21st-century/>. Accessed 24/09/2023
- Berk, I., Ediger, V. Ş. (2018). A historical assessment of Turkey's natural gas import vulnerability. *Energy*, 145, 540-547. <https://doi.org/10.1016/j.energy.2018.01.022>
- Berriault, L. (2022). *The risks of ignoring Turkey*. [online] GIS Reports. Available at: <https://www.gisreportsonline.com/r/turkey-west/>. Accessed 18/02/2024
- BGR, (2023). *Energierohstoffe - Konventionelles Erdöl. Länder mit Reserven > 1 Gt und „Strategische Ellipse“*. Federal Institute for Geosciences and Natural Resources, [online] Available at: https://www.bgr.bund.de/DE/Themen/Energie/Bilder/Ene_Erdoel_ellipse2006_g.html?nn=1542226 [Accessed 17 Jan. 2024].
- Biresselioglu, M. E., Yildirim, C., Demir, M. H., Tokcaer, S. (2017). Establishing an energy security framework for a fast-growing economy: Industry perspectives from Turkey. *Energy Research & Social Science*, 27, 151-162. <https://doi.org/10.1016/j.erss.2017.03.007>
- Birgün. (2023). *Bedava ‘seçim gazi’ yerli değil ithalmiş*. [online] Available at: <https://www.birgun.net/haber/bedava-secim-gazi-yerli-degil-ithalmis-435646> Accessed 6/11/ 2023

REFERENCES

- Boehm, L. and Wilson, A. (2023). EU energy security and the war in Ukraine: From sprint to marathon, Available at: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/739362/EPRS_BRI\(2023\)739362_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/739362/EPRS_BRI(2023)739362_EN.pdf) Accessed 10/07/2023
- Boland, A. *et al.* (eds) (2017) *Doing a systematic review: a student's guide*. 2nd ed. Los Angeles: Sage.
- Bolton, P. (2023). *Imports of fossil fuels from Russia*, Available at: <https://commonslibrary.parliament.uk/research-briefings/cbp-9523/#EU> Accessed 18/09/2023
- Bompard, E. *et al.* (2017). "National energy security assessment in a geopolitical perspective," *Energy*, 130, pp. 144–154. Available at: <https://doi.org/10.1016/j.energy.2017.04.108>.
- BOTAS, (2020a). Activities, <https://www.botas.gov.tr/pages/crude-oil/359> Accessed 10/06/2023
- BOTAS, (2020b). Activities: Crude oil, <https://www.botas.gov.tr/pages/crude-oil/359> Accessed 10/06/2023
- BOTAS, (2021). TurkStream, <https://www.botas.gov.tr/pages/turkstream/395> Accessed 02/05/2023
- Bogoviz, A., Lobova, S., Ragulina, Y., Alekseev, A. (2018). Russia's energy security doctrine: Addressing emerging challenges and opportunities. *International Journal of Energy Economics and Policy*, 8 (5), 1-6.
- Borrel, J., (2020). The way ahead after a difficult 2020 for EU-Turkey relations, https://eeas.europa.eu/headquarters/headquarters-homepage/90861/way-ahead-after-difficult-2020-eu-turkey-relations-%C2%A0_en Accessed 05/04/2023
- Bolton, P. (2023). Imports of energy from Russia. *House of Commons Library*. [online] Available at: <https://commonslibrary.parliament.uk/research-briefings/cbp-9523/>. Accessed 11/06/2023
- Bompard, E., Carpignano, A., Erriquez, M., Grosso, D., Pession, M., Profumo, F. (2017). National energy security assessment in a geopolitical perspective. *Energy*, 130, 144-154. <https://doi.org/10.1016/j.energy.2017.04.108>
- Borelli, D., (2023) *Turkish Energy Hub: A Challenge for the European Security*. TASAM | at:https://tasam.org/en/lcerik/72391/turkish_energy_hub_a_challenge_for_the_european_security [Accessed 14 Oct. 2023].
- Bowden, J. (2019). SE Europe gas markets: towards integration, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2019/10/SE-Europe-gas-markets-towards-integration-NG-150.pdf> Accessed 15/06/2023

- Bowden, J. (2020). Europe turns the tables on Russian gas, <https://www.neweurope.eu/article/europe-turns-the-tables-on-russian-gas/> Accessed 24/06/2023
- BP global. (2017). *New energy supplies for Turkey and Europe: a visual guide to the Southern Gas Corridor | News and insights | Home*. [online] Available at: <https://www.bp.com/en/global/corporate/news-and-insights/reimagining-energy/visual-guide-to-europe-southern-gas-corridor-tanap-turkey.html>. Accessed 14/06/2023
- BP, (2018). BP Statistical Review of World Energy 2018. <https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/statistical-review/bp-stats-review-2018-full-report.pdf> Accessed 10/06/2023
- BP (2020). *Statistical Review of World Energy*. [online] Available at: <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2020-full-report.pdf>. Accessed 14/10/2023
- BP, (2020b). *BP welcomes completion of Southern Gas Corridor mega-project | News and insights | Home*. [online] Available at: <https://www.bp.com/en/global/corporate/news-and-insights/reimagining-energy/southern-gas-corridor-mega-project-completes.html>. Accessed 10/11/2023
- Bompard, E., Carpignano, A., Erriquez, M., Grosso, D., Pession, M., Profumo, F. (2017). National energy security assessment in a geopolitical perspective. *Energy*, 130, 144-154. <https://doi.org/10.1016/j.energy.2017.04.108>
- Bowen, G.A., (2009). "Document Analysis as a Qualitative Research Method", *Qualitative Research Journal*, Vol. 9 Iss 2 pp. 27 – 40, <http://dx.doi.org/10.3316/QRJ0902027>
- Böyükaslan, A., Demirer, R., Ergüney, E., Gursoy, S. (2024). Geopolitical risks and the energy-stock market nexus: Evidence from Türkiye. *Borsa Istanbul Review*, 24(1), 73-83. <https://doi.org/10.1016/j.bir.2023.10.012>
- Brown, O., Froggatt, A., Gozak, N., Katser-Buchkovska, N. and Lutsevych, O. (2023). *The consequences of Russia's war on Ukraine for climate action, food supply and energy security Environment and Society Centre Russia and Eurasia Programme*. [online] Available at: <https://www.chathamhouse.org/sites/default/files/2023-09/2023-09-13-consequences-war-ukraine-climate-food-energy-brown-et-al.pdf>. Accessed 18/02/2024
- Bruno, G., (2008). *Turkey at an Energy Crossroads*. Council on Foreign Relations. [online] Available at: <https://www.cfr.org/background/turkey-energy-crossroads>. Accessed 03/12/2023
- Bryman, A., Bell, E. (2007). *Business Research Methods*, 2nd edition. Oxford University Press.

REFERENCES

- Bryza, M., Cutler, R.M., Vashakmadze, G. (2020). "US foreign policy and Euro-Caspian energy security: The time is now to build the Trans-Caspian Pipeline", EnergySource (blog), Atlantic Council, <https://www.atlanticcouncil.org/blogs/energysource/us-foreign-policy-and-euro-caspian-energy-security-the-time-is-now-to-build-the-trans-caspian-pipeline/> Accessed 24/04/2023
- Buckley, J., Adams, L., Aribilola, I., Arshad, I., Azeem, M., Bracken, L., Breheny, C., Buckley, C., Chimello, I., Fagan, A., Fitzpatrick, D. P., Gomes, G. D., Garza Herrera, D., Grassick, S., Halligan, E., Hirway, A., Hyland, T., Imtiaz, M. B., Khan, M. B., Lanzagorta Garcia, E., Lennon, P., Manaf, E., Meng, J., Mohd Sufian, M. S. Z., Moraes, A., Osterwald, K. M., Platonava, A., Reid, C., Renard, M., Rodriguez Barroso, L. G., Simonassi-Paiva, B., Singh, M., Szank, T., Tahir, M., Vijayakumar, S., Ward, C., Yan, X., Zainol, I., & Zhang, L. (2021). An assessment of the transparency of contemporary technology education research employing interview-based methodologies. *International Journal of Technology and Design Education*. <https://doi.org/10.1007/s10798-021-09695-1>
- Bürgin, A., Oppermann, K., (2019). Introduction: special issue on EU-induced policy change in Turkey's environment and energy policy, *Turkish Studies* Volume 20, Issue 4, <https://doi.org/10.1080/14683849.2019.1613896>
- Cahill, B. (2023). OPEC Has a Russia Problem. *www.csis.org*. [online] Available at: <https://www.csis.org/analysis/opec-has-russia-problem>, Accessed 09/07/2023
- Camara, M., (2022). *Turkey and the European Union: a difficult but critical relationship*. [online] CIDOB. Available at: https://www.cidob.org/ca/publicacions/series_de_publicacio/notes_internacionals/256/turkey_and_the_european_union_a_difficult_but_critical_relationship [Accessed 16 Feb. 2024].
- Cekinir, S., Ozgener, O., Ozgener, L. (2022). Türkiye's energy projection for 2050. *Renewable Energy Focus*, 43, 93-116. <https://doi.org/10.1016/j.ref.2022.09.003>
- Cekuta, (2021). Further Advancing Energy Security in Europe Via The Southern Gas Corridor, <https://www.caspianpolicy.org/further-advancing-energy-security-in-europe-via-the-southern-gas-corridor/> Accessed 11/03/2023
- Centre for Economics and Foreign Policy Studies. (2017). *Turkstream Impact on Turkey's Economy and Energy Security* (pp. 27-30, Rep.). Centre for Economics and Foreign Policy Studies. doi:10.2307/resrep26126.6
- Charalampakis, E., Fagandini, B., Henkel, L. and Osbat, C. (2022). The impact of the recent rise in inflation on low-income households. *www.ecb.europa.eu*. [online] Available at: https://www.ecb.europa.eu/pub/economic-bulletin/focus/2022/html/ecb.ebbox202207_04-a89ec1a6fe.en.html. Accessed 22/11/2023
- Ciravegna, L., Ahlstrom, D., Michailova, S., Oh, C.H. and Gaur, A. (2023). Exogenous shocks and MNEs: Learning from pandemics, conflicts, and other major

- disruptions. *Journal of World Business*, [online] 58(6), p.101487. doi:<https://doi.org/10.1016/j.jwb.2023.101487>.
- CME, (2020). Turkey Energy Outlook 2020, Available at: https://www.mmo.org.tr/sites/default/files/gonderi_dosya_ekleri/TURKEY%20ENERGY%20OUTLOOK_%202020_%2813.7.2020_A%29.pdf Accessed 06/06/2023
- Cohen, A., Yuzucu, T., (2020). Turkey's gas find in the Black Sea: How big is this Tuna?, <https://www.atlanticcouncil.org/blogs/energysource/turkeys-gas-find-in-the-black-sea-how-big-is-this-tuna/> Accessed 01/04/2023
- Cohen, G., (2022). *Eastern Mediterranean Gas Can Help Europe*. Energy Intelligence. [online] Available at: <https://www.energyintel.com/00000182-6d29-ddd5-affe-fd3bb562000#:~:text=The%20Eastern%20Mediterranean%20has%20ample> Accessed 06/07/2023
- Cohen, P. (2021). How Did Turkey's Economy Go So Wrong? *The New York Times*. [online] 14 Dec. Available at: <https://www.nytimes.com/2021/12/14/business/economy/turkey-inflation-economy-lira.html>. Accessed 06/11/2023
- Colares, J. F., Durmus, M. T. (2019). Turk-switch: The Tariff-Leverage and Legal Case for Turkey's Switch from EU–Turkey Customs Union to FTAs with the European Union and Beyond. *Journal of International Economic Law*. doi:10.1093/jiel/jgy050
- Colgan, J. D., Gard-Murray, A. S., Hinthorn, M. (2023). Quantifying the value of energy security: How Russia's invasion of Ukraine exploded Europe's fossil fuel costs. *Energy Research Social Science*, 103, 103201. <https://doi.org/10.1016/j.erss.2023.103201>
- Coote, B. (2017). *The Caspian Sea and Southern Gas Corridor: A View from Russia* (p. 4, Rep.). Atlantic Council. Retrieved December 20, 2020, from <http://www.jstor.org/stable/resrep03709.4>, Accessed 20/04/2023
- Cornago, E., Springfold, J. (2023). *Europe needs both fiscal and energy solidarity*. Centre for European Reform. [online] Available at: <https://www.cer.eu/publications/archive/policy-brief/2023/europe-needs-both-fiscal-and-energy-solidarity>. Accessed 24/09/2023
- Coşkun, A. (2022). Turkey and NATO are stronger with each other. They must de-thorn their relationship. [online] Atlantic Council. Available at: <https://www.atlanticcouncil.org/blogs/turkeysource/turkey-and-nato-are-stronger-with-each-other-they-must-de-thorn-their-relationship/>. Accessed 11/06/2023
- Craig, J., Gerali, F., MacAulay, F. and Sorkhabi, R. (2018). The history of the European oil and gas industry (1600s–2000s). *Geological Society, London, Special Publications*, [online] 465(1), pp.1.1-24. doi:<https://doi.org/10.1144/sp465.23>.

