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THE NATURAL GAS GEOPOLITICS OF TURKEY

by

İBRAHİM SAİD ARINÇ

This Thesis is submitted in fulfilment of the requirements for the degree of the Doctor
of Philosophy at Durham University

School of Government and International Affairs

Durham University

2014

THE NATURAL GAS GEOPOLITICS OF TURKEY

ABSTRACT

This thesis investigates the natural gas geopolitics of Turkey and explores its interaction with the Turkish foreign policy making of the Justice and Development Party (JDP). Whilst Turkey does not have enough indigenous natural gas reserves to meet the existing and growing demand, the country does have great advantages, as it is located between the major supplier countries in the Middle East and Eurasia and is placed at the crossroads of an energy hungry European natural gas market. Therefore, the major aim of this research is to explore capacity building in the creation of relationships of interdependence between Turkey and supplier and demanding countries. Rather than introducing a dependency energy mechanism, this thesis offers the interaction capacity of the country with natural gas suppliers and consuming countries. In order to explain the relationship between politics and energy variables, the thesis establishes the theoretical framework of the study through the use of a pluralistic and integrated model, by combining International Relations Theories, the foreign policy making process of Turkey and a conceptualisation of the relations of energy interdependence.

The descriptive analysis of Eurasia and the energy profile of Turkey provide detailed information about the existing energy trade and dependency relations in the Eurasian space. Hence, it explains the importance of Turkey in Europe's diversification of energy corridors and Turkey's natural gas market, which is considered to be the second biggest market in Europe. The significance and role of Turkey in the construction of pipeline projects (ITGI, TANAP, Nabucco, Nabucco-West and TAP) that go through Turkey to Europe, a route which is called the Southern Corridor, are analysed in the thesis.

On the other hand, this thesis offers certain perspectives for the Caspian-Turkey-Europe natural gas corridor, focusing on Azerbaijan-Turkmenistan's role in the natural gas trade for the energy security of Europe. Moreover, the natural gas potential of Iran, Iraq (including KRG), Qatar, Egypt and Israel, Turkmenistan and Azerbaijan are viewed as major natural gas sources for Turkey and Europe in this thesis.

Turkey has historical and economic ties with the Caspian Sea and Middle East regions, which hold immense natural gas reserves that can be marketed to Turkey and to the European Union (EU). Mapping Turkey's energy relations with consuming and producing countries, and defining Turkey's geopolitical space, will not only help to develop its energy policy to secure its own energy consumption but also to manage interdependence relations between Eurasia and Europe. This is a new conceptualisation of energy supply and transit management of Turkey in the context of a new model called the Anatolian Gas Centre (AGS).

DECLARATION

None of the material contained in this thesis has previously been submitted for a degree at the University of Durham or any other university. None of the material contained in this thesis is based on joint research. The content of this thesis consists of the author's original individual contribution with appropriate recognition of any references being indicated throughout.

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DEDICATION

TO MY FAMILY

ACKNOWLEDGEMENTS

I would like to express my deep gratitude to my supervisor Prof. Anoush EHTESHAMI. Without his guidance and encouragement, this thesis could never have been realized.

I am grateful to H.E. Abdullah GÜL, who has encouraged me to attend the PhD program and supported me throughout my education at Durham University. I would like to thank H.E. Ahmet DAVUTOĞLU, who accepted me as his apprentice-*çırak* for two years, which deeply affected my intellectual and professional career. I am very thankful to H.E. Taner YILDIZ, who gave me a great opportunity to expand my expertise on the natural gas business.

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LIST OF ABBREVIATIONS

| | |
|-------------|---|
| ACER | Agency for the Cooperation of Energy Regulators |
| ACQ | Annual Contract Quantity |
| AGP | Arab Natural Gas Pipeline |
| AGRI | Azerbaijan-Georgia-Romania Interconnector |
| AGS | Anatolian Gas Centre |
| AGSC | Azerbaijan Gas Supply Company |
| BCM | Billion Cubic Metres |
| BIL | BOTAŞ International Limited |
| BLACKSEAFOR | Black Sea Naval Co-operation Task Group |
| BO | Build-Operate |
| BOT | Build-Operate-Transfer |
| BOTAŞ | Petroleum Pipeline Corporation |
| BP | British Petroleum |
| BSEC | Black Sea Economic Cooperation Organization |
| BSNC | Black Sea Naval Commanders Committee |
| BTC | Baku-Tbilisi Crude Oil Pipeline |
| BTE | Baku-Tbilisi-Erzurum Natural Gas Pipeline |
| CASCO | Caspian Sea Co-operation Organization |
| CCGT | Combined-Cycle Gas Turbine |
| CDC | Caspian Development Corporation |
| CEER | Council of European Energy Regulators |
| CERA | Cambridge Energy Research Associates |
| CIEP | Clingendael International Energy Programme |
| CIS | Commonwealth of Independent States |
| CNG | Compressed Natural Gas |
| CNPC | China National Petroleum Corporation |
| CS | Compressor Station |

| | |
|---------|---|
| DCQ | Daily Consumption Quantity |
| EBRD | European Bank for Reconstruction and Development |
| EBT | Electronic Bulletin Table |
| ECP | East Caspian Pipeline |
| ECSEE | Energy Community of South Eastern Europe |
| ECT | Energy Charter Treaty |
| EEZ | Exclusive Economic Zone |
| EIA | Energy Information Administration |
| EIB | European Investment Bank |
| EMRA | Energy Market Regulatory Authority |
| ENTSO-E | European Network of Transmission System Operators for Electricity |
| ENTSO-G | European Network of Transmission System Operators for Gas |
| ERGEG | European Group of Energy Regulators |
| ESPO | East Siberia Pacific Oil Pipeline |
| EU | European Union |
| EURATOM | European Atomic Energy Community |
| FA | Framework Agreement |
| FEC | Fuel Energy Complex |
| FID | Final Investment Decision |
| FSU | Former Soviet Union |
| GATT | General Agreement on Tariffs and Trade |
| GAZBİR | Union of Natural Gas Distribution Companies |
| GDP | Gross Domestic Product |
| GECF | Gas Exporting Countries Forum |
| GHG | Greenhouse Gas |
| GTC | General Terms and Conditions |
| GtL | Gas to Liquids |
| GUSA | Gulf-South Asia Pipeline |

| | |
|--------|--|
| HGA | Host Government Agreement |
| IEA | International Energy Agency |
| IFI | International Financing Institute |
| IGA | Intergovernmental Agreement |
| IGAT | Iran Gas Trunkline |
| IGB | Interconnector Greece-Bulgaria |
| İGDAŞ | İstanbul Natural Gas Distribution Corporation |
| IGI | Interconnector Greece-Italy |
| IGU | International Gas Union |
| ILSA | Iran-Libya Sanctions Act |
| IOC | International Oil Company |
| ISO | Independent System Operators |
| ITAG | Interconnector Turkey-Azerbaijan-Georgia |
| ITB | Interconnector Turkey-Bulgaria |
| ITG | Interconnector Turkey-Greece |
| ITGEP | Iraq Turkey Gas Export Pipeline |
| ITGI | Interconnector Turkey-Greece-Italy |
| İZGAZ | İzmit Natural Gas Distribution Corporation |
| JDP | Justice and Development Party |
| KRG | Kurdish Regional Government |
| LNG | Liquefied Natural Gas |
| LPG | Liquefied Petroleum Gas |
| MCM | Million Cubic Metres |
| MENA | Middle East and North Africa |
| MENR | Ministry of Energy and Natural Resources of Republic of Turkey |
| MERSC | Middle Eastern Regional Security Complex |
| MMSCMD | Million Metric Standard Cubic Metre per Day |
| MoU | Memorandum of Understanding |

| | |
|-------|--|
| MW | Megawatt |
| NATO | North Atlantic Treaty Organization |
| NFGP | North Field Gas Plant |
| NGEC | Natural Gas Export Company of Iran |
| NGL | Natural Gas Liquids |
| NIC | Nabucco International Company |
| NIGC | National Iranian Gas Company |
| NIOC | National Iranian Oil Company |
| NOC | National Oil Corporation |
| NPT | Nadym Pur Taz |
| OECD | Organization for Economic Co-operation and Development |
| ONGC | Oil and Natural Gas Corporation of India |
| OPEC | Organization of the Petroleum Exporting Countries |
| PPP | Public Private Partnership |
| PSA | Production Sharing Agreement |
| SCP | Southern Caspian Pipeline |
| SCPX | Southern Caspian Pipeline Expansion |
| SD-1 | Shah Deniz Phase I |
| SD-2 | Shah Deniz Phase II |
| SDC | Shah Deniz Consortium |
| SEE | South Eastern Europe |
| SOCAR | State Oil Company of Azerbaijan Republic |
| SPA | Sales and Purchase Agreement |
| TANAP | Trans-Anatolian Natural Gas Pipeline |
| TAP | Trans-Adriatic Natural Gas Pipeline |
| TCA | Turkish Competition Authority |
| TCGP | Trans-Caspian Natural Gas Pipeline |
| TCM | Trillion Cubic Metres |

| | |
|-------|--|
| TEİAŞ | Turkish Electricity Distribution Company |
| TEN-E | Trans-European Energy Networks |
| TOE | Tonnes of Oil Equivalent |
| ToP | Take-or-Pay |
| TPA | Tonnes per Annum |
| TPAO | Turkish Petroleum Corporation |
| TSO | Transmission System Operator |
| UAE | United Arab Emirates |
| UGSS | Russian Unified Gas Supply System |
| UK | United Kingdom |
| UN | United Nations |
| US | United States |
| USGS | United States Geological Survey |
| USSR | Union of Soviet Socialist Republics |
| WEO | World Energy Outlook |
| WWI | World War I |
| WWII | World War II |

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INTRODUCTION

THE NATURAL GAS GEOPOLITICS OF TURKEY

...We firmly support the southern natural gas corridor projects that envisage transferring natural gas from the Caspian basin and Central Asia to Europe via alternative routes, in order to provide our own energy supply security and to contribute to the energy supply security of Europe...

Turkish Prime Minister Recep Tayyip Erdoğan¹

Due to rapid economic and industrial growth in Turkey, the Turkish government has moved to seek new energy sources and to diversify hydrocarbon imports from the Caspian and Middle East regions. In the first quarter of 2012, Turkey's economy expanded by 3.2%, with the energy sector recording the highest growth rate (8.4%), data from the Turkish Statistics Institute showed. On 26 June 2012, Turkey finalised an Intergovernmental Agreement (IGA) with Azerbaijan to construct a USD 7 to 10 billion Trans-Anatolian Natural Gas Pipeline (TANAP). Under the legal umbrella of this agreement, which was ratified by the Turkish General Assembly on 22 November 2012, the TANAP pipeline will have the capacity to accommodate gas from full field development of Shah Deniz Phase 2 as well as other parts of Azerbaijan and Turkmenistan as a future build-up volume prospect.

Turkey's fragile energy security status was evident most recently in its struggle to cope with dependence on oil and gas from Iran and Russia. Hence, Turkish Energy Minister Taner Yıldız announced that Turkey planned to construct three nuclear power plants by 2030 in order to reduce dependence on natural gas for electricity generation. In addition to this, the Turkish government offers an incentive scheme for coal investment used for electricity generation for the next thirty years. It is important to note that oil and gas currently make up 59% of Turkey's energy supplies, and gas

¹ "Turkey and Azerbaijan Ink Deal for \$7 bln Gas Project," *Hurriyet Daily News*, June 27, 2012, accessed August 5, 2012, <http://www.hurriyetdailynews.com/turkey-andazerbaijan-ink-deal-for-7blngasproject.aspx?pageID=238&nID=24159&NewsCatID=348>.

accounts for 50% of Turkey's electricity generation, despite having the potential to generate up to 90–100 billion kilowatt hours (kWh) from hydroelectric sources, 120 billion kWh from wind farms, 5–16 billion kWh from geothermal power, 380 billion kWh from solar energy, 35 billion kWh from biofuel plants, and 108–116 billion kWh from lignite power stations. These figures indicate clearly that as Turkey's energy demands continue to rise, so too do the investment opportunities in both the traditional and renewable sectors, though natural gas is seen as one of the key sectors in Turkish and European energy markets.

1. THE AIMS AND OBJECTIVES OF THE STUDY

This thesis explains the geopolitical importance of Turkey in terms of the energy sector and explores the potential for Turkey to become an 'energy centre' in the international energy market, not only to be an 'energy utility/transit country', but to transform into a regional oil and gas power, strategy making centre and bridge supplier. The focus of this thesis is on the expansion of Turkey's institutional development, which reinforces its 'soft power' strategy in the Caspian, Central Asia and Middle East and North Africa (MENA) regions. The energy politics of Turkey increase Turkey's economic sphere of influence by offering interdependence relations with its natural gas suppliers and consuming countries. Therefore, the main aim of this thesis is to analyse Turkey's energy relations with consuming and producing countries and to define how Turkey's geopolitical space helps not only to develop its energy policy to secure its own energy consumption but also to establish interdependence management for greater co-operation in the Eurasian energy environment. The second aim of this research is to develop a model suggesting that, whilst Turkey maximises its own interest in this regional dynamic, it also creates a new energy strategy for energy supplier and consumer countries, according to their own dynamics and interest measurements. The third aim of this thesis is to ascertain the links between foreign policy making and energy policy, which have come together in Turkish politics towards European and Eurasian countries.

2. SIGNIFICANCE OF THE STUDY

The literature on Turkey's energy politics, especially about natural gas, is very limited. This is because most of the works, so far, have been focused on the general

concept of foreign policy making. The present study is the first comprehensive attempt at exploring Turkey's geopolitical power and institutional development in the natural gas trade in energy markets over the last two decades. Therefore, it aims at identifying the specific incentives of Turkey in natural gas transport. This research utilises domestic, regional and systemic levels of analysis, which provide a new conceptualisation of energy fields in international politics. This research also attempts to clarify contemporary security studies and international relations by adding energy security and a new conceptualisation of the energy trade in terms of natural gas and geopolitics. Thus, this research goes beyond the boundaries of energy economics and Turkish political historiography.

3. LITERATURE REVIEW OF TURKEY'S ENERGY GEOPOLITICS

There are several studies that have focused on Turkey's energy relations with the EU and neighbouring countries. However, these studies have paid attention to specific territories/regions regarding Turkey's relations on energy, and have not introduced/offered a comprehensive study of Turkey's geopolitical position in the subject of energy related issues, natural gas in particular.

Since Turkey is very dependent on imported energy resources, Turkey's energy policy has been seen as a part of foreign policy issues. In this regard, the scholars have tended to investigate Turkey's energy policies in the light of international politics.

One of the major contributions to Turkey's geopolitical literature comes from Turkish Foreign Minister Ahmet Davutoğlu's book *Strategic Depth*, which offers a critical analysis and new reading of Turkey's geopolitical space by suggesting a 'central country' approach to neighbouring countries. We assume that, with this approach, the Minister provides a non-western view of geopolitical imagination by putting Turkey in the centre of the region. Davutoğlu's new approach to Turkish foreign policy will be examined in chapter 2 in more detail. Aras and Fidan expand Davutoğlu's principle of zero problems with neighbouring countries to Eurasia and his new geopolitical reading of Turkey by using historical experience in Turkish foreign policy making.² Also Çarkoğlu and Hale have introduced a mechanism of Turkish foreign policy and

² Aras and Fidan, "Turkey and Eurasia: Frontiers of a New Geographic Imagination," *New Perspectives on Turkey* 40 (2009): 195-217.

provided some indication about energy relations as the instrument of foreign policy making.³

In addition to these studies, some scholars have undertaken valuable thematic studies on Turkey's energy politics. Thematic issues in energy politics are generally classified as energy geopolitics, energy security, import dependency, transit security management and supply security management.

It is important to note that energy geopolitics and energy security are important subject matters of Turkish foreign policy. However, Turkey's energy strategy generally focuses on energy interdependence and supply security management. Hence, the first thematic issue is of the geopolitics of energy has been seen in various journals. A special issue of *Insight Turkey* offers the most comprehensive treatment of that subject. The introductory article, written by Taner Yıldız, Minister of Energy and Natural Resources, explains Turkey's energy strategy which emphasises the importance of renewable and sustainable energy resources.⁴ He also underlines Turkey's geopolitical significance in being more than a bridge and having the potential to become a regional energy centre regarding the provision of the most cost effective means of transportation, access to diverse energy resources, and energy policies based on a political conceptual framework that could help to solve regional and global energy problems.

Another analysis of Turkey's role as a transit or hub country has been elaborated in Roberts' article discussing what a hub country is and the future distinct from other countries in the region that make Turkey especially suitable for being a hub.⁵ According to a common view, a hub is the same as being a crossroads for transit. Roberts also points out that two important features for a trading hub are the necessity of pipelines and liberalization of energy markets. However, Roberts asserts that Turkey has fallen short of these objectives for various reasons so far. With the great emphasis on market liberalization, Roberts contends that if the gas market in Turkey evolves into an open market, Turkey will become a real hub. On the other hand, he

³ Çarkoğlu and Hale, ed., *The Politics of Modern Turkey* (Routledge, 2008).

⁴ Yıldız, "Turkey's Energy Policy, Regional Role and Future Energy Vision," *Insight Turkey* 12 no. 3 (2010): 33-38.

⁵ Roberts, "Turkey as a Regional Energy Hub," *Insight Turkey* 12 no. 3 (2010): 39-48.

remarks that the entire world has seen that there is no choice without Turkey in order to ensure natural gas flows in the region.

In a further study, stressing energy geopolitics, Coşkun and Carlson show the close link between energy and geopolitics by illustrating how the 18th century British and 19th century German power politics were based on the control of energy resources.⁶ They propound that today's energy geopolitics have changing dynamics regarding the increasing eastward demand and intense competition for energy supplies between Asia and Europe. Along with this competition that has given energy-rich states strategic and geopolitical leverage over superpowers, it has generated a wider possibility to manoeuvre for the states that lie at the centre of the supply and demand routes for oil and gas. In these circumstances, there are two main reasons to make Turkey an energy hub, a transit route for the so-called "southern corridor". The first reason is to guarantee the security of supply by insisting on the right to take some of the gas from transit pipelines for its own consumption, known as offtake rights. The other reason is to gain political influence in the region as a result of the ownership of a key structure route. The authors claimed that Turkey could present itself as a solution to Europe's energy problems; however they are not sure whether Turkey can take advantage of this strategic asset or not.

The second thematic issue is that of energy diplomacy. Triantaphyllou and Fotiou suggest that Turkey's energy strategy towards the Middle East and the Caucasus must become coherent in order to achieve its goals, and at the same time Turkey's approach towards the US, the EU, and Russia is to be balanced.⁷ To accomplish these goals, the authors see the implementation of Davutoğlu's theory, known as "zero problems with neighbours", by the JDP government as a rational thing to do. Similarly, Öğütçü outlines the world financial system in terms of secure energy trading.⁸ However, he contends that the current world energy system is a long way from being sustainable, because of rising demand over the long term, dominance of fossil fuels, inaccessible supplies, price volatility, inadequate investment, geopolitical tensions and climate

⁶ Coşkun and Carlson, "New Energy Geopolitics: Why does Turkey Matter?" *Insight Turkey* 12 no. 3 (2010): 205-220.

⁷ Triantaphyllou and Fotiou, "The EU and Turkey in Energy Diplomacy," *Insight Turkey* 12 no. 3 (2010): 55-62.

⁸ Öğütçü, "Turkey and the Changing Dynamics of World Energy: Towards Cleaner and Smarter Energy," *Insight Turkey* 12 no. 3 (2010): 63-88.

change. Besides those problems, Ögütçü claims that Turkey has emerged as an important actor to reckon with as a customer, transporter, and investor in energy. Thus, Turkey's rhetoric about being a regional energy hub has been turned into concrete actions through the alignment of foreign and energy policies, being a reliable transit country, making strategic investments in clean energy, energy efficiency improvements, and developing an integrated energy management and vision. On the other hand, Ögütçü praises Turkey for acting in pursuit of its own self-interest, rather than following the dictates of Washington or Brussels in a sheepish manner.

In contrast to Ögütçü's arguments, Karbuz and Şanlı criticise Turkey's existing energy strategy documents for being either short term or without any time horizon.⁹ They also indicate that the term "strategy" in these documents is misused, as they are talking about existing and planned oil and gas infrastructure and focusing on the desired ends but not on the ways and means of achieving these goals. After remarking on Turkey's lack of coherent, comprehensive and flexible energy strategy, the authors recommend a couple of policies for formulating a new energy strategy. According to Karbuz and Şanlı, Turkey's energy strategy has to focus on ensuring long-term energy supply at affordable prices and on Turkey's geopolitical role with respect to regional and international energy concerns. As John Roberts stressed in his aforementioned article, Karbuz and Şanlı mention the importance of fair competition and market liberalization on energy for a solid strategy. As another issue for a new energy strategy, the authors touch upon environmental challenges and suggest that renewables have to be supported by the state due to their need for expensive investment.

Turkey's energy relationship with Russia is addressed by Ediger and Bağdadi.¹⁰ They cover the history of Turkey's relations with Russia in the energy sector dating back to the early 19th century and claim that the events of the early 20th century in the area of energy in Turkey-Russia relations are quite similar to those of the present day. Furthermore, they emphasize the asymmetric trade partnership between Russia and Turkey, in favour of Russia, and Turkey's extreme dependence on Russian energy

⁹ Karbuz and Şanlı, "On Formulating a New Energy Strategy for Turkey," *Insight Turkey* 12 no. 3 (2010): 89-105.

¹⁰ Ediger and Bağdadi, "Turkey–Russia Energy Relations: Same Old Story, New Actors," *Insight Turkey* 12 no. 3 (2010): 221-236.

supplies. Therefore, not only diversification of energy sources but also partnerships in energy sub-sectors are needed as an essential part of Turkey's energy geopolitics. Ediger and Bağdadi affirm that there is competition in Turkey's territory over whether the western-promoted Nabucco project or the Russian-promoted South Stream project will prevail. Thus, the authors propose that the optimal solution for Turkey is to separate its relations into two as a transit and as a consumer country. With regards to its future as a transit country, Turkey can intensify its relations with the West, while as a consumer country it should concentrate on its relationship with Russia. Consequently, this idea seems similar to Triantaphyllou and Fotiou's suggestion that Turkey's relations with the West and the East have to be balanced.¹¹

By utilizing the "Heartland Theory" of British geographer Halford Mackinder, Alcenat and Özkeçeçi-Taner attempt to explain the current geopolitical conditions in Eurasia.¹² With regard to the significance of the Caspian basin and its oil and gas deposits, it is indicated that access to Central Asia's resources extends the national, regional, and world-wide influence of a country. Within this context, the Caucasus is seen as a strategic gate. The authors say that the US failure to balance Russian power in energy resources and export routes in the region in an effective manner has limited the involvement of the US and the EU in Central Asia and the Caucasus, while Russian dominance in the region is currently at its highest level.¹³ On the other hand, a new emphasis on revitalizing pan-Turkist, pan-Ottomanist or pan-Islamist policies in Turkish foreign policy is seen to be avoided. Instead, the authors recommend the conceptualization of the region by Turkish foreign policy makers in the context of the "Greater Middle East Region", a term used by the Bush Administration of 2000 to 2008. Furthermore, the authors claim that Turkey's moderately warm relations with Azerbaijan and choked relations with Armenia, mainly because of the Nagorno-Karabakh conflict, hinder the creation of an effective foreign policy for Turkey in the region. Consequently, the main point highlighted in the article is that Turkish foreign policy makers should take a pragmatic and realistic rather than an ideological approach in their actions vis-à-vis the region. After all, this point can be seen in the

¹¹ Triantaphyllou and Fotiou, "The EU and Turkey in Energy Diplomacy."

¹² Alcenat and Özkeçeçi-Taner, "Potential Roles for Turkey as a Rising Regional Actor in Eurasia," *Insight Turkey* 12 no. 3 (2010): 237-253.

¹³ Ibid.

above-mentioned studies, which argue that Turkish foreign policy towards the region seems to lack a realistic approach.

On the one hand, the third thematic issue is that the domestic structure of Turkish energy mechanisms has not received much attention in either the policy or the academic environment. However, Roberts' emphasis on the need for the liberalization of the Turkish energy market could be seen as an important analysis. That article also highlights BOTAŞ's control of around 80% to 90% of the energy market in Turkey in terms of the necessity for transparency. Yet, Babalı contends that energy should be a main pillar of Turkish foreign policy in terms of engagement and integration in the region.¹⁴ Firstly, he criticises the EU's attempt to sign contracts with Iran on gas purchases without even consulting with Turkey, while being hesitant in opening the energy chapter negotiations with Turkey. He proposes that Turkey should not be an easy target for the West and needs to be seen as a "central country" in the region instead of as a peripheral one. Within this context, the author suggests that Turkey needs to adopt a new proactive energy diplomacy in line with its own self-interest rather than following strictly the requirements of its traditional alliances. As previously mentioned, this is not the first suggestion of the necessity for the protection of Turkey's own interests. Babalı sees an emerging activism in Turkey's energy diplomacy, and affirms that this should be seen as a redefinition of its self-interest in the energy sector. He also says that Turkey is considering all options in the new geopolitical setting, rather than simply following Western energy security objectives in loyal and unquestioning ways. However, he warns that finding the right balance and bringing all of Turkey's interests into harmony is going to be a challenge in the future.

On the other hand, before the analysis of Turkey's natural gas geopolitics, it is important to conceptualise the region and the energy routes in question. Saygın and Çelik provide a descriptive analysis of the geopolitics of existing pipelines and pipeline projects connecting with Turkey.¹⁵ Also, Karbuz and Castellano analyse the quantitative data regarding the potential and existing natural gas suppliers of

¹⁴ Babalı, "Regional Energy Equations and Turkish Foreign Policy: The Middle East and the CIS," *Insight Turkey* 12 no. 3 (2010): 147-168.

¹⁵ Saygın. and Çelik, *Jeoenerjik Bakış: AB Bağlamında Enerji Politikalarında Jeo Enerji Alanları* (Istanbul: Istanbul Aydın Üniversitesi Yayınları, 2011).

Europe.¹⁶ They basically evaluate the suppliers' gas reserves, status of exploration, evolution of production, domestic consumption rates, export infrastructure and projects. According to this study, two possible solutions appear in order to meet Europe's energy demand: finding additional suppliers and routes, and increasing energy efficiency. The first part of the solution introduces the importance of gas supply from the Caspian region to Turkey, which would allow it to diversify sources and routes, and to diminish dependency on Russia as well. More specifically, Bilgin propounds the WECT (western energy corridor through Turkey) "inner-Caspian" as a new concept for the route through which the hydrocarbon reserves of Azerbaijan, Kazakhstan, and Turkmenistan are transferred to Europe.¹⁷ The "WECT inner-Caspian" is the most reasonable route for Europe to diversify its energy-supply compared to the other alternative energy routes (WECT inner-Caspian, WECT Russia, and WECT Middle East) in economic, geopolitical, political and security terms, Bilgin argues. Furthermore, this new conceptualization underlines Turkey's role as an energy corridor for the transfer of Azeri oil and natural gas, Russian natural gas, Iraqi oil and Iranian natural gas to Europe. However, this conceptualization of Turkey's role is not clear as Winrow distinguishes the two concepts "energy transit" and "energy hub".¹⁸ Based upon this distinction, Turkey, which has already been functioning as an energy transit country, firstly aims to meet the domestic energy demand rather than becoming an "energy hub" even though the latter remains as a strategic goal.

Actually, energy politics has been the main tool for Turkish foreign policy makers in order to re-position Turkey in the post-Cold War conjuncture and adapt to the energy markets. Bacık argues that Turkey succeeded in integrating itself with the energy markets through bilateral agreements and various energy projects.¹⁹ During this adaptation process, Turkey has not only utilised the opportunities in the international system, but also transformed its domestic political and economic structure to meet the

¹⁶ Karbuz and Castellano, "Quantitative Assessment of Europe's Future Gas Import Sources and Routes" (unpublished report, Observatoire Méditerranéen de l'Énergie, 2013).

¹⁷ Bilgin, "New Prospects in the Political Economy of Inner-Caspian Hydrocarbons and Western Energy Corridor Through Turkey," *Energy Policy* 35 no. 12 (2007): 6383-6394

¹⁸ Winrow, "The Southern Gas Corridor and Turkey's Role as an Energy Transit State and Energy Hub," *Insight Turkey* 15 no. 1 (2013): 145-163.

¹⁹ Bacık, "Turkey and pipeline politics," *Turkish Studies* 7 no. 2 (2006): 293-306

demands of the energy market competition. Nevertheless, Turkey's geopolitical position is not irreplaceable and although its geographic position provides a certain degree of advantage to Turkey, there are some specific events to which Turkey has to pay attention in order to preserve and strength its geopolitical role. First, it is in the interest of Turkey to combine the South-stream and Blue-stream projects. Actually, the agreement with Russia regarding the construction of a part of the South-stream in Turkey's territorial waters in the Black Sea was a significant step in this sense. Second, the trans-Caspian line should be activated before Russia's Caspian line project. Third, a North-South direction between the Caspian Sea and the Persian Gulf, which is the most preferable way for the US, would undermine Turkey's role. Additionally, if the South-flow or North-flow projects of Russia are realized without Turkey's participation somehow, Turkey might lose its essentiality in geopolitical terms.

Despite all these exogenous developments, the new foreign policy doctrine of the Turkish government in recent years has stimulated a significant effort to utilize the energy co-operation for constructing economic interdependence and so resolving political disputes. The Turkish government, which has constructed a new "geographical imagination", has re-defined its priorities in international affairs and pursuit of trade and energy partnerships have replaced security concerns in the relations with Caspian and Central Asian countries. The new Turkish foreign policy towards this region is based upon "positive sum" and "zero problems with neighbours" principles which lead to more co-operative approaches. This approach, unsurprisingly, has paved the way for new energy partnerships, those echoed in Turkey's political relations with the regional actors. The Turkey-Russia relationship, for example, has been transformed from "adversity" to a "managed competition", thanks to the energy co-operation and economic interdependence they have.

However, this promising approach is faced with some limitations as can be observed in Turkey-Azerbaijan relations. Kardaş argues that strategic non-overlapping interests of Turkey and Azerbaijan are impeding the desired smooth energy partnerships and political relations. Thus, it might be necessary to consider a shift from the current

“overly optimistic” foreign policy doctrine.²⁰ Furthermore, Kinnander points out, despite the successful political and diplomatic relations, the failure of an energy/trade partnership between Turkey and Iran would also undermine Iran’s position for the “southern corridor” in the South energy line to Europe.²¹ Similarly, Winrow points out the problematic energy supply from Iran due to the economic and financial sanctions regarding Iran’s nuclear programme and how it distorts the calculations about the “fourth corridor”.²²

Turkey’s key role in energy transfer routes from Asia to Europe also has particular political implications for Turkey-EU relations, namely the negotiations regarding Turkey’s candidacy for the EU. One of the comprehensive studies was conducted by Biresselioğlu in *European Energy Security – Turkey’s Future Role and Impact*.²³ One of the most recent studies made in the field, it mainly analyses the energy security concepts of Turkey and the EU, and natural gas security is one of the issues discussed. His book provides a descriptive analysis and focuses on the Caspian. Also Baç and Başkan argue that Turkey will become an important energy hub for Europe in the near future and help the EU to decrease its energy dependency on Russia by making available the alternative energy routes.²⁴ Turkey’s key position in such a vital issue for the EU would ease the Turkish accession process since the EU can easily realize the costs of not having Turkey. Similarly, Winrow points out the possible positive impacts of Turkey’s energy geopolitics on the candidacy negotiations and underlines the EU’s need of Turkey.²⁵ However, it would be naïve to think that it is a smooth spill-over process in Turkey-EU relations. As Tekin and Williams assert, the EU has some alternative ways to satisfy its energy need, such as “conservation, ramping up renewables production, and, even within the narrower scope of securing gas imports,

²⁰ Kardaş, “Turkish-Azerbaijani Energy Cooperation and Nabucco: Testing the Limits of the New Turkish Foreign Policy Rhetoric,” *Turkish Studies* 12 (2011): 55-77.

²¹ Kinnander, *The Turkish-Iranian Gas Relationship: Politically Successful, Commercially Problematic* (Oxford: Oxford Institute for Energy Studies, 2010).

²² Winrow, *Problems and Prospects for the ‘Fourth Corridor’: The Positions and Role of Turkey in Gas Transit to Europe* (Oxford: Oxford Institute for Energy Studies, 2009).

²³ Biresselioğlu, *European Energy Security – Turkey’s Future Role and Impact* (Palgrave Macmillan, 2011).

²⁴ Müftüler-Baç and Başkan “The Future of Energy Security for Europe: Turkey’s Role as an Energy Corridor,” *Middle Eastern Studies* 47 no. 2 (2011): 361-378.

²⁵ Winrow, “The Southern Gas Corridor and Turkey’s Role as an Energy Transit State and Energy Hub.”

creating direct access routes to Russian gas”, although all of these would cost more than the projects that include Turkey as an energy corridor.²⁶ Thus, some member states, especially Cyprus, which has already impeded Turkey’s accession process for numerous reasons, would object to considering Turkey as an indispensable energy corridor. Moreover, the “cultural or normative obstacles” cannot be compensated by Turkey’s geopolitical significance. Consequently, the energy partnership and economic interdependence would not automatically bring political gains in Turkey-EU relations, even though they can contribute positively.

However, there are still no scholarly monographs dealing with Turkey’s energy geopolitics, and explaining the nexus between foreign policy and energy politics, the correlations between energy security and foreign policy making. There are not many studies focusing on the energy mechanism, which encourage producer and consumer countries and introduce Turkey as an energy hub from south to north and from east to west. Turkey’s geopolitical positioning and its management of energy relations with supplier and demanding countries is essential to analyse to find out the nexus between international relations and foreign policy making in terms of energy supply security and energy geopolitics. Hence, this thesis will provide a great contribution to Turkish foreign policy by putting natural gas at the centre of energy geopolitics.

4. CONTRIBUTION OF THE STUDY

This study applies multi-paradigm perspectives and ‘integrated’ foreign policy analysis methodology to Turkey’s geopolitics and foreign policy making. It is the first study to conduct a micro-level analysis of Turkey’s geopolitical space and its foreign policy-making capacity in natural gas fields to build interdependent relations between the EU and natural gas producing countries of the Caspian Sea and the Middle East. In considering the influx of economic and institutional developments over recent decades, this study also provides a new interpretation of natural gas politics and energy security, and suggests some modifications to the understanding of energy politics in relation to the foreign policy making process. The further key significance of this study is that it contributes to a new definition of ‘geo-energy’ and of the geopolitical space of Turkey; it also identifies the boundaries of institutional

²⁶ Tekin and Williams, *Geo-politics of the Euro-Asia energy nexus* (Basingstoke: Palgrave Macmillan, 2011).

development in the Turkish natural gas market, which is in the process of integration with the European natural gas market by following common energy policies and seeking and strengthening interdependent relations.

5. RESEARCH METHODOLOGY

The research methodology of this case study is essentially threefold: The methodology of data collection, the level of analysis and data analysis.

5.1. Data Collection Method

The study can be defined as a macro-level outlook, theoretically, but provides great depth to the micro-level analysis model for Turkey's energy geopolitics. However, also reviewed is whatever was received from the public statements of the Turkish Energy Ministry, Russian Energy Ministry, Energy Directorate of the European Union, Official Institutions of Azerbaijan, Turkmenistan, Iran, Iraq, Egypt, Qatar, Israel, Libya, and Algeria. The agreements between parties involve official records that have not yet been de-classified by either side and, consequently, are not available for first-hand inspection. Hence, the joint ventures announced at the end of official talks between the partners, of pipeline projects and companies' annual reviews, including their investment plans, are valuable sources to outline the relevant countries' energy profiles.

The main sources of these were confidential energy intelligence data systems, which the Turkish government pays to bring together to follow developments in the energy markets closely. These include Cambridge Energy Associates (CERA), CEDIGAZ Natural Gas Information Services, and Observatoire Méditerranéen de l'Energie (OME). The publications of the International Energy Agency (IEA), US-Energy Information Administration (EIA) and British Petroleum (BP) Statistical Review of World Energy form valuable sources for this research. This specific method of using data sources is also one of the significant contributions of this thesis. For instance, CERA is used for writing country energy profiles, BP is used to identify the natural gas reserves of a country and CEDIGAZ is used for the general historical data collection and gas trading statistical reviews. World Energy Outlook is used to analyse the future predictions and projections in this research. I have also had the

opportunity to cross-check the data collected from various resources with other reputable ones.

In addition to this, I employ my professional experience and theoretical foundations in the interpretative method used in this research. As an energy expert at BOTAŞ (Petroleum Pipeline Corporation, which is the state-owned crude oil and natural gas pipeline and trading company) (2004–2006), assistant to H.E. Ahmet Davutoğlu, chief foreign Adviser to the Turkish Prime Minister (2006–2008), and energy adviser to the Turkish President (2008-2012), Deputy General Manager of BOTAŞ (since 2012) I have joined the technical teams of cross-border pipeline projects (Nabucco (classic and west), TANAP, ITGI and TAP) and attended the natural gas trade negotiations with Russia, Iran, Azerbaijan, Qatar *etc.*

More specifically, I participated in the natural gas brainstorming team that has been established in the Ministry of Energy and Natural Resources. In addition, I took responsibility for the coordination of the ITGI project within the Turkish governmental institutions. Currently, I am a participant in the negotiation team of Turkey with the Azerbaijan- and BP-led Shah Deniz II Consortium for the transportation and sales of Shah Deniz II gas to Turkish markets and transit to third countries. My personal participation in the meetings and professional responsibilities are very much relevant to my research, and always keep me updated and provide vital information that is very useful for my research.

I gained the opportunity to put my professional experience into an academic form at Durham University. I have benefitted from electronic sources and the hard copy collections of the university library to develop my scholarly discipline.

5.2. Methodology for Data Analysis

There are two types of research methods which are generally used in social sciences, including political science, for both data collection and data analysis: quantitative research methods and qualitative approaches.

5.2.1. Quantitative Analysis

Quantitative methods explain the characteristics of measurement and include an explanation of the types of categories of statistics employed in the research. Three chief quantitative research designs, exploratory, descriptive and causal analyses, will be used in this thesis. Exploratory (probing) research often employs qualitative methods to bring out information that can then be used to design large sample survey studies. Descriptive (survey) research methods provide guidance on how to design and conduct large-sample field surveys. They include how to construct questionnaires to measure public opinion and the attitudes of foreign policy making officers. It is necessary to put questions and opinions into a logical sequence in the formal data-gathering instrument. Causal (experimental) research is a type of experimental approach to science, it describes the experimental method and illustrates how political scientists conduct causal research. The experiments and experimental design are concepts used to design and conduct cause-and-effect research studies. Interpreting explanatory and descriptive statistics identifies the measure of central tendency, of variability, of relative position and of correlation.

5.2.2. Qualitative Analysis

There is no single method for doing qualitative analysis but some of the tradition of text analysis includes: (1) Interpretative analysis, (2) narrative analysis, (3) performance analysis, (4) conservation analysis, (5) schema analysis, (6) content analysis, and (7) analytic induction. The first four of these methods depend on the intuition and erudition of the analyst, while the last four make increasing use of computer programs.

Interpretative analysis is widely practised in social sciences, including political science. The objective of interpretation is to understand the meaning of the original words, given all the conditions of the present. Interpretative analysis is a search for meanings and their interconnection in the expression of political culture, especially in the foreign policy behaviour of states. The method requires deep involvement with culture, including an intimate familiarity with the diplomacy.

The narrative analysis is the search for regularities in how people, within and across culture, tell stories. The major genre of narratives involves recounting an event in

terms of what happened, how did it happen, why did it happen and what was the result. The objective of the narrative analysis is to discover themes and recurring structure.

The performance analysis involves the search for regularities in the delivery of highly stylised narrative, like folk tales, sermons, and political speeches. Turkey's Foreign Minister's and Energy and Natural Resources Minister's policy implementation and speeches were evaluated through performance analysis in this research. Whilst the energy issue was a separate department in the Ministry of Energy and Natural Resources, it has become one of the main instruments of Turkish foreign policy for the last two decades.

The conversation analysis is part of discourse analysis. It is the search for the grammar of ordinary discourse, or talk-in-interaction. It is the study of how people take turns in ordinary discourse - who talks first, who interrupts, who waits for a turn.

These two-type analyses are mostly employed in the inductive tradition of social sciences, while content analysis and analytic induction are mostly in the deductive tradition. This research is mostly based on inductive or 'open' coding. The idea is to become grounded in the data and to allow understanding to emerge from close study of the texts. Linking themes, building conceptual models and bivariate analysis for testing relations between variables is essential to craft a piece of research.