REFERENCES

- Czako, V, (2020). Employment in the Energy Sector, *Jrc Science for Policy Report*, Available at: file:///C:/Users/adm%C4%B1n/Downloads/employment_energy_status_report_2020.pdf Accessed 22/11/20223
- Çıraklı, M., (2020). TRNC-RoC Cooperation: A Critical Missing Piece for Eastern Mediterranean Stability, Available at: https://www.kas.de/documents/283907/10938219/Eastern+Mediterranean+in+Uncharted+Waters_KAS+Turkey.pdf/6f554da1-93ac-bba6-6fd0-3c8738244d4b?version=1.0t=1607590823989 Accessed 29/06/2023
- Daily Sabah (2020). Turkey eyes normalization with EU, fair resolution of East Med crisis in 2021, Deputy FM Kaymakçı says, <https://www.dailysabah.com/politics/eu-affairs/turkey-eyes-normalization-with-eu-fair-resolution-of-east-med-crisis-in-2021-deputy-fm-kaymakci-says> Accessed 22/03/2023
- Daily Sabah. (2023a). *Türkiye launches Black Sea gas deliveries in historic milestone*. [online] Daily Sabah. Available at: <https://www.dailysabah.com/business/energy/turkiye-launches-black-sea-gas-deliveries-in-historic-milestone> [Accessed 15 Jan. 2024].
- Daily Sabah. (2023b). *Free Black Sea gas pledge to save Turkish households \$1.9B*. [online] Daily Sabah. Available at: <https://www.dailysabah.com/business/energy/free-black-sea-gas-pledge-to-save-turkish-households-19b> [Accessed 6 Nov. 2023].
- Dalay, G., (2021a). The Search for a Third Way, <https://www.gmfus.org/publications/defining-new-modes-models-and-agendas-eu-turkish-relations> Accessed 20/04/2023
- Dalay, G. (2021). *Turkey, Europe, and the Eastern Mediterranean: Charting a way out of the current deadlock*. [online] Brookings. Available at: <https://www.brookings.edu/articles/turkey-europe-and-the-eastern-mediterranean-charting-a-way-out-of-the-current-deadlock/>. Accessed 15/06/2023
- Damen, M. (2023). *Briefing EU Strategic Autonomy 360°*. [online] Available at: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/747099/EPRS_BRI\(2023\)747099_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/747099/EPRS_BRI(2023)747099_EN.pdf). Accessed 10/12/2023
- De Jong, M., Haesebrouck, T. (2023). Under pressure: A qualitative comparative analysis on the factors contributing to the success and failure of cross-border gas pipeline construction in Europe and Turkey. *Energy Strategy Reviews*, 45, 101033. <https://doi.org/10.1016/j.esr.2022.101033>
- Demiryol, T. (2013). The Geopolitics of Energy Cooperation between Turkey and the European Union. *L'Europe en Formation*, [online] 367(1), pp.109–134. Available at: <https://www.cairn.info/revue-l-europe-en-formation-2013-1-page-109.htm>. Accessed 01/11/2023

- Demiryol, T. (2020). tr.boell.org. (n.d.). *Natural gas and geopolitics in the Eastern Mediterranean* | *Heinrich Böll Stiftung*, [online] Available at: <https://tr.boell.org/en/2020/09/07/natural-gas-and-geopolitics-eastern-mediterranean> [Accessed 15 Feb. 2024].
- Desogus, E., Grosso, D., Bompard, E., Russo, S. L. (2023). Modelling the geopolitical impact on risk assessment of energy supply system: The case of Italian crude oil supply. *Energy*, 284, 128578.
- Di Bella, G., Flanagan M.J.,; Foda, K.; Maslova S.; Pienkowski, A.; Stuermer, M.; Toscani, F.G. (2022). *Natural Gas in Europe: The Potential Impact of Disruptions to Supply*. IMF. [online] Available at: <https://www.imf.org/en/Publications/WP/Issues/2022/07/18/Natural-Gas-in-Europe-The-Potential-Impact-of-Disruptions-to-Supply-520934>. Accessed 02/02/2024
- Dickel, R., Hassanzadeh, E., Henderson, J., Honoré, A., El-Katiri, L., Pirani, S., Rogers, H. and Stern, J. (2014). *Reducing European Dependence on Russian Gas: distinguishing natural gas security from geopolitics*. [online] Available at: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2014/10/NG-92.pdf>. Accessed 25/09/2023
- Directorate for EU Affairs, (2023). *History of Turkey- EU Relations*. [online] Available at: https://www.ab.gov.tr/brief-history_111_en.html. Accessed 02/04/2024
- Dixon, H. (2022). *How are rising energy prices affecting the UK economy?* [online] Economics Observatory. Available at: <https://www.economicsobservatory.com/how-are-rising-energy-prices-affecting-the-uk-economy#:~:text=In%20addition%20to%20pushing%20up>. Accessed 05/03/2024
- Dursun-Özkanca, O. (2019). *Turkey-west relations: the politics of intra-alliance opposition*. Cambridge, United Kingdom: Cambridge University Press. Accessed: 01/09/2023
- Dursun-Özkanca, O. (2019). (2022). *The Geopolitics of Energy: Powder Keg in the Eastern Mediterranean*. [online] Available at: <https://epicenter.wcfia.harvard.edu/blog/geopolitics-energy-powder-keg-eastern-mediterranean> [Accessed 22 Sep. 2023].
- EASAC (2023). *Future of Gas*. - Science Advice for the Benefit of Europe. [online] Available at: <https://easac.eu/publications/details/future-of-gas> [Accessed 15 Sep. 2023].
- EC, (2021). Turkey-EU Positive agenda Enhanced EU-Turkey Energy Cooperation. Available at: https://energy.ec.europa.eu/system/files/2014-10/20120622_outline_of_enhanced_cooperation_0.pdf [Accessed 19 Nov. 2023].
- EC. (2015). *EUR-Lex - 52015DC0080 - EN - EUR-Lex*. [online] Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:80:FIN>. Accessed 22/09/2023

REFERENCES

- EC, (2020a). Commission Staff Working Document Turkey 2020 Report, https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/turkey_report_2020.pdf Accessed 01/05/2023
- EC, (2020b). European Commission (2020). *In focus: Energy efficiency in buildings*. [online] [commission.europa.eu](https://commission.europa.eu/news/focus-energy-efficiency-buildings-2020-02-17_en). Available at: https://commission.europa.eu/news/focus-energy-efficiency-buildings-2020-02-17_en. Accessed 06/03/2024
- EC, (2020c). EU imports of energy products - recent developments, <https://ec.europa.eu/eurostat/statistics-explained/pdfscache/46126.pdf>, Accessed 02/01/2024
- EC, (2021a). Key partner countries and regions, Turkey, https://ec.europa.eu/energy/topics/international-cooperation/key-partner-countries-and-regions/turkey_en Accessed 21/05/2023
- EC, (2021b). Turkey 2019 report. SWD (2021) 290 final, Strasbourg, <https://ec.europa.eu/neighbourhood-enlargement/system/files/2019-05/20190529-turkey-report.pdf> Accessed 25/05/2023
- EC, (2022a). *States commit to reducing gas demand by 15% next winter*. [online] Available at: <https://www.consilium.europa.eu/en/press/press-releases/2022/07/26/member-states-commit-to-reducing-gas-demand-by-15-next-winter/>. Accessed 02/09/2022
- EC, (2022b). European Commission (2022). *Türkiye*. [online] [neighbourhood-enlargement.ec.europa.eu](https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/turkiye_en). Available at: https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/turkiye_en. Accessed 16/02/2024
- EC, (2022c). *2022 Communication on EU Enlargement Policy - European Commission*. [online] [neighbourhood-enlargement.ec.europa.eu](https://neighbourhood-enlargement.ec.europa.eu/2022-communication-eu-enlargement-policy_en). Available at: https://neighbourhood-enlargement.ec.europa.eu/2022-communication-eu-enlargement-policy_en. Accessed 27/03/2024
- EC (2022d). *REPowerEU: affordable, secure and sustainable energy for Europe*. [online] [commission.europa.eu](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowereu-affordable-secure-and-sustainable-energy-europe_en). Available at: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repowereu-affordable-secure-and-sustainable-energy-europe_en.
- EC (2022e). *Eurobarometer: Europeans approve EU's response to the war in Ukraine*. [online] Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_2784. Accessed 15/09/2023
- EC (2023a). *Where does the EU's gas come from?* [online] [www.consilium.europa.eu](https://www.consilium.europa.eu/en/infographics/eu-gas-supply/). Available at: <https://www.consilium.europa.eu/en/infographics/eu-gas-supply/>. Accessed 15/09/2023
- EC (2023b). *Natural gas supply statistics*. [online] Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Natural_gas_supply_statistics. Accessed 29/08/2023

- EC, (2023c). *Diversification of gas supply sources and routes*. [online] Available at: https://energy.ec.europa.eu/topics/energy-security/diversification-gas-supply-sources-and-routes_en#:~:text=other%20energy%20resources.- [Accessed 19 Nov. 2023].
- EC, (2023d). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 2023 Communication on EU Enlargement policy. Available at: https://neighbourhood-enlargement.ec.europa.eu/system/files/2023-11/SWD_2023_696%20T%C3%BCrkiye%20report.pdf. Accessed 18/11/2023
- EC, (2023e). *Annual report focuses on measures taken to tackle energy and cost of living crisis*. [online] Available at: <https://ec.europa.eu/social/main.jsp?langId=encatId=89furtherNews=yesnewsId=10673> [Accessed 20 Nov. 2023].
- EC, (2023f). *Press corner*. [online] European Commission, Available at: https://ec.europa.eu/commission/presscorner/detail/en/QANDA_23_5630. Accessed 21/11/2023
- EC (2023g). *EU trade relations with Türkiye*. [online] policy.trade.ec.europa.eu. Available at: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/turkiye_en.
- EC, (2023h). Communication from the Commission to the European Parliament and the Council, Seventh Annual Report of the Facility for Refugees in Turkey, Available at: https://neighbourhood-enlargement.ec.europa.eu/system/files/2023-09/COM_2023_543_F1_COMMUNICATION_FROM_COMMISSION_TO_INST_EN_V3_P1_2696289.PDF. Accessed 06/03/2024
- EC, (2023k). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 2023 Communication on EU Enlargement policy*. European Commission, [online] Available at: https://neighbourhood-enlargement.ec.europa.eu/system/files/2023-11/SWD_2023_696%20T%C3%BCrkiye%20report.pdf. Accessed 30/12/2023
- EC, (2024a). Fossil fuel reliance in EU increased slightly in 2022. [online] 30 Jan. Available at: <https://ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20240130-2>. Accessed 18/02/2024
- EC, (2024b). *Türkiye*. European Commission [online] neighbourhood-enlargement.ec.europa.eu. Available at: https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/turkiye_en. Accessed 06/03/2024
- EEAS, (2021a). *The European Union and Türkiye | EEAS Website*. [online] Available at: https://www.eeas.europa.eu/turkey/european-union-and-turkey_en?s=230. Accessed 15/02/2024

REFERENCES

- EEAS, (2021b). *Middle East and North Africa (MENA) | EEAS*. [online] Available at: https://www.eeas.europa.eu/node/410125_fr [Accessed 3 Mar. 2024].
- EEAS, (2022). *www.eeas.europa.eu*. (n.d.). *EU-Turkey relations: the need to build bridges | EEAS Website*. [online] Available at: https://www.eeas.europa.eu/eeas/eu-turkey-relations-need-build-bridges_en. Accessed 17/02/2024
- Efendić, E., (2015). *Ten ethical principles for public policy research | Analitika*. [online] Available at: <https://www.analitika.ba/publications/ten-ethical-principles-public-policy-research>. Accessed 29/02/2024
- Emediegwu, L. (2024) *How is the war in Ukraine affecting global food prices?* Economics Observatory [online] Available at: <https://www.economicsobservatory.com/update-how-is-the-war-ukraine-affecting-global-food-prices>. Accessed 18/03/2024
- European Council (2023). *Infographic - Energy crisis: Three EU-coordinated measures to cut down bills*, Available at: <https://www.consilium.europa.eu/en/infographics/eu-measures-to-cut-down-energy-bills/#:~:text=Consumer%20electricity%20prices%20in%20the,prices%20and%20uncertainty%20of%20supplies>. Accessed 21/11/2023
- Eralp, N. (2023). *Evaluation note has there been a rapprochement between Turkey and the West after the invasion of Ukraine?* [online] Available at: https://www.tepav.org.tr/upload/files/1679373200-7.Has_there_been_a_rapprochement_between_Turkey_and_the_west_after_the_invasion_of_Ukraine.pdf [Accessed 18 Nov. 2023].
- Esen, ME, (2022). *Unfreezing the Relations: Turkey and Israel*. [online] Available at: <https://www.institute.org/opinion/unfreezing-the-relations-turkey-and-israel> [Accessed 4 Feb. 2024].
- Euroelectric. (2022). *Power to Buildings: a hub to enable smart and sustainable buildings across Europe*. [online] Available at: https://www.linkedin.com/pulse/power-buildings-hub-enable-smart-sustainable-across-europe-/?trk=public_post [Accessed 3 Mar. 2024].
- European Commission (2022b). *EU trade relations with Russia*. [online] [policy.trade.ec.europa.eu](https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/russia_en). Available at: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/russia_en. Accessed 07/09/2023
- Eceee.org. (2022). *EU tables €300bn plan to ditch Russian fossil fuels, speed up green transition*, [online] Available at: <https://www.eceee.org/all-news/news/eu-tables-300bn-plan-to-ditch-russian-fossil-fuels-speed-up-green-transition/> [Accessed 2 Sep. 2023].
- Ediger, V., Eser, S., Bowlus, J.V., (2020). "Perception, Petroleum, and Power: Mythmaking in Oil-Scarce Turkey and Jordan." *Energy Research and Social*

- Science* 66 (September 2019): 101499. <https://doi.org/10.1016/j.erss.2020.101499>.
- EEAS, (2017) 'Remarks by High Representative/Vice-President Federica Mogherini at the press conference following the EU-Turkey High Level Political Dialogue', https://eeas.europa.eu/headquarters/headquarters-homepage_%20en/30391/EU-Turkey%20High%20Level%20Political%20Dialogue Accessed 11/04/2023
- EIA, (2013). *Caspian Sea Region, Full report*, International Energy Agency, Washington DC, http://www.eia.gov/countries/analysisbriefs/Caspian_Sea/caspian_sea.pdf, Accessed 14/05/2023
- EIA, (2019). Background Reference: Azerbaijan, International Energy Agency, <https://www.eia.gov/international/analysis/country/AZE/background#table1> Accessed 22/05/2023
- Eisenmenger, N., Pichler, M., Krenmayr, N. *et al.* (2020). The Sustainable Development Goals prioritize economic growth over sustainable resource use: a critical reflection on the SDGs from a socio-ecological perspective. *Sustain Sci* 15, 1101–1110 (2020). <https://doi.org/10.1007/s11625-020-00813-x>
- Energy Institute (2023). *Statistical review of world energy 2023*. Available at: <https://www.energyinst.org/statistical-review/resources-and-data-downloads>. Accessed 28/08/2023
- Eran, O. (2019). *Natural Gas in the Eastern Mediterranean: Will Economic Wisdom Prevail?* (Rep.). Institute for National Security Studies. doi:10.2307/resrep19418
- Erşen, E., Çelikpala, M., (2019). *Turkey and the changing energy geopolitics of Eurasia*, Energy Policy, Volume 128, May 2019, Pages 584-592, <https://doi.org/10.1016/j.enpol.2019.01.036>
- Euronews. (2022a). *EU energy plan: cut Russian fossil fuels, speed up green transition*. [online] Available at: <https://www.euronews.com/next/2022/07/06/europes-energy-future-the-plan-to-cut-russian-fossil-fuels-and-speed-up-the-green-transition>. Accessed 29/08/2023
- Euronews (2022b). *EU agrees gas deal with Azerbaijan*. [online] Euronews. Available at: <https://www.euronews.com/my-europe/2022/07/18/von-der-leyen-heads-to-azerbaijan-to-secure-new-gas-import-deal>. Accessed 08/10/2023
- Europa.eu (2013). EU Commission welcomes decision on gas pipeline: Door opener for direct link to Caspian Sea, http://europa.eu/rapid/press-release_IP-13-623_en.htm Accessed 02/04/2023
- Europa.eu, (2021). Secure gas supplies, https://ec.europa.eu/energy/topics/energy-security/secure-gas-supplies_en Accessed 17/04/2023
- European Parliament (2023). *Energy policy: general principles | Fact Sheets on the European Union | European Parliament*. [online] Available at:

REFERENCES

- <https://www.europarl.europa.eu/factsheets/en/sheet/68/energy-policy-general-principles>. Accessed 19/11/2023
- Eurostat. (2022). *The EU imported 58% of its energy in 2020*. [online] Available at: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220328-2>. Accessed 18/09/2023
- Eurostat. (2023a). EU imports of energy products - latest developments. [online] Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_imports_of_energy_products_recent_developments&oldid=554503. Accessed 15/06/2023
- Eurostat (2023b). *Oil and petroleum products - a statistical overview*. [online] Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Oil_and_petroleum_products_-_a_statistical_overview. Accessed 28/08/2023
- Eurostat (2023c). *Shedding light on energy - 2023 edition - Interactive publications - Eurostat*. [online] ec.europa.eu. Available at: <https://ec.europa.eu/eurostat/web/interactive-publications/energy-2023>. Accessed 03/02/2024
- Eurostat (2023d). *Energy Statistics - an overview*. [online] Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_statistics_-_an_overview#Energy_dependency. Accessed 17/02/2024
- Falkner, R. (2023). Weaponised Energy and Climate Change: Assessing Europe's Response to the Ukraine War. *LSE public policy review*, 3(1). doi:<https://doi.org/10.31389/lseppr.78>.
- Ferriani, F. and Gazzani, A. (2022). *The impact of the war in Ukraine on energy prices: Consequences for firms' financial performance*. [online] CEPR. Available at: <https://cepr.org/voxeu/columns/impact-war-ukraine-energy-prices-consequences-firms-financial-performance>. Accessed 21/11/2023
- Field, S. (2021). *Natural Gas in the UK, Part 1: Infrastructures Geopolitics | Energy Ethics*. [online] Available at: <https://energyethics.st-andrews.ac.uk/blog/natural-gas-in-the-uk-part-1-infrastructures-geopolitics/>. Accessed 17/01/2024
- Financial Times. (2023). Turkey to make inaugural deliveries from big Black Sea gas discovery. *Financial Times*. [online] 17 Apr. Available at: <https://www.ft.com/content/959b6f1d-8aaf-472f-9f61-7fdca4b1685e>. Accessed 04/11/2023
- Flanagan, M., Kammer, A., Pescatori, A., Stuermer, M. (2022). How a Russian natural gas cutoff could weight on Europe's economies', *IMF Blog* Available at: <https://www.imf.org/en/Blogs/Articles/2022/07/19/blog-how-a-russias-natural-gas-cutoff-could-weigh-on-european-economies> Accessed 07/09/2023
- Furuncu, Y., (2020). Analysis - TurkStream to strengthen Turkey's energy hub position, <https://www.aa.com.tr/en/analysis/analysis-turkstream-to-strengthen-turkey-s-energy-hub-position/1695585> Accessed 03/04/2023

- Gaber, Y. (2022). *Turkey can become an energy hub—but not by going all-in on Russian gas*. [online] Atlantic Council. Available at: <https://www.atlanticcouncil.org/blogs/turkeysource/turkey-can-become-an-energy-hub-but-not-by-going-all-in-on-russian-gas/>. Accessed 22/09/2023
- García De La Cruz, A. and Palau, F. (2023). *Türkiye's complex path. Erdogan's economic policy review and new energy prospects*. [online] Available at: <https://www.unav.edu/documents/16800098/17755721/wp-02-2023-turkish-economic-policy-and-energy.pdf> [Accessed 3 Mar. 2024].
- Gasprom, (2021). Blue Stream, Russian natural gas supplies to Turkey <https://www.gazprom.com/projects/blue-stream/> Accessed 05/03/2023
- Gaur, A., Settles, A., Väättänen, J. (2023). Do Economic Sanctions Work? Evidence from the Russia-Ukraine Conflict. *Journal of Management Studies*.
- Gebart, R. *The role of hydrogen for gas self-sufficiency in Europe - Luleå University of Technology*. [online] Available at: <https://www.ltu.se/centres/CH2ESS/Nyheter/Vatgasens-roll-for-sjalvforsorjning-av-gas-i-EU-1.232090?l=en> [Accessed 15 Sep. 2023].
- Geri, M., (2023). Can EU And Azerbaijan Increase Energy-Transport Cooperation to also Reinforce Connection between Europe And Central Asia? – Analysis, *Euroasiareview*, Available at: <https://www.eurasiareview.com/14122023-can-eu-and-azerbaijan-increase-energy-transport-cooperation-to-also-reinforce-connection-between-europe-and-central-asia-analysis/> Accessed 02/03/2024
- Geropoulos, K., (2017). Turkey's energy hub hopes hinge on market liberalisation, <https://www.neweurope.eu/article/turkeys-energy-hub-hopes-hinge-market-liberalisation/> Accessed 05/04/2023
- GGI, (2024). *Energy Poverty: Addressing the Global Access Crisis*. www.graygroupintl.com. [online] Available at: <https://www.graygroupintl.com/blog/energy-poverty#:~:text=Poverty%20and%20energy%20poverty%20are> [Accessed 13 Feb. 2024].
- González-Torres, M., Pérez-Lombard, L., Coronel, J. F., Maestre, I. R., Yan, D. (2022). A review on buildings energy information: Trends, end-uses, fuels and drivers. *Energy Reports*, 8, 626-637. <https://doi.org/10.1016/j.egy.2021.11.280>
- Gögüş, A.I., (2021). How real is flirting between Turkey and Egypt?, <https://yetkinreport.com/en/2021/03/11/how-real-is-flirting-between-turkey-and-egypt/> Accessed 17/04/2023
- Göral, E., (2023). *The Impact of Energy Security on Turkish Foreign Policy * Enerji Güvenliğinin Türk Dış Politikası Üzerine Etkisi*. [online] Available at: <https://dergipark.org.tr/tr/download/article-file/3436750> [Accessed 29 Jan. 2024].