The content analysis is a set of methods for systematically coding and analysing qualitative data. These methods are used across the social sciences and the humanities to explore explicit and covert meaning in texts, which is also called manifest and latent content, for testing a hypothesis about texts. Sampling in content analysis is an essential tool of text analysis. There are two components of sampling in content analysis. The first is to identify the corpus of texts; the second is aimed at identifying the units of analysis within the texts. The next steps are to develop a codebook and to actually code the text to produce a text-by-theme matrix. In so doing inter code reliability is essential to doing cross-cultural text based research. The analytic induction method is a formal qualitative method for building up casual explanations of the phenomena from a close examination of cases.

5.3. The Level of Analysis

The level of analysis is essential to determine the functionality of variables (independent, dependent and controlled variables), to test the hypothesis of this thesis. There are three types of analysis: international, regional and domestic levels of analysis. This thesis treats both Turkey's energy policy and its interaction capacity with foreign policy changes as primary sources of explanation. Their progressive development has been viewed as a process that is another source of explanation. The methodological and theoretical pluralism in this thesis explains how holistic and micro level approaches work together in Turkish natural gas relations. Turkey's engagement with regional natural gas supplier countries in the Caspian Sea, Black Sea and Middle Eastern regions and its relations with demanding European countries play key roles in Turkey's energy interdependence relations. It is essential to note that, rather than focusing exclusively energy security of Turkey, this research is mainly focused on Turkey's management of interdependence relations at international, regional and domestic levels in the natural gas sector.

One of the strongest contributions of this research is that the author applies pluralistic approaches of theory and method to analyse Turkey's interaction capacity with both sides in the energy sector. The binding of theory with other grounded theoretical and interpretative analysis strategies that meet the criteria of scientific method is verified in Turkey's energy geopolitics and energy interdependence relations. This basically aims at exploring differences and similarities, and investigates whose provisions are more flexible comprehensively by ensuring that all texts and references are comparably accurate.

At the end of the analysis of each unit, an illustrative summary is made of the main findings, with specific emphasis on the policy choices that could be available for Turkey's energy policy. Consequently, this study applies pluralistic approaches and an integrated model of IRT (geopolitics, critical geopolitics and interdependency theory) to clarify the theoretical and intellectual bases of interpretation and content analysis in this study. Each theory explains different dimensions of the energy relations between Turkey and neighbouring countries. Hence, the pluralistic and integrated model provides necessary explanations about interaction capacity and energy interdependence relations as an instrument of Turkish foreign policy making.

6. THE HYPOTHESIS OF THE THESIS

Turkey is already the sixth largest natural gas market of Europe and will become the third biggest energy market in Europe by 2030. Turkey's growing economy and institutional development is integrated with the global economy. The positive developments in the economy have led Turkish foreign policy making to become more active in the energy sector in recent decades. Due to a lack of domestic fossil fuel resources, Turkey is apparently left with a choice between a 'watch and see' policy and a 'pro-active' foreign policy. Turkish foreign policy makers assume a central role in regional policy with a specific reference to Turkey's projected energy hub potential. The interaction between Turkish foreign policy and energy policy found its expression in Turkey considering all possible east-west and north-south projects as possible future venues of energy and in its willingness to host pipelines and distribution systems. Another link is established in accordance with Turkey's regional policy of promoting economic interdependence for backing political relations. Turkish minister of foreign affairs Ahmet Davutoğlu considers multi-country pipeline projects to be constructive attempts to bring regional security and stability.

The definition of Turkey's geopolitical space as a bridge/hub or transit country between energy suppliers and consuming countries is still under discussion in international energy circles. The main determinant factor in energy politics is that of gathering the country's physical and institutional total experience and to use actively its geopolitical condition. The first argument of this thesis is developed as follows: (1) Turkey has a potential to establish reliable relations between the Caspian Sea region, the Middle East and East Mediterranean region and European countries. Turkey has also great potential to manage the opening of the Southern Corridor even if the Nabucco pipeline project has failed. (2) Given its diplomatic and economic capacity and experience Turkey has the ability to introduce an Anatolian Gas Centre, which provides an answer to the expectations of the producer and consumer countries' trading and exchange regimes by acting as a 'regional gas balancing point'. In fact Turkey will have a unique, integrated and well-defined midstream network at the corners of Eurasia, a third-party accessed, regulated, liquid and liberalized gas trading centre dominated by huge expansion of downstream power facilities and gas demand,

and advancing and ambitious upstream efforts in the near-term. The author argues that (3) Turkey has capacity to build interdependence relations with natural gas producing and consuming countries. Because BOTAS operates the natural gas system of Turkey, (4) Turkey will gain a great advantage in satisfying its natural gas supply security and ability to negotiate price reduction due to supply diversification with the materialization of the Anatolian Gas Centre.

7. THE OUTLINE OF THE THESIS

The structure of the thesis is divided into substantive sections, and ultimately consists of nine chapters. Each part sets up a theme with the relevant chapters offering relatively freestanding discussion of particular macro-theoretical settings and empirical micro-analysis. The thesis is outlined through a theoretical approach to energy politics, including descriptive and experimental data analysis of analytical cases of Turkey's natural gas relations.

In Chapter 1, a literature review of international relations theory is conducted, to build integrated approaches to Turkey's energy geopolitics by focusing on geopolitics, critical geopolitics and interdependency theory. This chapter defines the theoretical framework of this study of Turkey being a regional power in the energy sector. Moreover, two key concepts of this dissertation "the concept of energy hub" and "the concept of energy security" have been discussed in Chapter 1.

Chapter 2 explores the nexus between geopolitics and the foreign policy making process and explains continuity and change in Turkish foreign policy making. Rather than reviewing historical process, this chapter prefers to introduce a new conceptualization for Turkish foreign policy periods, with a focus on recent decades. Especially, the foreign policy making of the JDP and Foreign Minister Ahmet Davutoğlu's new ideas and perceptions have been analysed. This chapter also considers the limits and the problematic aspects of Turkish foreign policy.

Chapter 3 gives detailed information on Turkey's energy mix, its natural gas market structure and relations with the natural gas producers of the Caspian Region and Middle East - and with the EU on the other side as the biggest consumer of Eurasia - in conjunction with Turkey's geopolitics and foreign policy.

Chapter 4 gives a detailed picture of the energy security concept in world politics that fits with the theory to explore the importance of the Southern Corridor. The EU structure and its policy making procedures could be analysed with the theory. Aside from the EU's domestic energy implementations, the chapter also shows the existing three natural gas import corridors of the EU, Norway, Russia, North Africa, to demonstrate the level of significance of the Southern Corridor through Turkey.

Chapter 5 explains the geopolitical importance of Turkey for the opening of the Southern Corridor. This chapter provides stories about Turkey-Azerbaijan natural gas relations, especially on TANAP and TAP projects. It explains Turkey's great success in the realization of the Southern Corridor after the failure of the famous Nabucco pipeline project.

Chapter 6 gives more priority to Turkmenistan and Iran in order to expand Turkey's and the Southern Corridor's natural gas import capacity from the eastern reserves. The chapter introduces Iran and Azerbaijan as transit routes of Turkmen gas. At the same time the new potential natural gas resources of both Azerbaijan and Iran will be nominated as important suppliers of the Southern Corridor. In addition, the possibility of a Trans-Caspian Natural Gas Pipeline from Turkmenistan to Azerbaijan will be questioned. The option of Turkmenistan, to dispatch gas to the west through Azerbaijan and Georgia to the Turkish border, is another significant topic. The chapter also explains Turkey's foreign policy diplomacy in the energy sector.

Chapter 7 gives detailed information on potential natural gas suppliers of the Middle East (including Iraq, Qatar, Egypt and Israel) to the Turkish border, considered as the southern branch of the Southern Corridor. The most promising option for the short term seems to be Iraq. In addition the KRG of Iraq pursues independent oil and natural gas export policies and so Turkey is developing a special relationship with the region. In future, a Qatar-Iraq pipeline could be the main gas export route. The recent gas discoveries by Israel in the Mediterranean have potential to make Israel a natural gas export country in the mid-term. Turkey's foreign policy capacity toward the Eastern Mediterranean region will be considered for the realization of the possible gas imports to Turkey. The Arab Gas Pipeline project will be briefly evaluated as well.

Chapter 8 is the main analytical chapter. It explains the strengths and weaknesses of Turkey's foreign policy in terms of energy geopolitics, and opens the discussion about a European hub and hub pricing, and Turkey's initiatives on the opening of the Anatolian Gas Centre and the Southern Corridor. The main conceptualization and theoretical discussion is given in this chapter.

Chapter 9 is the conclusion chapter. It summarizes the main findings of this thesis, the main contribution of which is the combination of theoretical, descriptive and experimental chapters in addressing the subject. Moreover, the final section tries to give new ideas for further research.

Chapter 1

A THEORETICAL FRAMEWORK FOR TURKEY'S ENERGY POLITICS IN INTERNATIONAL RELATIONS

1.1. INTRODUCTION

Since the industrial revolution, the geopolitics of energy has been a determining factor in global prosperity and security. The relative importance of energy has given rise to a new debate in international relations. Some argue that energy variables must be subject to economic viability. However, the majority claims that the geopolitical importance of energy needs and resource management makes them subjects for the broader discipline of geopolitics. The present study argues that energy security requires an effective and coherent policy from both suppliers and buyers, including transporting-country-level analysis. Given the differences in energy supply requirements and the differing perspectives of oil and gas dependency between the EU and Turkey, an integrated approach to energy security is preferred to using geostrategic reasoning.

First of all, geopolitical theories explain the political landscape of Turkey, in which the country is seen as a bridge or energy hub in terms of energy transit. Secondly, critical geopolitical theories suggest the responses of Turkey to demand issues and the enforcement of the energy lobbies, which identify its capacity or lack of it to integrate their energy policies into regional and global energy systems. This chapter will develop the research questions and hypothesis of the thesis after reviewing the literature of international relations theories such as geopolitics, critical geopolitics and interdependency theories. Since it is difficult to explain the complexity of the issue with one theoretical approach, combining the abovementioned theories will be the better method.

Following this analysis, this chapter defines Turkey's geopolitical landscape and introduces a new approach to energy geopolitics from Turkey's perspective.

1.2. OVERVIEW OF GEOPOLITICAL THEORIES

Geopolitics is not an easy term to explain. The beginning of the study of geopolitics could be traced to when the Swedish political scientist Kjellen used the word “geopolitics” in 1899 for the first time. It combines different approaches —economic geography, political geography, political economy and energy policy in international relations. However, it also covers the “conceptual and terminological tradition in the study of the political and strategic relevance of geography”.²⁷ The term introduces the primary characteristics of the relationship between the conduct of foreign policy, political power, and the physical environment. Geopolitics is a basic factor in, and an indication of, power shifts in global politics, especially during the critical turning points of modern history. The constant issue in foreign policy is geography, which plays a dual role in international relations as a fundamental cause for international crises and wars and as a decisive factor in re-adjustments of the international system.

In the international relations discipline, geopolitics is assumed to be a part of the realist branch. However, with the end of the Cold War, critical approaches towards classical theories in international relations theories have been developed and critical geopolitics is one of the subdivisions of the critical approaches.

Since geopolitical thinkers present their concepts to design new maps, and to explain world politics accordingly, to understand contemporary politics it is essential to look at the geopolitics of the multi-polar world order and the theories of imperial designers during the 19th and 20th centuries. Thus, after reviewing the major works of geopolitical thinkers, firstly, the standpoint of critical geopolitics will be explored. Then, the geopolitics of energy and Turkey’s geopolitical context will be examined.

1.2.1. Traditional Geopolitical Approaches

The first major study on geopolitics was published by Alfred Thayer Mahan in 1890. He, the United States admiral and geo-strategist, had introduced the concept of “sea power”, which was established on the notion that “the greater naval power countries have, the greater worldwide influence they will have”; it was notably presented in his

²⁷ Oyvind Osterud, “The Uses and Abuses of Geopolitics,” *Journal of Peace Research* 2 (1988): 191.

well-known book *The Influence of Sea Power Upon History, 1660-1783*²⁸. Furthermore, he introduced the foundational principles of Anglo-American (Atlantic) sea powers for controlling strategic locations on the globe.²⁹ Turkish Foreign Minister Ahmet Davutoğlu in his article claims that five principles of Mahan were adopted by policy makers as the backbone of the US foreign policy. These are shown here as: “(i) the occupation of Hawaii, (ii) control of the Caribbean, (iii) building a canal to link the Atlantic and Pacific oceans, (iv) keeping wars away from US shores, (v) developing alliances for containment.”³⁰ He stressed that the first three suggestions of Mahan became a permanent geostrategic principle of US foreign policy. Mahan’s predictions on competition between the land power of Russia in Eurasia and British (Atlantic) sea power - explaining the common interests of the US, the UK, Germany, and Japan to contain Russia and to control China - became the reality of world politics until WWII.³¹ Mahan maintained that naval power was the single most important factor in determining a nation’s geopolitical power. Sea power was the handmaiden of expansion, and an expansionist US would need to be able not only to project its power across the vast Atlantic and Pacific Oceans but also to defeat any rivals.

As a consequence of the Wars of Religion, Europe had lost its stability, and in the late eighteenth century geopolitical thinking emerged as a reaction to the struggle for stability.³² The geographical arena of Europe was shifted from a physical region into a cultural region in this period.³³ Furthermore, the world was divided into the civilised Europe, especially the British Empire, and non-civilised others. This distinction helped to legitimize their imperial goals by means of colonization. The architect of this notion was Sir Halford J. Mackinder who is regarded as one of the founding fathers of geopolitics. As he studied zoology and geography at university, he was inspired mostly by Social Darwinism. He published his most significant article, “The Geographical Pivot of History”, in 1904. In this, one of the most cited articles in the

²⁸ A. T. Mahan, D.C.L., LL.D., *The Influence of Sea Power Upon History, 1660-1783* (Boston: Little Brown Company, 1890).

²⁹ Martin Glassner, *Political Geography* (New York: Wiley, 1996).

³⁰ Ahmet Davutoğlu, “The Clash of Interests: An Explanation of the World (dis) Order,” *Journal of International Affairs* (1998).

³¹ Ibid.

³² John A. Agnew, *Geopolitics Re-visioning World Politics* (London: Routledge, 1998), 86.

³³ Ibid.

discipline, he argues that geography shapes the racial characteristics and the racial capacity of adaptation.

Mackinder is also well known because of his 'Heartland Theory', which was the geopolitical strategy about the endgame of controlling the gigantic transcontinental land of Eurasia or the Heartland³⁴. The Heartland, including Eastern Europe, Russia together with the remainder of Central Asia and Africa, composed the World Island. He extended his Heartland area to Central Asia east of the Yenisei River.³⁵ The Heartland itself was characterized by its inaccessibility to sea, constructing it as "the greatest natural fortress on earth." The Columbian Age controlled by sea power, Mackinder claimed, was coming to an end, its place to be taken by a new Eurasian age in which land power would be dominant. The advancement of land transportation and communication indicated that land power could finally enter into rivalry with sea power. Furthermore, Mackinder's often quoted expression summarizes the Heartland Theory: "Who rules East Europe commands the Heartland; who rules the Heartland commands the World-Island; who rules the World-Island commands the World."³⁶

The next development in geopolitical literature came from Spykman who modified Mackinder's version of the theory about the Heartland. Spykman argued that the real power of Eurasia lay in what Mackinder called the 'Inner' or 'Marginal Crescent', not in the Heartland. He renamed this area of power potential the 'Rimland' and introduced a new formula into geopolitical thinking: who controls the 'Rimland' rules Eurasia; who rules Eurasia controls the destinies of the world.³⁷ Another contribution to geopolitical theories came from Saul Cohen. He used the term 'shatterbelt' as roughly equivalent to the concept of the Rimland. Cohen defines a 'shatterbelt' as a large, strategically located region that is occupied by a number of conflicting states and is caught between the conflicting interests of adjoining Great Powers. Cohen saw the Middle East and Southeast Asia as the primary shatterbelt regions.³⁸

³⁴ Ibid.

³⁵ Halford J. Mackinder, "The Round World and the Winning of the Peace," *Foreign Affairs* 21, no.4 (1943): 595-605.

³⁶ Halford Mackinder, *Democratic Ideals and Reality* (New York: Henry Holt and Co., 1919), 186, cited in Foster, *The New Geopolitics of Empire*.

³⁷ Nicholas Spykman, *The Geography of Peace*, (New York: Harcourt Brace, 1944), 43.

³⁸ Saul B. Cohen, "The Eurasian Convergence Zone: Gateway or Shatterbelt?," *Eurasian Geography and Economics* 46, no. 1 (2005): 1-22.

In the late nineteenth century, Germany was not quite satisfied within its own borders. After the consolidation of Germany as a united political unit, it began to follow an imperialistic path. Instead of differentiating space according to civilized peoples or others, a biological understanding was adopted. Natural traits and biological needs of states determined the geopolitical discourse of this era. According to Friedrich Ratzel, space was dynamic and changing over time whilst position was fixed and perceived similarly by everyone. The great achievement of naturalization was to have removed the political aspect from inter-imperial rivalry through a set of natural and determining geographical ‘facts of life’.³⁹ Friedrich Ratzel who founded the German school of “Geopolitik” was inspired by the Darwinian theory of ‘survival of the fittest’. Furthermore, he applied the study of the Darwinian struggle for existence to his organic theory of the state as the geopolitical struggle for space.⁴⁰ We can see many of Darwin’s theoretical terms and phrases in the organic theory of the state. In the organic theory of the state, it was considered as a living organism that needed to grow. Moreover, Ratzel, who first coined the phrase “lebensraum” (or living space) as a main force and justification behind the German expansion, argued that there was acceptable space for only one great state.⁴¹ An older form of expression justifying colonialism on the grounds of moral values and religious merit gave place to a discourse of racial rivalry and dominance. Although these ideas were generally associated with Germany, they were accepted internationally. For instance, the late nineteenth century witnessed a process of the discursive production of racial identities of the Irish who were assumed as inferior before.⁴² The prominent German geopolitical thinker was Karl Haushofer who adapted Ratzel’s and Mackinder’s arguments to Germany. He persisted in arguing that enlargement of Germany’s lebensraum was needed, because it was obvious that there was asymmetry between the German population and the geographical space which was necessary to place this

³⁹ John A. Agnew and Stuart Corbridge, “Geopolitical Discourse,” in *Mastering space: hegemony, territory and international political economy* (London: Routledge, 1995), 46-77.

⁴⁰ John Bellamy Foster, “The New Geopolitics of Empire,” *Monthly Review*, January 2006, accessed February 22, 2013, <http://monthlyreview.org/2006/01/01/the-new-geopolitics-of-empire>.

⁴¹ Ibid.

⁴² John A. Agnew, “The Three Ages of Geopolitics,” in *Geopolitics re-visioning world politics* (London: Routledge, 1998), 95-96.

population.⁴³ In Haushofer's own words, "Germany must emerge out of the narrowness of her present living space into the freedom of the world."⁴⁴

Separately, geopolitical thinking was largely associated with Germany because of Hitler's expansionist behaviour. In fact, after the Nazi movement, commentators hesitated to use the term 'geopolitics' for some time and the phrase 'political geography' replaced it.

After the Second World War, however, geopolitical discourse was concentrated more or less evidently on competing insights into how best to co-ordinate the international political economy. Cold War geopolitics differed from civilisational or naturalised geopolitics in a way relating to language and culture. The world was divided into two, on one side the United States as representative of capitalism and on the other side the Soviet Union as representative of communism. One's success hinged excessively on the effective existence of the other as a basis of comparison and threat.⁴⁵ Each side defined itself as disproving the other side through ideology. The global space was separated into 'friendly' and 'threatening' blocs. The backward-modern distinction and the idea of 'national security' were the two most pronounced concepts in this period.⁴⁶ In the political sphere, the US defended 'democracy' as defining the other as authoritarian, on the other side the Soviet Union became the advocate of 'socialism' as defining the other as imperialist.

When we investigate the geopolitical discourse of this period, we can see that the US made many attempts to generate a strategy for its foreign policy and its justification. During the Cold War, three geopolitical understandings emerged with respect to three periods of Cold War. Firstly, immediately after the Second World War, Wilsonian idealism and American pragmatism was suggested as a theoretical background by Bowman. However, it could be seen that its major geopolitical concept was formed carefully because of the Nazis' geopolitics. In the concept of Bowman's New Geography, the term 'political geography' was preferred to 'geopolitics', presented as

⁴³ Foster, "The New Geopolitics of Empire."

⁴⁴ Gearóid Tuathail, Simon Dalby, and Paul Routledge, "Why Geopolitik?," in *The Geopolitics Reader*. (London: Routledge, 2006), 40-43.

⁴⁵ John A. Agnew and Stuart Corbridge, "Geopolitical Discourse," in *Mastering space: hegemony, territory and international political economy* (London: Routledge, 1995), 65.

⁴⁶ Ibid.

a positive science instead of political guide, and focused on voluntarism instead of determinism. Furthermore, he suggested American pragmatism instead of Social Darwinism. Bowman also advised not territorial expansion based on conflict, but economic expansion based on cooperation. Additionally, his theory did not divide the world into 'we' and 'others', he proposed not enslaving but making others partners of the United States. In Bowman's view, the perception of the United States was anti-communist and preferred British imperialism to Soviet Communism. In the period of the early Cold War, George Kennan proposed the understanding of the Soviet Union as an evil empire and an ideological threat to be contained. According to Kennan, containment of the USSR with security organizations was the main solution, which was inspired by the Rimland theory of Spykman.⁴⁷ During the term of Kissinger, the rivalry was mitigated and this period was named 'détente'. He rejected Wilsonian idealism and made the US foreign policy more rational. According to his perception of the Soviet Union, the US had to recognise it as a legitimate state. Moreover, he proposed shuttle diplomacy and triangular diplomacy for negotiations.

1.2.2. Critical Geopolitics and Its Discourse Analyses

It is a fact that traditional approaches to geopolitics, mentioned in the previous section, explore the geography of international politics, particularly the relationship between the physical environment (location, resources, and territory) and the conduct of foreign policy. Hence, the politics and ideology of these approaches shape the meaning of geopolitics by using different concepts of discourse. After trying to explain traditional geopolitical approaches comprehensively, four characteristics of modern geopolitical imagination can be discerned. The first characteristic of the modern geopolitical imagination is a distinction between 'we' and 'others'. The 'other' is dependent on the period of geopolitical discourse, it is sometimes called 'non-civilised', 'colonised people' or 'communist'. The second characteristic of the modern geopolitical imagination is that time is used in terms of space. As we have seen that means developed and backward, modern and traditional *etc.* The third one is the state-centric representation of global space. Generally, geopolitics was seen as a practical guide for political elites who were employed in implementing foreign policies of states, and as a consequence geopolitical discourse was developed in a

⁴⁷ George Frost Kennan, "The sources of Soviet conduct," *Foreign Affairs* (1947).

state-centred sense and with the perception that geopolitics is man-made and not given. The fourth feature of the modern geopolitical imagination is the struggle for power and dominance of the world. This was used for legitimization of expansion and imperialism by states.⁴⁸

Tuathail and Agnew have studied social and historical discourse, which was bound up with questions of politics and ideology. They claimed that geopolitical theory was a highly ideological and deeply political form of analysis and that it could never be objective. The study of and production of knowledge about geopolitics endorsed the practice of statecraft and furthered the power of the state. Tuathail and Agnew argued that the study of geopolitics involved the comprehensive study of statecraft as a set of social practices. There was another issue emphasized in geopolitical reasoning, which necessitated considering the production of geographical knowledge within a particular state and throughout the modern world system. They claimed that geopolitical reasoning was not formal but, rather, practical, depending on consensual and remarkable assumptions about places and certain identities, which relied on narratives and binary distinctions found in societal mythologies.⁴⁹

The term geopolitical discourse refers to how geopolitical realities have been written and read in the practices of foreign and economic policies by political elites during distinct eras of world politics. In the study of geopolitical discourse a set of texts or documents is analysed not for what it might tell us about practices or behaviour but for its distinctiveness, manner or 'performative' aspect. These texts or documents are not set up explicitly in order to impose on people how they should live, think and speak, but they affect people unconsciously. The theory of geopolitical discourse is a theory of how world politics is performed but it is noteworthy that it is specific to a certain epoch and restricted practices of world politics. All classical geopolitical discourses divide the world into two or three as 'we' and 'others' by the specific understanding of its period.

⁴⁸ Gearóid O. Tuathail and Simon Dalby, "Postmodern geopolitics? The modern geopolitical imagination and beyond," in *Rethinking geopolitics*. (London: Routledge, 1998), 21-22.

⁴⁹ Gearoid O. Tuathail and John Agnew, "Geopolitics and Discourse: Practical Reasoning in American Foreign Policy," *Political Geography* 11, no. 2 (March 1992): 190-204.

There is another dispute about the limits and boundaries of geopolitical discourse. Some argue that discourses are never static but are constantly mutating and being modified by human practice. Despite the fact that discourses have virtual and not actual existences, conductors of statecraft, security intellectuals and strategists, such as Kissinger or Brzezinski, employ their opinions to convince the public, thereby exercising their strategic thinking about world politics. That makes geopolitical reasoning in international relations a practical and codified system of ideas and principles to guide the conduct of statecraft. In tandem with critical geopolitics, one could apply the Foucaultian concept of knowledge-power (discourse theory) to geopolitics, challenging the conventional approach to geography and geographical reasoning.

Critical studies in international relations began a critique of Cold War political discourses, which have failed to introduce a new order in the Post-Cold War era. In the meantime, critical geopolitics has recently emerged in economic and political geography and can usefully be incorporated into international relations scholarship, which has sought to recognise the way in which culturally manifested representations of space and place, together with embedded visual practices, can reproduce and elucidate the construction of geographical imaginations.

Tuathail presented a number of important themes for the development of critical approaches to matters of geography and its role in the practices of statecraft.⁵⁰ His theoretical exploration of the possibilities of a critical geopolitics focused on the 'writing of worlds' or the constructions of geography - literally earth descriptions - and their crucially important functions in structuring political discourse by using critical theory and poststructuralist themes in his works. His suggestions for the construction of critical geopolitics drew heavily on Foucault's writings, particularly on his insistence on focusing on the power-knowledge nexus in discourse. This suggests the possibility of seeing geopolitics simultaneously as material and discursive, understanding the indivisibility of military bases from the discursive strategies of the division and regulation of spaces. However, these also need to be understood in how geopolitical strategies are widely interspersed in all aspects of

⁵⁰ Gearoid O. Tuathail, *Critical Geopolitics: the Politics of Writing Global Space* (London: Routledge, 1996).

culture. The proposal for the construction of a counter-hegemonic critical geopolitics being argued is nothing less than a recognition of the importance of studying the political operation of forms of geographical understandings, recognizing that geographers are specifications of political reality that have political effect. To construct critical political geographies necessitates identifying a study of the geography of politics within pre-given, taken-for-granted, common sense spaces, while investigating the politics of the geographical specifications of politics. That is to practice critical geopolitics; however, this is a very different understanding of the purposes of human geography from the normal positivist approach. Critical geopolitics looks at uncovering and explicating the circumstances and techniques whereby geopolitical reasoning constructs and reinforces divisions, thus underwriting exclusion, fear, and ultimately violence. One of the main motivations of critical geopolitics is the imaginative concept of Edward Said in his *Orientalism*.

1.2.3. The Discourse of Imaginative Geography

Edward Said's formulation of orientalism provided critical analyses against rationalizations for intervention and for the logic of Western foreign policies.⁵¹ His definition of imaginative geography explained the geographical specifications of the world in the political discourses used to justify numerous imperial actions, and the rationales for the provision of security came under sustained scrutiny.

Orientalism remains at the heart of the Western geopolitical image, explicitly structuring how the security intellectuals of our time plan for war and justify the construction of their military machines. Given the continuing dangers of warfare in a biosphere that is being radically destabilized by the modes of economy and violence these geopolitical texts legitimize, the necessity for critique remains compelling.⁵² The application of Said's imaginative geography to critical geography pays more attention to the boundary-drawing practices and performances that characterise the everyday life of states.⁵³ He said that: "The Orient is an idea that has a history and a

⁵¹ Edward W. Said, *Orientalism* (New York: Vintage Books, 1979), 55.

⁵² Simon Dalby, "Recontextualising Violence, Power and Nature: The Next Twenty Years of Critical Geopolitics?," *Political Geography* 29, special issue no. 5 (2010): 280-288.

⁵³ Gearoid O. Tuathail, "Critical geopolitics," *Environment and Planning D: Society and Space* 17 (1994): 515-533.

tradition of thought, imagery, and vocabulary that have given it reality and presence for the West. The two geographical entities thus support and to an extent reflect each other.”⁵⁴ Derek Gregory put his new interpretation on Said’s work by saying that: “Said charts a series of mappings, sometimes discordant and sometimes compounded, through which places and identities are deterritorialized and reterritorialized. He describes landscapes and cultures being drawn into abstract grids of colonial and imperial power.”⁵⁵ In line with Said’s direction, Gregory stresses that the US-led war against Afghanistan and Iraq after 11 September 2001 and the Israeli-Palestine conflict were produced through the performance of imaginative geographies.⁵⁶

Said’s later work, *Culture and Imperialism*, argues that postcolonial identities are intertwined, intermixed and complex, a point that continues to be relevant in the context of globalization and the resultant cultural hybridities that characterize the ‘global’ era.⁵⁷ The work of Aimé Césaire, in particular his *Discourse on Colonialism*,⁵⁸ is useful in advancing an understanding of the literary critique of colonialism. Césaire’s writings anticipated not only the work of Frantz Fanon but also other key postcolonial texts such as Edward Said’s *Orientalism*.

Anti-colonialist discourses identify Europeans as having brought their own imaginative geography to bear on distant lands as a means of legitimizing and, indeed, promoting the often brutal institution of colonial rule.⁵⁹ They viewed their European homeland as the fully modern pinnacle of civilization and most non-European regions as anachronistic, unclaimed, and often uninhabited stretches of territory awaiting settlement and cultivation. Such perceptions motivated settlers to travel thousands of miles in search of new wealth and opportunities. They argue that European administrators and settlers in colonial lands operated under an imaginative geography in which peripheral regions such as the Middle East and Central Asia and the Caucasus were seen as wild and unclaimed territories awaiting the civilizing effects of

⁵⁴ Said, *Orientalism*, 4-5.

⁵⁵ Derek Gregory, “Imaginative Geographies,” *Progress in Human Geography* (1995).

⁵⁶ Derek Gregory, *The Colonial Present: Afghanistan, Palestine, and Iraq* (Malden, MA: Blackwell, 2004).

⁵⁷ Edward W. Said, *Culture and Imperialism* (New York: Knopf, 1993).

⁵⁸ Aimé Césaire, “Discourses on colonialism,” in *African Philosophy: An Anthology*, ed. Emmanuel Chukwudi Eze (1998).

⁵⁹ Said, *Orientalism*.

settlement and cultivation. However, there have been no voices of non-European countries against the imaginative discourse of Western powers.

1.2.4. Deconstruction of Geopolitical Discourse

Foucault and Derrida have made an important contribution to post-modern and post-structuralist theories, which is applicable to the discourse and text analysis of world mapping. However, the present author considers that the discourse theory of Chantal Mouffe and Ernesto Laclau cannot explain the geopolitical space. Rather, it gives a societal reading from a Marxist critical perspective. Hence, critical geopolitical thinkers like Tuathail used both French philosophers' discourse theories and ideas, which suggests some ways forward through the 'deconstruction' of geopolitical tradition.

Foucault defined discourse as the existing order of knowledge, and he saw it as a powerful instrument that enables the creation of thought. The strong argument of the 'power of knowledge' theory is that the one who controls the discourse controls everything from which political power is generated, from the dominant discourse in society. The discourse creates dominant knowledge, which is why those controlling the discourse remain more powerful than the owners of the means of production. The question is who creates this discourse? Foucault presumed that the masses of ordinary people could not generate discourse, thought or knowledge. Intellectuals generate the ideas that influence society for the goal of human emancipation from all distortions, to endorse human progress. However, discourse and thought have not been used for emancipation, because intellectuals employ knowledge, thoughts, and discourses as manipulative tricks to maintain the status quo in society. His analysis of power provides the tools to understand the reproduction of whiteness as a complex interaction of distinctive expressions of power. Foucault's analytics of power introduces the critical tools for understanding and addressing the gap between the reality that is always a complex production of difference and our analyses that seem, generally, to focus on one sort of difference to the exclusion of all others.

Foucault's ideas have been used by some critical geopolitical thinkers such as Dalby and Tuathail. According to Foucault's new conceptualisation, power and knowledge are subject to people normalizing truth, which shapes their lives and realities;

however, the usage of power to form global hegemony gives different meanings. Hence, the modern system of power is not hierarchical and centralized, but decentralized and localized in these contexts. In fact, the truths of the dominant power and culture identify the conditions of collaboration between dominant power and weak power.

One of the great contributions of critical geopolitical thinkers is to unpack the traditional approach and reassess Anglo-American, Continental European and South American geopolitical thinking. They argue that it is a necessity to look at the historical context of geopolitical writing, but also to consider how these have been interpreted. Dodds claimed that critical geopolitics was an alternative account and explanation of geopolitical phenomena.⁶⁰

Foucault and Said's deconstructive approach to geopolitical texts, the links with political economy, and recent debates about geopolitics provide foundational premises for geography as a social and historical discourse bound up in the knowledge of power. Orientalism gives a unique interpretation that is considered as a text of geopolitical awareness of aesthetic, scholarly, economic, sociological, historical, and philosophical narratives. However, the Eurocentric approach to geopolitics sees the East as a threat or danger to the West. This oriental codification of the East has maintained its constituency during the Cold War and the New World Order of post-9/11. The geopolitics of the Cold War was built around a language of blocs, containment, and domino theories. However, these norms cannot influence any international regime looking at geopolitical theories.

Dalby argued that geopolitics is about ideological processes of constructing spatial, political and cultural boundaries to demarcate the domestic space as separate from the threatening other.⁶¹ His main argument aimed to deconstruct security in a non-state-centric fashion, which is very close to the critical security studies of Ken Booth; however, Dalby focused on spatial practice, which externalizes threats, using instead a critical investigation of a possible new practice of security.

⁶⁰ Klaus-John Dodds, "Locating Critical Geopolitics," *Environment and Planning D: Society and Space* 12 (1994): 515-524.

⁶¹ Simon Dalby, "Dealignment Discourse: Thinking Beyond the Blocs," *Current Research in Peace and Violence* 13 (1994): 140-154.

The engagement with the Derridean approach to geopolitical text is questionable in its ability to explain continuity of geographic production and dissemination of strategic text and maps. The division of the world into Security Complexes, Heartland, Rimland, Pivot Zones, Inner Crescents and so on, was underwritten by the epistemological assumptions of hegemonic discourses. Hence, the collectors of knowledge about geography still define agendas and create social realities. One of the aims of this thesis is to provide for the discipline of international relations a linkage and relationship between the meaning of the space used for pipelines and the policy behaviour of the states.

1.2.5. Geopolitics of Energy

As examined in the previous sections, geography has played a vital role in the foreign policies of countries. Thus, depending on the geographical positions of countries, natural resources have occupied an important place in the economic, military or political prospects of countries.

Rising global energy prices, increasing demand for energy in developing countries, conflicts in regions of major energy sources and natural disasters lead to fear among countries which do not have sufficient energy resources. Energy could be categorized as one of the vital inputs into all economic operations. Thus, none of modern society can function properly without energy as a source of power, heat and mobility.⁶² After the oil crises of 1970s when The Organization of Arab Petroleum Exporting Countries (OAPEC) imposed an embargo on selling oil to any nation which supported Israel in its war in 1973, the term “energy security” became a global issue. “Energy security” is generally defined as a reliable and sufficient supply of energy resources at an acceptable price.⁶³ As stated by Yergin, the current policies on energy security, born of the 1973 crisis, are concerned predominantly with the prevention of any disruption of oil supplies from exporting countries.⁶⁴

⁶² J. Bielecki, “Energy security: is the wolf at the door?,” *The Quarterly Review of Economics and Finance* 42 (2002): 235-250.

⁶³ Ibid.

⁶⁴ Daniel Yergin, “Ensuring energy security,” *Foreign Affairs* (2006): 78.

Furthermore, since the confirmed reserves of oil and gas are disproportionately distributed between countries depending on their geographical positions, it is not unexpected that the rivalry for energy resources, conceived as energy geopolitics, constitutes a significant share of international politics. The present study accepts the close link between geopolitics and energy.

One of the classic texts written on energy politics is *The Prize: The Epic Quest for Oil, Money and Power* by Daniel Yergin.⁶⁵ The book, focusing on seizing power, is a reasonably straightforward account of how oil companies have grown and changed and of how some of the biggest oil producers have developed since the industrial revolution. However, there are few explanations in his book of energy geopolitics. It is an undeniable fact that natural gas and oil have been two of the regulative instruments and variables of international geopolitics since the beginning of the twentieth century. The issue of control and access to energy resources appears as an indispensable part of any state's geopolitical considerations. The power politics of the British Empire in the eighteenth century and the rising of Germany in the nineteenth century, based on the control of energy resources, illustrate the close link between geopolitics and energy resource management.⁶⁶ Similarly, after the Cold War, within the new global order, the United States and the EU's quests to access oil and natural gas resources became major issues of energy politics for international relations theorists.⁶⁷ Brzezinski argued that: "The one who controls or influences the export routes and the oil and gas resources of the Heartland, the geographical area that covers Eastern Europe including Russia and most of the Black Sea, dominates the world."⁶⁸ This conceptualization can be perceived as a geopolitical imagination positioning the energy resources as central within international power politics.

The geopolitical significance of Eurasia has continued unabated, and Western powers have extended their control over this energy-rich region to ensure that no single power

⁶⁵ Daniel Yergin, *The Prize: The Epic Quest for Oil, Money, and Power* (New York, NY: Simon & Schuster, 1991).

⁶⁶ Paul Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Vintage Books, 1987), 151-215.

⁶⁷ Halford J. Mackinder, *Democratic Ideals and Reality* (New York: WW Norton, 1962 [1919]), 150.

⁶⁸ Zbigniew Brzezinski, *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives* (New York: Basic Books, 1997), 124-148.

should control its geopolitical space.⁶⁹ In the transition period from the Post-Cold War era to 9/11, a new geopolitics based on resource management and energy transport diplomacy has prevailed over the former bipolar geopolitics drawn by ideological divide.⁷⁰ However, this mode of geopolitics needs to develop a reliable energy policy to create consent between suppliers, transporters and buyers. It is certain that there is a 'great game' policy dominating energy geopolitics. It is essential to understand the policies of the great powers - Russia, the US-EU and China - in the energy trade in the region. Russia still controls most of the oil and gas trade of the former Soviet states, especially in Central Asia and the Caucasus. The entrance of China into the region and the development of an energy 'silk road', linking the Middle East and Asia, will have a fundamental impact on the whole architecture of global energy geopolitics. Strategists predict that, even if Russia and China maintain their security co-operation (under the quasi agreement of the Shanghai Cooperation Organization) against their common threat, Islamic fundamentalism, they will be faced with conflict, especially in energy politics. It is certain that China's co-operation with energy giants Turkmenistan and Kazakhstan reduces Russian influence in the region. On the one hand, as a medium-sized state, Iran's oil swap and Turkmenistan-Iran natural gas pipelines diversify the Caspian Sea state energy transport options.

Since energy geopolitics has become so complex, many scholars argue that countries have to achieve energy independence. However, in a globalised and interdependent world, all energy producer and consumer countries, and also transporter countries, are attached to each other by a mutual interdependency. All of them are vulnerable to any incident, at some place, at any time, to some extent that has an effect on supply or demand of energy resources. Thus, energy independence, like many other isolationist policies, has the risk of leading to greater costs and a smaller amount of flexibility and therefore higher insecurity in the course of a supply disruption.⁷¹ Accordingly, it is the more plausible option for countries to link into the interdependent world while being aware of their geopolitical position in the international system.

⁶⁹ Deniz Ülke Arıboğan, *Geleceğin haritası* [The Map of the Future], (Istanbul: Profil Yayıncılık, 2008), 151-153.

⁷⁰ Mert Bilgin, "Energy Supply Security Problems and Alternative Solutions," (Working Paper, Turkey's Strategic Vision in 2023 Project, TASAM, Istanbul, 2008).

⁷¹ Frank Verrastro and Sarah Ladislaw, "Providing energy security in an interdependent world," *Washington Quarterly* 30, no.4 (2007): 98-100.

Turkey is one of the regional players that desire interdependency in the Caspian Sea and the Middle Eastern energy environment by promising to re-arrange energy geopolitics and to address new energy governance or new energy policy. Hence, it is essential to understand the geopolitical space of Turkey in order to introduce an energy policy for secure oil and gas transport from supplying countries to demanding countries.

1.2.6. Geopolitics of Turkey

The geopolitical space of Turkey provides a great advantage in security, economy, and now energy transport. Turkey is geographically located between East and West. As Davutoğlu stated: “Turkey holds an optimal place in the sense that it is both Asian and European country and is also close to Africa through the Eastern Mediterranean”.⁷² Furthermore, Georgios Filis defines Turkey’s geopolitics as the median line between the Heartland and the Rimland (or Shatterbelt), which helps in understanding Turkey’s vision in the energy environment. Turkey has a median space identity in a specific geographical space, which has persisted throughout the eternal East-West competition.⁷³

Since the end of the 1940s, Turkey has been a notable ally of the United States. During the Cold War, Turkey was one of the pillars of the US’s ‘containment’ policy and a frontline state against Soviet Russia’s revisionism towards the Middle East and the Mediterranean.⁷⁴ Turkey benefited from this relationship with the US by receiving economic and military aid. Although the collapse of the Soviet Union has not reduced the geopolitical importance of Turkey, the disappearance of the Soviet threat has affected the relationship between Turkey and the US considerably. For both sides, the direction of threats and security challenges has been changed. According to Larrabee, at present, the main threats or challenges for Turkey are coming from its southern border.⁷⁵ However, the disappearance of the Soviet threat which was the main motivation behind the alliance between Turkey and the US had reduced Turkey’s

⁷² Ahmet Davutoğlu, "Turkey's Foreign Policy Vision: An Assessment of 2007," *Insight Turkey* 10, no. 1 (2008):78.

⁷³ Georgios Filis, "Russia and Turkey in the Geopolitics of Eurasia & The Theory of Median Space Thesis-Synthesis-Antithesis" (PhD diss., Durham University, 2008).

⁷⁴ Stephen F. Larrabee, "Turkey's new geopolitics," *Survival* 52, no. 2 (2010): 157-180.

⁷⁵ *Ibid.*, 158.

dependency on the US for its security. That might also explain the 2003 crisis when Turkey's relations with Washington were strained due to the failure of the 1 March Memorandum in the Turkish Grand National Assembly. The Assembly rejected the US request for passage from Turkish territory to the northern part of Iraq. The quagmire in and later withdrawal of American forces from Iraq rehabilitated Turkish-US relations and gave a new momentum to establishing a reliable relationship, especially after the emergence of the 'Arab Spring'. Turkey further strengthened its relations and long-term engagement with the EU and the US with such associations as strategic energy cooperation, security ties, regional stability, and the global war on terrorism.

The representation of Turkey in connection with Europe has been vague at all times. Historically, the Ottoman Empire has been perceived as a part of the Muslim world as well as a power in Europe.⁷⁶ In his article, Diez notices that there has always been a dichotomy regarding whether Turks are part of Europe, the Western world, or the Muslim world. He gives as an example the fact that Turkey sent five delegates to the International Court of the European Movement in 1949, and then became a member of the Council of Europe and NATO.⁷⁷ However, Turkey is still not a member of the European Union, although Turkey made an application for membership to the EU in 1987 and finally the EU leaders named Turkey as an official candidate to the EU at the Helsinki Summit in 1999.⁷⁸ Whereas the EU has acknowledged Turkey's eligibility as a candidate for membership, the debates regarding Turkey's membership have been continuing at different levels. Diez has illustrated these discussions with a couple of speeches which emphasised cultural differences by senior officials at the EU.⁷⁹ The debate with regard to Turkey as a bridge or a barrier between the Muslim world and the West is still conducted in Europe.⁸⁰ Since the JDP government has come to power, there has been a discussion on whether Turkey has turned its face

⁷⁶ Thomas Diez, "Europe's others and the return of geopolitics," *Cambridge Review of International Affairs* 17, no. 2 (2004): 328.

⁷⁷ *Ibid.*, 329.

⁷⁸ "Europe's Helsinki Summit: Now Make Turkey a Serious Offer," *New York Times*, accessed May 18, 2014, <http://www.nytimes.com/1999/12/10/opinion/10iht-edgordon.2.t.html>.

⁷⁹ Diez, "Europe's others and the return of geopolitics," 329.

⁸⁰ Ian O. Lesser, "Turkey, the United States and the delusion of geopolitics," *Survival* 48, no. 3 (2006): 86.

towards the Middle East. Davutoğlu emphasises that Turkey's national interest can be shaped in line with the proper employment of its geography.⁸¹ Davutoğlu also criticises the EU by stating that:

What disappoints and surprises us is the EU's inability to grasp this vision. Some Europeans seem to have this thought in mind: the Turkish state and its people are not Europeans but Turkey's geography is freely open to European use. Such logic does not provide a solid ground for managing Turkish-European relations. The fact that the countries most opposed to Turkey's integration into the EU are also those that hold high expectations for these energy projects is a great contradiction.⁸²

Although there is ongoing disappointment in Turkey over its failure to achieve membership of the EU, Turkey has not given up on the goal of being a member of the EU. However, within the new foreign policy vision set out by Turkish Foreign Minister Davutoğlu, it seems that Turkey has realized its potential by improving its relations with its neighbours while hoping that the EU also will understand Turkey's importance especially for European energy security.

Early in the Cold War, the driving force behind Turkey's decision to join NATO in 1952 was Stalin's aggressive policy toward Turkey. According to Erşen, this decision made Turkey an enemy of the Soviet Union, which has prevented Turkish policymakers from pursuing an inclusive position towards the Caucasus and Central Asia. Considering that, Turkey could develop a geopolitical concept of Eurasia only after the dissolution of the Soviet Union.⁸³ Since Turkey was part of the Western allies during the Cold War, however, the relationship between Turkey and Russia has improved noticeably, mainly in the economic area.⁸⁴ Since Russia is Turkey's major supplier of natural gas, energy has been an essential driver for the rapprochement between Russia and Turkey; 66% of Turkey's natural gas and 25% of its crude oil have been imported from Russia. If current trends are maintained, it is expected to increase Turkey's natural gas imports from Russia to 80%.⁸⁵ These statistics have

⁸¹ Davutoğlu, "Turkey's Foreign Policy Vision: An Assessment of 2007," 92.

⁸² Ibid.

⁸³ Emre Erşen, "The Evolution of 'Eurasia' as a Geopolitical Concept in Post-Cold War Turkey," *Geopolitics* 18, no. 1 (2013): 26.

⁸⁴ Larrabee, "Turkey's new geopolitics," 168.

⁸⁵ Ibid.

shown that Turkey's dependence on Russia regarding energy resources could make Turkey more sensitive to Russian concerns than to American on several issues related to Central Asian and Caspian security.⁸⁶ Although Russia and Turkey have advanced their relations in the last decade, they are also competitors on energy in the Caspian and Central Asia. Since Russia wants to control the import and export channels of energy resources in those regions, Russia has opposed the pipeline projects that could offer alternative routes for the region's energy resources to Europe and obstruct Russian hegemony in the region regarding energy delivery. However, Turkey strongly supports those alternative pipeline projects which could help Turkey to become a hub in the region.⁸⁷

After Russia, Iran is the second largest supplier of natural gas to Turkey. Consequently, co-operation with Iran has improved and energy has been a significant driver of this relationship. On the other hand, since Prime Minister Erdoğan has pursued a pro-Palestinian policy openly in the Middle East, the Turkish-Israeli relationship has been in decline, especially because of Israel's 2008-2009 offensive in Gaza, the spat between President Peres and Prime Minister Erdoğan at Davos Forum in 2009, and the attack of Israeli navy to Gaza aid fleet incident in 2010.

On the one hand, Turkey is a middle power state; it still is part of the western security system, though it is considered geographically and culturally alien to the European state system. Taroj Atabeki defined Turkey and Iran as subaltern; however, Turkey's argument here is that it is neither subaltern nor a great power. Turkey has a capacity to create its own energy policy and discourse by looking at its geographical space and its diplomatic and cultural resources. Before joining the Justice and Development Party cabinet, Turkish Foreign Minister Ahmet Davutoğlu wrote his well-known *Strategic Depth*, contributing to critical geopolitics as a subaltern voice. He has found an opportunity to implement his theory of 'zero problems with Turkey's neighbours'. The new vision of a middle power state in median space can provide an alternative approach to energy policy in the international energy environment, in contrast to energy lobbies and Eurocentric views about Turkey's geopolitics. They define Turkey as a bridge rather than as an identity or an energy hub in energy transport. Turkey is

⁸⁶ Ibid.

⁸⁷ Ibid.

already one of the physical hubs, hosting major oil and natural gas pipelines. John Roberts clarifies the geographical position of Turkey and its weakness in energy diplomacy in a recent article. He argues that:

The country's inherent geography – its classic position as a crossroads between east and west, between north and south – makes it natural [for it] to become a giant centre for trading in oil, gas, and petrochemicals. But its attitude – the accumulation of its foreign policy, its approach to energy transit and to internal energy development, and its own uncertainty as to its place in the world in general and its involvement in Europe in particular – tells quite a different story.⁸⁸

Turkey wants to be a trading hub, a place where energy is bought and sold; however, to achieve this, it needs to create a reliable energy policy in which both parties can benefit. Turkey meets the criteria for an energy hub and for being a crossroads as a southern corridor in the European energy environment. A hub offers the possibility to do financial trading on one side and physical trading on the other; this includes storage, LNG, and pipelines. John Roberts presumes that if the Turkish gas market evolved into an open market, in which suppliers were free to strike their own deals with consumers, then, indeed, Turkey would become a true hub.⁸⁹ Chapter 5 will analyse and detail Turkey's energy outlook and market liberalisation policies.

Turkish policy makers have a new geographic imagination which presents a different connection between power and geography under the premises of the principles and mechanisms of a changing foreign policy line. As critical geopolitics argues, policy makers' attitude towards geography may change the policies, perception and strategies in a manner that may result in a certain degree of discontinuity with the past. Turkey's assumed role of energy hub is a clear representation of assigning a new role to Turkey's geography in between energy rich regions and energy consuming countries. This role reinforces a new diplomatic style, employs economic capabilities and brings new public and private institutions to policy planning and implementation. Another dimension of the new geographic imagination is the connection between economic and foreign policy in a way that energy policy will serve for the country's strategic role vis-à-vis Europe, expand international trade, yield benefits for Turkish companies and provide access to cheap and reliable energy reserves. The discourse

⁸⁸ John Roberts, "Turkey as a Regional Energy Hub," *Insight Turkey* 12, no. 2 (2010): 49-69.

⁸⁹ *Ibid.*

around energy policy makes it a feasible project through these arguments of ideational and material benefits. It provides a new perception of geopolitical role and reality with a new formulation of power and geography.

1.3. INTERDEPENDENCE THEORY

In the literature of international relations, there are two main camps which analyse inter-state interactions on the co-operative and conflictual issues. The first side of this discussion is the realist camp that refuses the notion that the structure of international politics is determined as a consequence of international economic activities. Realists perceive the international arena as a playground for the power politics between states. In the anarchic environment of international relations, the main goal of the states is survival and to achieve this goal the states have to grow stronger and increase their security as much as they can. Realist scholars contend that the structure of international politics is determined as a consequence of the pursuit of powerfulness and security by the states. Furthermore, international trade has no feature of promoting peace and co-operation between states. Realists claim that political objectives and ruling political elites shape economic relations. According to the realist camp, expected loss or gain from trade most probably does not prevent political leaders from attempting conflict since they are more interested in relative gains rather than absolute gains. Relative gain, in international relations, is the actions of states only in respect to power balances and without regard to other factors, such as economics. In international relations, co-operation may be necessary to balance power, but concern for relative gains will limit that co-operation due to the low quality of information about other states' behaviours and interests. Relative gain is related to a zero-sum game, which states that wealth cannot be expanded and the only way a state can become richer is to take wealth from another state. On the one hand, neo-realists consider relative gains as a source of power. According to Grieco et al.⁹⁰ realists emphasize relative gains since allied states in the present might turn to enemies in the future by converting those gains into political pressure and military capabilities, and hesitant joint gains in co-operation might produce perilous rivalry in the future. Furthermore, they contend that the possibility of military conflict could

⁹⁰ Joseph Grieco, Robert Powell, and Duncan Snidal, "The Relative-Gains Problem for International Cooperation," *American Political Science Review* 87, no. 3 (1993): 731.

arise along with the alterations in the balance of power between countries as a result of international trade.⁹¹

The liberal party, the other side of the discussion, claims that realists deemphasize the pacifying character of international trade. According to Polachek, states engaged in trade are apt to sustain co-operation so as to preserve their benefits from trade, since conflict turns out to be expensive by means of increasing mutual dependence.⁹² However, liberal scholars claim that a state's utility is merely dependent on its absolute gain since relative gains or losses are not so important as long as co-operation leads to absolute gains. According to liberal international relations theory, absolute gain is what international actors look at in determining their interests, weighing out the total effects of a decision on the state or organization and acting accordingly. The international actor's interests do not only include power but encompass the economic and cultural effects of an action as well. The theory is also interrelated with a win-win game which proposes that through use of comparative advantage, all states who engage in peaceful relations and trade can expand wealth. Liberal theory emphasizes the association between international trade and domestic politics. Consequently, democratic countries offer assurances for private actors' property rights, which impose the legitimacy of international exchange. Subsequently, international trade generates mutual benefits for parties from different countries; these parties behave as a lobby to diminish potential conflicts between countries.⁹³ By the same token, Gelpi and Grieco put forward that international trade creates joint gains for the general public and in accordance with that democratic administrations, which need public support to stay in power or to be re-elected, are more keen on encouraging international trade than despotic ones.⁹⁴

Russia's ambitious policies especially demonstrate that traditional military and security approaches are occupied with new understandings in international relations.

⁹¹ Edward D. Mansfield and Brian M. Pollins, "The Study of Interdependence and Conflict: Recent Advances, Open Questions, and Directions for Future Research," *Journal of Conflict Resolution* 45, no. 6 (2001): 835-837.

⁹² Solomon William Polachek, "Conflict and trade," *Journal of Conflict Resolution* 24, no. 1 (1980): 56.

⁹³ Michael W. Doyle, "Three pillars of the liberal peace," *American Political Science Review* 99, no. 3 (2005): 464-465.

⁹⁴ Christopher F. Gelpi and Joseph M. Grieco, "Democracy, interdependence, and the sources of the liberal peace," *Journal of Peace Research* 45, no. 1 (2008): 18.

The arrival of interdependence in various areas challenges the longstanding patterns. In the period of interdependence, the hierarchy among the issues becomes invisible in international politics. As a consequence of that military-security concerns do not have superiority on the political agenda; it is not adequate any longer to use military force to deal with the problems of the interdependence age.⁹⁵

As explained by Keohane and Nye, interdependence as mutual dependence is ascribed to ‘situations characterized by reciprocal effects among countries or among actors in different countries’.⁹⁶ These reciprocal effects depend on the type and strategic significance of the commodities that are being traded.⁹⁷ In the EU’s relationship with Eurasia and the Middle East, it is clear that the gas deliveries from these regions are important commodities for the EU, and, in return, huge amounts of hard currency are very significant for supplier countries. Furthermore, the relationship between states can create asymmetrical interdependence since the expenses and the profits in the interactions of interdependence could be distributed disproportionately. However, this implies that interdependence can produce asymmetrical relations between countries, as Keohane and Nye stress that “an unequal distribution of gains and losses lies at the heart of asymmetrical interdependence, which secures the source of power”.⁹⁸ Power is defined in the Oxford Dictionary as “the capacity or ability to direct or influence the behaviour of others or the course of events”. Accordingly, states could use their advantage on the asymmetric interdependence as a source of power against other states. As Gasiorowski reveals, economic links create an opening to conduct ‘war by other means’.⁹⁹ By the same token, Keohane and Nye argue that globalization regarding the multidimensional ties among states brings into existence a complex interdependence, which plays down military-security issues.

The theoretical scheme suggested by Keohane and Nye appears to be a midway point between the realist and liberal paths. They proclaim that competition among states is

⁹⁵ Robert O. Keohane and Joseph S. Nye, *Power and Interdependence: World Politics in Transition*, (New York: Longman, 2001), 3-5.

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ Mark J. Gasiorowski, "Economic interdependence and international conflict: Some cross-national evidence," *International Studies Quarterly* (1986): 23-38.

still existent. As mentioned above, since energy resources become important as a source of countries' development, the energy security concerns of countries turn out to be a part of national security. On the other hand, with the help of complex interdependence, the primacy of military issues might be replaced by the economic concerns.

Since the establishment of the Russia-Western European gas trade, energy relations have been evaluated under the interdependence theory. Each side holds a degree of power over the other. The Soviets (Russians) are the gas suppliers and the Western Europeans are the sources of the hard-currency payments and equipment deliveries.¹⁰⁰ Robert Keohane and Joseph Nye, in their work *Power and Interdependence*, create an excellent framework within which to analyse the gas relationship between the EU and Russia. They define interdependence as *mutual* dependence — in world politics, this refers to situations characterized by reciprocal effects among countries or among actors in different countries.¹⁰¹ These reciprocal effects depend on the type and strategic significance of the commodities that are being traded.¹⁰² In the EU's relationship with Eurasia and the Middle East, it is clear that the gas deliveries from these regions are important commodities for the EU, and, in return, huge amounts of hard currency are very significant for supplier countries.

The EU's indigenous gas supply is expected to decline in coming decades. This decline in gas production will be met by gas imports in the future. This situation makes the gas relationship between the EU and supplier countries more complicated. The security of the gas supply issue has become one of the most significant topics on the political agenda in the EU. These issues will be discussed in Chapter 4 under the title of Energy Security.

The terms 'sensitivity' and 'vulnerability' are critical when analysing this scenario. Keohane and Nye define sensitivity as the "liability to costly effects imposed from

¹⁰⁰ Jonathan Stern, *Soviet Oil and Gas Exports to the West* (Hants: Gower Publishing Company, 1989), 59.

¹⁰¹ Robert O. Keohane and Joseph S. Nye, *Power and Interdependence: World Politics in Transition* (New York: Longman, 2001), 7.

¹⁰² *Ibid.*

outside before policies are altered to try out to change the situation.”¹⁰³ Thus, in the sensitivity dimension in an interdependent relationship, international actors are sensitive to the behaviour of other actors or developments in parts of the system. The degree of sensitivity depends on how quickly changes in one actor bring about changes in another and how great the effects are. In their work, vulnerability is defined ‘as an actor’s liability to suffer costs imposed by external events even after policies have been altered’.¹⁰⁴ In the framework of this type of analysis, one could conclude that the high sensitivity of the EU’s dependence on Russian gas will force the EU to take measures to decrease its level of vulnerability. Otherwise, the EU’s vulnerability to a gas crisis will have a destructive effect on the EU economy and industry. Therefore, the EU is seeking other gas suppliers from North Africa, the Middle East and the Caspian region to diversify its gas sources. At this point, Turkey holds an important strategic position for the security and diversity of gas supplies for the EU. In Chapter 4, the EU’s options for taking the necessary measures to become less vulnerable to gas interruptions will be analysed.

Keohane and Nye introduce a new conception into energy politics and define asymmetry in dependence as “that which is most likely to provide sources of influence for actors in their dealings with one another”.¹⁰⁵ In the case of a disagreement, a less dependent side would have fewer costly effects, and thus, an advantageous position.

The interdependence of the EU and energy supplier countries may have some costly effects on its future. Therefore, this interdependence should be constructed to satisfy both sides. On the one hand, Turkey, with its strategic position and dynamics, may contribute to the diversification of supply for the EU and the diversification of transit routes for Eurasian and Middle East oil and gas. On the other hand, there are some difficulties in the management of interdependent relations between Turkey and the EU.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

1.4. AN INTEGRATED MODEL FOR TURKEY'S NATURAL GAS GEOPOLITICS

Three different paradigms have been covered, namely realist (geopolitics), liberalist (interdependence theory) and postmodernist (critical geopolitics). These theories of the international relations discipline outline the mainstream theoretical framework which will be utilized in this study. Although these approaches seem to be in competition and to take different standpoints, there is no one single theory which is able to offer a complete understanding and explanation of the countries' foreign policy behaviours with regard to energy resources. Especially, understanding Turkey's energy policy as part of its foreign policy requires the employment of an integrated model which combines the above-mentioned approaches. There are no directly relevant theories which explain the behaviour of Turkey and Eurasian countries including the EU, Russia, the Caspian Sea region and the Middle East region. Hence, it is necessary to employ an integrated model with the use of analysis to reach a testable result in this thesis.

From a practical perspective Turkey would like to play an active role in the establishment of an energy mechanism between producing and consuming countries. The main component of its argument is that Turkey is named as having the second biggest growth rate in its energy market after China. Some policy analysts claim that Turkey can be included in the BRIC (Brazil, Russia, India and China) countries which will challenge the Western financial system in global markets. It is a fact that Turkey is a growing country in measurement of GDP (Gross Domestic Product) rates and attracting of FDI (Foreign Direct Investment). Turkey's historical and cultural ties can be turned into social capital which develops new ties with these countries and contributes to adaptation of Turkey's market regulations to the European market. Turkey's answer to the expectations of the producer and consumer countries' trading and international energy regimes provides the Turkish government with an active role in the international energy market.

It is important to note that since the 1960s Turkey's Europeanization policies have already created interdependence relations with European countries in the context of trade volumes and customs union. The Justice and Development Party's new vision in Turkish foreign policy aims to take further steps to increase the ties between the EU

and Turkey in the energy sector. This co-optation strategy aims to provide long term security of supply of energy by building pipelines. In so doing, Turkey has already signed a new long term contract with Azerbaijan and is seeking for new long-term natural gas contracts with Iraq, Qatar, Algeria and Yemen. Turkey's mediation effort between the EU and Iran is essential to transfer Iranian gas to Europe. Turkey's other mediation effort between Azerbaijan and Turkmenistan is another regional initiative in the Caspian Sea region. It is essential to note that Turkey's co-optation strategy includes strategic relations between Azerbaijan and Turkmenistan. This thesis proposes that Azerbaijan can be a transit country if interdependence relations are developed in both countries. That means that Turkey's new activism is contested by neither energy producing countries nor consuming countries. This new face of Turkey plays a crucial role in securing the natural gas environment of Europe (consumers) and Caspian Sea-Middle East regions (producers).

From a theoretical point of view, a framework for explaining Turkey's energy policy needs to borrow from realist, liberal and critical geopolitics framework. There is an ideational basis which relies on reformulation of the relations between power and geography and on making a new sense of Turkish geography to enhance a new geopolitical role. This role is fostered by the rhetoric of Turkey's projection of its central role in regional politics and the new elements of power in foreign, economic and security policies. The role has a liberal dimension of cooperation and interdependency to promote regional cooperation, create a win-win strategy and avoid the potential pitfalls of a newcomer role in energy geopolitics. The liberal dimension is well connected to the central assumption and principles of Turkish foreign policy. The realist account comes to the front in the phase of implementation, which is to enhance the national interest and yield maximum benefits with a projection of energy hub centred international energy policy.

1.5. THE CONCEPT OF ENERGY SECURITY

The doyen of energy politics, Daniel Yergin, outlined the fundamentals of energy security in his speech titled "Foreign Policy and National Security Implications of Oil Dependence" presented in the US House of Representatives Committee on Foreign Affairs on 22 March 2007. He claimed that "energy independence is a popular and appealing term, with deep political impact in international energy markets". He

deliberately uses the phrase ‘energy security’ rather than ‘energy independence’. Yergin identifies seven factors that play an effective role in energy security in global energy supply:¹⁰⁶ (a) Diversification, (b) resilience, (c) integration, (d) information, (e) supply chain, (f) flexibility, and (g) efficiency.

Moreover, the investment flows and sharing of technological advances are the major principles of energy security in global energy markets.¹⁰⁷ The analysis of John Gault also emphasizes the priorities of European energy security. He argued that energy security is only one of the three goals stated in the European Commission’s Communication on energy policy. The Communication called for “sustainable, secure and competitive energy.”¹⁰⁸ Similarly, Carlos Pascual and Jonathan Elkin suggest a broader agenda of energy security: elements, components, and potential threats. Availability, reliability, affordability, and sustainability are the key concepts in energy security in their argument.¹⁰⁹

It is important to note that the current energy security system was created in response to the 1973 Arab oil embargo to ensure co-ordination among the industrialized countries in the event of a disruption in supply, encourage collaboration on energy policies, avoid competing for supplies, and deter any future use of an ‘oil weapon’ by exporters. It is unfortunate that no emergency sharing system (such as the IEA) has been set up to offset major disruptions that threaten the global economy and stability for natural gas.

1.5.1. Defining Natural Gas Security

Generally speaking, natural gas security has recently gained momentum for many commercial, industrial and government facilities. The growth in energy demand has increased the importance of the security of energy supply. It is an essential strategy to reduce or hedge risks that stem from energy use, production and imports.

¹⁰⁶ Daniel Yergin, “Fundamentals of Energy Security, Special Report” *Foreign Policy and National Security Implications of Oil Dependence* (March 22, 2007).

¹⁰⁷ Ibid.

¹⁰⁸ “A Strategy for Competitive, Sustainable and Secure Energy,” *European Commission*, 2010, accessed April 25, 2012, http://ec.europa.eu/energy/strategies/2010/2020_en.htm.

¹⁰⁹ Carlos Pascual and Jonathan Elkind, *Energy security: Economics, Politics, Strategies, and Implications* (Washington, D.C.: Brookings Institution Press, 2010).

Gas security deals with the threats of supply and price disruptions, the transit of gas supplies and the facilities through which gas is delivered. There are two major dimensions of these risks for the EU's natural gas security: (1) *Short-term* supply availability versus *long-term* adequacy of supply and the infrastructure and daily *operational* security of gas markets and (2) seasonal stresses and strains of extreme weather and other operational problems (peak demand)¹¹⁰ versus *strategic* security, catastrophic failure of major supply sources and facilities.¹¹¹ The present chapter deals mainly with the adequacy of *long-term* supply, and the infrastructure and the framework needed to create *strategic* security against emergency supply situations.

1.5.2. The Traditional and New Approaches to Natural Gas Security

The traditional approach to security of supply for European gas is to look at available information on remaining reserves and make judgments as to when they are likely to 'run out'. The remaining proven reserves in major gas-resource-holding countries that are existing suppliers to Europe play an essential role in gas supply security of energy. Reserves and reserve-to-production ratios provide some support for the proposition that indigenous production is declining, particularly in the UK and Norway; nevertheless, Europe is on track with its efficiency aims and is attempting to decrease dependency through efficiency even further by decreasing the carbon emissions levels.

Jonathan Stern provides the basic principles of the traditional approach to European energy security: (1) Long-term supply arrangements in liberalized markets, (2) long term contracts, (3) Multi-billion dollar investments and (4) import and facility dependence.

In the spring 2005 *Global Energy Watch*, CERA outlined the new approach to energy security and focused on five key themes related to the current global sense of energy supply insecurity. (1) New supply and demand energy maps. There is a systematic shift in the energy transformation map toward Asia. The supply centres have also shifted as new investments for oil and gas are increasingly focused on non-OECD

¹¹⁰ *Peak demand* is used to refer to a historically high point in the sales record of a particular product. In terms of natural gas use, peak demand describes a period of strong consumer demand. –Author

¹¹¹ Jonathan Stern, *Security of European natural gas supplies* (London: the Royal Institute of International Affairs, 2002).

countries. (2) Operating at the edge of capacity. All fossil fuels are operating at the edge of their capacity as energy suppliers strive to meet strong demand for oil, gas and coal. A new generation of energy power companies are changing their choices for the next wave of power plant investment. (3) Security of supply dominating government energy policies. Mounting concerns about security of supply are leading to a new politics of energy that are visible in every region and for every energy source. (4) Pendulum swinging back toward statism. Increased concerns about energy security of supply are leading to renewed interest in statist values of nationalism, patriotism, and service. Governments are intervening in energy markets in order to balance multiple objectives. (5) Challenging social and environmental concerns. Demand for energy to fuel economies is global, but facilities for extracting, processing, transporting, and delivering fossil fuels are more local—and not always welcomed. In addition, certainty about the status of the Kyoto Protocol has not yet been achieved.¹¹²

Another report from CERA, prepared by Jean-Marie Chevalier and Anne-Sophie Corbeau, gives us new essential insights for energy security. Both energy experts argue that the energy industry has an important role to play in finding the right balance between competitiveness and energy supply security. (1) The concept of security of supply is vast and multiform. It is related to a given economy's dependence on energy supply. It has a global dimension, but also a number of very concrete dimensions: security of power supply, of gasoline supply and of natural gas supply. It has also an important time dimension since it concerns sudden and unexpected disruptions but also medium- and long-term imbalances between demand and supply. The security of supply also concerns the safety of energy infrastructure, from the oil and gas fields to the final distribution network. (2) Diversity and flexibility are the key elements. The search for diversity at a macro level means that each available energy technology has its role in building the appropriate fuel mix, with an emphasis given to domestic sources such as renewable, hydro and possibly nuclear. Diversity for a specific fuel also implies different suppliers or routes of supply. In addition to diversity and flexibility, the improvement of energy efficiency is also a means for reducing the amount of energy required. (3) Regulation 'in

¹¹² Susan Ruth, *A Global Sense of Energy Insecurity* (G. E. Watch, CERA, 2005).

concert'. This is an idea developed by CERA to explain that the dynamic liberalization of the European energy industry cannot be based solely on market mechanisms. It has to be monitored through a permanent dialogue among European institutions, national governments, and the energy industry.¹¹³

The report revisits the concept of security of energy supply, which is given in the following: (1) A reliable supply of energy. (2) Reliable transportation of supply. (3) Reliable distribution and delivery of supply to the final customer. Energy ought to be efficiently delivered to the final customer according to particular time and quality standards without any form of discrimination. (4) A 'reasonable price' over a continuous period. (5) Environmental costs. (6) Short-term disruptions. (7) Longer-term impacts. (8) Technological jumps. (9) Storage capacity. (10) CO₂ emissions. (11) Short- and long-term surplus contracts.¹¹⁴

1.6. THE CONCEPT OF ENERGY HUB

Due to the lack of comprehensive abstract definition and different meanings attached to the concept by practitioners, the notion of energy hub is an elusive concept. Overall, the concept of energy hub is used in the context of a certain country and its prospects of becoming a key actor in energy policies. There is no single study which treats the concept of energy hub at a theoretical level. Accordingly, there is no agreed upon definition of energy hub in the literature. However, in the extant literature, one could detect different uses, hence features, of what an energy hub looks like.

Firstly, the dictionary definition of the concept of hub is a useful place to start. The hub in Oxford dictionary is defined as "the effective centre of an activity, region, or network,"¹¹⁵ while the hub definition from Longman dictionary is "the central and most important part of an area, system, activity *etc.*, which all the other parts are

¹¹³Jean-Marie Chevalier and Anne-Sophie Corbeau, *European Energy Revisiting Security of Supply, Special Report* (CERA, 2005).

¹¹⁴ Ibid.

¹¹⁵ *Oxforddictionaries.com* s.v. "Hub," 2014, retrieved July 3, 2014, <http://www.oxforddictionaries.com/definition/english/hub?q=hub>.

connected to centre.”¹¹⁶ It could be inferred from these definitions that hub refers to a centre and a central role played by an actor, more or less.

However, in the literature on Turkey’s energy policies, the concept of ‘energy hub’ has been used in different meanings, referring to various related but sometimes distinct roles. Kramer defines an energy hub country as a country which buys the energy resources from producer countries and re-exports them to others.¹¹⁷ In this sense, he asserts, being an energy hub requires substantial energy infrastructure and the capability to influence trading conditions independently of the producers and clients.¹¹⁸ Similarly, Bilgin states that an energy hub country has “extensive influence on a web of oil and gas pipelines as well as Liquefied Natural Gas (LNG) trade, not only in terms of its ability to influence transit terms and conditions, but also in re-exporting some of the hydrocarbons passing through this system.”¹¹⁹ Moreover, he argues that being an energy hub is strongly related to regional and global dynamics beyond the foreign policy of a single actor.¹²⁰ Tagliapietra also underlines the importance of regional dynamics, particularly the regional cooperation between the actors of a web of energy routes, for achieving and sustaining the energy hub position.¹²¹

Furthermore, when we look at the recent uses of the concept of an energy hub in the context of other actors, especially in the field of natural gas, Toula Onoufriou defines the energy hub as a place which offers alternative reliable gas suppliers to satisfy and diversify current and future energy demands of importing countries by emphasizing the importance of the strategic location.¹²² Souleimanov and Kraus describe the concept of energy hub as an arena that provides great transit potential for raw materials. They also underline the stability in the region in the sense that economic

¹¹⁶ *Longman Dictionary of Contemporary English* s.v. “Hub,” 2014, retrieved July 3, 2014, <http://www.ldoceonline.com/dictionary/hub>.

¹¹⁷ Kramer, *Die Türkei als Energiedrehscheibe: Wunschtraum und Wirklichkeit*, cited in Krauer-Pacheco, “Turkey as a Transit Country and Energy Hub: The Link to Its Foreign Policy Aims.”

¹¹⁸ *Ibid.*

¹¹⁹ Bilgin, “Turkey’s energy strategy: What difference does it make to become an energy transit corridor, hub or center?”

¹²⁰ *Ibid.*, 127.

¹²¹ Tagliapietra, “Turkey as a Regional Natural Gas Hub: Myth or Reality? An Analysis of the Regional Gas Market Outlook, beyond the Mainstream Rhetoric.”

¹²² Onoufriou, “Cyprus- a Future Energy Hub?”

and security interests of exporting and importing countries play a significant role in making feasible the transition projects for infrastructure developments in the region. As such a hub may offer a stable connection which is free from any hindrance such as terrorist attacks or political deadlock throughout the route from exporting countries to importing countries.¹²³ Moreover, John Roberts offers a definition of a major physical hub as “a host of major oil and gas pipelines already transit the country, with gas supplies further augmented by liquefied natural gas (LNG) regasification facilities.”¹²⁴ Roberts also emphasizes the geopolitical position of the energy hub which has the current or future ability to provide natural gas from not only one direction but many directions.¹²⁵ According to Roberts, an energy hub suggests the possibility to do financial trading on one hand while physical trading on the other.¹²⁶

On the other hand, Winrow distinguishes the “physical energy hub” and “trading energy hub” concepts. Physical energy hub, according to him, refers to “a state in which there is substantial energy infrastructure –*i.e.*, pipelines and facilities such as refineries, storage units, terminals, petrochemical factories, gas liquefaction plants, *etc.*”, whereas, a “trading energy hub” is a state in which “suppliers and consumers meet and trade in hydrocarbons in an open and transparent market.”¹²⁷ Furthermore, Roberts also describes that an energy hub is an arena which several suppliers and customers meet in an open and transparent market place to guarantee the procurement of good quality gas at competitive prices on stable basis.¹²⁸

For the case of Turkey, Bilgin specifically analyses different labels for Turkey’s role, such as energy transit corridor, energy hub, or energy centre, and stresses that the differences between these three labels depend upon the numbers and capacities of the pipelines crossing to Western purchaser via Turkey.¹²⁹ Additionally, Tagliapietra

¹²³ Souleimanov and Kraus, J, “Turkey: An Important East-West Energy Hub.”

¹²⁴ John Roberts, “Turkey as a Regional Energy Hub,” *Insight Turkey* 12 no. 3 (2010).

¹²⁵ *Ibid.*

¹²⁶ *Ibid.*

¹²⁷ Gareth Winrow, “The Southern Gas Corridor and Turkey’s Role as an Energy Transit State and Energy Hub,” *Insight Turkey* 15 no. 1 (2013): 154.

¹²⁸ *Ibid.*

¹²⁹ Bilgin, “Turkey’s energy strategy: What difference does it make to become an energy transit corridor, hub or center?”

attempts to answer the question of whether Turkey can become a regional natural gas hub. He states that in medium term it is not likely for Turkey to become a natural gas hub, while it is uncertain and highly depends on regional dynamics in long term.¹³⁰ He asserts, for example, resolving the political aspects of Cyprus crisis would reinforce Turkey's role in the natural gas market and increase the possibility of becoming a natural gas hub.¹³¹

Furthermore, Winrow asserts that a physical energy hub role is achievable for Turkey while becoming a trading energy hub "will only be possible in Turkey after the planned liberalization of the gas market is implemented, when proper legal and regulatory frameworks could then be in place."¹³² Additionally, he also underscores the importance of stability and security in the territory and immediate neighbourhood of Turkey in order to achieve and maintain the role of energy hub. In this sense, how Turkey deals with the conflicts in the Caucasus or Middle East will influence Turkey's role in the regional energy politics.¹³³ Furthermore, Souleimanov and Kraus emphasize that becoming an energy hub for Turkey, apart from all of the transit projects that have been completed or to be completed in the near future, also depends on the successful lobbying efforts by other countries.¹³⁴ According to Krauer-Pacheco, Turkey will be able to boost its role as one of the main transit routes of the European Union for energy resources which may support its ground in the EU accession by materializing the Nabucco and Arab natural gas pipelines.¹³⁵

We could gather the following two different meanings attached to the concept of an energy hub from the discussion so far: First and foremost, the concept of an energy hub has a physical meaning; *i.e.*, it implies a central geographic position in the sense

¹³⁰ Simone Tagliapietra, "Turkey as a Regional Natural Gas Hub: Myth or Reality? An Analysis of the Regional Gas Market Outlook, beyond the Mainstream Rhetoric," *Fondazione Eni Enrico Mattei* (2014): 29.

¹³¹ *Ibid.*

¹³² Winrow, "The Southern Gas Corridor and Turkey's Role as an Energy Transit State and Energy Hub," 154.

¹³³ *Ibid.*, 157.

¹³⁴ Emil Souleimanov and Josef Kraus, "Turkey: An Important East-West Energy Hub," *Middle East Policy* 19 no. 2 (2012): 157-168.

¹³⁵ Kseania Karuer-Pacheco, "Turkey as a Transit Country and Energy Hub: The Link to Its Foreign Policy Aims," (Working Papers of the Research Centre for East European Studies, University of Bremen no. 118, December 2011).

that the country is placed favourably between the producers and consumers. It is also a geostrategic concept because the physical geographic meaning needs to be substantially complemented by deliberate policy planning and strategic thinking, where that particular country has to move in the direction of creating major interdependencies between the producers and consumers, so that it can gain leverage vis-à-vis both. In this first meaning, to realize the connecting role between the two ends, the hub country has to establish or control a significant amount of physical infrastructure such as pipelines, terminals and other transportation and storage facilities. Secondly, the concept of an energy hub has a market-based meaning in the sense that it refers to a country where not only a major volume of trading takes place but also prices are also set. In order to realize such a role necessary legal infrastructure in the form of norms and regulations needs to be put into action, while it also requires substantial degree of physical infrastructure to be available in the first place.

In this dissertation, the two meanings of the concept will be acknowledged but it will be argued that Turkey does have the potential to achieve a hub role in the physical sense of the concept. This geopolitical role will also be in alignment with Turkey's overall strategic orientation and foreign policy behaviour. As will be elaborated further in Chapter 8, this meaning will be reframed in the framework of a new concept, "Anatolian Gas Centre" that captures cogently the various roles Turkey seeks to play in energy relations.

1.7. CONCLUDING REMARKS

The combination of theoretical propositions here suggests that there is no single explanation in trying to understand energy policy formation between Eurasia, the Middle East and Europe. The power-based approach to energy geopolitics and discourse analyses critical geopolitics and provides some incentives about power, which act as a coercive or benign hegemony during the negotiation process.

On the other hand, the interest-based approach provides significant contributions to co-operation in the international regime. The interdependence theory explains that there is a necessity for co-operation for oil and gas supply security. The energy security phenomena play a central role in foreign and energy policies of the countries.

Within this framework Turkey has its role in the international energy arena to meet its energy demands and to contribute to the global energy security solutions with its geography, foreign policy and energy market structure capacities.

Chapter 2

TURKEY'S FOREIGN POLICY MAKING

2.1. OVERVIEW OF THE PHASES OF TURKISH FOREIGN POLICY

Turkish foreign policy has different phases with changes and continuities since the late Ottoman era. One of the distinguished recent studies of Turkish foreign policy is that of Kösebalaban. He emphasized the importance of Ottoman influence in Turkish foreign policy. According to him, Turkish foreign policy can be analysed within six periods: (1) Kemalist nationalism and foreign policy isolationism (1923-1950), (2) liberal reorientation of Turkish foreign policy (1950-1960), (3) foreign policy in the shadow of military intervention (1960-1980), (4) post-cold war identity (1983-2002), (5) emerging power in the age of globalisation (2002 to present).¹³⁶ In order to explain the nexus between energy politics and foreign policy we conceptualise Turkey's chronological history of foreign policy within four concepts; anti-revisionist, active neutrality, multidimensional and proactive. These four concepts have been implemented in the phases of Turkish foreign policy. In terms of conceptualisation of Turkish foreign policy, since the establishment of the Turkish Republic, the anti-revisionist approach has been a main principle of approach to the country's foreign relations. The active neutrality concept was the preferred strategy of Turkish foreign politics during WWII (1939-1945) and the Iran-Iraq War (1980-1988). Due to unstable relations and changes in the international system, Turkey has been forced to use a multidimensional foreign policy, especially in the 1970s and 1980s. Since the Post-Cold War, proactive and multidimensional foreign policy strategy has increased Turkey's initiatives and strengthened the voice of the country in the international community. This section will first give an overview of Turkish foreign policy and identify the continuity and change in Turkish foreign policy making since the beginning of the Republican period.