REFERENCES

- Gribincea, A., Kara, B., Şargu, L., Valeeva, J. (2022). Stumbling Blocks in Gas Transportation: From Resource-Rich East to Resource-Poor West Turkey's Transit Role. In: Vankov, Y. (eds) *Proceedings of ICEPP 2021*. ICEPP 2021. Lecture Notes in Civil Engineering, vol 190. Springer, Cham. https://doi.org/10.1007/978-3-030-86047-9_21
- Guan, Y.; Yan, J.; Shan, Y.; Zhou, Y.; Hang, Y.; Li, R.; Liu, Y.; Liu, B.; Nie, Q.; Bruckner, B.; Feng, K.; Hubacek, K. (2023) Burden of the Global Energy Price Crisis on Households. *Nature Energy* 2023, 8, 1–13. <https://doi.org/10.1038/s41560-023-01209-8>.
- Gunay, S. Kayacan, B., (2023). Household energy poverty: The concept, issues and implications for Türkiye. *Sigma Journal of Engineering and Natural Sciences – Sigma Mühendislik ve Fen Bilimleri Dergisi*. [online] doi:<https://doi.org/10.14744/sigma.2023.00042>. Accessed 03/12/2023
- Guo, F., Huang, C., Wu, X. (2019). Strategic analysis on the construction of new energy corridor China–Pakistan–Iran–Turkey. *Energy Reports*, 5, 828-841. <https://doi.org/10.1016/j.egy.2019.06.007>
- Gumbatov, A., (2020). "Completing the Southern Gas Corridor. SGC in a Post-pandemic World," *Baku Dialogues* 4, no. 1, 116–127, <https://bakudialoguesaz.zeroline.az/articles/completing-the-southern-gas-corridor> Accessed 20/11/2023
- Günay, S. and Kayacan, B. (2021). 2021 Energy Price Crisis impacts on Energy Poverty in Türkiye, *EP-pedia, ENGAGER COST Action*.
- Hajiyev, S. (2021). European Energy Consumers Welcome Caspian Gas, <https://natoassociation.ca/european-energy-consumers-welcome-caspian-gas/> Accessed 24/06/2023
- Hamilton, R. E., Mikulska, A., (2021). Russian-Turkish relations and their implications for the West, <https://www.fpri.org/wp-content/uploads/2021/04/russian-turkish-relations-bssp.pdf> Accessed 25/06/2023
- Hasanov, F., Mahmudlu, C., Deb, K., Abilov, S., Hasanov, O. (2020). The role of Azeri natural gas in meeting European Union energy security needs. *Energy Strategy Reviews*, 28, 100464.
- Hayes, M.H. and Victor, D.G. (2006). Politics, markets, and the shift to gas: insights from the seven historical case studies. *Cambridge University Press eBooks*, pp.319–354. doi:<https://doi.org/10.1017/cbo9780511493492.011>.
- He, Z. (2023). Geopolitical risks and investor sentiment: Causality and TVP-VAR analysis. *The North American Journal of Economics and Finance*, 67, 101947. <https://doi.org/10.1016/j.najef.2023.101947>
- Heever, M.V.D. (2020). *LibGuides: Research Support: Research Methodology*. [online] libguides.wits.ac.za. Available at: <https://libguides.wits.ac.za/c.php?g=693518p=>

4914913#:~:text=Research%20methodology%20is%20the%20specific.
Accessed 16/11/2023

- Hill, F., Spector, R., (2001). *The Caspian Basin and Asian Energy Markets*. Brookings. [online] Available at: <https://www.brookings.edu/articles/the-caspian-basin-and-asian-energy-markets/> Accessed 09/07/2023
- Hitt, M.A., Arregle, J.-L. and Holmes, R.M., Jr. (2021), Strategic Management Theory in a Post-Pandemic and Non-Ergodic World. *J. Journal of Management Studies*, 58: 259-264. <https://doi.org/10.1111/joms.12646>
- Högselius, P., Kaijser, A. (2019). Energy dependence in historical perspective: The geopolitics of smaller nations. *Energy Policy*, 127, 438-444. <https://doi.org/10.1016/j.enpol.2018.12.025>
- Holland, A. (2015). *Energy and Geopolitics in the Eastern Mediterranean*. (Rep.). American Security Project. Retrieved January 2, 2021, from <http://www.jstor.org/stable/resrep05991>
- Hosseini Adeli, S. M., (2010). The Contribution of Energy Diplomacy to International Security; with Special Emphasis on Iran [online] 1(2). Available at: https://ciaotest.cc.columbia.edu/journals/irfa/v1i2/f_0021944_18127.pdf. Accessed 06/06/2023
- Howey, W. (2023). *Azerbaijan's gas exports to the EU face challenges*. [online] Economist Intelligence Unit. Available at: <https://www.eiu.com/n/azerbaijans-gas-exports-to-the-eu-face-challenges/>. Accessed 13/02/2024
- Hürriyet Daily News. (2023). *Black Sea gas historic milestone to energy independence: Erdoğan - Türkiye News*. [online] Available at: <https://www.hurriyetaidailynews.com/black-sea-gas-historic-milestone-to-energy-independence-erdogan-182539> [Accessed 6 Nov. 2023].
- Huseynov, Y., (2017). Geopolitics of the Republic of Turkey's Energy Policy, *International Journal of Energy Economics and Policy*, 2017, 7(3), 337-344.
- IEA, (2013b). *Reserves to Resources, Oil, Gas and Coal Technologies for the Energy Markets of the Future Resources Reserves 2013*. Available at: <https://iea.blob.core.windows.net/assets/afc6bec5-22e8-4105-a1b3-ceb89eaec1e9/Resources2013.pdf> [Accessed 22 Sep. 2023].
- IEA, (2015) International Energy Security, Available at: https://www.energycharter.org/fileadmin/DocumentsMedia/Thematic/International_Energy_Security_2015_en.pdf. Accessed 01/06/2023
- EIA, (2020). Country Analysis Brief: Turkey, Washington DC, Available at: https://www.eia.gov/international/content/analysis/countries_long/Turkey/turkey.pdf Accessed 22/06/2023

REFERENCES

- IEA (2021). *Turkey's success in renewables is helping diversify its energy mix and increase its energy security - News*. [online] IEA. Available at: <https://www.iea.org/news/turkey-s-success-in-renewables-is-helping-diversify-its-energy-mix-and-increase-its-energy-security>. Accessed 10/11/2023
- IEA. (2021). *Energy efficiency and economic stimulus – Analysis*. [online] Available at: <https://www.iea.org/articles/energy-efficiency-and-economic-stimulus>.
- IEA. (2022). *Türkiye - Countries Regions*. [online] Available at: <https://www.iea.org/countries/turkiye>. Accessed 12/10/2023
- IEA (2022a). *Russia's War on Ukraine – Topics*. [online] IEA. Available at: <https://www.iea.org/topics/russias-war-on-ukraine>. Accessed 11/06/2023
- IEA, (2022b). *World Energy Outlook 2022*. International Energy Agency, [online] Available at: <https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf>. Accessed 11/06/2023
- IEA, (2022c). *Russia - Countries & Regions*. International Energy Agency, [online] IEA. Available at: <https://www.iea.org/countries/Russia>. Accessed 18/03/2024
- IEA. (2023a). *World Energy Outlook 2021 – Analysis - IEA*. [Online] Available at: <https://www.iea.org/reports/world-energy-outlook-2021>. Accessed 03/07/2023
- IEA, (2023b). *RePowerEU Plan: Joint European action on renewable energy and energy efficiency – Policies*. [online] Available at: <https://www.iea.org/policies/15691-repowereu-plan-joint-european-action-on-renewable-energy-and-energy-efficiency>. Accessed 18/09/2023
- IEA, (2023c). *Russia's War on Ukraine. One year on*, [online] IEA. Available at: <https://www.iea.org/topics/russias-war-on-ukraine>. Accessed 22/11/2023
- IMF. (2003). *Fund Assistance for Countries Facing Exogenous Shocks*. International Monetary Fund, Available at: <https://www.imf.org/external/np/pdr/sustain/2003/080803.pdf>. Accessed 20/02/2024
- Irena (2019). *A New World*. [online] Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/Global_commission_geopolitics_new_world_2019.pdf. Accessed 04/09/2023
- Isachenko, D. (2023) *Turkey in the Black Sea Region*. <https://www.swp-berlin.org/10.18449/2023RP12/> (Accessed: November 8, 2023).
- Isik, Y., (2022). *Turkey: Walking the Tightrope between NATO, Russia and Ukraine*. Institut Montaigne. [online] Available at: <https://www.institutmontaigne.org/en/expressions/turkey-walking-tightrope-between-nato-russia-and-ukraine>. Accessed 02/07/2023

- Islam, M. M., Islam, M. S. (2021). Energy consumption–economic growth nexus within the purview of exogenous and endogenous dynamics: Evidence from Bangladesh. *OPEC Energy Review*, 45(2), 191-216. <https://doi.org/10.1111/opec.12195>
- Izzeldin, M., Muradoğlu, Y. G., Pappas, V., Petropoulou, A., Sivaprasad, S. (2023). The impact of the Russian-Ukrainian war on global financial markets. *International Review of Financial Analysis*, 87, 102598.
- Jaffe, A. (1998). *Unlocking the assets: energy and the future of Central Asia and the Caucasus main study*. [online] Available at: http://large.stanford.edu/publications/coal/references/baker/studies/assets/docs/UnlockingtheAssets_MainStudy.pdf Accessed 09/07/2023
- Kalehsar, O. S. (2019). Energy Insecurity in Turkey: Opportunities for Renewable Energy. ADBI Working Paper 1058. Tokyo: Asian Development Bank Institute. Available: <https://www.adb.org/publications/energy-insecurity-turkey-opportunities-renewable-energy> Accessed 02/05/2023
- Kardaş, S. (2023). *Keeping the lights on: The EU's energy relationships since Russia's invasion of Ukraine*. [online] ECFR. Available at: <https://ecfr.eu/publication/keeping-the-lights-on-the-eus-energy-relationships-since-russias-invasion-of-ukraine/>. Accessed 19/11/2023
- Karekezi, S., Mcdade, S., Boardman, B., Kimani, J. and Lustig, N. (2022). *Energy, Poverty, and Development Convening Lead Authors (CLA) Lead Authors (LA) Review Editor*. [online] Available at: https://previous.iiasa.ac.at/web/home/research/Flagship-Projects/Global-Energy-Assessment/GEA_Chapter2_development_hires.pdf. Accessed 13/03/2024
- Katulis, B., et al. (2022). *Special Briefing: The policy and geopolitical implications of the OPEC+ oil production cuts*. Middle East Institute. [online] Available at: <https://www.mei.edu/blog/special-briefing-policy-and-geopolitical-implications-opec-oil-production-cuts>. Accessed 05/07/2023
- Kefalogiannis, M., (2015). EU constitutes Turkey's 'most important partner', <https://www.theparliamentmagazine.eu/news/article/eu-constitutes-turkeys-most-important-partner> Accessed 05/07/2023
- Keohane, R. O. (1984). *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton University Press. <http://www.jstor.org/stable/j.ctt7sq9s>
- Ker-Lindsay, J., (2018). *Turkey's EU accession as a factor in the 2016 Brexit referendum*, Turkish Studies Volume 19, Issue 1, <https://doi.org/10.1080/14683849.2017.1366860>
- Kilinc, L., S., (2019). Turkey: TANAP: Vital Legal Considerations When Establishing Significant Energy Projects in Turkey, TANAP: Vital Legal Considerations When Establishing Significant Energy Projects In Turkey - Energy and Natural Resources - Turkey (mondaq.com) Accessed 20/04/2023