After the collapse of the Ottoman Empire, Turkey followed the anti-revisionist policy in order to maintain its sovereignty in international society. Turkey gained

¹³⁶ Hasan Kösebalaban, *Turkish Foreign Policy: Islam, Nationalism, and Globalization* (New York: Palgrave Macmillan, 2005).

international legitimacy when European powers accepted the Ankara government headed by Mustafa Kemal as the sole legitimate government of the new nation state at the Lausanne conference. During the years between WWI and WWII, Atatürk followed rational policies according to a consideration of Turkey's economic and military capacity.¹³⁷ It is widely accepted that Mustafa Kemal established modern Turkey on the ruins of the Ottoman Empire by rejecting the policies and aims of the imperial past and imperial experience. However, the new republic established its own centre and periphery with the major population element coming from the Southern Caucasus and Balkans due to a series of wars in these regions.¹³⁸ During the late 1920s, Turkey undertook institutional restructuring in bureaucracy and foreign policy making. The Ankara government successfully took control of the boundaries of the country by signing agreements with neighbouring and European powers.

Due to the rise of socialist nationalism in Europe, Turkey signed the Sadabat Pact and the Balkan Pact in the 1930s in order to protect itself from armed conflict. It is broadly considered that Turkey's policy can be summarized as an anti-revisionist policy aimed at preserving the boundaries of the Turkish Republic. In a sense, during the course of WWII, the President of the Turkish Republic, İsmet İnönü, followed the 'active neutrality' policy.¹³⁹ As a result, he successfully kept Turkey out of WWII. Later, Turkey joined the new international system of NATO.

Although the Ankara government benefited from NATO and the Marshall Aid program, structural engagements with the Western security system established patron–client relations between the United States of America and Turkey, respectively.¹⁴⁰ Turkey's security and economic dependency on the USA was tested by the Jupiter missile crisis in parallel with the Cuban missile crisis, followed by Johnson's blunt letter to the Turkish President about the Cyprus problem, which created distrust between the two allies. Consequently, Turkey started to review its

¹³⁷ Ersin Kalaycıoğlu, *Turkish Dynamics: Bridge Across Troubled Lands* (New York: Palgrave Macmillan, 2005).

¹³⁸ Kemal Karpat, *Ottoman Population, 1830-1914: Demographic and Social Characteristics* (University of Wisconsin Press, 1985).

¹³⁹ Selim Deringil, *Turkish Foreign Policy during the Second World War: An 'Active' Neutrality* (Cambridge: Cambridge University Press, 2004).

¹⁴⁰ Behçet Kemal Yeşilbursalı, *The Baghdad Pact: Anglo-American Defence Policies in the Middle East, 1950-59* (Oxon, UK; New York, NY: Frank Cass, 2005).

foreign relations and look at different options such as a new approach to Soviet Russia, Gulf Arab countries and Europe. It seems that its Europeanization policy led to diversification of Turkey's foreign relations, especially after the signing of the Ankara Agreement with European countries in 1963. Most analysts believe that Turkey's new policy approach in the 1960s could be classified as multidimensional foreign policy. Though Turkey had chances to join the European Economic Community on many occasions, Turkey has failed to enter the group as a full member state. In the context of energy, for instance, Turkey has been excluded from a key institutional body of the EEC, Euratom.

During the Cyprus crisis, Turkey claimed that she made a 'humanitarian intervention' against Greek Cyprus in 1974. This was one of the exceptional cases which was a departure from the principle of anti-revisionist foreign policy. However, Turkey was faced with a US arms embargo and suffered from international isolation. The situation in Turkey's domestic politics was also critical due to rising internal conflict between left-wing and right-wing groups. In order to rehabilitate internal and external dynamics, the Turkish army performed a military coup d'état on September 12, 1980. One of the first policies that captured the attention of international society was that the military government (1980–1983) reduced its diplomatic relations with Israel from ambassadorial level to secondary level representation. In addition to this, Turkey launched an Islamisation policy in domestic politics to adapt to the rising of political Islam in the Middle East, especially from Iran after the Islamic Revolution in 1979.

Following full engagement with the global capitalist system, Turkey's leading politician at the time, Turgut Özal, made another structural change in Turkish domestic and foreign policy. During the period of his government (1983–1989) and presidency (1989–1993), Turkey followed active neutrality to benefit from war economic relations during the Iran–Iraq war (1980–1988). Özal believed that economic relations were more important than political relations, because if economic relations grow in the right direction, political relations become interdependent relations. On the one hand, the 1990s was one of the important turning points for Turkish foreign policy making; however, Turkey could not benefit from structural change in the international system. Therefore, most of the analysts believe that, due to a series of coalition governments in the 1990s, these years can be seen as the lost

years of Turkish foreign relations. Although Turkey improved its relations with Tel-Aviv, and consequently signed a military training agreement with Israel in 1996, Turkey's relations with Iran and Iraq were generally tinged with enmity. Turkey faced a diplomatic crisis with Iran in 1997, and had an undeclared war with Syria in 1998.

The end of the Cold War was a critical turning point for Turkey in terms of searching for a new geopolitical identity. The decline of the Soviet Union threat, which has been on the agenda of Turkish foreign policy for a long time, was a significant development for Turkey; although the cautious stance has been maintained in the senses of preserving the commitment to the Western system and avoiding direct confrontations with the new Russia.¹⁴¹ The initial challenge for the Turkish policy makers was to redefine Turkey's strategic role and reemphasize its importance for the Western states (particularly for the US). Secondly, the aim was to employ a more active foreign policy in the new geopolitical environment of Turkey - such as Ukraine in the North, the new Balkan States in the Northwest, Georgia, Armenia, and Azerbaijan in the Northeast - without conflicting with Russia.¹⁴² Thus, the post-Cold War context brought both opportunities and risks to Turkey.

Meanwhile, the domestic political dynamics of Turkey also influenced Turkish foreign policy. For instance, the activities of the Kurdish separatist movement affected relations with Iraq and Syria, while the rise of political Islam intensified relations with Muslim countries (particularly during Erbakan's term). Additionally, the export-based economy led Turkey to have a neo-liberal foreign policy doctrine that aimed to increase political stability and cooperation through economically interdependent relations between the states in its geopolitical environment.

In Turkish foreign policy, the first important event after the end of the Cold War was the Gulf War in which Turkey joined and attempted to remind the US that Turkey could still play a crucial role in regional security.¹⁴³ Secondly, Turkish policy makers

¹⁴¹ Sabri Sayari, "Turkish Foreign Policy In The Post-Cold War Era: The Challenges Of Multi-Regionalism," *Journal of International Affairs - Columbia University* 54 no. 1 (2000): 170.

¹⁴² Paul Henze, "Turkey: Toward the Twenty-First Century," in *Turkey's New Geopolitics*, ed. Fuller et. al. (Oxford: Westview Press, 1993), 29; Graham Fuller, "Turkey's New Eastern Orientation," in *Turkey's New Geopolitics*, ed. Fuller et. al. (Oxford: Westview Press, 1993), 37.

¹⁴³ Sayari, "Turkish Foreign Policy In The Post-Cold War Era: The Challenges Of Multi-Regionalism," 171.

desired to spread a “Turkish Model”, which was basically based on parliamentary democracy, a free market economy and secularism, in Central Asia where the new independent Turkic republics replaced the Soviet Union. Beyond the cultural and historical links with these countries, Turkey would gain strategic importance, meet increasing energy demands and establish political stability in the region by reinforcing relations with the Turkic states.¹⁴⁴ Therefore, as Sayari states, Ankara’s goal was not rebuilding a neo-Ottoman order or pursuing pan-Turkic ambitions, but maintaining its strategic role, preventing conflicts from reaching its own territory, protecting regional stability and enhancing economic interdependence in the region.¹⁴⁵

In this context, the most important determinants of the Turkish foreign policy were economic relations and energy politics. Avoiding conflicts with the trading partners, avoiding isolationist policies and benefiting from new markets were the basic implications of the economic concerns for foreign policy. Particularly, energy politics played a significant role in Turkish foreign policy due to increasing domestic energy demand and the strategic importance that would be gained through energy pipelines. It was widely believed that Turkey’s role as an energy corridor between East and West would enhance its strategic role for the West and limit the influence of Russia’s energy card in the region.¹⁴⁶ In this regard, Turkey signed a number of agreements with Azerbaijan, Turkmenistan, and Kazakhstan to meet its own energy demand and developed alternative projects for new pipelines from the Caspian Sea to the West. In the early 1990s, the most prominent projects were the BTC pipeline to transport Azeri oil and the trans-Caspian pipeline to transport Turkmen natural gas to Europe. Although Turkey did not have any immediate benefit regarding the BTC pipeline, Turkish policy makers paid great attention to this project as an opportunity to express Turkey’s strategic position in between East and West as an energy gateway. Although the project itself was meaningful in terms of transit revenue and access to Caspian oil, Turkey’s main perspective was connecting Caspian reserves to the West, creating an alternative and secure energy supply, securing itself a role and a renewed Western identity in regional politics. Nevertheless, Turkish governments pursued a

¹⁴⁴ Bülent Aras, *The new geopolitics of Eurasia and Turkey's position* (London: F. Cass., 2002), 7.

¹⁴⁵ Sayari, “Turkish Foreign Policy In The Post-Cold War Era: The Challenges Of Multi-Regionalism,” 180.

¹⁴⁶ *Ibid*, 173-174.

multifaceted energy policy and avoided by-passing Russia totally. In 1997, firstly, the existing pipeline capacity between Turkey and Russia was increased, and the Blue Stream project was developed that would transport natural gas from Russia under the Black Sea to Turkey.¹⁴⁷ Moreover, the West Line II agreement was also a clear indication of Turkey's willingness to buy Russian natural gas.

On the other hand, Turkey's involvement in energy routes competition made Turkey more sensitive to conflicts in the region. For instance, the invasion of Nagorno-Karabakh by Armenia and then the Khojali massacre in February 1992 damaged political stability in the region. During the crisis, Turkey's support for Azerbaijan caused discomfort between Turkey and Russia who stood behind Armenia. Nevertheless, since Turkey's primary concern was the stability and continuance of economic and energy co-operation, Turkish policy makers attempted to solve conflicts through diplomacy and partly became successful.

In 1992, when Elçibey was elected as the president of Azerbaijan, Turkey-Azerbaijan relations gained momentum, particularly regarding the BTC pipeline which would make Turkey a significant player in the "Caspian oil game" and decrease Russia's influence.¹⁴⁸ However, this honeymoon did not last for a long time, as Elçibey was overthrown in 1993. Nevertheless, the successor of Elçibey, Haydar Aliyev, did not oppose the BTC pipeline and the project preserved its prominence. Additionally, in the late 1990s a natural gas pipeline between Turkmenistan and Turkey was also negotiated. In 1999, an agreement between Turkey, Georgia, Azerbaijan, and Turkmenistan was signed to construct a 2000 km natural gas pipeline from Turkmenistan, under the Caspian Sea, to Azerbaijan and then to Georgia and Turkey.¹⁴⁹ Moreover, Turkey negotiated with Kazakhstan to construct an extension of the BTC to transport Kazakh oil through Turkey's territory.¹⁵⁰ Therefore, it is plausible to assert that a multifaceted energy policy has been pursued by Turkey in consistency with its foreign policy preferences. Although its aim is to utilize opportunities in Central Asia and Caucasia after the collapse of the Soviet Union,

¹⁴⁷ William Hale, *Turkish foreign policy, 1774-2000*, (London: Frank Cass: (2000) 267

¹⁴⁸ *Ibid.*, 272.

¹⁴⁹ *Ibid.*, 296.

¹⁵⁰ Aras, *The new geopolitics of Eurasia and Turkey's position*, 11.

Turkey avoided confronting Russia who desired to preserve its influence in the region. Turkey's goal included meeting domestic energy demand, keeping its strategic importance and enhancing political stability in the region through intensifying interdependence between regional actors.

This period had started with ambitious plans for establishing utmost links with the newly independent states in Central Asia and Caucasus but fallen short of expectations mainly due to the repeating economic crises in Turkey. The gap between the expectations and performance created a traumatic memory for the years ahead with a hesitance to engage and a cautious attitude on the other side. The major achievement in the 1990s was preparing the ground for further energy cooperation between Turkey and Caspian energy riches, and in particular, with Azerbaijan. The wider context of regional rivalry would not prevent design of first generation pipelines despite lack of economic resources and foreign policy capabilities.

In the 2000s there have been some structural changes in Turkish foreign policy introduced and contextualized by Turkish Foreign Minister Ahmet Davutoğlu. He introduced a critical geopolitical reading of Turkey's space and place in the globe and presented the discourse of 'zero problems with neighbouring countries', which is opposed to the Cold War attitude of Turkey (that it was encircled by enemies and that Turks had no true friends except themselves).

2.2. DAVUTOĞLU'S VISION IN TURKISH FOREIGN POLICY MAKING

Even though the Turkish foreign policy acquired a new character during Davutoğlu's term, it is not an overstatement to say that the basic determinants of Davutoğlu's policies indicate consistency with previous periods of Turkish foreign policy, such as with Özal's activism in foreign policy or the EU-oriented foreign policy of the coalition government from 1999 to 2002.¹⁵¹ Thus, rather than a revolutionary change, Davutoğlu's term presents a new doctrine of Turkish foreign policy that is based upon new vision, principles and approaches in order to respond to the changing dynamics of regional and world politics in a better way.

¹⁵¹ Bülent Aras, "The Davutoğlu Era in Turkish Foreign Policy," *Insight Turkey* 11 no. 3 (2009): 131.

Turkish Foreign Minister Ahmet Davutoğlu explains the new vision of Turkey's foreign policy in terms of three principles: a visionary rather than crisis-oriented approach; consistent and systematic foreign policy toward international society; and a Turkish oriented discourse of new diplomacy which has resulted in the spread of Turkish soft power in the region. Davutoğlu introduces five operational principles that help to enforce the main principles in Turkish foreign policy: (a) Balance between securitisation approach and democracy, (b) zero problems with neighbours, (c) proactive and pre-emptive peace diplomacy, (d) multidimensional foreign policy, (e) total performance.¹⁵²

The first principle, a balance between democracy and security, has been considered as a necessary condition at home for an active policy abroad. The idea is to democratize the country, while achieving a greater security. Such a domestic atmosphere would be a strong support for a confident foreign policy attitude. Turkey's past problem of putting its house in order would be handled in this way and the domestic landscape would produce positive feedback for the foreign policy making process. It is both an ideational and a structural background at home for the initiation of a new foreign policy. This principle connects domestic landscape to foreign policy in a way that produces trust and confidence in regional and international levels; however, it relies on the assumption that there will be democratization, pluralism and rule of law in domestic arena. However, there are criticisms for restrictions of freedom of press in Turkey and the harsh measures against protesters of Gezi Park raised attention to democratic standards in Turkey. Gezi Park is one of the few green areas in central Istanbul turned to a battleground between Turkish government and protesters, which led to an escalating polarization in Turkey. This delicate balance between domestic and foreign policy may take foreign policy hostage to domestic struggles if it does not occur in the direction Davutoğlu puts forward.

Davutoğlu's second principle of 'zero problems with neighbours' aims to utilise changing domestic psychology and confidence in appropriating a new philosophy in foreign policy. The usual approach to Turkey's neighbourhood in the past was to consider it as a geography of problems and keep the country away from it. There is a popular perception of Turkey's being surrounded by enemies in its neighbourhood.

¹⁵² Davutoğlu, "Turkey's Foreign Policy Vision," 77–96.

Davutoğlu has targeted changing this perception so that a new popular perception of minimizing problems with the neighbouring countries will replace the old one. The new approach considers the neighbouring geography as a geography of opportunities rather than problems. Turkey has taken serious initiatives and succeeded to a considerable extent in easing tensions with the neighbours, and in developing political and economic relations with almost all of them in varying degrees. Although it has not yielded a problem-free neighbourhood for Turkey, the progress has been considerable. Turkey has signed high level political dialogue agreements with a number of neighbouring countries, which assume joint cabinet meetings and maximum integration. For instance, Turkish policy makers have made an effort to find a diplomatic solution to the Cyprus crisis in accordance with the Annan Plan which is considered adequate by most of the international actors. Also, Turkey has improved its economic and political relations with Georgia and intensified the interdependence between two countries.¹⁵³ Even though it would be naïve to expect all of the problems with the neighbours to be solved solely by goodwill, the diplomatic attempts for this purpose clearly have strengthened Turkey's position in the region.

Additionally, use of soft power is also an important part of the Turkish foreign policy in conjunction with the “zero problems with neighbours” policy. Soft power, as a foreign policy tool, refers to “the ability to get what you want through attraction rather than coercion or payments” by using the cultural or ideological policies.¹⁵⁴ For instance, despite the previous policies based upon the use of hard power against Iraq, Davutoğlu favoured the use of soft power to reduce the hostility between the two countries, and beyond the “neighbouring countries” initiatives, a Turkish-Arab forum was established in 2007.¹⁵⁵ Similarly, after the 2008 War between Georgia and Russia, Turkey attempted to form a “Caucasus Solidarity and Co-operation Platform” which aimed to promote diplomacy and co-operation not only regarding the Georgia-Russia conflict, but also the other confrontations in the region that would be resolved without transforming to conflicts.

¹⁵³ Ziya Öniş and Şuhnaz Yılmaz, “Between Europeanization and Euro-asianism: Foreign policy activism in Turkey during the AKP era,” *Turkish Studies* 10 no. 1 (2009): 9.

¹⁵⁴ Joseph Nye, “Soft power and American foreign policy,” *Political Science Quarterly* 119 no. 2 (2004): 255-270.

¹⁵⁵ Öniş and Yılmaz, “Between Europeanization and Euro-asianism: Foreign policy activism in Turkey during the AKP era,” 18.

Having achieved considerable success in solving problems in the neighbourhood, Turkey was able to go beyond it and establish links and pursue policies in close geographies. Turkey developed political relations with the countries in the Balkans. Turkey is an active participant in regional politics and a contributor to peace attempts in the Balkans. Turkey has a similar active policy line in the Caucasus. Turkish diplomacy in the aftermath of the Russia-Georgia war in 2008 was very effective in cooling down the situation and containing the crisis within the region. Turkey developed special ties with the Gulf region. Turkey is probably one of the most active countries in the Middle East in the search for peace and stability under the difficulties of the 'Arab Spring'. The countries in Middle East and North Africa are facing an unprecedented transformation with popular revolts and Turkey plays a role of peace-maker and stabilizer in this critical region.

However, Turkey's role as a peacemaker in the region has some limitations, unsurprisingly. Moreover, Öniş argues, when Turkey performed this role unilaterally it engendered some counter-productive results. For instance, Turkey's high-level diplomatic contacts with Hamas after 2006 had some negative implications for Turkey's international relations in the sense of damaging the relations with not only Israel and the Jewish lobby in the US, but also with the EU and other Western actors who were sceptical about Hamas's role and legitimacy.¹⁵⁶ Turkey's deteriorating relations with Israel and the worsening ties with Syria put an end to its mediator role between these two countries. Similar problems occurred during the Arab Spring since Turkish policy makers sided with the popular demands. There are also increasing allegations that Turkey for pursued sectarian policies in the course of Arab Spring.

Rhythmic diplomacy assumes a change in understanding and practice of diplomacy among Turkish foreign policy makers. This is a search for a global role and influence in international issues, which will make Turkey a global player in the end. Turkey's search for a non-permanent seat at the UN Security Council by 2015 during the 2008-10 period is a clear indication of the search for an active diplomatic presence at the international level. The number of high level Turkish diplomats in international organisations is higher than ever. There is also motivation for searching for peace-maker roles in different parts of the globe to bring the Turkish diplomatic service to

¹⁵⁶ Ibid., 19.

the solution of problems. Turkey's engagement in Somalia is one of the most visible signs of Turkey's multi-faceted peace-building attempts outside the country. In addition, Davutoğlu suggests a pro-active foreign policy based upon rhythmic diplomacy. In this sense, his attempt to increase Turkey's diplomatic influence in the Organization of Islamic Cooperation, which resulted in the election of a Turkish academic (Ekmeleddin İhsanoğlu) as the general secretary of the OIC, is a good example of such a pro-active vision. Moreover, acquirement of a non-permanent seat in the UN Security Council, observer status in the African Union, the Arab League, the Association of Caribbean States, and the Organization of American States clearly demonstrates how Turkey's diplomatic efforts were extended and gained momentum in a variety of international organizations.¹⁵⁷ As one can see, the rhythmic diplomacy and pro-active foreign policy vision led Turkey to a multidimensional foreign policy, which is another principle of Davutoğlu's foreign policy doctrine. This doctrine proves successful in some areas, while facing difficulties in other fields. The multidimensional nature of foreign policy makes success and failure impossible in terms of foreign policy assessment. The rhetorical strength of the doctrine, however, faces with the challenges on the ground. There is criticism up to the point of declaring total failure of Davutoğlu foreign policy.¹⁵⁸ It would be unfair to consider it as a failure but this doctrine is not a complete success story.

In the framework of the fourth principle, a multidimensional foreign policy, Turkey's foreign policy is not restricted to neighbouring countries and the regions, but also reaches beyond them. There is also a new ambitious policy of opening up to Africa, Asia and Latin America. As an example, the number of Turkish embassies in Africa rose to 34 in 2014, while it was 12 in 2002. While Turkey is planning and pursuing new openings and policies, it also continues its traditional partnership relations. The West and trans-Atlantic relations are at the centre of Turkish foreign policy, while it tries to expand the horizons of its foreign policy. The idea with multidimensional foreign policy is to be able to reconcile old partnerships and patterns of relations with the new ones in a way that they will support each other. The last thing policy makers want is a conflicting agenda of detrimental relations between different engagements of

¹⁵⁷ Aras, "The Davutoğlu Era in Turkish Foreign Policy," 134.

¹⁵⁸ Cengiz Çandar, "Türkiye'nin Değerli Yalnızlığı ya da Etkisiz Dis Politikası," *Radikal*, August 18, 2013.

Turkey in different geographies. The best example that reflects the multidimensionality in Turkish foreign policy would be Turkey's attempts to find diplomatic solutions to the Cyprus crisis and the Gazan crisis at the same period. Since labelling Turkish foreign policy as Cyprus-oriented or Middle East-oriented by looking at only one of these issues would be misleading, it is wiser to consider Turkish foreign policy as a multidimensional and integrated one.¹⁵⁹

The final principle is total performance, which aims to mobilize, among others, civil society, the business community, think-tanks, universities and the public in general, behind foreign policy goals. The idea is to draw the widest legitimacy for pursuing a confident foreign policy abroad. Foreign policy aims to open the new geographies to the interest and attention of Turkish people, and motivate them to import value back to the country. It may be business investment, civil society activity for peace-building or charity assistance to zones of natural disasters and war geographies. Recent years have witnessed an ever increasing presence of Turkish people in Africa and other geographies of the new foreign policy. The Turkish public sometimes plays a motivator role for further expansion and deepening involvement of Turkey in new geographies

In addition to the core principles of Turkish foreign policy, one needs to frame Turkey's energy policy in a policy environment shaped by these principles. In such a framework, the necessary components would be likely to be as follows: (a) a policy aiming to integrate Turkey's neighbouring regions, (b) a new diplomatic style of energetic negotiations and agenda setting, (c) a multidimensional nature of reconciling interests of actors in a plural environment, (d) successful integration of the Turkish business community, (e) coordination of this policy in close cooperation with national actors and international partners, (f) the ability to operate in a rapidly changing environment and preservation of a proactive stance, and (g) providing Turkey with a central role with a suitable discourse and policy.

Davutoğlu considers the human aspect of foreign policy as important as the official track. From his perspective, Turkey's major strength is human resource of country

¹⁵⁹ Aras, "The Davutoğlu Era in Turkish Foreign Policy," 133.

and foreign policy should facilitate their access to new initiatives, business investments, among others, in outside world.¹⁶⁰ In this sense, the collaboration and cooperation between the NGOs and business community and official policy line has a considerable importance for sustainability of foreign policy. In this sense, it is still a work in progress and needs to build up sustainability strategies with some solid base. This new conceptualization of Turkish foreign policy overlaps with the critical geopolitical reading of Turkey and Turkey's awareness of the capacity of its own resources and social capital — as a nation and as a state — to achieve its foreign policy objectives.¹⁶¹ Davutoğlu noted many occasions on which Turkey has had to design its ground strategy according to new global situations. One of his key arguments is that if Turkey reads its own geopolitics rightly, and uses the historical, cultural and economic resources within its former sphere of influence, Turkey can establish its own hinterland and contribute to peace in the Middle East and Caspian Sea regions.¹⁶² The Turkish geopolitical hinterland can be divided into three. The first two are (1) the nearest land hinterland (Balkans, Middle East and Caucasus) and (2) the nearest sea hinterland (Black Sea, Adriatic Sea, Mediterranean Sea, Red Sea region, Gulf region and Caspian Sea region). In addition to this, Davutoğlu emphasizes (3) the nearest continents that Turkey can effectively develop relations with: Europe, North Africa, and South Asia.¹⁶³ Turkey's new opening up to Africa and South Asia is the new direction for Turkish foreign policy. The Minister also rejects the idea of a 'watch and see' policy when crisis develops in the hinterland(s) of Turkey. It is believed that proactive policies establish peace and confidence building between conflict parties with Turkey's new initiatives. However, Turkey's multi-channel diplomacy and peace-building role has been suspended by the 'Arab Spring' in North Africa and the Middle East.¹⁶⁴

¹⁶⁰ Ahmet Davutoğlu, "Turkey's humanitarian diplomacy: objectives, challenges and prospects," *Nationalities Papers: The Journal of Nationalism and Ethnicity* 41 no. 6 (2013d): 865-870.

¹⁶¹ Ahmet Davutoğlu, "Principles of Turkish Foreign Policy and Regional Political Structuring," *Vision Papers SAM (Centre for Strategic Research)* 3 (2012).

¹⁶² Ahmet Davutoğlu, *Stratejik Derinlik: Türkiye'nin Uluslararası Konumu* [Strategic Depth: Turkey's International Position] (Istanbul: Küre Yayınları, 2001), 117-118.

¹⁶³ Davutoğlu, *Stratejik Derinlik: Türkiye'nin Uluslararası Konumu*, 118.

¹⁶⁴ Ibrahim Kalın, "Turkish Foreign Policy: Framework, Values, and Mechanisms," *International Journal* (Winter 2011-2012): 7-21.

Although Turkish foreign policy witnessed certain setbacks during the ‘Arab Spring’, one may need to discuss a number of initiatives Turkey pursued to utilize an energy policy within its new foreign policy vision. The most visible one is the policy shift toward Iraq. Turkey’s policy toward Iraq was a myopic one with a limited focus on Northern Iraq. The major concern was PKK terrorism and the spill-over impact of a potential Kurdish state in Northern Iraq. The interest and policy was not able to go beyond the northern part of Iraq. Turkey’s de-securitization at home, progress in the Kurdish problem and the ‘zero problems’ approach in foreign policy paved the way for a holistic change in foreign policy. Turkey has developed substantive relations with the Kurdish Regional Government (KRG) in Northern Iraq and been able to play a constructive role in post-2003 Iraq. Turkey’s economic and political relations with the KRG are at the highest level and there is mutual confidence to pursue joint energy projects.

Turkish policy in the Caucasus prioritized relations with Azerbaijan. The attempt in 2008 at normalization with Armenia did not work, mainly due to the Armenian authorities’ failure to persuade relevant parties to move forward in this direction. The distrust between Azerbaijan and Turkey led to speculation that relations would not recover from the negative impact of the normalization attempt. The post 2008 period brought Turkey and Azerbaijan closer and the two states pursued regional policies to initiate energy projects, *i.e.* the Southern Gas Corridor. The TANAP pipeline was added to the Baku-Tbilisi-Ceyhan crude oil pipeline and the Baku-Tbilisi-Erzurum gas pipeline. Turkey and Azerbaijan have the upper hand in the TANAP project and the Azerbaijani authorities have made Turkey also a stakeholder in the Shah Deniz II gas field.

Turkish policy in the Balkans deserves attention in terms of Ankara’s successful policy of generating support for Turkish initiatives. The Balkans are a transit geography of energy routes and they are also potential consumers of the same energy networks. Turkey’s multi-faceted policy prepares the ground for economic involvement and energy projects. Another geography is the East Mediterranean. It is full of problems as well as newly discovered energy reserves. Turkey’s rapprochement with Syria, Egypt and Libya in the post ‘Arab Spring’ environment changed to a considerable extent. However, Turkey has a new awareness of this

geography and has made clear that it will not allow unilateral action in the energy field in the East Mediterranean. Turkey follows a constructive policy on the Cyprus question despite the international community and the EU leaving Northern Cypriots isolated after the ‘Yes’ vote to the Annan plan for unification of the island versus the ‘No’ vote of Greek Cypriots.

Turkey’s policy toward the US has always been sensitive on energy issues. Ankara has been able to have the support of the US on energy projects. The prime example is the US backing of the Baku-Tbilisi-Ceyhan crude oil pipeline in the 1990s. There is an agreement among all parties that this project would not have been possible without open and strong US support. Turkey’s relations with the EU face a deadlock and have almost stopped due to inactivity on the EU side. However, despite this problematic situation in the membership process, there has always been a mutual understanding on the mutual benefit from East-West energy corridors. Turkey expects the EU to recognise the real importance of Turkey in terms of EU energy security.

On the one hand, Turkey promises to continue its quest to maintain a balance between promoting democracies and defending its own national interest in the region. Turkey’s confidence about its Islamic identity supports the holistic and value-based approach in foreign policy making. As opposed to previous governments and to the Turkish army’s security-oriented policies, Davutoğlu has also introduced a new balance between security and freedom in domestic politics. He believes that domestic stability develops Turkey’s positions on regional and international issues, with careful consideration of the country’s own conditions and historical and cultural resources. The strength of Turkish foreign policy lies in its reconnecting with the people in Turkey’s hinterland with whom they share a common history and could have common destinies in international society. However, this is not a policy in which Turkey is turning its face to East or West. Rather, Davutoğlu argues in his seminal work, *Strategic Depth*, that foreign policy should weave elaborate connections between Turkey’s past and present and among its relations.¹⁶⁵

¹⁶⁵ Amberin Zaman, “Turkey’s Cabinet Reshuffle: Another Balancing Act,” *The German Marshall Fund of the United States*, May 11, 2009, accessed May 20, 2012, <http://www.gmfus.org/archives/turkeys-cabinet-reshuffle-another-balancing-act/>.

This research can clarify that the major objective of Turkish foreign policy is to encourage security and nurture a peaceful, stable, prosperous and co-operative regional and international environment that is conducive to human development at home as well as in neighbouring countries and beyond.¹⁶⁶ Turkey's proactive foreign policy has made it an effective regional power and, thus, a global actor, which are key objectives of Turkish foreign policy. In order to reach these goals, Turkey needs to establish a circle of security and welfare around itself by consolidating economic, cultural, and political interdependent relations with neighbouring countries. The energy variable is to play an essential role in the use of interdependent relations and soft power strategy in Turkish foreign policy making.

Political scientist James N. Rosenau identified five potential sources that influence a state's foreign policy: external environment, societal environment, governmental structure, bureaucratic roles and personalities of individuals.¹⁶⁷ The dynamics of the international and domestic environments are mentioned above; however, analysis of actors in the government, bureaucratic experience and the role of leaders required ascertaining the sources of conduct for Turkish foreign policy making.

The Foreign Ministry has full responsibility for conducting daily and long term strategic relations with foreign countries. The ministry's bureaucratic resources go back to the long-term diplomatic experience of the Ottoman state. Hence, the author can claim that there is a strong continuity in the state's behaviour and conduct of foreign policies. There is another institutional body in the form of the Turkish Grand National Assembly, which is responsible for controlling the Minister's policy and provides recommendations on occasions of crisis management. The Prime Minister and President also have great influence in Turkish foreign relations — both accept representatives of foreign states and visit foreign countries in official contexts. The National Security Council and Turkish Armed Forces deal with security-related foreign relations. In addition to this, over the last two decades, public opinion has become one of the key factors in Turkish foreign policy. This has been apparent in the Serbian–Bosnian, Russian–Chechen and Israeli–Palestinian conflicts. Turkey's

¹⁶⁶ "Turkey's Energy Strategy," *Republic of Turkey Ministry of Foreign Affairs*, accessed July 8, 2012, <http://www.mfa.gov.tr/turkeys-energy-strategy.en.mfa>.

¹⁶⁷ Rosenau.

demographic and cultural ties with these countries, which directly influence public opinion and foreign policy making, fuelled this situation.

Turkey's changing foreign policy is largely the result of de-securitization at home, namely moving the political agenda away from a security oriented discourse. The process of normalization of politics and decreasing domestic bonds on foreign policy paved the way for a greater flexibility and autonomy in international politics. In addition, democratization at home served also in the democratization of the foreign policy making process. Foreign policy has started to be shaped in a democratic environment of multiple actors and under the increasing impact of societal demands from different segments of the Turkish people. There are new actors in both public and civilian realms, and foreign policy makers have adapted to the new situation of a plural environment of policy makers. The civilian input occurs through various channels ranging from think-tanks to international NGOs. The private sector and business community have started to have an influence on foreign policy in the context of Turkey's foreign economic relations, namely in the energy sector.

2.3. TURKEY'S ENERGY STRATEGY IN THE POST-COLD WAR ERA

In the Turkish case, energy security was linked to the concept of economic development and the necessity of welfare for society. However, it is now considered one of the significant variables of foreign policy making. Turkey's principal aims include diversifying its energy supply routes and sources, having a diversified energy mix and taking significant steps to increase energy efficiency. According to CERA, Turkey is the fastest growing market (after China) in terms of natural gas consumption and electricity demand.¹⁶⁸ It is expected that Turkey will have become one of the most dynamic energy economies of Europe and the world in terms of increase in energy demand by 2020.¹⁶⁹ Due to not having enough domestic energy sources, Turkey's energy security depends on energy imports that account for 74% of the total consumption.¹⁷⁰ Hence, another major aim of Turkish foreign policy is to realize its own energy security, with a secondary goal being to provide a secure supply route and sources for Europe's energy security.

¹⁶⁸ CERA, *Turkey: Natural Gas Country Profile* (2011).

¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

Turkey is geographically positioned near 72% of the world's proven gas reserves and around 73% of oil reserves (in the Caspian and Middle East regions).¹⁷¹ Hence, Turkish foreign policy makers see Turkey's role in energy politics and the international energy regime as a reliable transit country for the East–West and North–South natural gas and oil pipelines. Turkey's policy is to support all Southern Gas Corridor projects passing through the Turkish territory, which comprise an essential component of Europe's energy diversification efforts. Turkey's co-operative relations with Russia, Iran and the Caspian and Middle Eastern states work for this aim in parallel with its own natural gas supply security. As mentioned previously, Turkey's soft power strategy and interdependent relations with suppliers and demanding countries could contribute increased energy supply security for Europe.

Turkey's new energy market regulation also contributes to Turkey's energy politics, making the country an energy corridor and a terminal.¹⁷² Turkish Minister of Energy and Natural Resources, Taner Yıldız, outlined Turkey's energy strategy plan in his speech to the Turkish Grand National Assembly on December 15, 2011:

- (a) Turkey's indigenous energy resources will have the first priority for utilization to provide resource diversification;
- (b) the share of renewables in primary energy supply will be increased;
- (c) energy efficiency will be improved;
- (d) rehabilitation of free energy markets and investment environments will be realized;
- (e) diversification in oil and gas supplies will be maintained;
- (f) Turkey's geostrategic space will be utilized to make Turkey a secure energy corridor;
- (g) energy activities will be carried out in an environment-friendly manner;

¹⁷¹ Ibid.

¹⁷² "2010–2014 Strategic Plan," *Republic of Turkey Ministry of Energy and Natural Resources*, accessed March 3, 2012, http://www.enerji.gov.tr/yayinlar_raporlar/ETKB_2010_2014_Stratejik_Planı.pdf; "Blue Book," http://www.enerji.gov.tr/yayinlar_raporlar/Mavi_Kitap_2009.pdf.

(h) the best efforts will be made for the contribution of energy resources to the Turkish economy;

(i) indigenous production of raw materials will be increased; and

(j) energy will be provided to the final consumers under the best terms of time, quantity and price.¹⁷³

In terms of implementation of Turkey's energy foreign policy, more importantly, the national companies such as TPAO have been playing major roles in Turkey's oil and natural gas activities. For instance, TPAO has been increasing its investments at both domestic and international level. Particularly the exploration projects in the Mediterranean and the Black Sea and other efforts to contribute natural gas supply to Turkey from Azerbaijan, Iraq, Libya, Kazakhstan, Afghanistan, Northern Cyprus and Russia reinforced the Turkish government's energy policy.¹⁷⁴ Similarly, BOTAŞ has been improving Turkey's capacity in the energy market by key projects. In the TANAP project, for example, BOTAŞ is one of the main actors and executes the important part of the project.¹⁷⁵ Moreover, BOTAŞ has partnerships with its counterparts at the international level, importing natural gas from Russia, Iran, Azerbaijan, Nigeria, Algeria and Qatar. BOTAŞ also operates the Iraq-Turkey Crude Oil Pipeline and the Turkish section of the BTC pipeline.¹⁷⁶ In Chapter 5 the role of the company in Turkish energy policy and the activities of BOTAŞ in the energy market will be discussed. The capacity and success of BOTAŞ directly affects the capacity of Turkey's energy policy and foreign policy. Energy politics is twisting diplomacy in certain parts of the world, therefore.

In order to establish more coherent relations abroad, the Ministry of Energy and Natural Resources plans to establish energy attaché cadres in Turkish embassies in Russia, the US, the UK and in other countries with which Turkey has significant

¹⁷³ Yıldız, "2012 yılı Plan ve Bütçe Komisyonu Enerji ve Tabii Kaynaklar Bakanlığı Bütçe Konuşması [Budget Presentation for year 2012 of Ministry of Energy and Natural Resources].

¹⁷⁴ Republic of Turkey Ministry of Energy and Natural Resources, "Presentation to the Turkish Grand National Assembly's Planning and Budget Commission by the Ministry of Energy and Natural Resources," (2014), 30, accessed May 14 2014, http://www.enerji.gov.tr/yayinlar_raporlar/2014_Plan_ve_Butce_Komisyonu_Konusmasi.pdf.

¹⁷⁵ Ibid., 43.

¹⁷⁶ Ibid., 36, 44.

energy relations. The special Turkish energy attaché is to monitor the use of oil and gas for political ends in certain part of the world. The energy attaché will also provide daily information to the Ministry to enable the operation of effective energy diplomacy abroad.

2.4. CONCLUDING REMARKS

This chapter has shown that Turkish foreign policy prior to the JDP government coming to power in November 2002 can be conceptualized as follows: (a) anti-revisionist, (b) active neutrality, (c) multi-dimensional, and (d) proactive. The major innovation in Turkish foreign policy occurred when the current Turkish Foreign Minister, Ahmet Davutoğlu, introduced new dynamics into Turkish foreign policy, as follows: (a) rhythmic diplomacy, (b) multi-dimensional foreign policy, (c) zero problems with neighbours, (d) order-instituting actor, and (e) international co-operation or proactive foreign policy and total performance.

The major aim of the present Turkish foreign policy is to move Turkey from being a passive player to pursuing a proactive foreign policy in order to establish Turkey as a regional and global actor. This chapter also concluded that energy security is a crucial element associated with foreign policy making by Turkey. Thus, economic interdependence is one of the components of the soft power strategy of Turkish foreign policy making.

Finally, the natural gas geopolitics of Turkey has evolved with the above mentioned new openings of Turkish foreign policy creating two significant dimensions: (1) the natural gas needs of Turkey could be met securely from the existing natural gas suppliers and future possible producers of the Middle East-Caspian region and (2) Turkey makes efforts to become a centre of attractiveness for the regional gas suppliers and to be a secure and transparent corridor in natural gas transportation between producers and consumers. However, it is important to note that the challenges of Turkish foreign policy have potential to limit the role of Turkey in Eurasian energy environment.

Chapter 3

TURKEY'S ENERGY MIX AND NATURAL GAS PROFILE

3.1. INTRODUCTION

The geographic position of Turkey offers a great opportunity to be an energy centre between the oil-and-gas-rich Caspian region, the Middle East and the huge gas market of Europe. The potential pipeline projects can easily transform Turkey into a 'gateway country' for the EU's energy supply security. Therefore, Ankara sees itself as a major natural energy corridor country to Southern Europe. In the late 1990s, Turkey suffered from coalition governments, which caused a political crisis in 1997 and a financial crisis in 2001. After the Justice and Development Party (JDP) government took power in November 2002, Turkey started the new liberal, developmental policies — named 'opening policies'— that sped recovery from the financial crises.

Turkey's fast-growing economy brings about higher energy demand caused by new investment, thus requiring a better-structured energy sector. Therefore the structure of the Turkish energy market directly affects the Turkish economy and so in this chapter we will analyse the characteristics of the Turkish energy system.

3.2. TURKEY'S ENERGY PROFILE

Since the 2001 economic crisis, Turkey has implemented significant economic measures and reforms, driven by the World Bank, the IMF and the European Union, and has been on a steady growth course. Despite the slow start to the year 2007, government tightening measures stimulated improved momentum in the Turkish business environment. Some issues still remain though, such as high public debt, fiscal imbalance and a trade deficit. GDP growth expectations are stabilized at around 6% until the end of the next decade. Population is also expected to grow by a cumulative 6.6% by the end of the decade, reaching more than 78 million. Turkey has

a young population, of which a relatively high proportion (70%) is of working age, unlike much of Europe.¹⁷⁷

With Turkey's economic development, the demand in the energy sector is becoming high; however, the country has few domestic sources of energy. Indeed, the country is importing 71% of its energy needs and producing small amounts of oil and poor quality coal, marginal amounts of natural gas and no nuclear energy at present.¹⁷⁸ Energy imports constitute one-fifth of the nation's import bill. In 2012, Turkey spent USD 60 billion on the import of energy supplies, including fossil fuels, lubricants and related materials, according to the Turkish Statistics Institute.¹⁷⁹

It is obvious that Turkey's energy profile clarifies the market potential of natural gas and the necessity to create energy strategies for the country. According to the Ministry of Energy and Natural Resources (MENR) of the Republic of Turkey, Turkey's total primary energy demand was 119 million tonnes of oil equivalent (toe), comprising: oil 26%, natural gas 32%, coal 31%, combustible renewable and wastes 11%. Nuclear electric energy consumption was zero in 2012.¹⁸⁰ According to the MENR, Turkey's anticipated primary energy demand growth is expected to be 4% per year over the next few years.

3.2.1. Turkey's Energy Mix

Oil, gas and coal are vital components of Turkey's energy mix and are extensively used for electricity generation. Turkey also considers nuclear energy to be an important route to diversify its power generation mix and to play a key role in Turkey's low-carbon future. This section explains what is included in Turkey's energy mix and the capacity of Turkey to diversify its energy portfolio as an energy centre in the Eurasian energy environment.

In 2010, MENR introduced the four-year energy strategy, which provides the country's proven and potential energy resources. The Ministry's two strategic reports

¹⁷⁷ Y. Akyüz and K. Boratav, "The Making of the Turkish Financial Crisis," *World Development* 31, no. 9 (2003): 1549-1566.

¹⁷⁸ Taner Yıldız, "2014 yılı Plan ve Bütçe Komisyonu Enerji ve Tabii Kaynaklar Bakanlığı Bütçe Konuşması [Budget Presentation for year 2014 of Ministry of Energy and Natural Resources]."

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

(Blue Book and Energy Strategy 2010–2014 reports) also give new guidelines for Turkey’s new energy venture. Turkish strategic goals for the period 2010–2014 basically are to diversify domestic energy sources and to diversify the oil and gas imports from different energy import countries. Turkey has begun to check its own domestic sources of renewable energy and to improve her energy efficiency policies.

However, Sohbet Karbuz, who is a well-known energy expert, offers a critical analysis in his recent article. He emphasizes that: “there is an urgent need for formulating longer term energy policy goals that are precise, comprehensive, measurable, concrete, coherent, and in line with both the economy and Turkey’s foreign policy and security goals. These goals, which should be determined and set by the Turkish Energy Ministry, are the prerequisite of any sound plan and the sine-qua-non of any energy strategy.”¹⁸¹ The fact is that Turkey is one of the biggest energy markets in the Eurasian energy environment. Turkey derives 90% of its energy needs from fuels of fossil origin, and oil meets one third of the total energy demand, followed by coal and natural gas (as given above). It is obvious that hydrocarbon resources are a huge majority in Turkey’s energy mix. The other important figure in the energy mix is the electricity consumption, which reached 242 billion kWh at the end of 2012.¹⁸² According to the MENR the electricity generation projections indicate that this level is expected to increase 7.5% (in a high case scenario) or 6.7% (in a low case scenario) annually.¹⁸³ The distribution of resources in electricity generation are: natural gas 45.9%, hydro 24.5%, coal 18.4%, imported coal 6.9%, liquid fuels 2.5% and other renewables, including wind. 1.8%. In 2023, Turkey’s electricity consumption is expected to be 450 billion kWh.¹⁸⁴

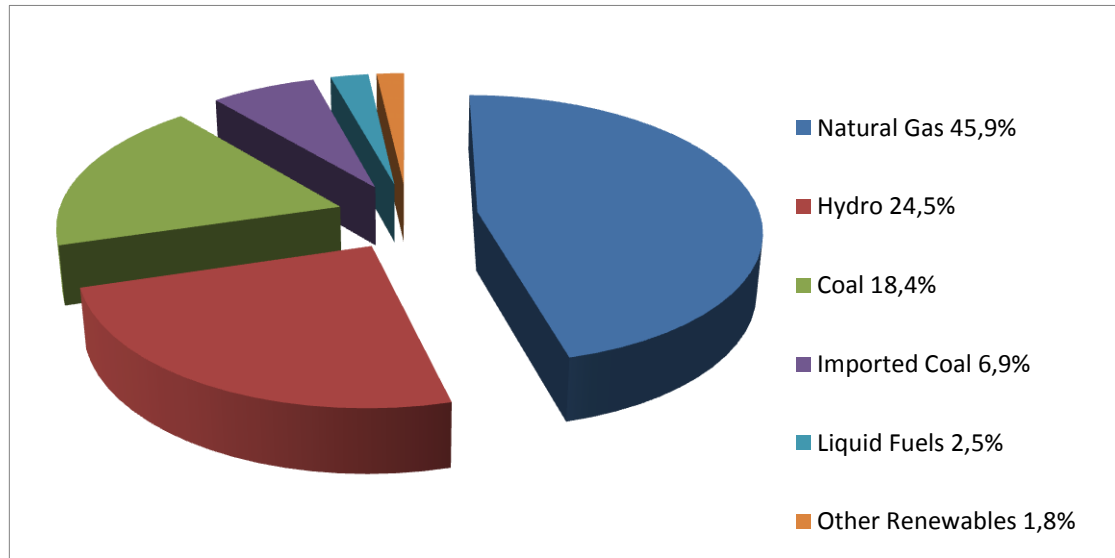
¹⁸¹ Sohbet Karbuz, “On Formulating a New Energy Strategy for Turkey,” *Insight Turkey* 12 no. 3 (Summer 2010).

¹⁸² Yıldız, “2014 yılı Plan ve Bütçe Komisyonu Enerji ve Tabii Kaynaklar Bakanlığı Bütçe Konuşması [Budget Presentation for year 2014 of Ministry of Energy and Natural Resources].”

¹⁸³ Ibid.

¹⁸⁴ Yıldız, “Energy Policies of Turkey Presentation”.

Table 3.1: The Resource Distribution of Electricity Generation in Turkey



Source: MENR.

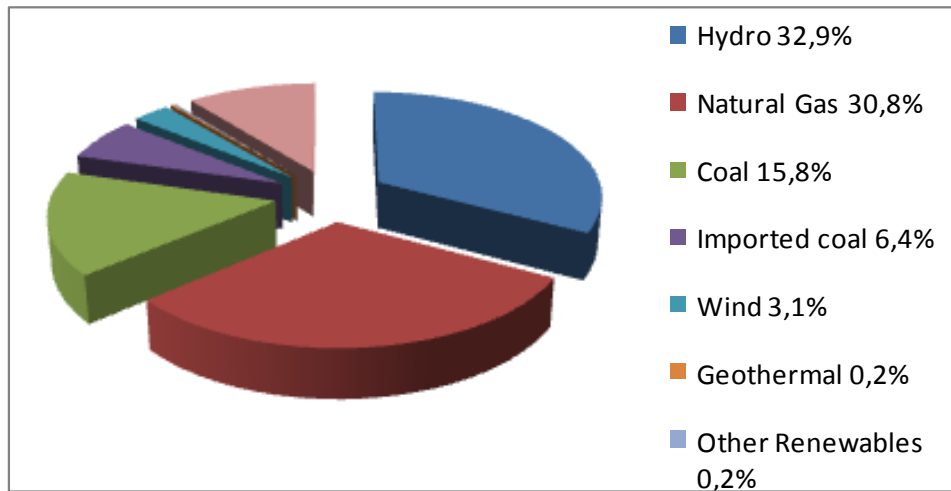
The total installed capacity of Turkey reached approximately 61,984 MW at the end of 2013.¹⁸⁵ In 2002, the installed capacity was 32,000 MW; therefore, as a result of huge investment in the energy sector over the nine years of the JDP government, the total installed capacity increased approximately 64% (the number of power plants was 300 in 2002, at the end of 2013 the total number of power plants was 883).¹⁸⁶ The distribution of installed capacity in terms of resources is: hydro 32.9%, natural gas 30.8%, coal 15.8%, imported coal 6.4%, wind 3.1%, geothermal 0.2%, other renewable 0.2% and other resources 10.6% (see Table 3.2).¹⁸⁷ It is very important to note that hydro has significant installed capacity, but in terms of electricity generation, natural gas generates twice as much electricity as hydro. Therefore Turkey's electricity sector is very dependent on natural gas.

¹⁸⁵ Yıldız, "2014 yılı Plan ve Bütçe Komisyonu Enerji ve Tabii Kaynaklar Bakanlığı Bütçe Konuşması [Budget Presentation for year 2014 of Ministry of Energy and Natural Resources]."

¹⁸⁶ Ibid.

¹⁸⁷ Yıldız, "Energy Policies of Turkey Presentation".

Table 3.2: The Resource Distribution of Installed Capacity in Turkey



Source: MENR.

Turkey has very ambitious targets for 2023, which is the 100th anniversary of the Turkish Republic. According to the MENR, until 2023 it is expected to invest at least 5 billion USD every year in the energy sector.¹⁸⁸ The total installed capacity is planned to be 100,000 MW, in which the total capacity of wind will be 20,000 MW, solar 3000 MW and geothermal 600 MW. According to the Electricity Market and Security of Supply Strategy Document of the Turkish Republic, approved in 2009, the share of renewables in electricity generation is expected to reach the level of 30% by 2023. The share of natural gas in electricity generation is envisaged to decrease from 46% to 30% by 2023; however at present it is 33%, higher than the European mean percentage.¹⁸⁹ Moreover, nuclear energy is planned to provide 5% of total electricity generation in 2020.¹⁹⁰ Natural gas consumption in Turkey has increased in the last ten years by 230%.¹⁹¹ Below, Table 3.3 and Table 3.4 give the consumption figures of Turkey since 2007.

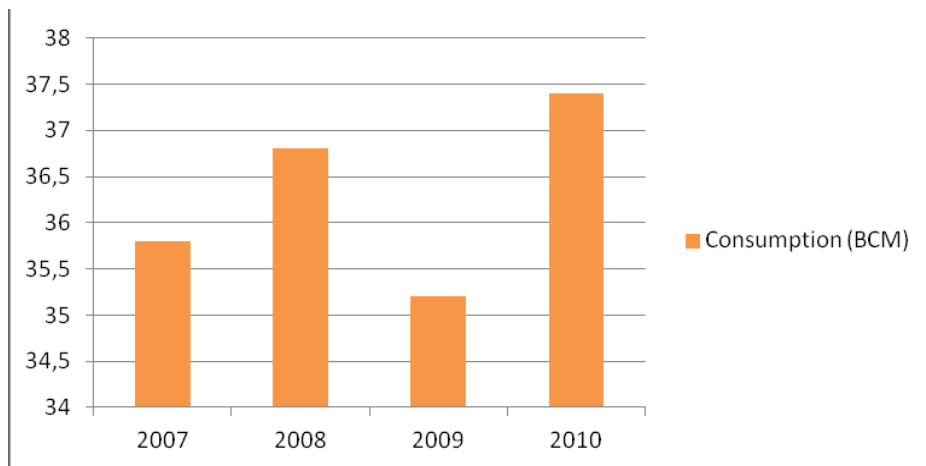
¹⁸⁸ Ibid.

¹⁸⁹ Erdinç Özen, *Türkiye Doğalgaz Piyasası: Beklentiler, Gelişmeler* [Turkish Natural Gas Market: Prospects, Progress] (Deloitte, 2012), 15.

¹⁹⁰ Prime Ministry of Turkey, State Planning Organization, Supreme Planning Council “Electricity Market and Energy Supply Security Document,” (May 21, 2009), accessed July 13, 2012, http://www.enerji.gov.tr/yayinlar_raporlar/Arz_Guvenligi_Strateji_Belgesi.pdf.

¹⁹¹ Özen.

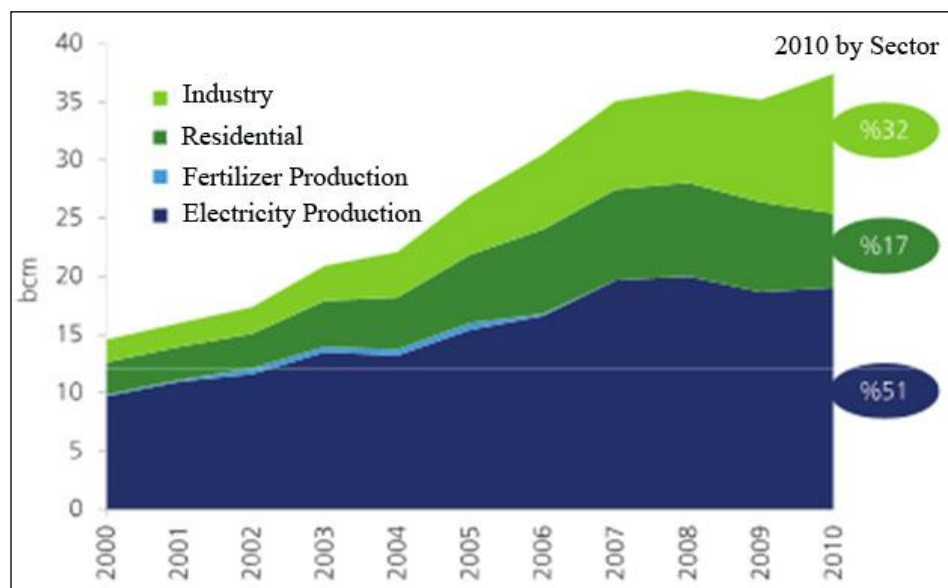
Table 3.3: Turkey's Natural Gas Consumption Between the Years 2007 – 2010



Source: Deloitte, 2012.

As seen below in Table 3.4, residential use in Turkey is substantial; since the distribution network is not complete yet the expectation of the future consumption in this category is high and almost certain.

Table 3.4: Consumption by Sector Since 2000



Source: BOTAŞ, EMRA, Deloitte 2011.

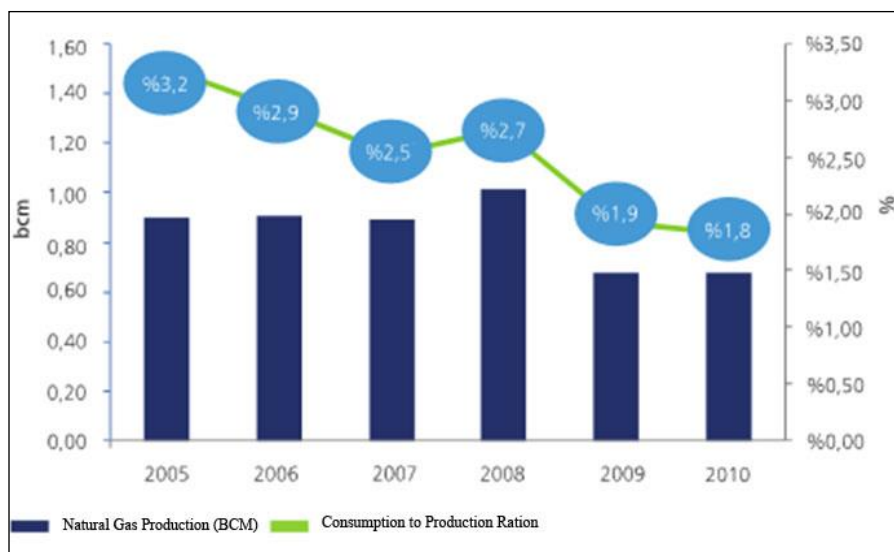
It is obvious that Turkey is very much dependent on natural gas in electricity generation and in total primary energy supply. The above mentioned targets are primarily focused on decreasing the level of imported energy resources, especially

natural gas. In order to achieve the targets, the first step is considered to be the maximum utilization of national reserves.

3.2.2. Turkey’s Energy Potential and Indigenous Production

As mentioned above, Turkey is heavily dependent on energy imports, exceeding the level of 70%. In terms of natural gas, Turkey is a net importer, with 98% import dependency.¹⁹² Turkey began exploring for and producing natural gas in 2004 in the Western Black Sea. Ayazlı has one well and is still exploring in Akçakoca. In 2011, TPAO signed an agreement with Shell to open up another well by 2016 in either the Mediterranean Sea (conventional gas) or South West Turkey (shale gas).¹⁹³ Turkey also expects to increase its production of shale gas from North West Turkey, Hamitabat and Mezdere. Table 3.5 gives the natural gas production of Turkey between 2005 and 2010. It is very clear that while the natural gas production is declining, Turkey’s natural gas consumption is increasing.

Table 3.5: Natural Gas Production of Turkey Between 2005 – 2010



Source: BOTAŞ and EMRA, 2011.

Table 3.6 gives brief information about the proven energy resources of Turkey. In recent years, the most prominent discovery was the increase of lignite and hard coal

¹⁹² Ibid.

¹⁹³ “TPAO in Türkiye,” TPAO, accessed August 12, 2012, http://www.tpa.gov.tr/tp2/sub_tr/sub_icerik.aspx?id=29.

reserves as a result of the activities of the state's Directorate of Mineral Research and Exploration. Since 2005, lignite reserves of 4.2 billion tonnes have been discovered.¹⁹⁴ The Afşin-Elbistan and Konya-Karapınar regions alone are expected to have an additional 18,500 MW of capacity by utilization of local lignite reserves.¹⁹⁵

Table 3.6: Turkey's Energy Resource Reserves, 2011

| | |
|--------------------|---|
| Hard Coal Reserves | 1.34 billion tonnes (proven, possible and probable) |
| Lignite | 11,45 billion tonnes (proven, possible and probable) |
| Crude Oil | 41,17 million tonnes (proven) |
| Natural Gas | 5,6 billion cubic metres (proven) |
| Geothermal | 600 MWe (proven) 31,500 MWt (proven) |
| Solar | 380 billion kWh/yr (potential) |
| Hydro | 140 billion kWh/y (economic potential) 433 billion kWh (theoretical potential) |
| Wind | 120 billion kWh/yr (potential) |
| Biomass | 8.6 million tonnes |

Source: MENR.

The second chance for Turkey is to utilize the potential of renewables to decrease import dependency and maintain energy security. According to the MENR, Turkey has the potential to have the installed capacity of 36,000 MW hydro, 48,000 MW wind, 50,000 MW solar, 600 MW geothermal and 2,000 MW biomass.¹⁹⁶ It is important to note that the necessary investments are expected to be realized by the private sector. Kemal Barış and Serhat Küçükali, in their article *Availability of renewable energy sources in Turkey: Current situation, potential, government policies and the EU perspective*, underline that the market regulation and the necessary legal and economic environment will determine the utilization of the renewable potential of

¹⁹⁴ "Republic of Turkey General Directorate of Mineral Research and Exploration," accessed on July 13, 2012, <http://www.mta.gov.tr>.

¹⁹⁵ Yıldız, "Energy Policies of Turkey Presentation."

¹⁹⁶ Ibid.

Turkey.¹⁹⁷ As Turkey is in the accession process to the EU, Turkey harmonises its regulations with those of the EU, which is expected to create the most suitable environment for the attraction of foreign investment. Barış and Küçükali also emphasize that Turkish industry is currently not capable of producing all renewable power plant components.¹⁹⁸

After commenting on the utilization of national coal and renewable potential, the increase of hydrocarbon reserves could be considered to be the third most important aspect of increasing indigenous energy production. In 2010, Turkey consumed 32 million tonnes, while the indigenous production was 2.3 million tonnes. At the end of 2011, Turkey had crude oil reserves of 41.17 million tonnes.¹⁹⁹

Turkey's oil production is primarily run by the Turkish State Petroleum Company (TPAO) and other private oil companies, with TPAO exploring new deposits focusing on the South-Eastern, Southern and North-Western provinces, and in the Black Sea and Mediterranean Sea regions. In addition, TPAO explores unconventional oil shale and tight oil reserves in Turkey with its foreign partners in Dadas Shale in South Eastern Anatolia, e.g. Shell, Trans-Atlantic, Valeura. TPAO has a very dominant role in Turkey's oil production; in the last ten years, TPAO has been responsible for 71% of total domestic oil production in Turkey.²⁰⁰ Offshore oil exploration activities have been increased in the last decade. TPAO has cooperated with BP, Exxon, Chevron and Petrobras in the Black Sea on oil exploration. After the recent discoveries in Israel and South Cyprus, TPAO signed a strategic agreement with Shell to explore the potential oil reserves of Antalya bay in the Eastern Mediterranean. Moreover, TPAO drilled an onshore well in 2012 after signing agreements with the authorities of Northern Cyprus in September 2011.²⁰¹

¹⁹⁷ Kemal Barış and Serhat Küçükali, "Availability of Renewable Energy Sources in Turkey: Current Situation, Potential, Government Policies and the EU Perspective," *Energy Policy* 42 (2012): 377-391.

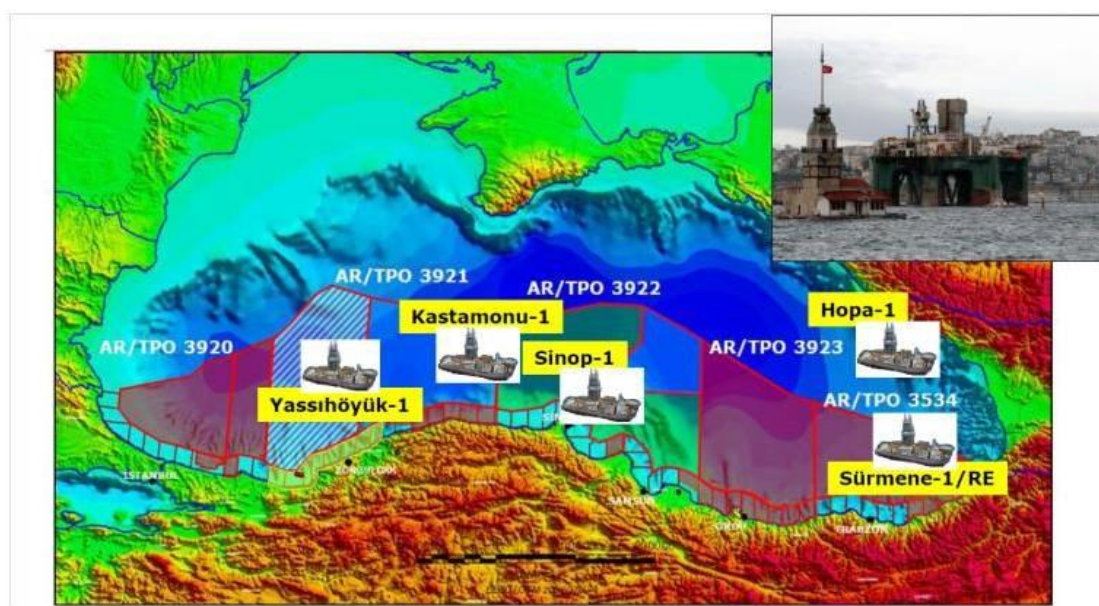
¹⁹⁸ Ibid.

¹⁹⁹ "Oil Production and Reserves of Turkey," *PETFORM*, accessed July 22, 2012, <http://www.petform.org.tr/?lang=en&a=2&s=2>.

²⁰⁰ TPAO.

²⁰¹ Ibid.

Map 3.1: Turkey's Oil Blocs in Black Sea



Source: TPAO

Turkey's nuclear energy strategy is essential to reduce Turkey's dependency and increase its energy security (which is, for the time being, essentially non-existent). There are on-going developments in terms of the nuclear ambition of Turkey; the Intergovernmental Agreement (IGA) for Mersin-Akkuyu nuclear power plants were signed with Russia in May 2010. In parallel with the Turkish Government's nuclear energy targets (5% of total installed capacity in 2020), the Mersin-Akkuyu Nuclear Power Plant Project is planned to have 4800 MW capacity and is expected to be commissioned in 2019.²⁰² Moreover, the nuclear power plant project in Sinop is under consideration with Japan. In total, Turkey aims to have an annual electricity generation of 80 billion kwh/year from the Akkuyu and Sinop nuclear power plants, which is calculated as equivalent to 16 BCM/year of natural gas consumption to generate the same amount of electricity.²⁰³ This calculation demonstrates simply that the nuclear capacity of Turkey can improve its energy security and resource diversification.

²⁰² "Nuclear Power Plants and General Information on the Nuclear Power Plant Projects in Turkey," *Ministry of Energy and Natural Resources*, accessed March 3, 2012., <http://www.enerji.gov.tr>

/yayinlar_raporlar/Nukleer_Santraller_ve_Ulkemizde_Kurulacak_Nukleer_Santrale_Iliskin_Bilgiler.pdf

²⁰³ Ibid.

The major energy resource in Turkey's energy consumption is natural gas (the indigenous production was 0.8 BCM, while total consumption was 46 BCM in 2012).²⁰⁴ In the next sections of this chapter, the natural gas market of Turkey will be analysed in detail. However, it is important to note that, currently, the national production of natural gas meets only 1.7% of total natural gas consumption and that this endangers the security of energy supply of Turkey.

3.3. TURKISH ENERGY MARKET STRUCTURE AND REGULATION

Turkey's domestic energy production, distribution, and energy transit infrastructure are still predominantly in the hands of state-owned companies. While the Turkish Parliament passed an energy liberalization law in early 2001 in order to end the government's monopoly in the energy sector, the privatization process is still in its early stages. The significant progress has been achieved in restructuring and liberalizing the Turkish energy markets in parallel with the EU Directives for the purpose of integration with the EU Internal Energy Market. Turkey, as a very active member, also benefits from IEA-coordinated policies and its institutions. Moreover, the Turkish power system has been connected to the EU electricity grid since 2010 as the Turkish Electricity Distribution Company (TEIAS) and European Network of Transmission System Operators for Electricity (ENTSO-E) co-operate closely.

Turkey's energy policy principally aims at providing safe, green, cost-efficient and sustainable energy, securing a strong position in regional and global trade of energy, and increasing energy efficiency. After the EU Helsinki Summit of 1999 where Turkey was declared a candidate for accession to the EU, Turkey started to change its energy policy fundamentally to comply with EU energy market practices. New Turkish energy policy focuses on restructuring and liberalizing the Turkish energy markets in tandem with the EU Directives, since the enactments of the Electricity and Natural Gas Market Laws in 2001.²⁰⁵

In December 2003, Turkey's parliament passed additional legislation — the Petroleum Market Law — removing state controls on the oil sector and lifting price ceilings. This legislation led to comprehensive reform of the oil sector. With the

²⁰⁴ BP, *Statistical Review of World Energy 2013*.

²⁰⁵ Ministry of Foreign Affairs, *Turkey's Energy Strategy 2009*.

Liquefied Petroleum Gas (LPG) Market Law (2005) and the Law on Utilization of Renewable Energy Resources for the Purpose of Generating Electrical Energy (2005), Turkey maintains her commitment to liberalization in the energy market with other legal practices. In order to use energy efficiently, the Energy Efficiency Law was enacted on 2 May 2007. The other legal regulations include:

- Law on Geothermal Resources and Mineral Waters (2007),
- Law on Construction and Operation of Nuclear Power Plants and Energy Sale (2007),
- Law on Utilisation of Domestic Coal Resources for the Purpose of Generating Electrical Energy (2007), and
- Law on the Amendment of Electricity Market Law No. 5784 on Supply Security (2008).

These and certain other laws have created competitive mechanisms in the Turkish energy markets.²⁰⁶

An independent regulator, the Energy Market Regulatory Authority (EMRA), has been established to be in charge of regulation and supervision of the electricity, gas, petroleum and LPG markets, to make sufficient investments and increase economic efficiency for structuring the energy sector around the central element of competition. Turkey has ratified the United Nations Framework Convention on Climate Change. Turkey is in relatively close proximity to much of the world's current energy production; it also sits on several important waterways. Thus, Turkey is well-positioned to become a significant energy hub and transit state.

Privatization is viewed as the key for Turkey's future energy market. This includes new hydroelectric dams and natural gas-fired power plants, geothermal power plant and renewable energy facilities. So far, Turkey has employed Build-Operate-Transfer (BOT) or Build-Operate (BO) models with private contractors for energy investment and utilities. It is estimated that Turkey will have to spend over USD 128 billion on energy investments by the end of 2020, including USD 91.276 billion on new power

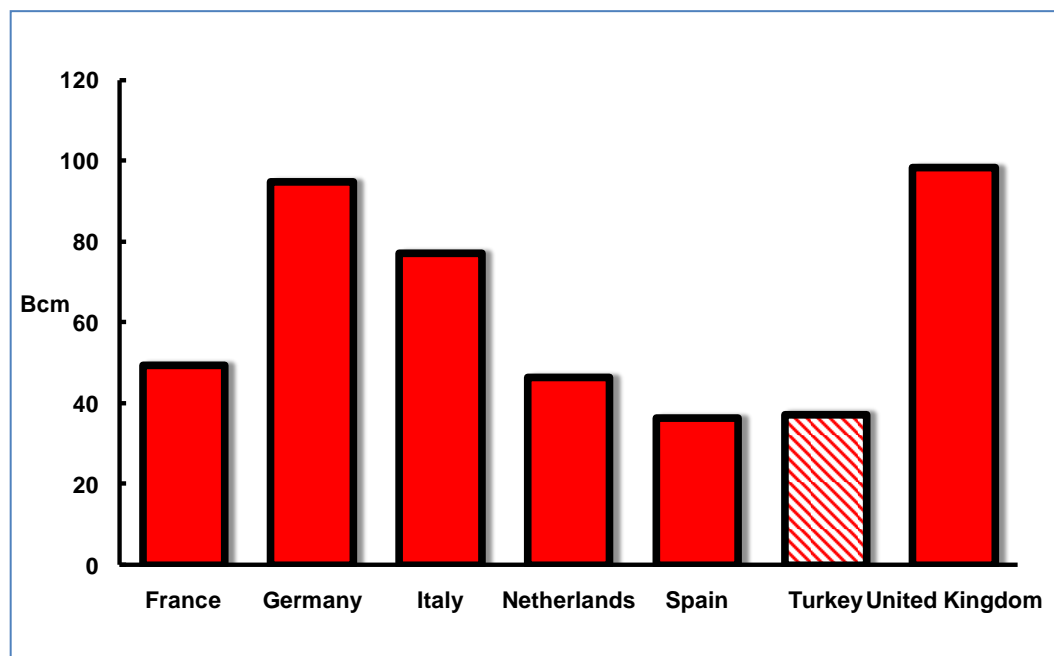
²⁰⁶ "Ministry of Energy and Natural Resources," accessed May 23, 2013, <http://www.enerji.gov.tr>.

generation facilities. However, the government can only set aside USD 500 million a year from its tight budgets.²⁰⁷

3.4. TURKEY’S NATURAL GAS OUTLOOK

Turkey’s domestic gas demand is growing rapidly. Following several years of double-digit growth and an annual consumption of 46 BCM in 2012,²⁰⁸ Turkey has become Europe’s sixth largest natural gas consumer.²⁰⁹ In 2011 the chairman of Gazbir, Turkey’s union of natural gas distribution companies, valued the Turkish natural gas trade in the natural gas market at USD 5.5 billion.²¹⁰

Table 3.7: Natural Gas Consumption of First Six European Countries



Source: BP and CERA.

The Turkish government still drives gas prices and held retail prices below market rates from 2002–2007, leading to large debts for BOTAŞ. With a move to more liberalized markets in 2008, prices rose by up to 75% as a result of rising import costs,

²⁰⁷ Foreign Economic Relations Board, *Turkey Brief*, accessed February 2, 2013, <http://www.deik.org.tr>.

²⁰⁸ BP, *Statistical Review of World Energy 2013*

²⁰⁹ Ibid.

²¹⁰ Gazbir, “Union of Natural Gas Distribution Companies,” *Gazbir Journal* 19 (November 2011): 11

before dropping 20% in 2009 on the back of lower oil prices.²¹¹ However, in 2012 the increase in oil prices forced the Turkish government to introduce a price increase of 18.72% that is expected to create a negative effect in natural gas consumption.²¹²

One of the key issues in the Turkish gas market is import contract management, as it has very critical effects on the current and future situation. The volume of BOTAŞ's natural gas import contracts are 46.6 BCM/year in 2012. This is at the peak levels of contracts-ACQ (annual contract quantity), including the Shah Deniz Phase II agreement which will be initiated in 2018 and excluding the 10 BCM/year Western Line contract with Russia transferred to the private sector and 1.2 BCM/year volume of the Shah Deniz Phase I (SD1) contract transferred to SOCAR. The contractual imports fell below take-or-pay obligations from 2007 to 2009, resulting in Turkey creating a burden of around USD 160 million. In 2010, however, Turkey successfully negotiated a 6.5% discount on gas purchased from the Russian Gazprom for a final gas price of USD 330 per thousand cubic metres (MCM). In 2011, Turkey paid approximately USD 1 billion for 2.5 BCM of gas that could not be imported in 2010.²¹³ Moreover, in 2011 Turkey agreed with Russia to consume the gas that had not been consumed in the previous years in substitution of a 6 BCM contract renewal. Turkey is now looking to make similar deals with other sources to relax the burden of take-or-pay commitments. Turkey has chronic eastern supply insufficiency due to the lack of infrastructure along the Eastern Anatolian Pipeline. Since 2007, Iran and/or Azerbaijan contracts have been accounted as a "penalty" for BOTAŞ every year due to lack of two compressor stations. Especially in winter 2011-12, which was referred to by BOTAŞ as 'Hard Day' due to the lack of enough supply and sudden reduction of pressure in the system, an ironical simultaneous situation ('take-or-pay burden for Turkey in eastern Azeri contract during sharp supply request boom in the west') was recorded.²¹⁴ The above mentioned compressor stations were commissioned in 2013 to increase the daily flow rate from both SD1 and Iranian gas contracts.²¹⁵ It is obvious that the investment performance of BOTAŞ is crucial for Turkey's natural gas

²¹¹ CERA, *Natural Gas Profile: Turkey*.

²¹² "Natural Gas and Electricity Price Increase," *Habertürk*, March 31, 2012, accessed May 6, 2012, <http://ekonomi.haberturk.com/makro-ekonomi/haber/729889-dogalgaza-zam>.

²¹³ CERA, *Natural Gas Profile: Turkey*.

²¹⁴ Deloitte.

²¹⁵ BOTAŞ.

consumption that significantly affects the Turkish economy. In 2013 BOTAS's realization rate of investments increased to 89% from 73% in 2011.²¹⁶

The growth in Turkish gas demand has a direct relation with the increase of electricity demand. As mentioned above, the Turkish electricity system is very much natural gas dominated, and electricity demand is expected to trigger greater natural gas demand in future. In 2010, the shares of gas consumption by sector are: electricity 51%, industry 32% and households 17%.²¹⁷ The other significant driver of the natural gas demand increase is the use of natural gas in households. The cities that are newly connected to natural gas distribution pipelines will increase the gas consumption. At the end of 2011, seventy-one of the eighty-one cities in Turkey have a connection to main natural gas pipeline systems, while the total length of natural gas distribution lines has reached 12,216 km.²¹⁸ It is important to note that the industrial demand also increased in 2011 as the economy started to recover from the recession in 2009. According to the analysis of Deloitte, the natural gas demand will exceed the level of 60 BCM in 2017.²¹⁹

3.4.1. Turkey's Natural Gas Imports

Turkey began importing natural gas in 1988²²⁰ because the national production is very little (less than 1 BCM), although some fields are currently being developed by TPAO, Turkey's oil and gas company. In addition, Turkey wants to promote gas trade with potential suppliers and shippers. Within this framework, to meet the increasing natural gas demand and also to diversify its gas trade portfolio, Turkey plans to develop new LNG terminals in Izmir (Aliağa), Saros Bay and Ceyhan by private companies as well as having expansion plans for the existing Marmara Ereğlisi LNG

²¹⁶ Ibid.

²¹⁷ Energy Market Regulatory Authority (EMRA), *Natural Gas Sector Report 2010*, accessed July 15, 2012, <http://www.epdk.gov.tr>.

²¹⁸ Yıldız, "2014 yılı Plan ve Bütçe Komisyonu Enerji ve Tabii Kaynaklar Bakanlığı Bütçe Konuşması [Budget Presentation for year 2014 of Ministry of Energy and Natural Resources]."

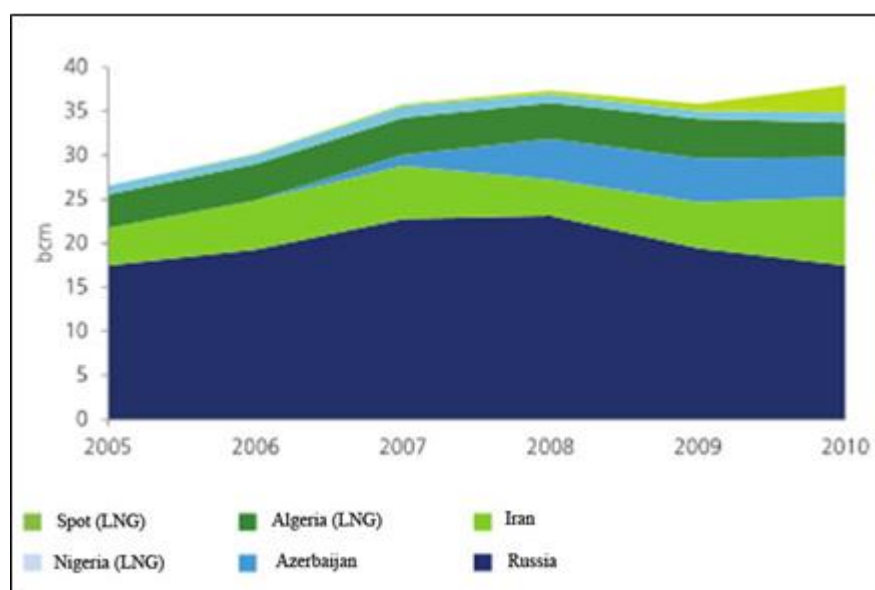
²¹⁹ Özen.

²²⁰ Özen.

facility of BOTAS. Turkey’s energy strategy envisages that Ceyhan will become one of the major energy hubs in the Eastern Mediterranean.²²¹

Turkey imports gas from Russia, transiting through Ukraine, Romania and Bulgaria (14 BCM) and through Blue Stream (16 BCM). The South Caucasus (or Baku Tbilisi Erzurum) Pipeline (SCP/BTE) became operational in 2007 and has an actual capacity of 7 BCM but an ultimate physical capacity of 20 BCM with further installations of new compression stations. Technically, the Blue Stream system could accommodate these volumes at its current supply levels as well, but the potential role of Gazprom would then be reduced (given the need for other imports at the expected high levels of demand). The doubling of Blue Stream announced in the past would help, but the timing of that expansion is unclear.²²² Table 3.8 shows the major imports suppliers to Turkey. Until 2010 Russian gas dominated the Turkish market and the diversification of natural gas supply is extremely important for the Turkish natural gas market.

Table 3.8: Major Import Suppliers 2005–2010



Source: EMRA.

The pipeline to Iran has an actual capacity of 10 BCM but has an ultimate physical capacity of 26-28 BCMA (up to Kayseri) and 16-18 BCMA (Kayseri-Ankara

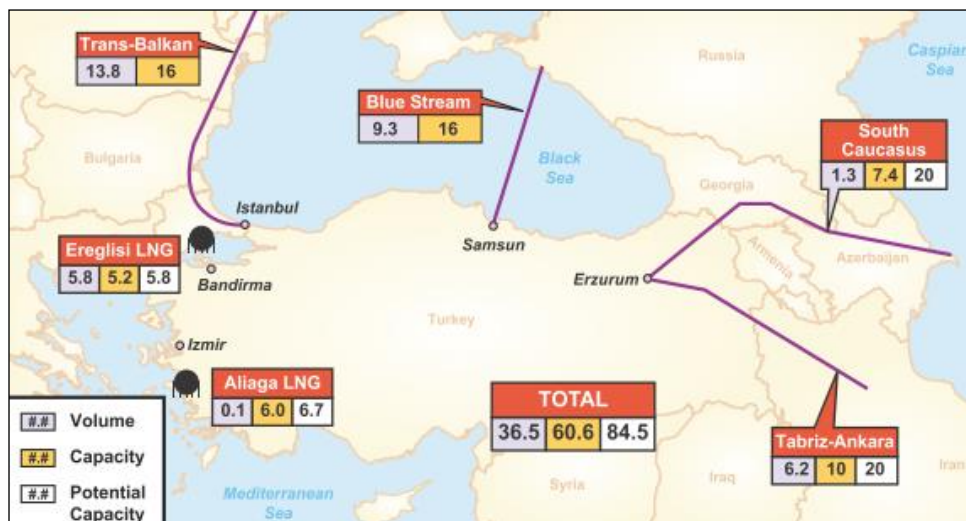
²²¹ Adnan Vatansever, *Will Turkey’s New Energy Diplomacy Enable a “Grand Bargain” with Russia?* (CERA, 2010), 1.