REFERENCES

- Kim, T., Shin, S.Y., (2021). *Competition or cooperation? The geopolitics of gas discovery in the Eastern Mediterranean Sea*, Energy Research Social Science Volume 74, April 2021, 101983, <https://doi.org/10.1016/j.erss.2021.101983>
- Khakova, O., (2019). *A Transatlantic Agenda for the New European Commission* (pp. 19-22, Rep.). Atlantic Council. doi:10.2307/resrep26648.7
- Kneebone, J. (2023). *Gas: a history of Energy Security in the EU And what's next post-Russia?* [online] Available at: <https://energypost.eu/gas-a-history-of-energy-security-in-the-eu-and-whats-next-post-russia/> Accessed 22/11/2023.
- Korkmaz, D. (2021). *Turkey and the EU in an Energy Security Society*. Springer International Publishing.
- Kotek, P., Selei, A., Takácsné Tóth, B., Felsmann, B. (2023). What can the EU do to address the high natural gas prices? *Energy Policy*, 173, 113312. <https://doi.org/10.1016/j.enpol.2022.113312>
- Krueger, A.O. (2021). *How Erdonomics Sank Turkey | by Anne O. Krueger*. [online] Project Syndicate. Available at: <https://www.project-syndicate.org/commentary/turkey-economic-crisis-erdomics-by-anne-o-krueger-2021-12>. Accessed 06/11/2023
- Kutlay, M., Öniş, Z., (2021). Turkish foreign policy in a post-western order: strategic autonomy or new forms of dependence?, *International Affairs*, Volume 97, Issue 4, July 2021, Pages 1085–1104, <https://doi.org/10.1093/ia/iab094>
- Kuzemko, C., Blondeel, M., Dupont, C., Brisbois, M. C. (2022). Russia's war on Ukraine, European energy policy responses implications for sustainable transformations. *Energy Research Social Science*, 93, 102842. <https://doi.org/10.1016/j.erss.2022.102842>
- Lakes, G., (2023). *Turkey's gas hub aspirations [Gas in Transition]*. [online] Available at: <https://www.naturalgasworld.com/turkeys-gas-hub-aspirations-gas-in-transition-108634> [Accessed 19 Feb. 2024].
- Lambert, L. A., Tayah, J., Lee-Schmid, C., Abdalla, M., Abdallah, I., Ali, A. H., Esmail, S., Ahmed, W. (2022). The EU's natural gas Cold War and diversification challenges. *Energy Strategy Reviews*, 43, 100934. <https://doi.org/10.1016/j.esr.2022.100934>
- Largue, P. (2023). *Will Turkey's gas hub dreams become reality?* [online] Enlit World. Available at: <https://www.enlit.world/energy-trading-markets/will-turkeys-gas-hub-dreams-become-reality/> [Accessed 19 Feb. 2024].
- Lau, M., Ricks, W., Patankar, N., Jenkins, J. D. (2022). Europe's way out: Tools to rapidly eliminate imports of Russian natural gas. *Joule*, 6(10), 2219-2224. <https://doi.org/10.1016/j.joule.2022.09.003>

- Lawler, D., O'Callaghan-White, L. (2023). *Europe's Long Winter: Escaping the Energy Crisis* | IIEA. [online] Available at: <https://www.iiea.com/publications/europes-long-winter-escaping-the-energy-crisis>.
- Lawton, T. C. and Rajwani, T. (eds) (2015) *The routledge companion to non-market strategy*. London: Routledge, Taylor Francis Group (Routledge companions in business, management and accounting). doi: 10.4324/9781315819389.
- Liakopoulou, M, (2020). New Dimensions of the Great Caspian Energy Game, https://natoassociation.ca/wp-content/uploads/2020/08/Liakopoulou_New-Great-Game_ESPRP-01.pdf Accessed 07/04/2023
- Liakopoulou, M, (2021). The Opening of the Southern Gas Corridor, NATO Association of Canada, https://natoassociation.ca/wp-content/uploads/2021/01/Liakopoulou_Opening-Southern-Gas-Corridor_ESPRB2.pdf Accessed 23/05/2023
- Lo, C., (2018). *Power plays: the role of energy in modern geopolitics*. [online] Available at: <https://www.power-technology.com/features/power-plays-role-energy-modern-geopolitics/>. Accessed 25/05/2023
- Lodhi, I. A. (2008) "Energy Security and Geopolitics in South Asia: Historical Baggage, Global Powers, and Rational Choice," in Lall, M. (ed.) *The Geopolitics of Energy in South Asia*. ISEAS–Yusof Ishak Institute (ISEAS Energy Series), pp. 94–122. <https://doi.org/10.1355/9789812308283-010>
- Łoskot-Strachota, A., Michalski, A., (2023). *Turkey's dream of a hub. Ankara's wartime gas policy*. [online] Available at: <https://www.osw.waw.pl/en/publikacje/osw-commentary/2023-03-10/turkeys-dream-a-hub-ankaras-wartime-gas-policy#:~:text=In%20recent%20years%2C%20Turkey%20has> [Accessed 12 Oct. 2023].
- Lovins, A. B. (2010) "Profitable Solutions to Climate, Oil, and Proliferation," *AMBIO: A Journal of the Human Environment*, 39(3), pp. 236–248. doi: 10.1007/s13280-010-0031-6.
- Ma, Z., Pei, X., Yi, Y., Liu, Y., Zhang, X. (2019). The Impact of the Ukraine Crisis on the Planning of Russian-European Natural Gas Pipeline Projects. *Journal of Coastal Research*, 392-401. doi:10.2307/26864851
- Magri, P., (2018). *Turkey: Towards a Eurasian Shift*, Ispi, Milano
- Malhotra, G. (2017). *Strategies in Research*. [online] *International Journal of Advance Research and Development*, Available at: <https://www.ijarnd.com/manuscripts/v2i5/V2I5-1220.pdf>. Accessed 16/11/2011
- Manderson, E., (2022). *Generating solutions: responses and reforms for the energy price crisis*. [online] Available at: <https://blog.policy.manchester.ac.uk/posts/2022/10/generating-solutions-responses-and-reforms-for-the-energy-price-crisis/#:~:text=Policy%20responses%20should%20prioritise%20demand> [Accessed 21 Nov. 2023].

REFERENCES

- Mansour-Ichraikieh, L., Zeaiter, H. (2019). The role of geopolitical risks on the Turkish economy opportunity or threat. *The North American Journal of Economics and Finance*, 50, 101000. <https://doi.org/10.1016/j.najef.2019.101000>
- McBride, J. (2022) "Russia's Energy Role in Europe: What's at Stake With the Ukraine Crisis," *Council on Foreign Relations*, 22 February. Available at: <https://www.cfr.org/in-brief/russias-energy-role-europe-whats-stake-ukraine-crisis>. Accessed 01/07/2023
- McLorrain, S., (2023) Disorder: hard times in the 21st Century, *International Affairs*, Volume 99, Issue 1, Pages 369–370, <https://doi.org/10.1093/ia/iac282>
- McWilliams, B., Sgaravatti, G., Tagliapietra, S., Zachmann, G. (2023a). *The EU can manage without Russian liquified natural gas*. Bruegel, [online] Available at: <https://www.bruegel.org/policy-brief/eu-can-manage-without-russian-liquified-natural-gas>. Accessed 04/09/2023
- McWilliams, B., Sgaravatti, G., Tagliapietra, S., Zachmann, G. (2023b). How would the European Union fare without Russian energy? *Energy Policy*, 174, 113413. <https://doi.org/10.1016/j.enpol.2022.113413>
- Mead, L. M. (2013). Teaching public policy: Linking policy and politics. *Journal of Public Affairs Education*, 19(3), 389-403.
- Medyascope. (2023). *Erdoğan'ın seçim vaadi olan 'ücretsiz' doğalgaz, emeklinin ve memurun cebinden çıkacak*. [online] Medyascope. Available at: <https://medyascope.tv/2023/06/02/erdoganin-secim-vaadi-olan-uccretsiz-dogalgaz-emeklinin-ve-memurun-cebinden-cikacak/> [Accessed 6 Nov. 2023].
- Meidan, M. (2022). *The Russian invasion of Ukraine and China's energy markets*. OXFORD ENERGY, [online] Available at: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2022/03/The-Russian-invasion-of-Ukraine-and-Chinas-energy-markets.pdf>. Accessed 27/12/2023
- Melvin, N. and Seskuria, N. (2022). *Emerging Insights A New Security Order in the Black Sea The Role of Georgia*. [online] Available at: <https://static.rusi.org/355-EI-Georgia-Black-Sea-web-final.pdf> [Accessed 5 Mar. 2024].
- Michaelson, R. (2023). Turkey's economic crisis expected to deepen after Erdoğan tops poll. *The Guardian*. [online] 16 May. Available at: <https://www.theguardian.com/world/2023/may/16/turkey-economic-crisis-expected-to-deepen-after-erdogan-tops-election-poll>. Accessed 03/12/2023
- Michaux, S. (n.d.). *Oil from a Critical Raw Material Perspective*. [online] Available at: https://tupa.gtk.fi/raportti/arkisto/70_2019.pdf. Accessed 17/01/2024
- Middle East Eye. (2023). *Turkey elections: Erdogan offers free Black Sea gas to residential areas*. [online] Available at: <https://www.middleeasteye.net/>