²²² Katinka Barysch, *Turkey’s Role in European Energy Security* (London: Centre for European Reform, 2007).

segment) with the addition of new compressor stations.²²³ Iran has regular supply problems in winter, and gas flow to Turkey tends to be very low between December and March every year. Due to these significant gas supply problems with Iran, Turkey imported extra LNG in winter 2006/07 (1.5 BCM) from Algeria and Nigeria,²²⁴ and some spot LNG has been imported through the only receiving terminal built by a private company (in Izmir), EGEGAZ, which has been operational since 2006²²⁵ and importing LNG since 2009.²²⁶

New developments in Turkmenistan (especially exploitation of 14 TCM supergiant Galkynysh, rich in gas resources and already a large exporter to Iran, Russia and China) and Kazakhstan, where considerable volumes of associated gas and unconventional gas will be produced from oil field development, mean that new volumes are likely to become available close to the Turkish market (see also the Central Asian section). Discussions are taking place about future gas supplies from northern Iraq (KRG), including a potential LNG liquefaction plant in Ceyhan. Such plans may need to await an improvement in the situation in Iraq.

Map 3.2: Import Capacity of Turkey



Source: CEDIGAZ.

²²³ BOTAŞ.

²²⁴ Kinnander.

²²⁵ IEA, *Energy Policies of IEA Countries: Turkey 2009 Review*, accessed June 20 2012, <http://www.iea.org/textbase/nppdf/free/2009/turkey2009.pdf>.

²²⁶ Özen.

Azerbaijan is likely to emerge as an important source of gas for Turkey, but in the medium-term (until 2015) export volumes to Turkey are likely to remain limited to the capacity of the South Caucasus Pipeline. It is expected that, post-2018, exports could be boosted by the second phase of Shah Deniz, the world's ninth largest gas field with reserves of around 1.2 TCM.²²⁷ According to SOCAR Trading, Azerbaijan's prospect for growth in production is "50 BCM per year by 2025".²²⁸ However, Turkey (and Europe) will face competition from increasing demand on Azerbaijan's reserves, which may further increase with the volumes of Umid, Absheron, *etc.* fields after 2020. Their resident in Azerbaijan recently stated that, over the last year, proven gas reserves in Azerbaijan increased by about 600 BCM.²²⁹ The total export potential of Azerbaijan (including Shah Deniz Phase 2) requires further clarification — it could be as high as 15–20 BCM by 2020.²³⁰

Although in the short term it appears that current production does not allow the Azeri gas industry (SOCAR, BP Statoil, Total) to fulfil all domestic and export requirements plus the needs of Georgia as a transit country, Azeri and East Caspian gas potential still have considerable upside in the medium- to long-term. Azerbaijani gas production increased by around 50% to 16 BCM in 2008 on the basis of Phase I development of the offshore Shah Deniz field. Phase II field development, which could bring an additional 16 BCM/year to market,²³¹ will be the main incremental gas supply potentially available for European markets from the Caspian region. According to SOCAR: "By 2025, Azerbaijan wants to raise its gas production to 35 BCM (low case) or 55 BCM (high case). Such a big jump can only be achievable with the start of Phase II of Shah Deniz" with "an estimated cost of at least USD 40 billion including investment on export infrastructures".²³² Initially, Azeri gas was to be transported to Europe as destination and Turkey and Georgia as transit countries. This could be

²²⁷ Ramiz Mammadov, "King of the Sea," *European Energy Review*, accessed June 25, 2013, <http://www.europeanenergyreview.eu/site/pagina.php?id=2449>.

²²⁸ "Trading, Azerbaijan Gas Export Possibilities," SOCAR, accessed 22 June 2013, <http://www.socartrading.ch/en/azerbaijan-expands-gas-export-possibilites-252.html>.

²²⁹ *Ibid.*

²³⁰ *Ibid.*

²³¹ Mammadov.

²³² "Trading, Azerbaijan Gas Export Possibilities," SOCAR.

considered as the backbone of the Southern Corridor that will be analysed in detail in the following chapters of this dissertation.

3.4.2. Turkey's Storage Capacity

Turkey's storage capacity regulation is another case for domestic natural gas security. Turkey has very little storage capacity compared to markets similar in size; daily swings are usually met with line packing. The TPAO storage facility in Silivri (1.6 BCM) has been operating since 2007 and a regulatory document was published by the government about the terms and conditions of fair use of this only underground storage unit in Turkey.²³³ It is a depleted field. TPAO plans to convert other depleted fields into storage facilities. BOTAŞ is planning to build a new storage facility in a salt formation in Tuz Gölü in Central Anatolia²³⁴ and organised a tender in early 2008 by utilizing World Bank funds. The construction activities were started in 2012. The facility will have a working capacity of 1.2 BCM annual storage capacity and it would be expanded to 4 BCM with further phases. The facility could be ready by 2018 with initial capacity.²³⁵ BOTAŞ is also studying the possibility of converting two mines, Arabalı and Tarsus, into storage. According to the 2001 law, storage facilities will be privatized. There are two LNG terminals of 6 BCM each in Marmara Ereğlisi (BOTAŞ) and Aliğa (Egegaz). Aliğa terminal has been operational for LNG import since 2009, and it has 6 BCM regasification capacity. The BOTAŞ Marmara Ereğlisi LNG terminal has been operational since 1994, and it has 6 BCM/y regasification capacity and will be upgraded to be operational until 2017 to expand capacity beyond 8 BCM/year.²³⁶

In Turkey, the first sizeable storage in Marmara Silivri of TPAO is operational for BOTAŞ, with 2.1 BCM and 561 MCM for third Parties.²³⁷ This is a depleted gas field to the west of Istanbul. There are ongoing expansion studies (Phase II and III) for the

²³³ Ibid.

²³⁴ "Projects," BOTAŞ, accessed September 12, 2012, <http://www.botas.gov.tr/icerik/tur/projeler/yurtdisi.asp#06>.

²³⁵ Ibid.

²³⁶ Özen.

²³⁷ Ibid, 36.

storage facility. Plans are also being made for a smaller 0.6 BCM storage in the salt formations in the South of Turkey near Mersin (Tarsus).²³⁸

3.4.3. BOTAS and Natural Gas Market Law

The Turkish gas sector is regulated by the Energy Market Regulatory Authority (EMRA); though currently not a member of the European Union, the country has already aligned many of its policies with EU legislation. Both the gas contract release program (the transfer of import contracts to the private sector) and the unbundling of the state-BOTAS, conform to the Third Energy Package of the EU.

The 2001 Natural Gas Market Law established the basis for the liberalization of the gas sector. It set up EMRA and aimed at abolishing BOTAS' monopoly position over imports, transmission, marketing and gas sales. EMRA is the energy regulator and is responsible for energy policy and legislation. The 2001 Natural Gas Market Law required account unbundling by 2003 and legal unbundling by 2009 for BOTAS, and account unbundling for private companies. At one end, the question of market opening stresses that customers consuming more than 1 MCM in old distribution regions and more than 15 MCM in new distribution regions are eligible. New importers must have 10% of imported volumes within five years. Price regulation and tariffs are determined by EMRA.²³⁹ However, the World Bank expressed concerns and suggested that prices be proposed by the transmission system operator and approved by the regulator. There are regulatory issues that form a barrier to new entrants to the market. BOTAS holds a dominant position in import, transmission, and wholesale.²⁴⁰ Although the 2001 law set up the basis for a competitive market, very little has been achieved so far. The gas release program to limit BOTAS' import share to 20% by 2009 started end-2006. Only 11.2 BCM/year have been released. Following this unbundling, privatization of BOTAS trading and storage activities is expected by the end of 2013 or early 2014. BOTAS is obligated to supply gas to 70% of the Turkish customers and still holds the majority of import contracts.²⁴¹ Competition is therefore limited. There are uncertainties on the future transport code and its implications for

²³⁸ BOTAS.

²³⁹ Energy Market Regulatory Authority (EMRA), *Natural Gas Sector Report 2010*.

²⁴⁰ BOTAS.

²⁴¹ Özen.

transit or transmission tariffs through Turkey. The future role of BOTAŞ was set to be only an importing and wholesaling company, but as a national champion its status did not change substantially.²⁴²

Two key state-owned distribution companies, Esgaz and Bursagaz, were the first to be sold - in 2003 and 2004 respectively - under the Natural Gas Market Law privatization act. Although it had no distribution network at the time, municipality-owned and licensed company Agdas was also transferred to the private sector. In 2009 it was announced that 80% of Başkentgaz, previously under the control of Ankara's Metropolitan Municipality, was to be transferred to the privatization administration, with plans to complete a sale within two years; however, the attempt was unsuccessful in 2011 because of the shareholder disputes of the newcomer firm.²⁴³ The initial tender for Başkentgaz's remaining 20% was cancelled after the bidder was unable to finance the bid, and was tendered in January 2013 again and successfully privatized to Torunlar Holding.²⁴⁴ Following the completion of the administrative requirements for Izgaz (tendered in August 2008), only one distribution company will remain to be privatized, İGDAŞ, responsible for distribution activities in Istanbul. In April 2010 it was announced that, subject to a 'good' offer, İGDAŞ was intended for complete privatization before the end of 2010 but it is also not privatized yet and expectation of this has been postponed to 2013.²⁴⁵

BOTAŞ maintains its position as Turkey's principal importer, despite plans to reduce the company's import contracts to just 20% in 2009 and to zero by the end of 2010;²⁴⁶ nevertheless, many authorities do not consider this aim to be unrealistic when the market conditions, such as lack of incentives for contract release for the supplier and European examples of similar firms in Italy, France, Spain, and the Netherlands, are

²⁴² Ibid.

²⁴³ "107.6 milyon dolarlık Başkentgaz Çılgınlığı [107.6 million dollar's worth of madness about Baskentgas]," *Aktifhaber*, 2011, accessed July 3, 2012, <http://www.aktifhaber.com/107,6-milyon-dolarlik-baskent-gaz-cilginligi-438958h.htm>.

²⁴⁴ "Privatization Tender for Baskent Natural Gas Distribution Company Ends," *Anadolu Agency*, accessed February 24, 2013, <http://www.aa.com.tr/en/news/126074--privatization-tender-for-baskent-natural-gas-distribution-company-ends>.

²⁴⁵ "2012 Özelleştirme yılı olacak [2012 will be the year of privatization]," *Zaman*, accessed July 5, 2012, <http://zaman.com.tr/haber.do?haberno=1225004&title=2012-ozellestirme-yili-olacak>.

²⁴⁶ G. M. Winrow, "Turkey and the East-West Gas Transportation Corridor," *Turkish Studies* 5 no. 2 (2004): 23-42.

considered.²⁴⁷ Thus far Turkey's gas release program has transferred 10 BCM of Western Line gas to seven companies (Enerco 2.5 BCM/year, Bosphorus 2.5 BCM/year, Akfel 2.25 BCM/year, Kibar Gaz 1.0 BCM/year, Batı Hattı AŞ 1 BCM/year, Avrasya 0.5 BCM/year and Shell 0.25 BCM/year) as well as 1.2 BCM/year direct transfer to SOCAR Gas Turkey.²⁴⁸

The Turkish Competition Authority (TCA) issued a report on the natural gas market of Turkey in summer 2012. Mainly the report argued that Turkey's attempts to liberalise its natural gas market were lagging behind schedule and the government should abandon attempts to transfer import contracts and instead launch a gas release programme.²⁴⁹ The report also recommended splitting off a commercial sales branch from BOTAŞ so that there would be a gas pricing mechanism. Moreover, the report also recommended that separating BOTAŞ' import business from its wholesale operations would help foster a deeper market because the present price system deters investment and new entries into the market.

On the other hand BOTAŞ reported a loss of 1.3 billion Turkish lira (\$720 million) in 2011. Even though there are 37 licences for wholesale sales, BOTAŞ dominates the market and there is "no developed liquid wholesale market at present", according to the report. Only 3.5% of market buyers — companies that purchase more than 300,000 m³/year — changed their supplier in 2010, partly because there is "no environment in which competitive offers can be made", the report said.²⁵⁰

The TCA has also tracked BOTAŞ' pricing and found no reason to investigate the company for uncompetitive practices. But it is clear that the firm's pricing bears little relation to international energy costs. BOTAŞ was briefly bound by an automated pricing mechanism until it was exempted in 2010. The company acts less as an independent commercial entity and more as "a reflection of state policy", the report added. Turkey's authorities should also stop trying to transfer BOTAŞ' gas import

²⁴⁷ Özen.

²⁴⁸ BOTAŞ.

²⁴⁹ Turkish Competition Authority (TCA), *Natural Gas Sector Research 2012*, accessed February 22, 2013, <http://www.rekabet.gov.tr>.

²⁵⁰ Argus.

contracts to the private sector and instead use a volume transfer method that reallocates gas from existing contracts to non-state-run companies, the report urged.

BOTAŞ has so far only transferred 10 percent of its gas contracts, half the goal of 20 percent set for 2009. The contract transfers may have been hampered by the fact that private companies cannot match the undertakings that a state-run company can make in negotiations with suppliers such as Russia's state-controlled Gazprom, the report said.²⁵¹ Many contracts also contain take-or-pay clauses, making them potential liabilities for companies that take them over. So far, only 4 BCM of such contracts have been transferred.

3.4.4. Gas Transport Network in Turkey

After completing the East–West connection to allow for the import of gas from Iran in 2001, BOTAŞ (the Turkish Petroleum Pipeline Corporation, a 100% state-owned company) more than doubled its grid between 2002 and 2005, giving it a total length of more than 12,000 km, with 10 million users and 3,339 vehicles in 2011.²⁵² In 2003, only 6 cities were connected to the grid, whereas in 2013 this number was 72.²⁵³

The five older grids in the main cities are well developed. They were owned and controlled by the municipalities, but two have now been privatized, leaving Istanbul, Ankara and İzmit. These grids have over 4 million connections and aggregate sales of 8 BCM per year. The Government started a privatisation process for the grids in Istanbul (İGDAŞ), Ankara (EGO and later Başkentgaz) and İzmit (IZGAZ); however, the tender has been withdrawn and retail distribution to the rest of the country is well underway. Concessions for thirty years are being issued by the Regulatory Body (EMRA) after a tender process. Local investors have shown particular interest in the 27 new grids currently operating.²⁵⁴ That of IZGAZ is now owned by a French

²⁵¹ Turkish Competition Authority (TCA).

²⁵² Eurogas, *Statistical Report 2011*, accessed June 25, 2012, http://www.eurogas.org/uploaded/Statistical%20Report%202011_091211.pdf: 11.

²⁵³ Yıldız, “2014 yılı Plan ve Bütçe Komisyonu Enerji ve Tabii Kaynaklar Bakanlığı Bütçe Konuşması [Budget Presentation for year 2012 of Ministry of Energy and Natural Resources].”

²⁵⁴ Ibid.

company, Gaz de France, that of Başkentgaz was transferred to Torunlar Holding and the İGDAŞ grid's privatization is expected to take place in 2015.²⁵⁵

The competition for Turkey's national grids is strong, despite the fact that owners can only charge customers a connection fee (currently USD 180) in addition to the city gate price. The fixed and variable costs of distribution for a fixed period of eight years are resulting in very low margins. The investor and owner, typically a construction company, is obviously banking on the regional monopoly concession of twenty-two years following purchase, as well as the income from associated services. Some smaller grids have been sold and acquired by other grid owners. The largest number of grids in the hands of one owner is eleven. All grid operators/licence holders, including the old ones, are members of an active new grid organisation, Gazbir (Union of Natural Gas Distribution Companies), which is well recognised by the authorities and involved in international bodies like Eurogas and IGU.²⁵⁶

Map 3.3: Natural Gas Supply and Grid Lines in Turkey



Source: BOTAŞ.

It is noted that natural gas distribution rights are privatized in more than sixty-two cities, and these have begun to transfer the multi-billion dollar natural gas import

²⁵⁵ “2012 Özelleştirme yılı olacak,” *Zaman*.

²⁵⁶ Eurogas, *Statistical Report* (2011).

contracts of BOTAŞ to private natural gas distribution operators.²⁵⁷ Residential and industrial demand is expected to continue a sustained growth as new cities get connected. The import law prevents companies from receiving gas from companies other than BOTAŞ and the gas release program winners. Unbundling and privatization of BOTAŞ into three sub companies handling trading, transportation, and LNG and storage activities respectively is scheduled,²⁵⁸ though realistically it will not be completed anytime soon.²⁵⁹

3.5. CONCLUDING REMARKS

Turkey, which does not have major energy resources, is very much dependent on energy imports. While Turkey has energy potential in coal and hydro, Turkey does not have significant oil and gas reserves. The renewable energy sources seem new to Turkey's energy system, among others wind energy is pioneering renewable energy investments in Turkey. As mentioned above the government is trying to incite nuclear investments in order to strengthen the Turkish electricity generation system.

Turkey's current installed capacity and the shares of energy sources in electricity generation demonstrate that natural gas is very critical for Turkey's energy system. The liberalization of the Turkish gas market in a manner similar to EU gas market regulations encourages the private sector to make investments that are very beneficial for Turkey's energy market. On the other hand it is very obvious that BOTAŞ and its investments are the backbone of the Turkish natural gas system. As Turkey is one of the biggest natural gas markets in the world it needs more investment in natural gas storage facilities.

The structure of the natural gas system is important but the issue is more with the natural gas itself. The biggest problem is that Turkey has very little indigenous production of natural gas. The Russian dominance in the Turkish gas contract portfolio endangers Turkey's energy security. The diversification of natural gas supply sources could decrease the level of risk of being dependent on Russian gas.

²⁵⁷ Turkish Competition Authority (TCA).

²⁵⁸ "2012 Özelleştirme yılı olacak," *Zaman*.

²⁵⁹ Özen.

Turkey has to tackle the risks of natural gas for its well-functioning energy system. As discussed in the previous chapter, Turkey has foreign policy capacity that could establish strong interconnections to find solutions for secure natural gas relationships at the regional level. Not surprisingly, the European Union has very similar risks for natural gas imports and energy security issues, which will be discussed in the next chapter.

Chapter 4

THE SOUTHERN CORRIDOR IN THE FRAMEWORK OF THE EU'S ENERGY SECURITY

4.1. INTRODUCTION

The extensive dependency of producer and consumer countries on the international energy trade creates dependence in the EU's natural gas relations. There is a partial interdependence relation between producer and consumer countries. That does not provide natural gas supply security for Europe. Natural gas exporting countries benefit from the wealth that can contribute to social welfare or rent distribution for controlling of domestic instability. This internal motivation forces producers to seek higher prices as long as those prices do not influence demand destruction — by, for instance, fuel exchange, technological advances and general reduction in energy consumption. Energy-hungry countries depend on plentiful supply to ensure adequate power for their economies. Over the coming decades, energy politics will determine survival in international politics. Two of the major global energy consumers, the United States and the European Union, have similar needs but different practical perspectives on energy imports. Whilst the United States has achieved a shale gas revolution and so the dependence of the US is no more a problem for its internal market supply, the EU is highly dependent on imported gas from Russia and North Africa. Therefore, the EU has launched a new energy strategy, namely the Southern Corridor, which will diversify the supply security of the EU by accessing the Caspian Sea, Middle East and East Mediterranean natural gas networks. This chapter aims to explore what is/will be Turkey's role in the EU's energy supply security in the context of the Southern Corridor. Hence, this chapter will identify what the concept of energy security means for Turkey and Europe, and analyse the capability of the EU for a common energy policy. In order to explain the importance of the Southern Corridor, it is necessary to explain the existing pipeline options, which reach the EU's border from Russia, Norway and North Africa.

4.2. THE EU'S CURRENT GAS SUPPLIERS

There are two main reasons behind European energy dependency on Russia: Russia's pipeline connection and huge natural gas resources. Russian gas reaching Europe transits either through Ukraine or Belarus. The other gas pipelines to Europe are from Algeria transiting through Tunisia or Morocco, before reaching a European border.²⁶⁰ Therefore, Europe has to preserve a good relationship with its two historical suppliers (Russia and Algeria). However, internal instability in Algeria and a series of crises between Moscow and Kiev (Russian gas passes through at least two further countries before reaching the EU) have put European supply security at risk.

According to Eurogas, the European Union's natural gas consumption was 522 BCM in 2010.²⁶¹ In the World Energy Outlook 2011 Special Report on the Golden Age of Natural Gas, the IEA forecasts that the total natural gas consumption of the EU will reach 587 BCM in 2020 and 621 BCM in 2030.²⁶² At present 33% of EU gas imports come from Russia and in the next decades, whatever scenario is considered, Russian gas exports seem to preserve their position.²⁶³ According to the IEA, the North African region is expected to continue to be one of the most significant sources of natural gas supply for southern Europe.²⁶⁴ As mentioned in Chapter 3, by 2030 Algeria alone will account for approximately 20% of total EU gas imports. The other corridor, from the North Sea to Europe, plays an essential role in the EU's imports.

²⁶⁰ Arianna Checchi, Arno Behrens and Christian Egenhofer, "Long-Term Energy Security Risks for Europe: A Sector-Specific Approach," (Working documents, CEPS (Centre for European Policy Studies, 2009)), accessed September 20, 2012, <http://shop.ceps.be/book/long-term-energy-security-risks-europe-sector-specific-approach>.

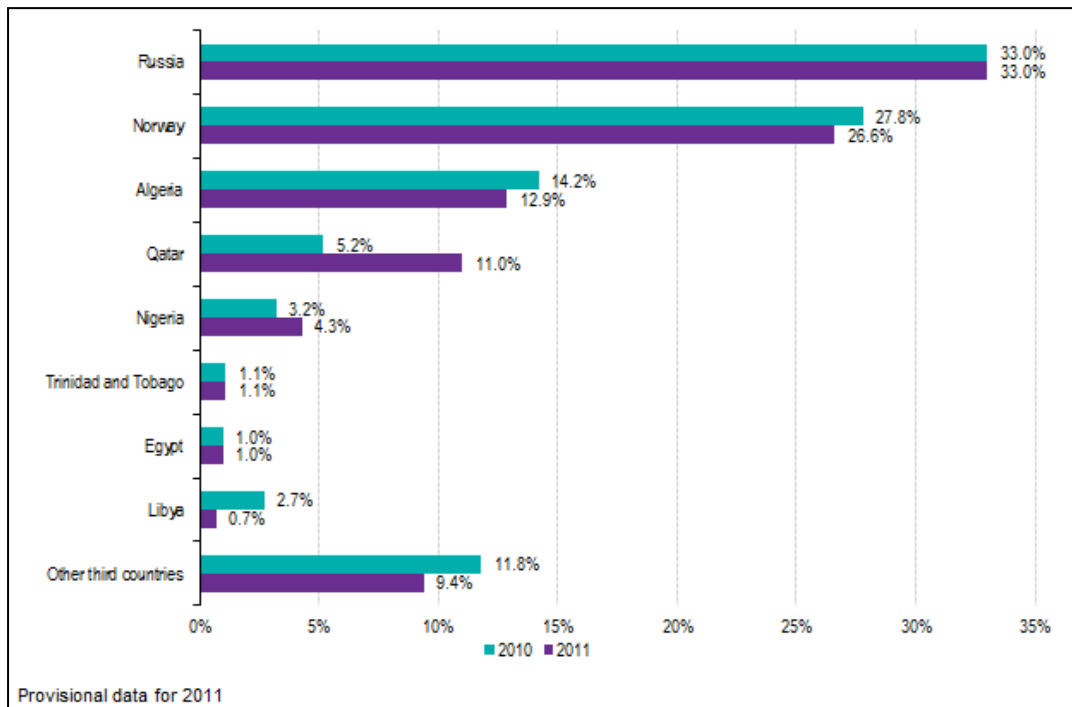
²⁶¹ Eurogas, *Natural Gas Consumption in the EU and Switzerland in 2010*, March 7, 2011, accessed June 25, 2012, <http://www.eurogas.org/uploaded/11P192%20%20Press%20release%20on%20Evolution%20of%20Gas%20Consumption%202010.pdf>.

²⁶² IEA, *Are We Entering a Golden Age of Gas?* (Special Report, 23).

²⁶³ Ibid.

²⁶⁴ Ibid.

Table 4.1: The Shares of Natural Gas Imports of EU in 2010 and 2011



Source: European Union.

It is important to note that the imports from the Persian Gulf and the Caspian Sea are at a very low base, around 6 BCM, which only accounted for 2% of total imports according to 2010 figures.²⁶⁵ However, this figure will change completely when the pipeline network reaches the European market in the future. The Persian Gulf will be able to provide above 15% by exporting over 50 BCM and 22% by over 140 BCM by 2030.

When we consider the additional gas from the Russian route to Europe, we see the monopolistic attitudes of a Russian pipeline system that bans any gas producer access to the existing pipeline system connected to the European network. In this context, it is very important to underline the significance of the Energy Charter Treaty (ECT). The Charter was signed by 51 states in 1994 in order to establish a transparent and stronger energy environment in Eurasia.²⁶⁶ Moreover, a Transit Protocol that would aim to enable marketing of the spare capacities in pipeline systems to third parties has been discussed since 2000. Nearly all European countries and the states of the former

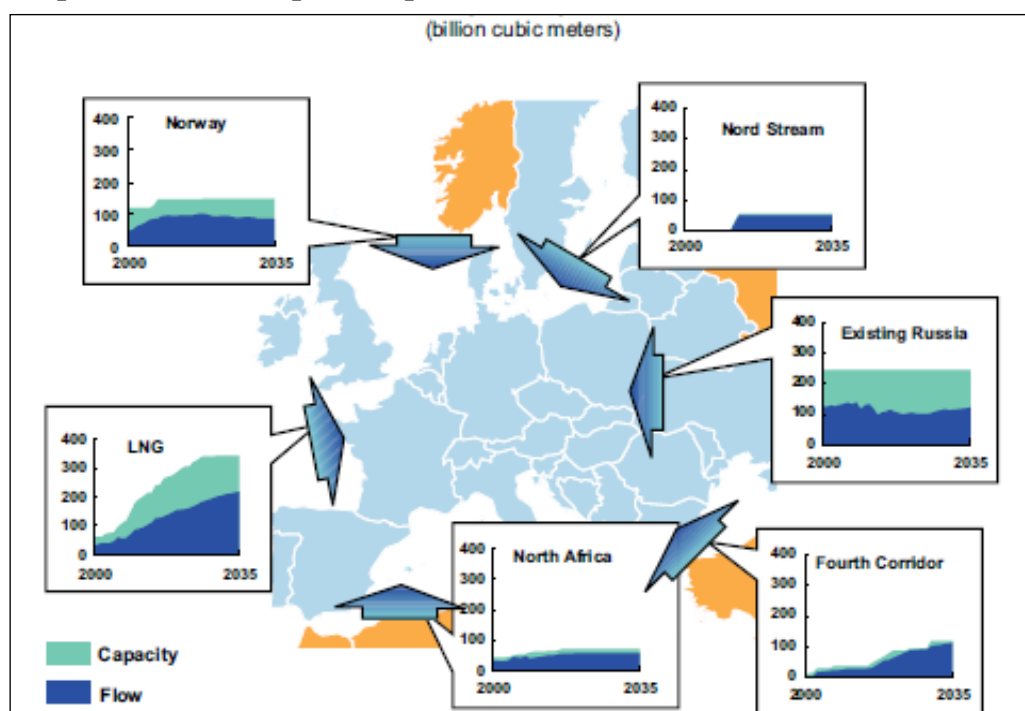
²⁶⁵ Ibid.

²⁶⁶ 1994 Treaty, accessed April 22, 2013, <http://www.encharter.org/>.

Soviet Union ratified the Charter. The notable exceptions, as far as gas is concerned, are Russia and Belarus — which have not ratified it but are applying the Treaty provisionally — and Norway. North African countries were not involved in the agreement process.²⁶⁷ When the Charter is fully functional, we may consider Russia as a transit country for additional gas supplies from private gas producers or gas-producing countries in Central Asia. In Map 4.1, all the natural gas options of Europe are presented, along with their contribution to energy supply. Under these circumstances, when we exclude the options through Turkey (Fourth Corridor or Southern Corridor), the new gas supplies can be delivered from North African gas reserves and additional LNG capacities to Europe. Hence, if the Southern Corridor concept becomes operational, the EU will be able to directly access the natural gas sources of the Caspian Sea, Eastern Mediterranean and Middle East regions. This new corridor will diversify the supply options and reduce the EU's dependence on a Russian gas monopoly. Comparing the Russian and North African options, Southern Corridor transportation prices are lower. Together with the Southern Corridor, Norway, Nord Stream, and the existing pipeline systems of Russia and North Africa provide EU energy security with the signing of long term natural gas contracts. It is essential to note that pipeline systems create a relationship of interdependence between suppliers and demanding countries, including transit countries such as Turkey.

²⁶⁷ “Energy Charter Appoints New Conference Chairman,” Energy Charter, accessed April 22, 2013, <http://www.encharter.org/>.

Map 4.1: Main European Import Routes



Source: CERA.

Russia, Norway, the Netherlands and Algeria are the main natural gas suppliers of the EU, in that order of importance.²⁶⁸ In order to understand the significance of the Southern Corridor, the following section will analyse the existing natural gas corridors (from Russia, Norway, and North Africa) reaching the EU's border.

4.2.1. Russian Export Capacity and Pipeline System to Europe

Russia holds the largest natural gas resources, which are estimated to be around 32.9 TCM and constitute nearly 17.6% of the world total natural gas reserves,²⁶⁹ which is why Russia is considered to be a major partner of the European energy market. The major fields of Gazprom are located in Western Siberia (Urengoy, Yamburg, Medvezhye and Zapolyaroye), the Yamal Peninsula (Bovanenkovskoye and Kharasevskoye), the Barents Sea (Shtokman), Southern Russia (Astrakhan) and the Volga Region (Orenburg). The Nadym Pur Taz (NPT) region is where most of the currently producing gas fields are located and the Yamal Peninsula has large gas reserves in undeveloped fields. Since the West Siberian fields in the NPT region are

²⁶⁸ CERA, *Algeria: European Gas Country Profile* (February 2010).

²⁶⁹ BP, *Statistical Review of World Energy 2013*

rapidly being depleted, the Yamal fields and the Shtokman field are Gazprom's planned next large-scale sources of supply.²⁷⁰

The cost of production and transportation to markets are substantial factors that may affect the development of the fields in these regions. The development of current fields and finding new sources are crucial for Gazprom to maintain or increase its production for domestic supply and exportation. Additionally the domestic natural gas consumption of Russia constitutes approximately 55% of the Russian primary energy demand.²⁷¹ However, Russia plans to reduce the share of natural gas consumption. These savings arise mainly from improvements in the efficiency of power and heat generation, and from lower demand for electricity in a more efficient economy.²⁷² On the internal demand side, Russia had a huge consumption, equalling 416 BCM in 2012.²⁷³ Russia's total gas production was 592 BCM in 2012.²⁷⁴ The total export to customers was approximately 176 BCM in 2012.²⁷⁵

4.2.1.1. Gazprom in world natural gas market

Gazprom is the largest Russian foreign investor in the world. The investments are mostly located in Europe. The main goal of Gazprom is to boost its share in the European gas market.²⁷⁶ Therefore, Gazprom is willing to acquire firms in Europe in order to secure its supply deliveries. Europe is the core market for Gazprom and it simply wants more access to gas distribution in Europe. Gazprom invests in all sectors of production to delivery, such as gas trade, transport, transit, distribution and storage sectors.²⁷⁷

²⁷⁰ "Russia: Country Analysis Brief," Energy Information Administration, last updated September 18, 2012, accessed September 26, 2013, <http://www.eia.gov/countries/analysisbriefs/Russia/russia.pdf>.

²⁷¹ Ibid.

²⁷² IEA, *World Energy Outlook 2012*.

²⁷³ BP, *Statistical Review of World Energy 2013*.

²⁷⁴ Ibid.

²⁷⁵ Ibid.

²⁷⁶ Gazprom, *Gazprom Annual Report 2010*, accessed May 5, 2013, <http://www.gazprom.com/f/posts/55/477129/gazprom-annual-report-2010-en.pdf>.

²⁷⁷ "Gazprom-Strategy," Gazprom, accessed September 2, 2013, <http://www.gazpromexport.ru/en/strategy/lng/>.

The monopoly of Gazprom with the factionalism in Russian politics maintains their imperial ambition in Central Asia and the Caucasus, which threatens the long term energy security plan of Europe. Central Asian gas was primarily supplied to Ukraine and the Transcaucasia republics. Therefore, there is a perpetual competition between the EU and Russia revealed in the control of Caspian region hydrocarbon sources. The EU is trying to find out how to solve the problem of diversification in energy supply and transport because the figures indicate that EU dependency on natural gas is enormous. In 2008, Gazprom Group acquired 66 BCM of contracted Central Asian gas, including 42 BCM of Turkmen gas, 14 BCM of Uzbek gas, and 9 BCM of Kazakh gas.

The gas resources in Central Asian countries open new opportunities to expand sales markets and maintain reliable supplies to traditional consumers. Gazprom needs to increase its production to fulfil its long-term aim of increasing European and Asian sales. According to the IEA, Russian exports to the European Union are projected to climb to 155 BCM in 2030.²⁷⁸ In 1997, Gazprom began importing natural gas from Turkmenistan to help fulfil its supply contract with its European customers. After the explosion of the Central Asia Centre pipeline in April 2009, Turkmen and Russia suspended their 80 BCM sales agreement. After the negotiations, Turkmenistan's agreement with Russia was revised at the end of 2009 to supply 30 BCM gas to Russia.²⁷⁹ Russian imports from Central Asia may also reduce Gazprom's need to buy gas from independent Russian producers, which has very significant effects on foreign investment in the Russian energy sector.

On the one hand, the European governments are not keen to be more dependent upon Russia, and there is some resistance to Russian investments in the gas sector. The expansion of Gazprom in Europe would increase the level of interdependence between the EU and Russia. However, the expansion would be limited by nationalistic attempts of the European governments to protect their gas markets from Russian dominance. On July 10, 2007 the European Parliament adopted a resolution that

²⁷⁸ IEA, *World Energy Outlook 2012*.

²⁷⁹ EIA/DOE, *Country Analysis Brief: Russia*.

emphasized that any company from outside the EU may buy energy infrastructure in Europe if there is reciprocity with that country.²⁸⁰

4.2.2. Security of Gas Transportation and Transit

The EU region is heavily dependent on Russian and Algerian pipeline gas and LNG, with very little supply diversification aside from Spain and Italy. “Europe’s natural gas imports are mostly (89%) delivered by pipelines that run across, at least, one transit country before reaching the EU border.”²⁸¹ “As the EU’s borders enlarge, the transit risk decreases, but being at the end of a transnational pipeline will always entail a certain amount of uncertainty for European importers.”²⁸² The transit of natural gas exports across Ukraine has encountered particular problems in the delivery of Russian gas to Europe in the post-Soviet era. The basis of the problem has been a lack of money in Ukraine to pay for Russian gas supplies. Natural gas transiting through Ukraine was interrupted by Ukrainian companies as a result. These difficulties have caused Gazprom to devise an entirely new export route strategy based on avoiding transit countries wherever possible, and, in particular, reducing volumes in transit through Ukraine. The source of insecurity comes from the internal instability of natural gas consumer countries; for example, in November 1997, a terrorist bomb exploded at an onshore Algerian section of the Trans-Mediterranean pipeline to Italy.²⁸³ Therefore the stability of the gas producing countries is another security dimension in the natural gas production-consumption chain.

Whilst Russia’s military intervention into Abkhazia and South Ossetia in 2008 challenged Turkey’s transit initiatives from the Caspian Sea region, Putin’s annexation of Crimea in March 2014 and the most recent interventions into Ukraine’s eastern cities of Donetsk, Luhansk, and Kharkiv are further increasing the importance of Southern Corridors. On the one hand, the nuclear negotiations between Iran and the P5+1 world powers introduce new options for Southern Corridors. If the “Action Plan for Peace” reaches final agreement between parties, Iran will become one the

²⁸⁰ Simon Shuster, “Gazprom’s EU Ties Stumble on Reciprocity,” *Moscow Times*, July 17, 2007, accessed July 21, 2007, <http://www.themoscowtimes.com/>.

²⁸¹ Checchi, Behrens and Egenhofer.

²⁸² Ibid.

²⁸³ Stern, *Security of European Natural Gas Supplies*, 16.

biggest feeders of the Southern Corridor for the EU's natural gas supply security. Iran will also be a transit country for Turkmenistan gas towards Europe.

4.2.3. The Gas Pipelines and Projects From Russia to Europe

There are currently nine major pipelines in Russia, seven of which are export pipelines. The Yamal-Europe (Europol), Northern Lights, Soyuz, and Bratrstvo (Brotherhood) pipelines all carry Russian gas to Eastern and Western European markets via Ukraine and/or Belarus. These four pipelines have a combined capacity of 113 BCM. Three other pipelines, Blue Stream, North Caucasus, and Mozdok-Gazi-Magomed connect Russia's production areas to consumers in Turkey and FSU republics in the east.²⁸⁴ There are two other strategic projects of Russia in the North (*Nord Stream*) and South (*South Stream*).

4.2.3.1. Nord Stream Pipeline Project

Nord Stream is a gas pipeline to link Russia and the European Union via the Baltic Sea. This new channel would increase the Russian natural gas exports and is a major infrastructure project that sets a new benchmark in EU-Russia cooperation. Nord Stream has a capacity to transport up to 55 BCM of gas each year with double strings. Hence, this offshore pipeline project is viewed as a Trans-European Energy Networks (TEN-E) priority project for the security of European energy supply. According to the European Commission approval statement in mid-2006, the Council of the European Union and the European Parliament regarded the project as key to ensuring the sustainability and security of energy supply in line with EU energy policy.²⁸⁵

Nord Stream is 1,223 kilometres long and consists of two parallel lines. The first line, with a transmission capacity of around 27.5 BCM per year, was completed in June 2011, and transportation of gas through Line 1 began in mid-November 2011.²⁸⁶ The second line's construction began in November 2011 and it was commissioned in the

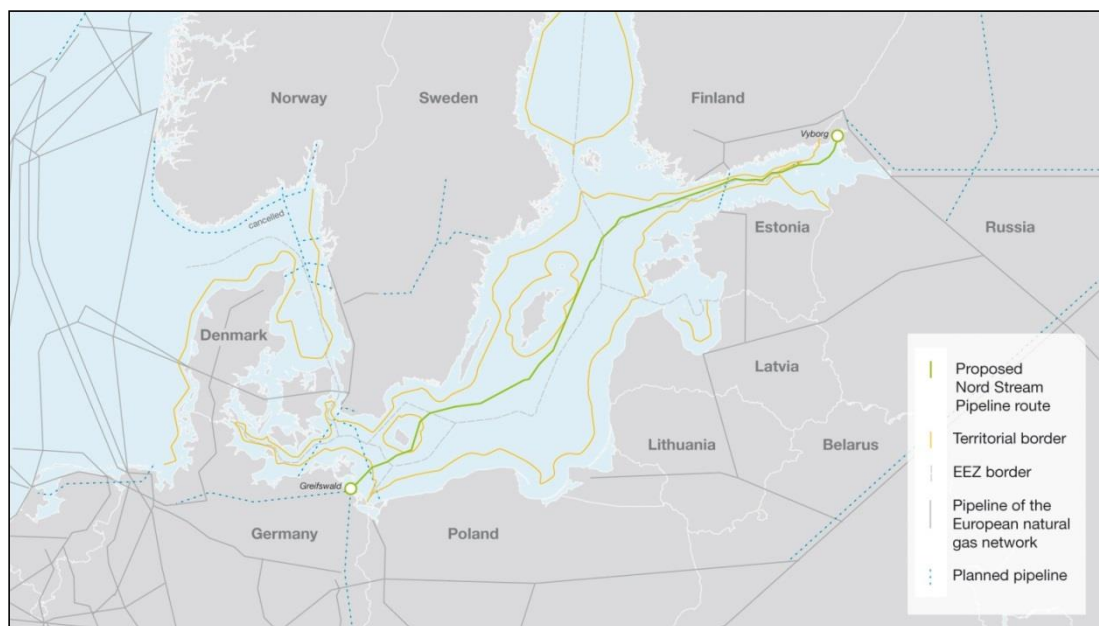
²⁸⁴ EIA/DOE, *Russia: Country Analysis Brief*, last updated September 18, 2012, accessed September 26, 2012, <http://www.eia.gov/countries/analysisbriefs/Russia/russia.pdf>.