- news/turkey-elections-erdogan-offers-free-black-sea-gas-residential-areas [Accessed 6 Nov. 2023].
- Miklian, J., Hoelscher, K. (2022). SMEs and exogenous shocks: A conceptual literature review and forward research agenda. *International Small Business Journal*, 40(2), 178-204. <https://doi.org/10.1177/02662426211050796>
- Mikulska, A., Sienkiewicz, M., (2018). Turkey is gassing up. What does this mean for the regions it straddles?, <https://warontherocks.com/2018/08/turkey-is-gassing-up-what-does-this-mean-for-the-regions-it-straddles/> Accessed 25/06/2023
- Mikulska, A. (2020). Gazprom and Russian Natural Gas Policy in the First Two Decades of the 21st Century, *Orbis*, Volume 64, Issue 3, Pages 403-420, ISSN 0030-4387, <https://www.sciencedirect.com/science/article/pii/S0030438720300259> Accessed 26/06/2023
- Mills, R. (2022a). Reviving 'Fourth Corridor' pipeline project can cut Europe's reliance on Russian Gas, Available at: <https://www.pressreader.com/uae/the-national-news/20220329/281822877305801>, Accessed 03/06/2023
- Mills, R. (2022b). *Europe's solution to energy dependence lies in a rebuilt Fourth Corridor*. [online] The National. Available at: <https://www.thenationalnews.com/business/comment/2022/03/28/europes-solution-to-energy-dependence-lies-in-a-rebuilt-fourth-corridor/> Accessed 03/07/2023
- Ministry of Energy of Azerbaijan (2023). *The Southern Gas Corridor*. [online] Available at: https://minenergy.gov.az/en/layiheler/cenub-qaz-dehlizi_2196. Accessed 15/05/2023
- Mironova, I. (2023). *Who Is The Main Beneficiary Of The Gas Hub In Turkey?* [online] Available at: https://russiapost.info/economy/gas_hub [Accessed 13 Feb. 2024].
- Morningstar, R., Simonyi, A., Khakova, O., Gordon, J. (2020). European Energy Security and the Critical Role of Transatlantic Energy Cooperation: Final Report and Recommendations (pp. [i]-[ii], Rep.). Atlantic Council. doi:10.2307/resrep24587.1
- Naji, S. (2011). "Iran, the Center of 'Strategic Energy Ellipse': A Geopolitical Reality", *Geopolitics, History and International Relations*, vol. 3, no. 1, pp. 155-175.
- Neset, S., Aydin, M., Balta, E., Ataç, K.K., Bilgin, H. D., Strand, A., (2021). Turkey as a regional security actor in the Black Sea, the Mediterranean, and the Levant Region, <https://www.cmi.no/publications/7820-turkey-as-a-regional-security-actor-in-the-black-sea-the-mediterranean-and-the-levant-region#author-details> Accessed 21/06/2023
- Nie, S., Mills, R., (2023). *Eastern Mediterranean Deepwater Gas to Europe: Not Too Little, But Perhaps Too Late*. [online] Center on Global Energy Policy at Columbia University SIPA | CGEP. Available at: <https://www.energypolicy.columbia.edu/>

REFERENCES

- publications/eastern-mediterranean-deepwater-gas-to-europe-not-too-little-but-perhaps-too-late/. Accessed 03/07/2023
- Novikau, A., Muhasilović, J. (2023). Turkey's quest to become a regional energy hub: Challenges and opportunities. *Heliyon*, 9(11), e21535. <https://doi.org/10.1016/j.heliyon.2023.e21535>
- Nowell, L. S., Norris, J. M., White, D. E., Moules, N. J. (2017). Thematic Analysis. *International Journal of Qualitative Methods*. <https://doi.org/10.1177/1609406917733847>
- OECD, (2020). Fossil Fuel Support country Note, Turkey. Available at: https://stats.oecd.org/Index.aspx?DataSetCode=FFS_TUR Accessed 06/07/2023
- OECD. (2022). *Why governments should target support amidst high energy prices*. [online] Available at: <https://www.oecd.org/ukraine-hub/policy-responses/why-governments-should-target-support-amidst-high-energy-prices-40f44f78/>. Accessed 02/12/2023
- OECD, (2023). "SME policy responses to the 2022/2023 energy crisis: Policy highlights and country experiences", *OECD SME and Entrepreneurship Papers*, No. 43, OECD Publishing, Paris, <https://doi.org/10.1787/80012fbd-en>.
- Oetzel, J., Oh, C. H. (2015). Managing non-market risk: Is it possible to manage the seemingly unmanageable? 1. *The Routledge companion to non-market strategy*, 263-278.
- OGJ, (2017). "Worldwide Look at Reserves and Production," *Oil Gas Journal*.
- Okolo, C. V. and Udabah, S. I. (2019) "Oil Price and Exchange Rate Volatilities: Implications on the Cost of Living in an Opec Member Country—Nigeria," *OPEC Energy Review*, 43(4), pp. 413–428. doi: 10.1111/opec.12157.
- Okumus, O. (2018). *Is This The Most Important Geopolitical Deal Of 2018?* [online] Available at: <https://oilprice.com/Geopolitics/Asia/Is-This-The-Most-Important-Geopolitical-Deal-Of-2018.html> [Accessed 24 Aug. 2023].
- Okumus, O. (2020). *Value beyond price: Prioritizing political stability and regional integration when financing Mediterranean gas*. [online] Atlantic Council. Available at: <https://www.atlanticcouncil.org/in-depth-research-reports/report/value-beyond-price-prioritizing-political-stability-and-regional-integration-when-financing-mediterranean-gas/> [Accessed 23 Aug. 2023].
- Ongun, Y., (2020). Turkey in an Increasingly Complex Eastern Mediterranean: How Turkey can Defend its Interests and Alleviate its Isolation in the Region, https://www.kas.de/documents/283907/10938219/Eastern+Mediterranean+in+Uncharted+Waters_KAS+Turkey.pdf/6f554da1-93ac-bba6-6fd0-3c8738244d4b?version=1.0t=1607590823989 Accessed 01/07/2023

- Oxford Energy, (2021). *The geopolitics of energy: Out with the old, in with the new?* The Oxford Institute for Energy Studies. Available at: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2021/02/OEF-126.pdf> Accessed: 01/09/2023
- Özkaynak, B., Turhan, E., Aydın, C.İ., (2020). The Politics of Energy in Turkey: Running Engines on Geopolitical, Discursive, and Coercive Power, *Political Science, Comparative Politics, Regional Studies*, DOI:10.1093/oxfordhb/9780190064891.013.29
- Paikin, Z., Rose, C., (2021). Turkey and the Eastern Mediterranean, <https://www.ceps.eu/ceps-publications/turkey-and-the-eastern-mediterranean/> Accessed 15/06/2023
- Palani, K., Ala'Aldeen, D., Cersosimo, S. (2018). Most Probable Scenarios for Future Turkey-EU Relations. In *Turkey and the European Union: Conflicting Policies and Opportunities for Cooperation Over Iraq, Syria and the Kurdish Political Actors* (pp. 21-28, Rep.). Middle East Research Institute. Retrieved October 31, 2023, from <http://www.jstor.org/stable/resrep17614.6>
- Pandey, A. (2023). *EU gas supply: When Russia went into self-destruct mode – DW* [online] Available at: <https://amp.dw.com/en/eu-gas-russia-nord-stream-crisis/a-66668256> [Accessed 7 Sep. 2023].
- Pehlivan, F. (2022). *Turkey's energy poverty as inflation crisis deepens*. [online] Yetkin Report. Available at: <https://yetkinreport.com/en/2022/01/07/turkeys-energy-poverty-as-inflation-crisis-deepen/> [Accessed 20 Nov. 2023].
- Peachey, K., (2024). Household energy price rise of 5% comes into force. *BBC News*. [online] Available at: <https://www.bbc.co.uk/news/business-67785266>. Accessed 15/02/2024
- Pederson, L.L., Vingilis, E., Wickens, C.M., Koval, J. and Mann, R.E. (2020). Use of secondary data analyses in research: Pros and Cons. *Journal of Addiction Medicine and Therapeutic Science*, [online] 6(1), pp.058–060. Available at: <https://www.peertechzpublications.org/articles/JAMTS-6-139.php>. Accessed 29/02/2024
- Perdana, S., Vielle, M., Schenckery, M. (2022). European Economic impacts of cutting energy imports from Russia: A computable general equilibrium analysis. *Energy Strategy Reviews*, 44, 101006. <https://doi.org/10.1016/j.esr.2022.101006>
- Pierini, M., Siccardi, F., (2021). Why the EU and the United States Should Rethink Their Turkey Policies in 2021, <https://carnegieeurope.eu/2021/01/21/why-eu-and-united-states-should-rethink-their-turkey-policies-in-2021-pub-83662> Accessed 15/11/2023
- Pierini, M. (2023) *Turkey's European goals: Prospects and impediments as seen from Brussels*, <https://carnegieeurope.eu/>. Available at: <https://carnegieeurope.eu/>

REFERENCES

- 2023/09/18/turkey-s-european-goals-prospects-and-impediments-as-seen-from-brussels-pub-90557 (Accessed: 19 November 2023).
- Politico. (2023). *Erdoğan plays energy card in Turkish election — with Putin's help*. [online] Available at: <https://www.politico.eu/article/turkey-election-energy-recep-tayyip-erdogan-nuclear-gas-russia/>. Accessed 06/11/2023
- Popirlan, C. I., Tudor, V., Popirlan, C. (2023). Predicting the unemployment rate and energy poverty levels in selected European Union countries using an ARIMA-ARNN model. *PeerJ Computer Science*, 9. <https://doi.org/10.7717/peerj-cs.1464>
- Popovic, N., (2020) The Energy Relationship Between Russia and the European Union, [https://www.e-ir.info/2020/02/24/the-energy-relationship-between-russia-and-the-european-union/#:~:text=In%202018%2C%20around%2040%25%20of,Europe%20\(Gazprom%2C%202018\)](https://www.e-ir.info/2020/02/24/the-energy-relationship-between-russia-and-the-european-union/#:~:text=In%202018%2C%20around%2040%25%20of,Europe%20(Gazprom%2C%202018).). Accessed 18/09/2023
- PRT, (2020). '*Turkey has discovered the largest-ever natural gas reserve of its history in the Black Sea*'. Presidency Of The Republic Of Turkey, [online] Available at: <https://www.tccb.gov.tr/en/news/542/121868/-turkey-has-discovered-the-largest-ever-natural-gas-reserve-of-its-history-in-the-black-sea-> [Accessed 16 Feb. 2024].
- PRT, (2022a). '*We are taking steps which will make Türkiye a natural gas hub*'. [online] Available at: <https://www.tccb.gov.tr/en/news/542/141660/-we-are-taking-steps-which-will-make-turkiye-a-natural-gas-hub-> [Accessed 15 Jan. 2024].
- PRT (2022b). '*Fatih drilling vessel has discovered 58 billion cubic meters of natural gas reserves*'. [online] Available at: <https://www.tccb.gov.tr/en/news/542/142282/-fatih-drilling-vessel-has-discovered-58-billion-cubic-meters-of-natural-gas-reserves-> [Accessed 15 Jan. 2024].
- PRT (2023a).: '*President Erdoğan attends Commissioning Ceremony of Black Sea Natural Gas*'. [online] Available at: <https://www.tccb.gov.tr/en/news/542/145797/president-erdogan-attends-commissioning-ceremony-of-black-sea-natural-gas-> [Accessed 15 Jan. 2024].
- PRT, (2023b). '*We have turned Türkiye into a center of production and trade in its region*'. Presidency Of The Republic Of Turkey, [online] Available at: <https://www.tccb.gov.tr/en/news/542/142669/-we-have-turned-turkiye-into-a-center-of-production-and-trade-in-its-region-> [Accessed 16 Feb. 2024].
- Prontera, A. (2019). EU External Engagement and The Euro-Mediterranean Energy Cooperation: Between Regional Initiatives and Strategic Partnerships. *Revista Española De Derecho Internacional*, 71(1), 223-232. Retrieved January 2, 2021, from <https://www.jstor.org/stable/26566031>