²⁸⁵ "The New Gas Supply Route for Europe", Nord Stream, January 2010, accessed March 9, 2013, http://www.nord-stream.com/fileadmin/Dokumente/Background_Info_Project/Nord_Stream_Press_Release_Background_info_eng.pdf.

²⁸⁶ See Nord Stream Pipeline Project Official web site, accessed October 5, 2013, <http://www.nord-stream.com/pipeline/>.

last quarter of 2012, doubling annual capacity to around 55 BCM.²⁸⁷ The shareholders have ensured the project's financing by providing about 30% of the project costs through equity contributions proportionate to their share in the joint venture: OAO Gazprom – 51%, E.ON Ruhrgas AG – 20%, BASF SE/Wintershall Holding AG – 20%, N.V. Nederlandse Gasunie – 9%. Some 70% will be financed externally through limited recourse finance. Nord Stream is already connected to the OPAL pipeline on landfall Germany. There are two new proposals for expansion of Nord Stream: (1) Extension of Nord Stream into UK through landfall Netherlands (Gazprom signed MoUs in 2012 with BP and Centrica), and (2) expansion of Nord Stream by addition of two more strings (up to 110 BCM per year capacity). The expansion option is on hold due to the ongoing reservations of the EU (third package) and the German Government.

Map 4.2: Nord Stream Pipeline



4.2.3.2. South Stream Pipeline Project

In addition to this pipeline, the South Stream is a transnational gas pipeline project being developed for the purpose of diversifying the routes of natural gas supplies to European consumers and stipulating the conveyance of the blue fuel to South and

²⁸⁷ Ibid.

Central Europe across the Black Sea. The South Stream project is another pillar of the strategic agreement, and memoranda were signed between Eni (20%) and Gazprom (50%) in 2000 and on June 23, 2007, respectively. European major energy companies Wintershall (15%) and EdF (15%) are other shareholders of South Stream AG. The pipeline system is designed for a total capacity of 63 BCM per annually.²⁸⁸

Map 4.3: South Stream Natural Gas Pipeline Project



Source: South Stream.

There are many controversies about Turkey’s position and its relation with Russia. Initially, Turkey was considered as an alternative route to balance Russia’s usage of energy for political aims. However, Turkey began to use a multi-dimensional policy framework to become a balancing actor between Europe and Russia and between Russia and Caspian and Central Asian states. Unlike previous governments, the Justice and Development Party of Turkey introduced the policy of ‘zero problems with Turkey’s neighbours’²⁸⁹, including Russia. Hence, Turkey’s natural gas diplomacy with Azerbaijan does not challenge Russian initiatives. In so doing, Turkey pursues creeping rehabilitation policies towards Russian initiatives and the South Stream pipeline. Strategically speaking, the Turkish authorities do not evaluate the pipeline as an alternative or competition for the Southern Corridor, and it does not assume any more that the Russian South Stream pipeline project is an alternative pipeline for Turkey’s energy strategy. In fact, Russia transports 80% of its gas through

²⁸⁸ “South Stream Gas Pipeline,” South Stream, accessed January 3, 2014, <http://south-stream.info/index.php?id=2&L=1>.

²⁸⁹ Ahmet Davutoğlu, *Stratejik Derinlik*.

Ukraine to Europe. It can be added that Turkey does not have such certain policies about South Stream but is keeping its options flexible because of the conditionality in the energy environment. Turkey keeps itself away from the controversy over merging South Stream and Nabucco, which is luckily out of fashion in the European energy environment. That certainty gives more confidence in building its energy relationship with Russia as a ‘transit country’ to Europe. There exist three pipeline corridors to Europe: the Russia, North-West Africa, and North Sea corridors.

4.2.3.3. Blue Stream Natural Gas Pipeline

Before the construction started, some circles in the energy environment raised various criticisms of the project. They claimed that the pipeline was technically not possible; hence they named it ‘Blue Dream’. The environmentalist protestors also disputed the construction of the pipeline. However, the pipeline is one of the important parameters between Russia and Turkey to create interdependency relations, which develop further co-operation on many occasions. The US publicly criticised the pipeline, calling on Europe to avoid becoming any more dependent on Russia for energy.

The legal basis of the pipeline started with the Intergovernmental Agreement (IGA) on construction of the subsea pipeline signed between Russia and Turkey on 15 December 1997.²⁹⁰ Within the IGA, Gazprom and the Turkish BOTAŞ signed a 25-year contract for the supply of 16 BCM/year of gas to Turkey via Blue Stream (starting from 2000).²⁹¹

The Blue Stream pipeline, officially launched in 2005, laid on the seabed of the Black Sea, establishes a direct interconnection between Russia and Turkey, avoiding intermediary transit states, contrary to the existing Balkan route in which Russian gas has to cross four sovereign territories before it reaches the Turkish border. The other point is that the pipeline has been constructed by the Blue Stream Pipeline, B.V., which is a Netherlands-based joint venture of Russian Gazprom and Italian ENI. The consortium is the owner of the subsea section of pipeline, including Beregovaya

²⁹⁰ “Blue Stream,” Gazprom Official Website, accessed September 27, 2012, <http://gazprom.com/production/projects/pipelines/blue-stream/>.

²⁹¹ Taner Yıldız, “2010 yılı Enerji ve Tabii Kaynaklar Bakanlığı Genel Kurul Bütçe Konuşması” [Budget Presentation for year 2010 of Ministry of Energy and Natural Resources]” (Turkish Grand National Assembly’s Plenary Session, December 2009).

compressor station, while Gazprom owns and operates the Russian land section of the pipeline and the Turkish land section is owned and operated by the Turkish gas pipeline company BOTAŞ. Map 7.1 demonstrates Russian and Turkish sections of the pipeline.

Map 4.4: Blue and South Stream Pipelines



Source: Gazprom.

The total cost of the Blue Stream pipeline was USD 3.2 billion, including USD 1.7 billion for the subsea part.²⁹² However, no information is publicly available concerning the tariffs or tariff methodology specific to the Blue Stream pipeline. The technical features of the pipeline are important for the state-of-the-art offshore technology used by the international consortium of Blue Stream Pipeline B.V., the 1213 km pipeline.²⁹³ It is considered one of the deepest pipelines in the world, laid in depths down to 2150 m. There are two sections of the Blue Stream pipeline; the offshore section and the onshore section, running under the Black Sea and the Black Sea coastline.

The Blue Stream pipeline also serves as an emergency call-in option for Turkey if Iran stops transporting gas from the Tabriz-Erzurum pipeline. This has happened in

²⁹² OME, “Gas Export Infrastructure in the Caspian Region and its Neighborhood: Today and Tomorrow,” (OME Discussion Paper HC-3/2010, July 2010).

²⁹³ Ibid.

the past when, for instance, Iran defaulted on its supply obligations in early 2008, where gas delivery shortfalls were compensated by Gazprom through the Blue Stream. Furthermore, during the Russia-Ukraine gas crisis in January 2009, the Russian supplies to Turkey via the interrupted Balkan route were partly diverted to the Blue Stream. Gazprom is also capable of covering peak energy demand in Turkey connected with regular low temperature periods.

4.2.3.4. Blue Stream II Natural Gas Pipeline Project

The idea of laying a second pipeline next to the existing one, to be called Blue Stream 2, was first put on the table in 2002. It has long been discussed since then, though no concrete steps have so far been taken for its realization.²⁹⁴ In 2005, discussions on Blue Stream 2 heated up with a possible extension to the Balkans (and, further, to Europe). An agreement was signed between Gazprom and MOL in June 2006 for feasibility studies of the South European Gas Pipeline (SEGP). However, given the tendency of some potential transit/buyer states (Bulgaria and Hungary) towards reduced Russian dependency and the Turkish Government favoured Nabucco, interest in Blue Stream II has weakened and eventually been replaced by the South Stream. This is an alternative Russian project to supply pipe-gas to Europe through a direct connection from Russia to Bulgaria under the Black Sea (see section on South Stream Pipeline). The South Stream project has also found support from Turkey as a part of the broader energy co-operation package between Russia and Turkey. In 2009, the idea of Blue Stream II was revived by laying another seabed pipeline parallel to the first. The route was reconfigured to go overland in Turkey in the north-south direction across Anatolia all the way down to the Mediterranean coast (indeed, to follow the Samsun-Ceyhan oil pipeline path) with up to 8 BCM annual delivery to the Mediterranean market.²⁹⁵

In addition to Russian initiatives in the Black Sea, it is necessary to explain that

²⁹⁴ “Blue Stream-2 feasibility study to be ready by July”, Alexander’s Gas and Oil Connections Website, February 27, 2007, accessed September 14, 2012. <http://www.gasandoil.com/GOC/company/cne70924.htm>.

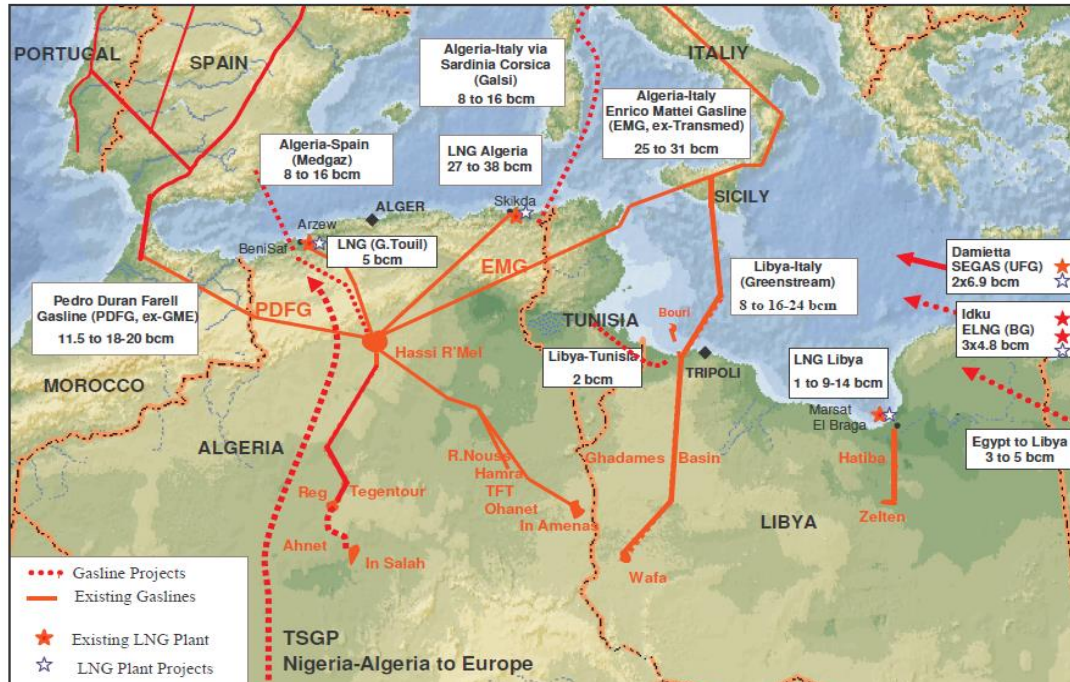
²⁹⁵ Vladimir Socor, “Gazprom, Turkey Revive and Reconfigure Blue Stream Two,” *Eurasia Daily Monitor* 6, no. 154 (August 11, 2009), accessed September 28, 2012, [http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=35394&tx_ttnews\[backPid\]=7&Hash=da2f573c7c](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=35394&tx_ttnews[backPid]=7&Hash=da2f573c7c).

Russian offshore in the Caspian Sea shows some promise for future prospects. According to a Russian energy strategy 2009 paper, gas production from offshore Caspian Sea fields will rise gradually to reach 21 to 22 BCM by 2030 at the Tsentralnoye and Khvalynskoye fields operated by Lukoil, Gazprom and KazMunaiGaz.²⁹⁶ It is certain that Russia has more political power in terms of defining the legal status of the Caspian, rather than having hydrocarbon sources in the Caspian Seabed.

4.2.4. North African Natural Gas Corridors

Algeria and Nigeria account for over 80% of both proven reserves and production in North Africa. Nevertheless, these reserves are small compared to the world total; for instance, Algeria and Nigeria together have only close to 3% of world reserves. Nevertheless, their current production rates are high; thus, their comparative effects on the countries they export to are high. Some experts argue that Algeria's effect will be temporary because it cannot sustain the supply for more than 10-15 years.²⁹⁷

Map 4.5: Export Infrastructure and Projects From North Africa to Europe



Source: OME.

²⁹⁶ IEA. *World Energy Outlook 2010*, 546.

²⁹⁷ Yuri Yegorov and Franz Whirl "Gas Transportation, Geopolitics and Future Market Structure," *Futures* 43 (2011): 1056-1068.

The proven reserves of North Africa as a whole total 14.7 TCM, equal to about 8% of the world total. The region's estimated remaining recoverable resources, including undiscovered volumes, are about 7% of the world total.²⁹⁸

On the other hand, new campaigns of the Algerian Government predict that the unconventional resources of Algeria will be huge but need experienced IOC investments. Although the numbers are highly speculative, the unconventional potential of North Africa and future offshore campaigns in Western Mediterranean basins are quite important for feeding the EU natural gas system and its neighbouring countries.

4.2.4.1. Gas export potential from Algeria to Europe

Algeria was also the eighth largest natural gas producer in the world in 2010 and the third largest gas supplier to Europe after Russia and Norway.²⁹⁹ As of January 2013 Algeria had 4.5 TCM of proven natural gas reserves — the second largest in Africa after Nigeria — with 192 BCM of production in 2010, and exported 55 BCM of this production in 2010.³⁰⁰ Natural gas flow from Algeria to Europe goes by pipeline and LNG trade. For instance, Algerian–Italian natural gas trade via pipeline was about 24 BCM in 2008 while LNG trade only accounted for 2.4 BCM. Spain is another natural gas buyer from Algeria via pipeline, with purchases of about 8.4 BCM, with the LNG trade figure at about half of the pipeline figure.

Algeria–Portugal natural gas trade had the lowest rank among the countries of the EU, at about 2.4 BCM by pipeline transport. Algeria's LNG trade with Turkey and France is also essential to the energy security of the EU. France bought 7.9 BCM via LNG in 2008, while Turkey bought only 4.5 BCM of natural gas from Algeria.³⁰¹ This balance between pipe and LNG (around 60–40%) has been at the heart of state-owned Sonatrach's exporting strategy. The routes of piped and LNG gas from Algeria can be seen in Map 4.6.

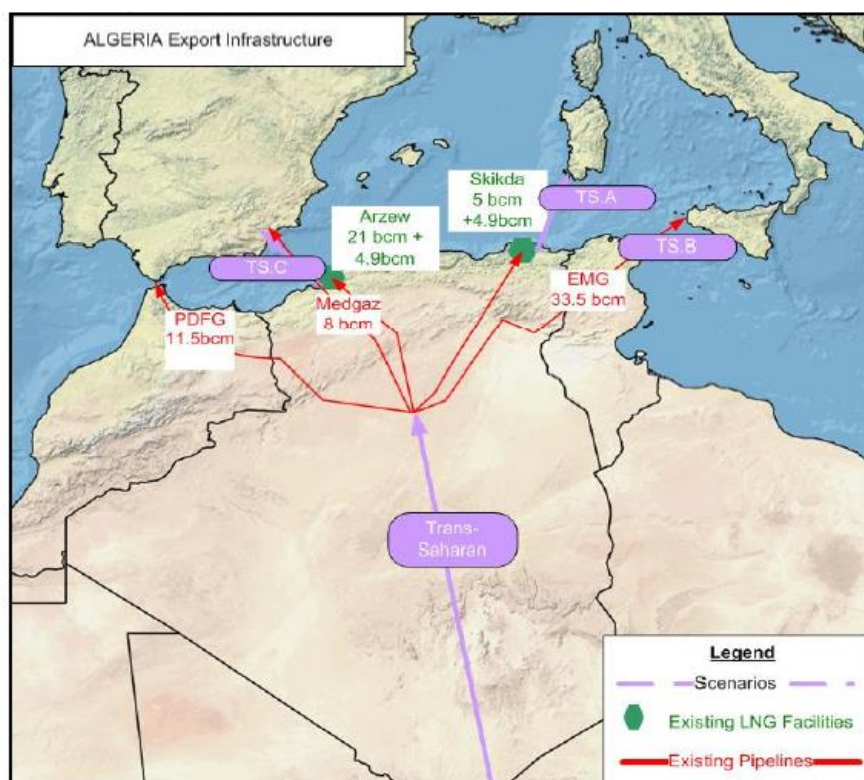
²⁹⁸ IEA, *World Energy Outlook 2009*.

²⁹⁹ EIA/DOE, *Algeria: Country Analysis Brief*.

³⁰⁰ Ibid.

³⁰¹ Ibid.

Map 4.6: Export Infrastructure in Algeria



Source: European Commission.

Transmed and GME are the two export pipelines to Europe through Tunisia and Morocco, respectively; however, the new pipeline-based and LNG export capacity are going to play an essential role in diversification of transit routes.³⁰²

Sonatrach is aiming at diversification of outlets, and it will reach the most profitable markets after the new pipeline and LNG project are completed.³⁰³ State-owned Sonatrach dominates natural gas wholesale distribution in Algeria, while state-owned Sonelgaz controls retail distribution. The company operates the project of Medgaz, which was online in 2011, directly linking Algeria to Spain. Although most of the gas sold will be through long-term supply contracts, Sonatrach also sells gas on the spot market, mainly in the United Kingdom and Asia (Japan, India and South Korea). The long-term contracted gas with Algeria reached 65 BCM, split into 43 BCM pipeline (contracted mainly with Italy) and 22 BCM LNG (contracted mainly with France, 10 BCM) in 2009.

³⁰² EIA/DOE, *Algeria: Country Analysis Brief*.

³⁰³ Ibid.

According to 2010 figures, Algerian export capacity was around 60.5 BCM. In general terms, the export capacity is set to rise to less than 100 BCM as and when all planned projects are completed. The Algerian government is targeting exports of 100 BCM by 2015.³⁰⁴ The increase will be possible due to the expansion of Transmed. GALSI was previously planned for 2012 after several postponements and is now further delayed to 2016 at the earliest. This will make it harder for Sonatrach to achieve its export targets.³⁰⁵

Table 4.2: Algeria’s Gas Export Capacity in 2008 (BCM/year)

| | Existing (2008) | Under construction | Total |
|--|-----------------|--------------------|------------|
| Pipelines | 39 | 23 | 62 |
| Transmed (via Tunisia) | 27 | 7 | 34 |
| Maghreb-Europe | 12 | | 12 |
| Medgaz | | 8 | 8 |
| Galsi | | 8* | 8 |
| LNG | 28 | 12 | 40 |
| Skikda | 4 | 6 | 10 |
| Arzew | 23 | 6 | 29 |
| Total | 67 | 35 | 102 |
| * Planned. A final investment decision is due in 2010. | | | |
| Sources: IEA databases. | | | |

Source: IEA.

4.2.4.2. Gas export potential from Libya to Europe

Libya is one of the oil- and natural gas-rich countries in North Africa. It aims to increase gas production significantly in the coming years to supply the domestic market and to increase exports to Europe. The country’s proven natural gas resources are 1.5 TCM, which would last almost ninety years at current rates of production. However, according to Yegorov, Libya and other countries in North Africa are consuming their reserves so fast that their relatively important impact in international energy markets will effectively vanish within ten years.³⁰⁶ In 2008, Libya produced

³⁰⁴ European Commission, *Supplying the EU Natural Gas Market: Final Report*, accessed May 13, 2012, http://ec.europa.eu/energy/international/studies/doc/2010_11_supplying_eu_gas_market.pdf.

³⁰⁵ CERA, *Algeria: European Gas Country Profile*.

³⁰⁶ Yegorov Whirl, “Gas Transportation, Geopolitics and Future Market Structure.”

about 17 BCM of marketed gas (plus about 10 BCM of re-injected gas); however Libya only sold approximately 10 BCM to the international gas market that year.

Libya's exports are predominantly made via the trans-Mediterranean Greenstream pipeline, although small volumes are also exported from a single-train LNG plant with an effective capacity of 1 BCM. Libya is consuming natural gas at around 7 BCM per year in her domestic market. The government plans to expand the capacity of Greenstream and has been trying to upgrade the LNG plant, to bring it up to its design level capacity of 4 BCM/year and to initiate new LNG projects. In 2010, Libya exported 9 BCM of natural gas via the Greenstream pipeline. However, according to the experts, Libya could be exporting up to 40 BCM/year by 2030.³⁰⁷ Several international companies, including Shell and BP, have recently launched new exploration drilling programmes in Libya, which could pave the way for higher production in the longer term for Libya's natural gas market. It is expected that the project output is going to rise more than 16 BCM by 2015 either via LNG or piped-gas to Europe.³⁰⁸ Nevertheless, Libya is a small gas exporter at the present time. Total exports in 2009 were about 9.9 BCM, which was 12% of the regional total. Of that total, 9 BCM in 2010 were exported to Italy via the Greenstream pipeline and 0.7 BCM to Spain as LNG.

The Greenstream pipeline and its associated upstream developments, together comprising the Western Libya Gas Project, will make the country a substantial gas exporter for the European energy market. The Greenstream pipeline is the 'longest underwater pipeline' ever laid in the Mediterranean Sea. It has a diameter of 32 inches, is '520 kilometres long' and crosses the sea at the 'depth of 1,127 metres'. On the one hand, the 'Western Libyan Gas Project' is the first major project to sell the natural gas produced in Libya through export to and marketing in Europe.

Libya's natural gas comes from two fields: the first, the 'offshore field Bahr Essalam', is located 110 kilometres off the Libyan coast; the second, the 'onshore field Wafa', is close to the border with Algeria. The political and economic cooperation between Libya and Italy provides a strong interdependency between Libya and European

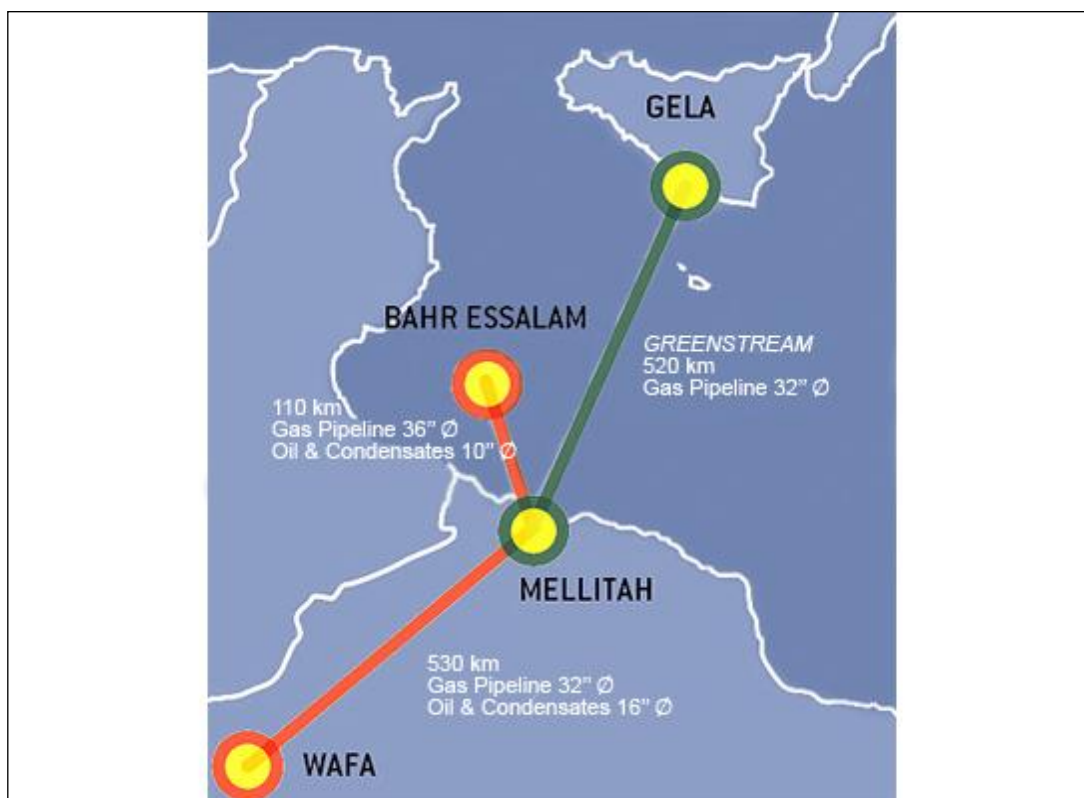
³⁰⁷ European Commission, *Supplying the EU Natural Gas Market: Final Report*.

³⁰⁸ Ibid.

countries.³⁰⁹ The lion's share of Libya's natural gas and oil is run by Italian energy giant Eni, with a 50% stake in the joint development of the fields. The other partner is National Oil Corporation (NOC), the Libyan state-owned oil company.³¹⁰

Bahr Essalam field is where the first offshore platform, called Sabratha, will be put in place. Thirty eight wells will be drilled, fifteen from the platform and twenty three subsea. When fully operational, annual production is expected to be around 6 BCM of gas.³¹¹

Map 4.7: Greenstream Pipeline



Source: Greenstream Pipeline, ENI, 2010.

The development of the 'onshore Wafa field' includes twelve oil and seventeen gas wells. The gas and condensates produced and processed at Wafa will be sent to the Mellitah plant through a 530 kilometres-long pipeline.³¹² According to ENI, when the

³⁰⁹ CERA, *Italy: European Gas Country Profile* (February 2010).

³¹⁰ IEA, *World Energy Outlook 2009*.

³¹¹ "Greenstream Pipeline", ENI, accessed March 3, 2012, <http://www.greenstreambv.com/en/pages/home.shtml>.

³¹² Ibid.

Wafa field will be fully operational, annual production is expected to be around 4 BCM of natural gas. At ‘Gela’, in Sicily, a ‘reception terminal’ has been built, connected to the Snam Rete Gas national network. This energy interdependency creates a balancing relationship between the EU and Libya after the cancellation of ILSA (the Iran Libya Sanctions Act) in 2006. As part of this, Libya has given certain guarantees to stop its nuclear program. However, this ‘new opening’ in Libya’s foreign relations has not worked out properly. The Libya-Swiss crisis created a political crisis with the United States. Due to an offensive address by the American ministry, Libya started to use energy weapons against both Europe and America in early 2010.³¹³ More recently, the ‘Arab Spring’ and the fall of Qaddafi’s regime created new uncertainties that are expected to negatively affect the natural gas industry. Greenstream operations ceased many times in 2012 and the first quarter of 2013 due to successive attacks by the local rebels. Although the new administration of Libya strongly underlined guaranteeing the previous hydrocarbon agreements, on-going political instability is slowing down the industry’s progress.³¹⁴

4.3. LNG CAPACITY AND NEW LNG PROJECTS OF EUROPE

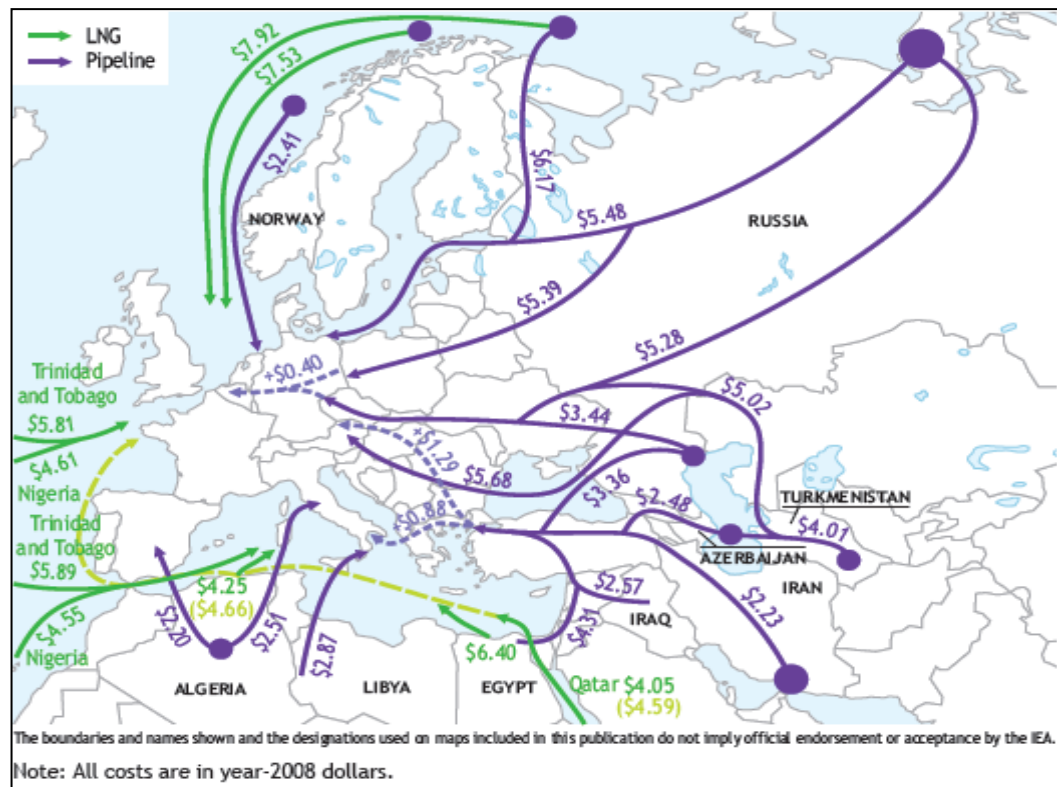
LNG is becoming more popular because it uses a technology that has a compression ratio of 600:1. This is almost equal to 600 times the amount pumped from a regular pipeline in one LNG tanker in liquefaction terminals and decompressed in regasification plants of importing countries. It must be noted that pipeline deliveries from these sources emerge as significantly less expensive and more secure than LNG shipments, since the capital costs of building LNG infrastructure mean that shipping LNG short distances is not economical (Map 4.6). However, LNG has flexibility in terms of destination, and this continues to underpin interest in LNG projects. Moreover, LNG can be considered economical when compared to long-term ‘take or pay’ contracts, because LNG has a bigger spot market and only the LNG financial futures market affects the current price.

³¹³ Mark Tarn, “Gaddafi Calls for Jihad Against Switzerland,” *The Guardian*, February 26, 2010, accessed April 22, 2012, <http://www.guardian.co.uk/world/2010/feb/25/muammar-gaddafi-libya>.

³¹⁴ “Libya Gas: Opportunity for NOCs?,” accessed May 3, 2012, <http://www.energyrealities.org/detail/libya-gas-opportunity-nocs/erpB133D2E14426DC00F>.

The cost of producing and delivering gas to European markets is a critical part of energy security. The integrated map describes graphically the results of our analysis of indicative cost levels for new supplies from different sources for delivery to European borders. In some cases, such as that of Qatar, the low estimate of production costs is at zero since the costs of gas production are typically covered by output of gas condensate and liquids. The integrated map analysis suggests that the lowest price sources of gas to the main European gas markets are to be found in North Africa, notably in Algeria, and in the Norwegian Sea.³¹⁵

Map 4.8: Indicative Costs for New Sources of Gas Delivered to Europe, 2020 (USD/MBtu)



Source: IEA.

4.4. CONCLUDING REMARKS

The major decline in the indigenous production in EU member states and import dependence upon Russia endangers the security of gas supplies. Hence the security perspective for European natural gas markets has been reviewed here. Europe is on track with some common policies about environmental issues, which have reached

³¹⁵ IEA, *World Energy Outlook 2009*.

some success in the 20-20-20 strategies, but failed to introduce a common energy policy to create bargaining power against the Russian monopoly in the natural gas market. In terms of long-term sustainable energy supply, South and Nord Stream pipeline projects will satisfy the EU energy demand if the EU and the Russian Federation should go through reliable energy cooperation either by pricing or by LNG and pipeline trade. For the EU complacency about future security is not easy to achieve, the need is to develop the Southern Corridor option and LNG options from different sources. It is noted that the previous energy crisis between Russia and Ukraine and the most recent Russian annexation of Crimea and intervention into Ukrainian southern and eastern cities demonstrates that Russia maintains its policy strategy to use energy as a weapon against Ukraine and Europe. On the one hand, Russia's entrance into the Asian natural gas market, especially the Chinese and Japanese market, further reduces its market dependency on Europe. It seems that the EU should act fast to secure access to the Caspian Sea, Middle East and Eastern Mediterranean regions to secure its energy resilience. The suppliers of the Southern Corridor have all capacity to satisfy the main feature of energy security, which was classified above as availability, affordability, reliability and sustainability. In so doing, the EU can integrate its energy policy with exporter countries, and establish supply chain systems. The EU can also increase efficiency and competitiveness, the liberalization of the EU gas market in domestic markets. Moreover, with a common energy policy, the EU may take necessary measures to diversify its gas supplies from the Middle East and Caspian regions via alternative routes such as Turkey.

While North African and Norwegian reserves are declining rapidly, it is difficult to presume that the position of European countries in respect of source or transit dependence will substantially improve in the next two decades (except for the increase in LNG trade) because of loose contracting options and diversity targets and price mechanisms with the addition of the Southern Corridor. As seen in Map 4.6, the gas transportation cost of the Southern Corridor has been calculated by IEA as one of the most economic options among others. While some believe that LNG exports and unconventional and renewable energy can mitigate these negative effects in Europe, the picture is grimmer for some other players in the region, such as Turkey. In terms of transit security, with the concentration of policy attention on source and transit security, facility security may have received less attention than it deserves. Moreover,

there is reason to believe that maintenance has been neglected in most countries, and an ageing system will be subject to a greater risk of technical failure and hence disruption.

In a sense this chapter outlined three pipeline corridors (North Africa, Russia, Norway) to Europe but also gave some indication for the Southern Corridor, which is divided into three regions; Caspian Sea, Middle East and Eastern Mediterranean. Although there are on-going uncertainties in the Arab Middle East and North Africa, where the 'Arab Spring' has brought about (or is about to bring about) new rulers, the new independent states of the former Soviet Union have achieved co-operation with European states. The chapter emphasized that the alternatives for the EU without the Southern Corridor may not maintain the security of natural gas in the following decades. All other options of the EU can meet the increasing demand and compensate for the decline of indigenous gas production at a certain level.

Chapter 5

TURKEY'S NATURAL GAS DIPLOMACY FOR THE FIRST STAGE OF THE SOUTHERN CORRIDOR

5.1. INTRODUCTION

The politics of the pipeline is a new phenomenon of (critical) geopolitics. This new area of study brings new dynamics to the field of international politics. In this research, the geopolitics of energy give a great depth to the elements of energy supply security, which is outlined (by Jonathan Stern in Chapter 1) as involving (i) reserve depletion, (ii) the structure of supply contracts, (iii) the investment regime, (iv) the insecurity of energy sources, (v) the insecurity of energy transit routes, and (vi) the insecurity of energy facilities.³¹⁶ However, this chapter focuses on two elements of these risks — (iii) investment regime and (v) energy transit route — in order to introduce the main parameters of a reliable investment regime for long term contracting issues of pipeline politics through Turkey to the European mainland.

After the disappearance of Soviet Russia, Turkey has, unexpectedly, found itself as an actor in the 'New Great Game' in the energy transportation sector, being strategically located on pipeline routes from the Caspian Sea, Black Sea and Middle East regions to Europe. Turkey's new geopolitical vision provides for the Ankara government to act as a transit country. Turkey buys its own gas needs from Russia through two pipelines, one through Bulgaria and the second one under the Black Sea. Other major gas suppliers to Turkey are Iran (by pipeline), Azerbaijan (by pipeline) and Algeria and Nigeria (in the form of LNG).

After the signing of the Trans-Anatolian Natural Gas Pipeline (TANAP) Intergovernmental Agreement (IGA) in 26 June 2012, Turkey and Azerbaijan agreed on the construction of a standalone pipeline that will deliver Azeri gas from the eastern to the western border of Turkey. Beyond Turkey the Shah Deniz Phase II consortium members will decide the final destination through TAP to Italy and the

³¹⁶ Jonathan Stern, *Security of European Natural Gas Supplies: The Impact of Import Dependence and Liberalization* (London: RIIA, 2002), 20.

West Balkan Corridor.³¹⁷ Moreover, this chapter will explore the fundamentals of the interstate natural gas pipeline system and explain Turkey's distinction from the other three corridors of the European natural gas network.

There are some elements to the transport security of natural gas that are viewed as more difficult and costly than oil transport.³¹⁸ Transportation of natural gas is closely linked to storage capacity, because should natural gas being transported not be immediately required, it must be stored in a safe condition.³¹⁹ One of the advantages of a pipeline is that it guarantees a long term contract for supply security of gas consuming countries and economic security of supplier countries. This chapter focuses on the western section of the Southern Corridor (Fourth Corridor) of the European natural gas network. This chapter will give an analytical overview of the major pipeline connecting Turkey to Europe, notably the failed Nabucco project, the on-going ITGI project and the TAP project under the spine of the Southern Gas Corridor and will assess the reasons behind the failure of the Nabucco project and explain whether Turkey has a capability for being an *energy hub* between Asia and Europe or not.

5.2. THE CONCEPT OF THE SOUTHERN CORRIDOR

Although the geopolitical reasoning defines Turkey as a 'natural hub' in transport of Caspian and Middle Eastern gas,³²⁰ Turkey needs to follow multi-dimensional politics to operate the Southern Corridor by developing its relations with Russia, Iran, Caspian and Middle Eastern states.³²¹ The Southern Gas Corridor can be replaced with the 'New Silk Road' links between Europe and the Caspian, Middle East and East Mediterranean regions. This Southern Corridor also acts as a catalyst for co-operation and an investment regime of long term contracting in the transport sector. Hence, the

³¹⁷ "Shah Deniz", BP Caspian, accessed September 28, 2012, <http://www.bp.com/sectiongenericarticle.do?categoryId=9006668&contentId=7015092>.

³¹⁸ S. Sanam Haghghi, *Energy Security. The External Legal relations of the European Union with Major Oil- and Gas-supplying Countries* (Portland: Hart Publishing, 2007).

³¹⁹ Jonathan Stern, "Gas Pipeline Cooperation between Political Adversaries: Examples from Europe," (Report submission to Korea Foundation, Chatham House, January 2005).

³²⁰ Yıldız, "2012 yılı Plan ve Bütçe Komisyonu Enerji ve Tabii Kaynaklar Bakanlığı Bütçe Konuşması [Budget Presentation for year 2012 of Ministry of Energy and Natural Resources]."

³²¹ John Roberts, "Energy in East Europe," *Platt Energy News*, January 15, 2009, accessed August 10, 2013, <http://www.platts.com/Products.aspx?xmlFile=energyineasteurope.xml>.

European Commission identifies a number of partner countries for the Caspian Development Corporation (CDC) to operate the bloc-purchasing mechanism of the EU from the Caspian region. This initiative includes Azerbaijan, Turkey, Georgia, Turkmenistan, Kazakhstan, and Uzbekistan. Additionally, Iran should be represented when the political conditions permit new investment in Iran.³²² This development would make Iran a more significant supply source for the EU.

In principle, four projects of the Southern Corridor were listed officially by the EU: ITGI, Nabucco (Classic), White Stream, and TAP. These projects have capacity to transport 60 to 120 BCM from the Central Asia and Caspian regions to Europe.³²³ The series of summits and meetings have worked for the development of the Southern Corridor. In so doing, on January 13, 2011, the visit of the European Commission President Jose Manuel Barroso and EU Energy Commissioner Guenther Oettinger to Baku and Ashgabat empowered the ties between Europe and Caspian Sea states.³²⁴ The Barroso-Oettinger joint visit to both countries could be seen as immense support for Caspian gas's transportation to Europe with construction of the Southern Corridor to Europe. Under the Baku declaration, Azerbaijan and the EU affirm their "common objective to see the Southern Corridor established and operational as soon as possible, and Azerbaijan as a substantial contributor to the Southern Gas Corridor to Europe."³²⁵

The only LNG project, AGRI, was introduced to transport liquefied gas by ship across the Black Sea by passing both Turkey and Ukraine; it goes through Azerbaijan, Georgia, and Romania and reaches the European gas market.³²⁶ However, the project is viewed as technologically unreliable and expensive for marketing evaluation. At the one end, Russia's South Stream would also bypass Ukraine, via a large offshore section, which avoids the country's territorial waters. South Stream has a bigger capacity (63 BCM/year) than Nabucco (31 BCM/year); they have similar target dates

³²² CERA, *World Bank Final Implementation Report* (December, 2010).

³²³ European Union Commission's Communication, *Second Strategic Energy Review – An EU Energy Security and Solidarity Action Plan* (COM/208/781), November 2008.

³²⁴ "Lifeline for Nabucco? EU Cuts New Gas Deal with Azerbaijan," *Spiegel Online International*, 2011, accessed June 8, 2012, <http://www.spiegel.de/international/business/0,1518,739552,00.html>.