- Pulhan, A., Yorucu, V., Eccan N.S., (2020), Global energy market dynamics and natural gas development in the Eastern Mediterranean region, *Utilities Policy* Volume 64, June 2020, 101040, <https://doi.org/10.1016/j.jup.2020.101040>
- Rahman, M.R., Rahman, M.M. and Akter, R. (2023). "Renewable energy development, unemployment and GDP growth: South Asian evidence", *Arab Gulf Journal of Scientific Research*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/AGJSR-04-2023-0152>
- Reiners, W., Turhan, E., (2021). *EU-Turkey Relations, Theories, Institutions, and Policies*, Palgrave Macmillan
- Reuters (2022a). Turkey's Erdogan shakes hands with Egypt's Sisi at World Cup. *Reuters*. [online] 20 Nov. Available at: <https://www.reuters.com/world/middle-east/turkeys-erdogan-shakes-hands-with-egypts-sisi-world-cup-2022-11-20/>. Accessed 04/02/2024
- Reuters (2022b). Turkey's natural gas find in Black Sea now comes to 710 bcm - Erdogan. *Reuters*. [online] 26 Dec. Available at: <https://www.reuters.com/business/energy/turkeys-natural-gas-found-black-sea-now-comes-710-bcm-erdogan-2022-12-26/>. Accessed 18/02/2024
- Reuters (2023a). Erdogan offers free gas pre-election after first Black Sea field shipment. *Reuters*. [online] 23 Apr. Available at: <https://www.reuters.com/world/middle-east/erdogan-offers-free-gas-pre-election-after-first-black-sea-field-shipment-2023-04-20/>. Accessed 07/11/2023
- Reuters (2023b). Erdoğan to slash Turkey's energy bills ahead of tough election. (2023). *Financial Times*. [online] 29 Mar. Available at: <https://www.ft.com/content/589877b7-4dc7-4e49-a6ca-bb0041d56b43>. Accessed 21/11/2023
- Rizaldi, B.A.; Idris, A.M.; and Nurbaiti, N. (2023). "The impact of Russia-Ukraine war on energy policy maneuvers to strengthen energy security and cybersecurity in Indonesia" *Journal of Terrorism Studies*: Vol. 5: No. 1, Article 6. DOI: 10.7454/jts.v5i1.1061 Available at: <https://scholarhub.ui.ac.id/jts/vol5/iss1/6>
- Rsf, (2023). *Türkiye*. Reporters Without Borders, [online] Available at: <https://rsf.org/en/country-t%C3%BCrkiye>. Accessed 20/10/2023
- Rodríguez-Fernández, L., Carvajal, A.B.F., Ruiz-Gómez, L.M., (2020). Evolution of European Union's energy security in gas supply during Russia–Ukraine gas crises (2006–2009), *Energy Strategy Reviews*, Volume 30, 100518, ISSN 2211-467X, <https://doi.org/10.1016/j.esr.2020.100518>.
- Roszbach, N., H., (2018). The Geopolitics of Russian Energy Gas, oil and the energy security of tomorrow, [www.foi.se/FOIR4623%20\(3\).pdf](http://www.foi.se/FOIR4623%20(3).pdf) Accessed 19/04/2023

REFERENCES

- Ruble, I., (2017). *European Union energy supply security: The benefits of natural gas imports from the Eastern Mediterranean*, Energy Policy, Volume 105, June 2017, Pages 341-353, <https://doi.org/10.1016/j.enpol.2017.03.010>
- Ruggiano, N. and Perry, T.E. (2019). Conducting Secondary Analysis of Qualitative data: Should we, Can we, and how? *Qualitative Social Work*, [online] 18(1), pp.81–97. doi:<https://doi.org/10.1177/1473325017700701>.
- Russel, M. (2020). Energy security in the EU's external policy. doi:<https://doi.org/10.2861/10775>. [https://www.europarl.europa.eu/cmsdata/210517/EPRS_IDA\(2020\)649334_EN.pdf](https://www.europarl.europa.eu/cmsdata/210517/EPRS_IDA(2020)649334_EN.pdf) Accessed 19/11/2023
- Ryon, E. (2020). European strategic autonomy: Energy at the heart of European security? *European View*, 19, 238 - 244.
- Rzayeva, G. (2018). *Energy Insight: 24 Gas Supply Changes in Turkey*. [online] Available at: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/01/Gas-Supply-Changes-in-Turkey-Insight-24.pdf>. Accessed 29/10/2023
- Rzayeva, G., (2020a). Quarterly Gas Review: Gas Price Volatility and Changing Dynamics in Southern Europe, *The Oxford Institute for Energy Studies*, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/10/Quarterly-Gas-Review-Issue-11.pdf> Accessed 30/11/2023
- Rzayeva, G., (2020b). The Renewal of Turkey's Long Term Contracts: Natural gas market transition or 'business as usual'?, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2020/09/Insight-72-The-Renewal-of-Turkey%E2%80%99s-Long-Term-Contracts.pdf> Accessed 20/11/2023
- Safdie, S. (2023). *What are the three pillars of sustainable development?* [online] greenly.earth. Available at: <https://greenly.earth/en-us/blog/company-guide/3-pillars-of-sustainable-development>. (Accessed 22/08/2023)
- Sagers, M.J., Webb, C.J., Ruseckas, L. (2011). *New Realities in Oil Transit Through the Turkish Straits*, HIS Cera, Cambridge, MA
- Salameh, R., Chedid, R., (2020). Economic and geopolitical implications of natural gas export from the East Mediterranean: The case of Lebanon, Energy Policy, Volume 140, May 2020, 111369, <https://doi.org/10.1016/j.enpol.2020.111369>
- Sartori, N., (2017). *Turkey Transatlantic Relations, Cooperation on Energy Security: The European Perspective*, Ed. By Toperich, S., and Ünver Noi, A., Center for Transatlantic Relations
- Sartori, N., (2021). EU–Turkey Energy Dialogue: Moving Beyond the Accession Negotiations Framework, *EU-Turkey Relations Theories, Institutions, and Policies*, Ed. By Reiners, W., Turhan, E., Palgrave Macmillan

- Saygin, D., M. Hoffman, and P. Godron. (2018). "How Turkey Can Ensure a Successful Energy Transition." *How Turkey Can Ensure a Successful Energy Transition - Center for American Progress* Accessed 22/06/2023
- Saygin, D., et al. (2019). Enhancing Turkey's policy framework for energy efficiency of buildings, and recommendations for the way forward based on international experiences, *Buildings-Energy-Efficiency-Policy-Working-Paper-3.pdf* (shura.org.tr) Accessed 06/06/2023
- Schislyaeva, E., Evgrafova, I., Butakova, N., Mishalchenko, Y. (2022). The EU-Russia-Turkey energy triangle: legal and economic conditions of gas transportation via the TurkStream pipeline. *Transportation Research Procedia*, 63, 1984-1990.
- Scholten, D., Crikemans, D., Van de Graaf, T. (2019). An Energy Transition Amidst Great Power Rivalry. *Journal of International Affairs*, 73(1), 195-204. doi:10.2307/26872789
- Scholl, E. (2018). *Shaping Iraq's Oil and Gas Future* (pp. 10-13, Rep.). Atlantic Council. Retrieved December 13, 2020, from <http://www.jstor.org/stable/resrep16784.6> Accessed 05/05/2023
- Schenk, C.J., Mercier, T.J., Finn, T.M., Woodall, C.A., Marra, K.R., Leathers-Miller, H.M., Le, P.A. and Drake II, R.M. (2021). *Assessment of undiscovered conventional oil and gas resources in the eastern Mediterranean area, 2020*. [online] pubs.er.usgs.gov. Available at: <https://pubs.er.usgs.gov/publication/fs20213032> Accessed 06/07/2023
- Siccardi, F., (2024). Understanding the Energy Drivers of Turkey's Foreign Policy, *Carnegie Europe*; Available at: <https://carnegieeurope.eu/2024/02/28/understanding-energy-drivers-of-turkey-s-foreign-policy-pub-91733#:~:text=Today%2C%20the%20country%20is%20connected,regional%20hub%20for%20energy%20trade>. Accessed 03/03/2024
- Simon, F. and Taylor, K. (2022). *EU tables €300bn plan to ditch Russian fossil fuels, speed up green transition*. [online] www.euractiv.com. Available at: <https://www.euractiv.com/section/energy/news/eu-tables-e300bn-plan-to-ditch-russian-fossil-fuels-speed-up-green-transition/>. Accessed 23/10/2023
- Simon, F. (2023). *With Russian gas gone, coal makes EU comeback as 'traditional fuel'*. [online] www.euractiv.com. Available at: <https://www.euractiv.com/section/coal/news/with-russian-gas-gone-coal-makes-eu-comeback-as-traditional-fuel/> [Accessed 14 Oct. 2023].
- Shah, R., (2009). *The Geopolitics of Water and Oil in Turkey*. Available at: https://www.ifri.org/sites/default/files/atoms/files/ruchirpaper_1.pdf. Accessed 17/11/2023
- Sharma, A. (2023). *Turkey discovers natural gas worth over \$500bn in the Black Sea*. [online] *Offshore Technology*. Available at: <https://www.offshore->

REFERENCES

- technology.com/news/turkey-discovers-natural-gas-in-black-sea/?cf-view [Accessed 22 Nov. 2023].
- Shoeib, EAH; Infield, EH; Renski, HC. (2023). Measuring the impacts of wind energy projects on US rural counties' community services and cost of living, *Energy Policy*, Volume 153, <https://doi.org/10.1016/j.enpol.2021.112279>.
- Slay, I.. (2022). *The Era Of Cheap Oil Has Come To An End*. OilPrice.com [online] Available at: <https://oilprice.com/Energy/Crude-Oil/The-Era-Of-Cheap-Oil-Has-Come-To-An-End.html> [Accessed 22 Sep. 2023].
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333-339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Socar, (2023). *Southern Gas Corridor | SOCAR Germany*. [online] Available at: <https://socar.de/en/socar-2/southern-gas-corridor/>. Accessed 10/06/2023
- Souleimanov, E. and Kraus, J. (2012). Turkey: An Important East-West Energy Hub. *Middle East Policy*, 19(2), pp.157–168. doi:<https://doi.org/10.1111/j.1475-4967.2012.00542.x>.
- Sözcü TV (2023). *'Karadeniz Gazı' da İthalmiş! Fatih Portakal 'Bu da Yalanmış' Diyerek Tek Tek Anlattı!* [online] Available at: <https://www.youtube.com/watch?v=K7eJmW8gK8w>. Accessed 06/11/2023
- Statista, (2022). *Dependence on Russian gas by European country 2021*. [online] Available at: <https://www.statista.com/statistics/1201743/russian-gas-dependence-in-europe-by-country/#:~:text=Dependence%20on%20Russian%20gas%20in%20Europe%202021%2C%20by%20countrytext=For%20North%20Macedonia%2C%20Moldova%2C%20and> Accessed 10/11/2023
- Statista (2023a). *Russian Gas Dependence in Europe by Country 2020*. [online] Statista. Available at: <https://www.statista.com/statistics/1201743/russian-gas-dependence-in-europe-by-country/>. Accessed 02/09/2023
- Statista. (2023b). *Turkey: primary energy consumption 2022*. [online] Available at: <https://www.statista.com/statistics/892848/primary-energy-consumption-turkey/#:~:text=Turkey> [Accessed 24 Sep. 2023].
- Statista (2023c). *Leading countries for primary energy consumption 2018*. [online] Statista. Available at: <https://www.statista.com/statistics/263455/primary-energy-consumption-of-selected-countries/>. Accessed 25/09/2023
- Statista, (2023d).: *Natural gas in Europe*. [online] Statista. Available at: <https://www.statista.com/topics/10115/natural-gas-in-europe/#topicOverview>. Accessed 25/09/2023

- Steffen, B., Patt, A. (2022). A historical turning point? Early evidence on how the Russia-Ukraine war changes public support for clean energy policies. *Energy Research & Social Science*, 91, 102758. <https://doi.org/10.1016/j.erss.2022.102758>
- Stulberg, A.N., (2017). Natural gas and the Russia-Ukraine crisis: Strategic restraint and the emerging Europe-Eurasia gas network, *Energy Research Social Science*, Volume 24, p. 71-85, ISSN 2214-6296, <https://doi.org/10.1016/j.erss.2016.12.017> <https://www.sciencedirect.com/science/article/pii/S2214629616303206>
- Sullivan, B. (2022). Russia's at War with Ukraine. Here's How We Got Here. *NPR*. <https://www.npr.org/2022/02/12/1080205477/history-ukraine-russia>. Accessed 10/11/2023
- Syvitski, J., Waters, C. N., Day, J., Milliman, J. D., Summerhayes, C., Steffen, W., Zalasiewicz, J., Cearreta, A., Gałuszka, A., Hajdas, I., Head, M. J., Leinfelder, R., McNeill, J. R., Poirier, C., Rose, N. L., Shotyk, W., Wagemich, M., Williams, M. (2020). Extraordinary human energy consumption and resultant geological impacts beginning around 1950 CE initiated the proposed Anthropocene Epoch. *Communications Earth Environment*, 1(1), 1-13. <https://doi.org/10.1038/s43247-020-00029-y>
- SP Global (2023). *Can Sakarya pave the way for Turkey's gas independence?* [online] Available at: <https://www.spglobal.com/commodityinsights/en/ci/research-analysis/can-sakarya-pave-the-way-for-turkeys-gas-independence.html>. Accessed 20/02/2024
- Tagliapietra, S. (2016). Exploring the Potential for Energy Efficiency in Turkey. (Rep.). Fondazione Eni Enrico Mattei (FEEM). Retrieved November 20, 2020, from <http://www.jstor.org/stable/resrep15083> Accessed 01/05/2023
- Talbot, V., Dalay, G., Lesser, I., Tastan, K. (2020). *Turkey and the West: Keep the Flame Burning* (pp. 15-17, Rep.). German Marshall Fund of the United States. doi:10.2307/resrep25046.7
- Tagliapietra, S. (2018). A New Strategy for EU-Turkey Energy Cooperation. *Turkish Policy*, Available at: http://turkishpolicy.com/files/articlepdf/a-new-strategy-for-eu-turkey-energy-cooperation_en_1369.pdf [Accessed 19 Nov. 2023].
- Tagliapietra, S. (2020). *Eastern Mediterranean Gas: What Prospects for the New Decade?* Bruegel, The Brussels-based economic think tank. [online] Available at: <https://www.bruegel.org/comment/eastern-mediterranean-gas-what-prospects-new-decade> [Accessed 15 Feb. 2024].
- Tagliapietra, S. (2022). *The geopolitics of energy in Europe: Short-term and long-term issues*. [online] Available at: <https://www.funcas.es/articulos/the-geopolitics-of-energy-in-europe-short-term-and-long-term-issues/>. Accessed 18/09/2023

REFERENCES

- Tanchum, M., (2020). The Geopolitics of the Eastern Mediterranean Crisis: A Regional System Perspective on the Mediterranean's new Great Game, <https://www.kas.de/en/web/tuerkei/single-title/-/content/eastern-mediterranean-in-uncharted-waters-perspectives-on-emerging-geopolitical-realities-1> Accessed 20/06/2023
- Tanchum, M., (2021). Turkey's Rise as an Inter-regional Power Requires Rapprochement with Egypt, <https://www.turkeyanalyst.org/publications/turkey-analyst-articles/item/665-turkeys-rise-as-an-inter-regional-power-requires-rapprochement-with-egypt.html> Accessed 15/05/2023
- TAP, (2023). *The Southern Gas Corridor*. Trans Adriatic Pipeline (TAP). [online] Available at: <https://www.tap-ag.com/about-tap/the-big-picture/the-southern-gas-corridor>. Accessed 20/11/2023
- Tastan, K., Kutschka, T. (2019). (Rep.). The Implications of Eastern Mediterranean Gas for Turkey. German Marshall Fund of the United States. doi:10.2307/resrep21243
- Tastan, K., (2021). Defining New Modes, Models, and Agendas for EU-Turkish Relations, <https://www.gmfus.org/publications/defining-new-modes-models-and-agendas-eu-turkish-relations> Accessed 25/06/2023
- Tastan, K. (2022). Decarbonising EU-Turkey Energy Cooperation: Challenges and Prospects, *SWP Comment 2022/C 23*, 29.03.2022, 8 Seiten, doi:10.18449/2022C23 Available at: <https://www.swp-berlin.org/10.18449/2022C23/> Accessed 16/01/2024
- Tekin, A. and Walterova, I. (2007). Turkey's Geopolitical Role: The Energy Angle. *Middle East Policy*, 14(1), pp.84–94. doi:<https://doi.org/10.1111/j.1475-4967.2007.00286.x>.
- Teller, N. (2023). *Turkey And Greece Shake Hands – OpEd*. [online] Eurasia Review. Available at: <https://www.eurasiareview.com/29092023-turkey-and-greece-shake-hands-oped/> [Accessed 4 Feb. 2024].
- Tichy, L., (2018). The diversification discourse of Russia and its energy relations with the EU, *Asia Eur J* (2019) 17:179–193 <https://doi.org/10.1007/s10308-018-0518-5> Accessed 31/05/2023
- The Economist. (2018). *Clean power is shaking up the global geopolitics of energy*. [online] Available at: <https://www.economist.com/special-report/2018/03/15/clean-power-is-shaking-up-the-global-geopolitics-of-energy> [Accessed 24 Jul. 2022].
- Thompson, H. (2022) *Disorder: hard times in the 21st Century*. First ed. Oxford, United Kingdom: Oxford University Press.

REFERENCES

- Tziarras, Z., (2021). Energy and Sovereignty in the New Geopolitics of the Eastern Mediterranean, *Forum*, Oxford Institute for Energy Studies, February 2021, Issue 126, OEF-126.pdf (oxfordenergy.org), Accessed 24/04/2023
- United Nations (2018). *Energy - United Nations Sustainable Development*. [online] United Nations Sustainable Development. Available at: <https://www.un.org/sustainabledevelopment/energy/>. Accessed 22/06/2023
- Unver Noi, A., (2018). Gas for peace or war in eastern Mediterranean?, <https://www.aa.com.tr/en/analysis-news/analysis-gas-for-peace-or-war-in-eastern-mediterranean/1089967> Accessed 18/05/2023
- Valansi, K., (2021). Turkey is seeking a fresh start with Israel, <https://www.atlanticcouncil.org/blogs/turkeysource/turkey-is-seeking-a-fresh-start-with-israel/> Accessed 20/03/2023
- Van de Graaf, T. (2021). *The next prize: geopolitical stakes in the clean hydrogen race*, The Oxford Institute for Energy Studies. Available at: <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2021/02/OEF-126.pdf> Accessed: 01/09/2023
- Viñuales, J.E., (2023). *The Ukraine war and the energy transition - Groupe d'études géopolitiques*. [online] Available at: <https://geopolitique.eu/en/articles/the-ukraine-war-and-the-energy-transition/>. Accessed 12/03/2024
- Wang, Q., Su, M., Li, R., Ponce, P. (2019). The effects of energy prices, urbanization and economic growth on energy consumption per capita in 186 countries. *Journal of cleaner production*, 225, 1017-1032.
- Wickham, R. (2019). Secondary Analysis Research. *Journal of the Advanced Practitioner in Oncology*, [online] 10(4), pp.395–400. doi:<https://doi.org/10.6004/jadpro.2019.10.4.7>.
- Widmaier, W.W., Blyth, M. and Seabrooke, L. (2007). Exogenous Shocks or Endogenous Constructions? The Meanings of Wars and Crises. *International Studies Quarterly*, 51(4), pp.747–759. doi:<https://doi.org/10.1111/j.1468-2478.2007.00474.x>.
- Wettengel, J. (2023). *Germany's dependence on imported fossil fuels*. [online] Clean Energy Wire. Available at: <https://www.cleanenergywire.org/factsheets/germanys-dependence-imported-fossil-fuels>. Accessed 18/09/2023
- Wierink, G., (2022). Jurak, N. (2022). *REPowerEU: A boost for the European energy transition*. [online] Publyon. Available at: <https://publyon.com/repowereu-a-boost-for-the-european-energy-transition/> [Accessed 14 Oct. 2023].
- World Bank. (2022). *Commodity prices surge due to the war in Ukraine*. [online] [blogs.worldbank.org](https://blogs.worldbank.org/developmenttalk/commodity-prices-surge-due-war-ukraine). Available at: <https://blogs.worldbank.org/developmenttalk/commodity-prices-surge-due-war-ukraine>. Accessed 28/12/2023

- World Bank. (2023). *The World Bank in Türkiye Overview*. [online] Available at: <https://www.worldbank.org/en/country/turkey/overview#:~:text=T%C3%BCrkiye>. Accessed 20/04/2023
- Winrow, G. (2009). *Problems and Prospects for the "Fourth Corridor": The Position and Role of Turkey in Gas Transit to Europe* (Publisher's version). Oxford Institute for Energy Studies.
- Winrow, G., Tzimitras, H., Faustmann, H. (2016). *Global Energy Debates and the Eastern Mediterranean* (pp. 15-22, Rep.) (Moran A., Ed.). Atlantic Council. Retrieved January 2, 2021, from <http://www.jstor.org/stable/resrep17091.6>
- Winter, O., Lindenstrauss, G. (2019). *Beyond Energy: The Significance of the Eastern Mediterranean Gas Forum*. (Rep.). Institute for National Security Studies. doi:10.2307/resrep19476
- Wintour, P. (2023). What was the Black Sea grain deal and why did it collapse? *The Guardian*. [online] 20 Jul. Available at: <https://www.theguardian.com/world/2023/jul/20/what-was-the-black-sea-grain-deal-and-why-did-it-collapse>. Accessed 20/11/2023
- Yergin, D. (2006). Ensuring energy security. *Foreign Affairs*, 85(2), 69-82
- Yezdani, I. (2023). *Ads, Firings and Hostile Takeovers: How Turkey's Govt Came to Control 90% of Its Media*. [online] Available at: <https://thewire.in/media/turkey-press-freedom-m20-demiroren> [Accessed 22 Nov. 2023].
- Yilmaz, Ş., Sever, S. (2016). Linking foreign policy and energy security: An asset or a liability for Turkey? 13. 105-128.
- Yilmaz-Bozkus, R. (2019). Analysis of Turkey's role as a possible energy hub. *GeoJournal*, 84(5), 1353-1364. <https://doi.org/48700057>, <https://www.jstor.org/stable/48700057> Accessed 19/11/2023
- Zachman, G., Tagliapietra, S., McWilliams, B., Sgaravatti, G., (2022). 'Can Europe survive painlessly without Russian gas?' *Bruegel*, [online] Available at: <https://www.bruegel.org/blog-post/can-europe-survive-painlessly-without-russian-gas>. Accessed 03/09/2023
- Zettelmeyer, J., Tagliapietra, S., Zachmann, G. and Heussaff, C. (2022). *Beating the European Energy Crisis*. [online] International Monetary Fund. Available at: <https://www.imf.org/en/Publications/fandd/issues/2022/12/beating-the-european-energy-crisis-Zettelmeyer>. Accessed 22/09/2023
- Zhang, B., Liu, Z., Wang, Z., Zhang, S. (2023). The impact of geopolitical risk on energy security: Evidence from a GMM panel VAR approach. *Resources Policy*, 86, 104222. <https://doi.org/10.1016/j.resourpol.2023.104222>