³²⁵ CERA, "Caspian Development Corporation".

³²⁶ Gareth M. Winrow, *Problems and Prospects for the Fourth Corridor: The Positions and Role of Turkey in Gas Transit to Europe* (Oxford: Oxford Institute for Energy Studies, 2009), 29.

for completion and would largely reach the same Central European consumers. Alongside South Stream, a little-publicised and disfavoured project known as White Stream, a Ukrainian initiative, could also be seen as a competitor in the southern gas corridor, as it aims to bring gas from the Caucasus across Georgia and Ukraine to Romania with further supplies to Central Europe.³²⁷

Turkey's preliminary approval to carry out a survey of the seabed in Turkish territorial waters for construction of the South Stream pipeline (and optionally construction of a Blue Stream II pipeline) will be to broaden Turkish-Russian co-operation in the Black Sea. In a sense, Turkey's positive attitude towards the pipeline changes the route of South Stream from Ukrainian territorial waters to Turkish territorial waters, despite adding an extra 100 km to the length of the line and extra investment cost of up to USD 1.5 billion.³²⁸ Turkish-Russian energy co-operation will also be extended to the Samsun-Ceyhan oil pipeline and construction of the first nuclear plant in Turkey.³²⁹

There are many advantages of the Southern Gas Corridor. Three of them are essential to highlight its importance for the EU's energy supply security. Firstly, the European Union nominated the Southern Corridor as a 'New Silk Road' at the May 8, 2009 summit in Prague, and has given its whole diplomatic and financial support for the projects.³³⁰ Secondly, there is no dispute about the status of the Black Sea because it does not constitute international waters. Hence, the control of the waters of the Black Sea is divided between coastal states. Each coastal state has the right to control the routing of the pipeline projects and to apply its national laws to the establishment and use of installations, exploration, exploitation, conservation and management of the seabed within its territories.³³¹ Hence, South Stream or other pipelines from Russia have to cross either Turkish or Ukrainian exclusive zones before landing in Bulgaria

³²⁷ "Diversifying Europe's Gas Imports," White Stream Official Website, accessed at August 8, 2012, <http://www.gueu-whitestream.com/main.php?id=1&lang=eng>.

³²⁸ Timothy Krysiak, "Turkish Gas Transit and Implications for Regional Pipeline Projects," (CERA Conference Call and Web Presentation, July 31, 2008).

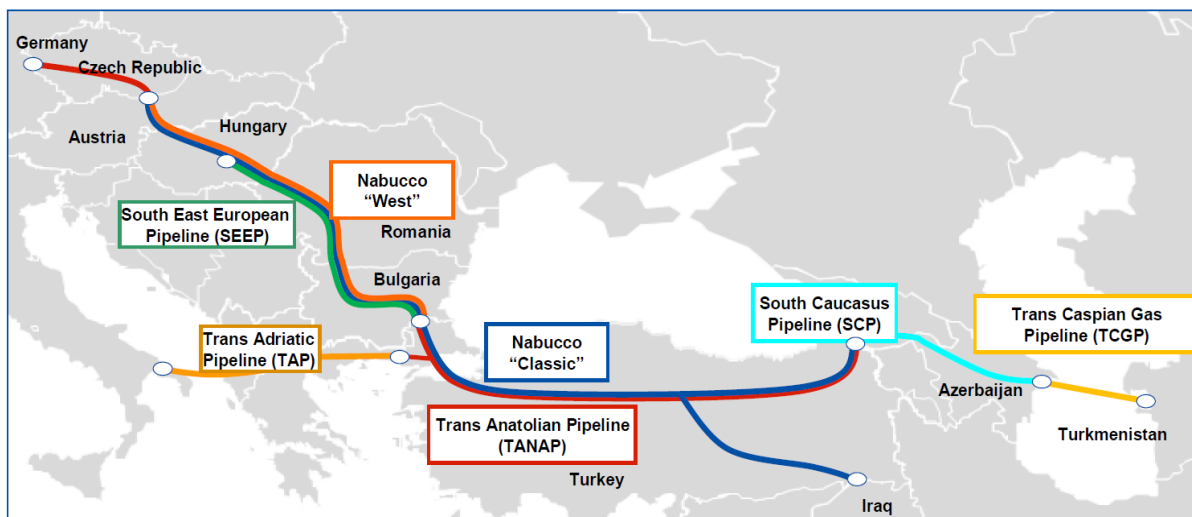
³²⁹ "A Giant Step in Samsun-Ceyhan pipeline project," Çalık Holding Official Website, accessed May 12, 2012, http://www.calik.com/EN/News/a_giant_step_in_the_samsunceyhan_pipeline_project.

³³⁰ "Prague Summit, Southern Corridor," European Union External Action, May 8, 2009, accessed May January 6, 2013, http://www.eeas.europa.eu/energy/s_corridor/index_en.htm.

³³¹ Krysiak.

or Romania. Thirdly, the Southern Corridor integrates with the Turkish consumption points and interconnects with European downstream.

Map 5.1: Southern Corridor Pipeline Projects



Source: BP

The Southern Gas Corridor projects include the Trans-Caspian Gas Pipeline (TCGP), South Caucasus Pipeline Expansion (SCPX), Trans Anatolian Pipeline Project (TANAP), Trans Adriatic Pipeline Project (TAP), Interconnector of Italy and Greece (ITGI), Nabucco, and optionally any Iraqi and Eastern Mediterranean feeder interconnected with the Turkish system. The feeder of the Southern Corridor is controversial and needs to find a reliable long-term contracting and investment regime. The first stage of the Southern Corridor will start with Azeri gas, which is going to be pumped to the Southern Gas Corridor in 2018.

5.3. TURKEY'S INTERNATIONAL INITIATIVES AND DIPLOMATIC EFFORTS

There are three international institutional bodies, which operate the common energy policy of the EU: Energy Charter Treaty (ECT), Energy Treaty Community (ETC) and Caspian Development Co-operation (CDC). Turkey is a member state of the ECT international organisation and continues to contribute to the EU's energy security relations for the security of natural gas transport and supply. CDC was an institutional body of the EU's initiative to find necessary natural gas supplies for the Nabucco project.

5.3.1. Energy Charter Treaty and Energy Community Treaty

The initiatives of the Energy Charter Treaty (ECT) aimed to create a stable legal regime for cross-border transport and a new energy regime for the Eurasian energy environment. ECT and Transit Protocol offer the best multilateral framework of rules on transit in Eurasia.³³² Fifty-three states signed the ECT; however, due to some concerns, Australia, Belarus, Iceland, Norway and the Russian Federation have not ratified the Charter. As mentioned above, Russia and Norway are prime energy suppliers of Europe and they do not want to restrict their initiatives in the energy environment. However, Russia agreed to apply the Treaty to the extent that it was consistent with its own constitutions, laws and regulations. On 20 August 2009, the Russian Federation officially informed the Depository that it did not intend to become a Contracting Party to the Energy Charter Treaty.³³³ Turkey is one of the signatories of the ECT, but due to having a transit country strategy, is curious about the realization of the international regime of the ECT.³³⁴

On one side, Turkey does not want to join the EU's other initiative called the Energy Community of South Eastern Europe (ECSEE).³³⁵ The EU established ECSEE in order to create a common energy regime in South Eastern Europe, especially with Non-EU member states. While Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, Macedonia, Romania, Serbia and UNMIK (Kosova) signed the ECSEE document,³³⁶ the Turkish government does not want to give any commitment to the ECT without being a member of the European Union. In addition, Turkey views the EU's attitude from the critical geopolitical perspective that Turkey does not prefer to play a passive role in energy issues in the region. The major goal of the ECT is the

³³² Energy Charter Treaty Secretariat, *Legal Framework for International Energy Cooperation* (2004), accessed December 23, 2012, http://www.encharter.org/fileadmin/user_upload/document/document1158668600.pdf#page=165.

³³³ "Turkey's Future Orientation in the Rapidly Changing Global Energy System," Energy Charter Treaty Secretariat, (Secretary General André Mernier on 10 May to the Forum Istanbul 2007), accessed December 23, 2013, http://www.encharter.org/index.php?id=59&id_article=108&L=0.

³³⁴ "Russia's status with the Energy Charter," Energy Charter Treaty Secretariat, 2004, accessed December 23, 2013, <http://www.encharter.org/index.php?id=18&L=0>.

³³⁵ Energy Community, *Turkey - Country Report 2006* (2006), accessed January 6, 2013, <http://www.energy-community.org/pls/portal/docs/55845.PDF>.

³³⁶ "Facts and Figures," Energy Community, October 16, 2012, accessed October 16, 2012, http://www.energy-community.org/portal/page/portal/ENC_HOME

integration of SEE to the domestic energy market of the EU. Due to certain political and technical reasons, Norway, Ukraine, Moldova and Georgia are observers of the process, in a way similar to Turkey.³³⁷

5.3.2. Caspian Development Corporation

As mentioned before briefly, the CDC was established in order to develop a mechanism to secure the gas demand and supply from the Caspian region. The EU Commission's Second Strategic Energy Review announced a commission report that the establishment of a CDC has been proposed by the European Commission on 13–14 November 2008. The report introduces the concept of a CDC, which is defined as a gas purchasing company combined with an obligation to sell to others at 'pass through' or other prices.³³⁸ The CDC's goals will focus on the development of Turkmen gas reserves and subsequent delivery of that gas to Europe through a dedicated infrastructure which was the Nabucco project in the Southern Corridor.³³⁹

Even though Turkmenistan and Azerbaijan are competitors in the view of the market and in the legal status of the Caspian Sea, Turkey can contribute to a convergence of mutual interest for both parties in entering the international energy market as either suppliers or transit countries. Turkey supports the possible scenarios of Caspian natural gas export strategies.³⁴⁰ The CDC concept has been reduced in priority due to lack of confident support from Caspian States and strong backing from the EU.

5.3.3. The Failure of Nabucco Pipeline Project Diplomacy

Due to the EU's natural gas demand dramatically increasing in the 2000s, the European Commission started to take necessary precautions for energy diversification. The most prominent precaution could be considered to be the new alternative pipelines to Russia, which are called the Southern Corridor. The Nabucco

³³⁷ Ibid.

³³⁸ Vladimir Socor, "Increased Western Involvement in Caspian Sea Energy Transport," *Eurasia Daily Monitor* 6, no. 2, accessed May 12, 2012, http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=34309.

³³⁹ "Caspian Development Cooperation," *Platts Insight*, November 21, 2008, accessed August 28, 2012, <http://www.platts.com/InsightandAnalysisHome.aspx>.

³⁴⁰ Cited from Arınç and Elik.

Pipeline project is designed to realize the Southern Corridor concept with other pipeline options.

In 2002 the project was first designed to start at the Georgian/Turkish border and finish in Baumgarten near Vienna, crossing Turkey, Bulgaria, Romania and Hungary. The pipeline was intended to carry gas from the Caspian Sea and Middle East to European markets, with an annual capacity of 31 BCM.³⁴¹ The Nabucco Gas Pipeline International GmbH (NIC) launched with the proposal of the Austrian OMV and Turkish BOTAŞ energy companies OMV in 2002. After the signing of a protocol of intention between OMV, MOL, Bulgargaz, Transgaz and BOTAŞ in June, and a Co-operation Agreement in October 2002, the NIC was founded on June 24, 2004 to construct and operate the Nabucco pipeline by Bulgarian Energy Holding (Bulgaria), BOTAŞ (Turkey), MOL (Hungary), OMV (Austria), Transgaz (Romania).³⁴² The other commercial contract, a Joint Venture Agreement, was dated June 28, 2005. With the joining of the German RWE, the Nabucco project strengthened the consortium of leading European energy companies. Nabucco's cost was estimated at EUR 7.9 billion (USD 9.96 billion).³⁴³

The cost and length and starting sections of projects were always under discussion and challenging bottleneck points. For instance, in February 2011, it emerged that the pipeline would cost more and takes longer to complete than originally estimated. This was due to the international tension surrounding Iran's controversial nuclear program. The Nabucco consortium decided to divert a stretch of the pipeline to Iraq instead, which would add a further 550 km. The project length was estimated at 3900 km with connections to the Turkish/Iraqi border.³⁴⁴

³⁴¹ "Facts and Figures," Nabucco Gas Pipeline International GmbH, 2011, accessed May 12, 2011, http://www.nabucco-pipeline.com/portal/page/portal/en/press/Facts%20_Figures.

³⁴² "NIC Announces New Timeline for Nabucco Pipeline," Nabucco Gas Pipeline International GmbH, 2011, accessed May 12, 2011, http://www.nabuccopipeline.com/portal/page/portal/en/press/NewsText?p_item_id=A297E805CEADAB20E040A8C002017939.

³⁴³ Nabucco Gas Pipeline International GmbH, *Nabucco – The European-Turkish Project of Choice*, (Status Report Q2, 2011), 6, accessed May 14, 2012. <http://portal.nabucco-pipeline.com/portal/page/portal/en/press/newsletter/UK%20Status%20Presentation%20May%202011.pdf>.

³⁴⁴ Ibid.

The main turning point in the Nabucco project was the signing of an Intergovernmental Agreement (IGA) in Turkey in 2009, which increased project potential in the energy environment.³⁴⁵ In September 2010, the Nabucco project struck a preliminary deal for another USD 5 billion in loans from the World Bank, the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD). According to the commercial contract between companies, each of the parties holds a 16.67% stake in the project. The financing strategy of Nabucco would consist of 30% equity and 70 % debt financing by the International Financing Institutes (IFIs) *i.e.* lenders.³⁴⁶

On the other hand, the controversial concept, challenging points, spiralling cost (up to 15-16 billion Euros), lack of enough gas, tough decision processes on the board, falling gas demand in the EU and strong competition with South Stream (and the Turkish Government's decisions on the permit for South Stream and joining to TANAP) resulted in shortening and withdrawal by Turkey. A new concept of the Nabucco Pipeline Project called Nabucco West that starts from the Turkish/Bulgarian Border and ends in Baumgarten, Austria was announced in May 2012 by NIC.³⁴⁷ It was dramatically declared by NIC that this announcement was made just one year later after strong Nabucco XL and robust Nabucco Prosperity Pipeline announcements of NIC for extension to Baku or even the Turkmen coast of the Caspian.

The main reason behind the change of the concept of Nabucco occurred with the transit agreements between Turkey and Azerbaijan for Shah Deniz Phase II gas which were signed in October 2011 and December 2011. The Shah Deniz Phase II Consortium clearly opted for the BOTAŞ Grid and/or New Standalone Pipeline, which will be regulated, owned and operated by the consortium rather than the struggling and cost-overrun Nabucco Classic, which is owned and operated by transit and downstream countries' companies. However, the base concept of Nabucco may

³⁴⁵ "Legal: The Intergovernmental Agreement (IGA)", Nabucco Gas Pipeline International GmbH, 2011, accessed May 12, 2012, <http://www.nabucco-pipeline.com/portal/page/portal/en/pipeline/legal>.

³⁴⁶ Ann Uysal, "Six Nabucco Pipeline Partners Each Asked To Post \$2.3 Billion in Guarantees," *Engineering News-Record*, March 14, 2011, accessed September 5, 2012, <https://enr.construction.com/engineering/subscription/LoginSubscribe.aspx?cid=17087>.

³⁴⁷ Nabucco Gas Pipeline International GmbH, "Proposal for 'Nabucco West' Scenario Submitted to Shah Deniz II Consortium", (press release, May 16, 2012), accessed September 4, 2012. http://www.nabuccopipeline.com/portal/page/portal/en/press/NewsText?p_item_id=C02D51F9694EBE24E040A8C001013BBA

be theoretically still valid for future prospects. It is very unlikely to compete with TANAP.³⁴⁸ Due not to having commercial reliability and affordability, the Shah Deniz Phase II consortium did not choose the Nabucco and decided to launch the TAP option for transportation of Azeri natural gas on June 29, 2013. Hence, NIC had to announce its dissolution and closed its website and offices in January 2014.

5.4. TURKEY AND AZERBAIJAN NATURAL GAS RELATIONS

After the collapse of the Soviet system in the Caucasus, Turkish-Azeri relations have improved dramatically, especially in the energy sector through the signing of several oil and gas contracts, and mutual trust building and interdependence relations strengthen their economic and political relations. In this section, we focus on Turkey's natural gas relations to emphasize the importance of Turkey's energy diplomacy, which has already achieved some success such as BTC and TANAP.

5.4.1. Azerbaijan's Natural Gas Market and Export Routes

According to WEO-2010, natural gas reserves of Azerbaijan are estimated at 1.4 TCM — a major part of the natural gas is located in the Shah Deniz Field.³⁴⁹ The discovery of natural gas in the Shah Deniz field in 1999 and further development of the field made Azerbaijan a net exporter for the first time in 2006. Azerbaijan is no longer dependent on Russian gas exports, having the Shah Deniz gas consortium established by BP, as the operator, and SOCAR, Statoil (Norway), Total (France), Lukoil (Russia), OIEC (Iran) and TPAO (Turkey).³⁵⁰ The estimated cost for development and infrastructure at Shah Deniz Phase I is about USD 4.5 billion, and production started in 2006.³⁵¹

Azerbaijan became a net exporter of natural gas in 2006 with the start-up of the Shah Deniz natural gas field; previously it had been importing natural gas from Russia. In 2010, Azerbaijan exported an estimated 6.7 BCM, mostly shipping it via the South

³⁴⁸ Ibid.

³⁴⁹ IEA. *World Energy Outlook 2010*.

³⁵⁰ EIA/DOE, *Azerbaijan: Country Analysis Brief*.

³⁵¹ "Azerbaijan," Datamonitor 360 Platform, October 4, 2010, accessed April 26, 2012, <http://360.datamonitor.com/>.

Caucasus Pipeline (SCP) or so called Baku-T'bilisi-Erzurum pipeline (BTE).³⁵² In 2011, Azerbaijan produced 14.8 BCM of natural gas and consumed 7.3 BCM.³⁵³ On March 25, 2002, the government issued Decree 893 on Strengthening of Financial Discipline in the Energy Sector.³⁵⁴ It set the goal of switching all thermal power plants to natural gas. Gas demand has increased in recent years to reach a level of 8.5 BCM in 2005. Almost half of it is for power generation, and the rest is shared between industry and the residential sector. Over the past thirty years, natural gas production has remained between 5 and 6 BCM annually.³⁵⁵ Most of Azerbaijan's gas production is associated with offshore oil production (associated gas belongs to SOCAR), and oil production is on a very slow increase compared to previous expectations. Due to the inefficient infrastructure collecting natural gas from offshore oil fields, natural gas has been flared off.

The Shah Deniz Phase I gas field has four wells, each producing 4 MCM per day delivered to the Shangachal terminal and then into the SCP. The annual production rate has increased to the capacity of 8.9 BCM in Phase I in 2011.³⁵⁶ According to IEA, the country's gas production is projected to increase modestly by 2015 to around 20 BCM, before increasing of production from 2018 as Phase II of the Shah Deniz field development. This is projected to bring total production to 36 BCM by 2025, of which about 23 BCM will be available for export. The remaining gas resources are expected to keep output moving steadily upwards, reaching 43 BCM in 2025.³⁵⁷

5.4.2. Diversification in Azerbaijan's Energy Market

According to IEA, overall regional gas demand in the South Caucasus and southern Russia is projected to grow by roughly 23 BCM between 2005 and 2025.³⁵⁸ If Gazprom is willing to purchase gas from Azerbaijan at European prices, minus transportation charges (known as netback prices), it could purchase gas from Phase II

³⁵² Ibid.

³⁵³ BP, *Statistical Review of World Energy 2012*.

³⁵⁴ IEA, *World Energy Outlook 2010*.

³⁵⁵ EIA/DOE, *Azerbaijan: Country Analysis Brief*.

³⁵⁶ Ibid.

³⁵⁷ IEA, *World Energy Outlook 2010*.

³⁵⁸ Ibid.

of the Shah Deniz project and pipe it north through existing infrastructure to southern Russia. In June 2009, Gazprom Chairman Aleksey Miller met with Azeri President Ilham Aliyev and offered to purchase Azeri gas at ‘market prices’ in a long-term contract. Gazprom reportedly defined market prices as the price of gas in Europe minus transportation costs and a ‘reasonable profit.’³⁵⁹ The Azeri-Russian deal was only about 1 BCM in 2009.³⁶⁰ However, all of the Shah Deniz Phase II gas will flow west to Turkey. This phase is expected to provide a plateau volume of 16 BCM a year (first gas in 2016 with a plateau in 2017/18).³⁶¹

On one side, due to ethnic unrest in Nagorno-Karabakh, Azerbaijan’s border with Armenia remains closed, though the cease-fire between the two countries continues. To its southeast, the Nakhchivan Autonomous Republic is separated from the rest of Azerbaijan. Due to tensions between Azerbaijan and Armenia, Azerbaijan in late 2006 began a swap deal with Iran that provides natural gas to Azerbaijan’s geographically separate Nakhchivan enclave. Azerbaijan ships natural gas into Iran via the Baku-Astara Pipeline and Iran, then delivers the gas via a new 48 km pipeline into the enclave. Volumes were slated to rise to 350 MCM by 2009.³⁶² Azerbaijan fully intends to become a major player and has tried to alleviate the region’s geopolitical tensions.

5.4.3. Turkey-Azerbaijan Gas Agreement (October 25, 2011)

Azerbaijan has achieved diversification of the energy market and become Turkey’s most promising source of new pipeline gas. In 2001, Azerbaijan and Turkey signed a 15-year agreement to supply the Turkish market with 2 BCM in 2006, rising to 5 BCM in 2007, and reached the plateau level at 6.6 BCM from 2008.³⁶³ All of the gas from this stage of the project was consumed in Azerbaijan or exported to Georgia and Turkey, or re-exported from Turkey to Greece.³⁶⁴

³⁵⁹ Cited from Arınç and Elik.

³⁶⁰ IEA. *World Energy Outlook 2010*.

³⁶¹ Cited from Arınç and Elik.

³⁶² “Iran Offers Azerbaijan to Move to Swop Fuel Supplies to Nakhchivan,” *News Az*, February 23, 2010, accessed August 9, 2012, <http://www.news.az/articles/9820>.

³⁶³ BOTAŞ.

³⁶⁴ Özgül.

With Turkey's enthusiasm to diversify its gas supply sources by exporting gas from a country with which it has close ties, along with Azerbaijan's desire to develop the Shah Deniz Phase I field with a feasible export solution, the sales of Azeri gas to Turkey have naturally become a part of the negotiations. Under the long-term deal, Turkey was able to get a price much more favourable than its other pipe-gas alternatives — that is, the Russian and Iranian gas. Although this price of USD 120/1000 m³ was not considered ridiculously low at the end of the 1990s (when oil prices had been as low as USD 10/barrel), the gradual rise of oil and gas prices since then and, in particular, the massive price hikes in 2008, urged Azerbaijan to revise the price, in accordance with the contract terms.³⁶⁵ Within that context, Turkey also expressed its interest in receiving additional volumes from the Shah Deniz Phase II project, which is also closely eyed by the Southern Corridor project's companies.

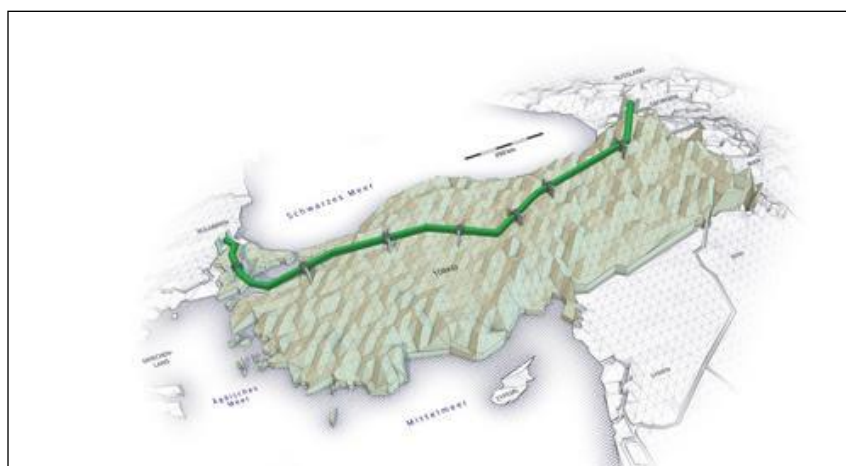
Furthermore, setting the terms for transiting Turkey has been a pre-requisite in order to make progress in these projects, though Turkey expressly stressed its agreement with 'cost-reflective' transit tariffs. Eventually, the volume and price of Azerbaijani gas to Turkey and the transit conditions via Turkish territories and secondary conflicted problems (BIL, entry to Turkish Market, contract revision, *etc.*) have been taken up as a package deal and are considered by Turkey as a package. However, the negotiations did not progress as swiftly as expected, and the delay in the process brought about accusations against Turkey for blocking transit of Azeri gas, consequently restraining the progress in the European projects. In addition to this, within the context of Turkey's 'Zero Problems with Neighbours' policy, the political rapprochement between Turkey and Armenia made the relations with Azerbaijan even more complicated. Nevertheless, the MoU dated 7 June 2010 concluded between the two countries seems to have smoothed the complication.

Azerbaijan and Turkey finally reached the strategic documents signed by the Minister of Industry and Energy of Azerbaijan, Natig Aliyev, and the Minister of Energy and Natural Resources of Turkey, Taner Yıldız, as well as SOCAR President Rovnag Abdullayev, the President for the Azerbaijan-Georgia-Turkey Region of BP, and the Operator of the Shah Deniz field, Rashid Javanshir, and the General Manager of

³⁶⁵ Şaban Kardaş, "Turkish-Azerbaijani Energy Cooperation and Nabucco: Testing the Limits of the New Turkish Foreign Policy Rhetoric," *Turkish Studies* 12 (2011): 1, 55–77.

BOTAŞ, Fazil Senel, in Izmir (Turkey) on October 25, 2011. The documents include an Intergovernmental Agreement (IGA) between the two countries; Gas Sales Agreements for the Shah Deniz Consortium for Phase II gas up to 6 BCM annually between SOCAR and BOTAŞ and also between the Azerbaijan Gas Supply Company (AGSC) and BOTAŞ International Limited (BIL); a Gas Transit Agreement for Shah Deniz Phase II gas up to 10 BCM annually between SOCAR and BOTAŞ; a Framework Agreement (FA), a General Terms & Conditions (GTC) between SOCAR and BOTAŞ, a Technical Cooperation Agreement between BP, SOCAR and BOTAŞ and Gas Contract Transfer Agreement between BOTAŞ and SOCAR Gas Turkey. The IGA and FA envision transit through Turkey either via an upgrade to the existing BOTAŞ transmission network or via the development of a standalone pipeline, Trans-Anatolian Pipeline (TANAP), across Turkey. The agreements provided a legal framework to regulate the sale of Shah Deniz Phase II gas to Turkey and its transportation to European markets through Turkey. The signing of these agreements will also allow the Shah Deniz Consortium to proceed with its European pipeline selection process, and to confirm gas sales agreements with potential customers.³⁶⁶ TANAP was selected by the Turkish and Azerbaijan Governments as well as Shah Deniz Consortium with the successive agreements signed on 31 December 2011 and 26 June 2012 instead of the upgrading of the BOTAŞ Grid. Therefore SCPX (Upstream part) and TAP or Nabucco West (Downstream part) will be tied-in to the 56” TANAP pipeline.

Map 5.2: TANAP Natural Gas Pipeline Project



³⁶⁶ SOCAR, “Azerbaijan-Turkey gas agreements signed” (press release, October 27, 2011), accessed August 11, 2012, <http://www.socar.az/3890-news-view-en.html>.

Source: TANAP

5.4.4. South Caucasus Pipeline (Baku-Tbilisi-Erzurum)

The South Caucasus or Baku-Tbilisi-Erzurum Natural Gas Pipeline (SCP) has a length of 692 km which has been designed to transport gas from the Shah Deniz field in the Azerbaijan sector of the Caspian Sea, through Georgia and on to the Georgia–Turkey border.³⁶⁷ It was constructed in the same corridor as the BTC pipeline with a view to minimizing environmental and social impact and improving the pipeline economics and using the same integrated project team. Inside the Turkish territory, it is connected to the Turkish national gas grid at Erzurum.³⁶⁸ The pipeline feeds into the BOTAŞ-operated pipeline network to Erzurum. As mentioned above, gas transportation began in December 2006. The current capacity of the pipeline is 8.8 BCM.³⁶⁹ The South Caspian Pipeline Expansion (SCPX) is being developed for additional westward gas export from Azerbaijan starting with Shah Deniz Phase II, or transit of gas from Turkmenistan. SCPX is 56” looping to the existing SCP line allowing a total capacity of over 25 BCM/year. SCPX will be interconnected to TANAP on the Turkey-Georgia border³⁷⁰

Map 5.3: Baku–Tbilisi–Erzurum Natural Gas Pipeline



³⁶⁷ “South Caucasus Pipeline”, BP, accessed September 28, 2012, <http://www.bp.com/sectiongenericarticle.do?categoryId=9006670&contentId=7015095>.

³⁶⁸ EIA/DOE, *Azerbaijan: Country Analysis Brief*.

³⁶⁹ Ibid.

³⁷⁰ IEA. *World Energy Outlook 2010*.

Sources: SOCAR and BOTAŞ.

The second stage of the Turkish natural gas transport strategy brings 15 or 25 BCM gas for the Southern Corridor and continues to expand the BOTAŞ Network (now TANAP) for Caspian gas to the Greek and Bulgarian borders via the Southern Caspian Pipeline (SCP - now SCP Expansion: SCPX).³⁷¹ Currently, Turkey is receiving 6.6 BCM of Shah Deniz gas a year under Phase I. In addition, under the Shah Deniz Phase II agreement of October 2011, Turkey will receive 6 BCM for its domestic consumption and 10 BCM a year for transit to Greece and Bulgaria.

If the TANAP project is not realized, those volumes will require upgrades to the company's gas pipeline network before 2015. In future, thinking strategically, Turkey plans to build connectors to deliver Azerbaijani gas to Syria, Bulgaria, and Greece, as mentioned earlier. According to Turkey's BOTAŞ' medium term strategic planning, BOTAŞ expects transit deliveries of Phase II gas from Shah Deniz to begin in 2018–2019, with volumes of Azerbaijani gas shipment increasing in 2020–2022 (including Shah Deniz Phase II, even Phase III according to the announcement of BP on March 2013 of deep-lying horizons at Azeri-Chirag-Gunashli, Ümit field and the Absheron, Alov, Shafaq-Asiman and other structures) including the potential transport volumes from Iraq, Qatar and Turkmenistan. To substantiate this strategic plan, Shah Deniz Phase I covers extraction of 178 BCM of gas and 34 million tons of condensate. Production under Phase I is sold under contracts with Turkey, Azerbaijan and Georgia and has seen construction of a 690-kilometre pipeline to Turkey (442 km in Azerbaijan and 248 km in Georgia). In addition to this, annual production under Phase II will total at least 16 BCM/year.³⁷²

Even though Azerbaijan has a small capacity of natural gas, it plays an essential role as a starting point of the Southern Corridor. Thus, the Turkish-Azeri deals on June 7, 2010 (MoU) and 25 October 2011 (IGA and GTA) provided the first Azeri gas for Turkish energy geopolitics from Shah Deniz Phase II.³⁷³ In particular, TANAP is

³⁷¹ Özgül.

³⁷² Ibid.

³⁷³ "Turkey Ready to Transport All Volumes of Azerbaijani Gas," *Trend Daily Economic News*, April 20, 2011.

implemented for further Caspian volumes which can also be transported through Turkey.

The main reason behind the change of the concept of Nabucco could have occurred with the transit agreements between Turkey and Azerbaijan for Shah Deniz Phase II gas signed in October 2011 and December 2011. The Shah Deniz Phase II Consortium clearly opted for the BOTAŞ Grid and/or New Standalone Pipeline, which will be regulated, owned and operated by the consortium rather than the struggling and cost-overrun Nabucco Classic which was owned and operated by transit and downstream countries' companies. However, the base concept of Nabucco may be theoretically still valid for future prospects; it is very unlikely to compete with TANAP.³⁷⁴

5.5. SOUTHERN CORRIDOR TOWARD SOUTH EASTERN EUROPE

There are two major pipeline projects going through Turkey to Europe. As we mentioned above, the Shah Deniz consortium has chosen the Trans Adriatic Pipeline for their own market strategy. Therefore, both Turkish and Azeri prefer to have more co-operative relations with Russia by not challenging Russia's potential market in Central Europe, which the Nabucco pipeline project was targeting.

5.5.1. Trans-Adriatic Pipeline

The TAP project is one of the three projects under development within the Southern Gas Corridor that relies on gas supplies mainly from the Caspian region crossing Turkey. The pipeline, 520 km in length, will begin its route in the Greek city of Thessaloniki, crossing Albania before running across the bottom of the Adriatic Sea for 115 km to Brindisi in Italy.³⁷⁵ TAP will initially have a capacity of 10 BCM; however, its transportation capacity can be expanded to 20 BCM. The TAP offers the shortest pipeline link in the so-called Southern Gas Corridor, and competes with the ITGI pipeline project. In addition, TAP offers an underground storage facility, which it is currently investigating in Albania, as well as reverse flow capability of up to 8.5 BCM that will ensure that countries in the South East European and Balkan region

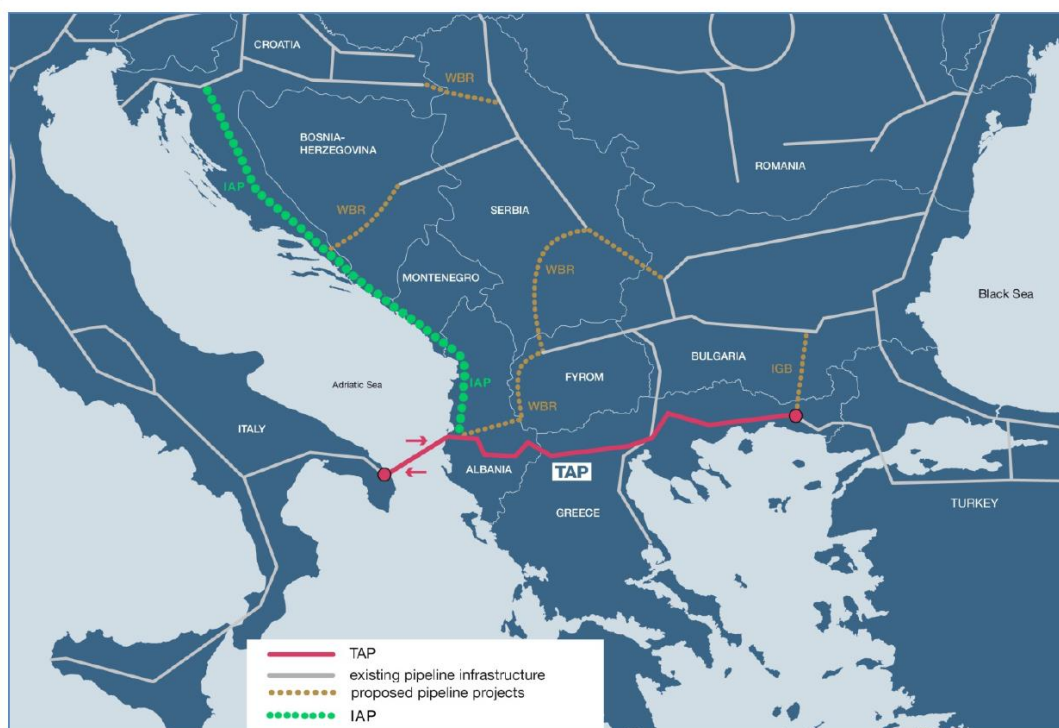
³⁷⁴ Ibid.

³⁷⁵ "Concept," Trans-Adriatic Pipeline Project, September 26, 2012, accessed October 5, 2012, <http://www.trans-adriatic-pipeline.com/tap-project/concept/>

will be in a position to secure the energy they require.³⁷⁶

After the preliminary feasibility studies were concluded, the project was recognised by the EU as a Project of Common Interest (Trans-European Networks-Energy) and categorized as an EU interconnector in September 2006.³⁷⁷ However, Swiss EGL, who launched the TAP project, estimates that construction of the pipeline will cost about EUR 1.5 billion. The Albanian government in 2007 approved the pipeline routing. Geographical tie-in point was agreed with SNAM ReteGas in Italy in May 2008. A petition on the transit, design, construction and ownership of an independent natural gas system was also submitted to the Greek authorities in June 2008.³⁷⁸

Map 5.4: Trans-Adriatic Pipeline



Source: TAP.

At the one end, the legal framework depends on the Intergovernmental Agreement (IGA) signed between Albania, Greece and Italy on February 2013, which constitutes

³⁷⁶ Ibid.

³⁷⁷ Karbuz, “Gas Export Infrastructure in the Caspian Region and its Neighbourhood: Today and Tomorrow.”

³⁷⁸ Energy Community, “Progress Report on Gas Projects -Contracting Parties Neighbourhoods,” (conference paper, gas forum at September 14, Brdo Congress Centre, Slovenia, 2010).

the main legal framework for the project. IGA provides the endorsement of the TAP at a high political level and shows the commitment of Italian and Albanian governments to support implementation of the project. More specifically, the agreement confirms the status of the TAP as a project of EU Interconnection and allows it to continue with various application procedures to the Italian authorities. Additionally, a MoU was signed between Switzerland and Turkey on November 5, 2009, and between EGL and BOTAŞ on May 2011, for setting up conditions of gas transit through Turkey.³⁷⁹ With the first document, transfer of Iranian natural gas to Switzerland via Turkey is envisaged, and the TAP project is specifically mentioned in this context. The MoU and Co-operation agreement was signed between the TAP and the Albanian Government in May 2010.³⁸⁰ This created an aligned framework for TAP and the Government in respect of the various inter-governmental and Albanian host Government discussions relevant for the TAP project. In addition, the MoU acknowledged the time schedule associated with meeting first gas requirements from Azerbaijan.

Since the beginning, the business structure of the project has been supported by two major shareholders, including an equal partnership and interest in developing, building and operating the pipeline. On February 13 2008, Statoil-Hydro, which is a shareholder and commercial operator of the Shah Deniz consortium, joined the project by purchasing 50% of the shares in TAP AG from EGL. On May 20, 2010, E.ON Ruhrgas became the third shareholder in the project.³⁸¹ Accordingly, the new shareholder structure comprises of BP (20%), SOCAR (20%), Statoil (20%), Fluxys (16%), Total (10%), E.ON (9%) and Axpo (5%).³⁸² In February 2012, TAP was selected by the Shah Deniz Consortium as the southern option.³⁸³ If the Shah Deniz Phase II gas is marketed to the Italian market, TAP is selected as the pipeline that will be filled with Azeri gas. Moreover, in September 2012 Albania, Greece and Italy

³⁷⁹ Republic of Turkey Ministry of Energy and Natural Resources, 2013.

³⁸⁰ "TAP, ITGI's Participants Hold Talks," *Trend Daily Economic News*, September 30, 2010.

³⁸¹ Trans-Adriatic Pipeline Project.

³⁸² *Ibid.*

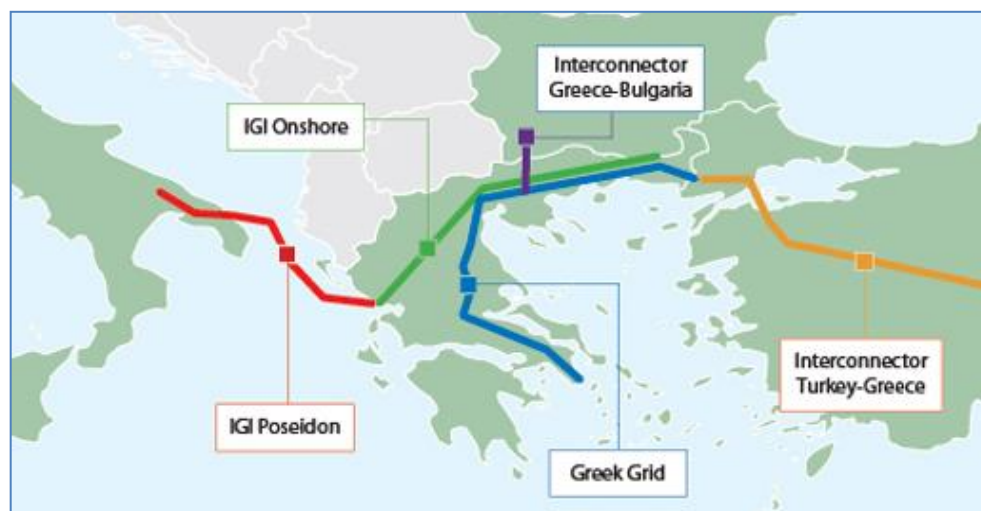
³⁸³ "Shah Deniz Announces Elimination of ITGI By TAP," *Middle East Economic Survey*, February 21, 2012, accessed September 5, 2012, <http://www.mees.com/en/articles/4085-shah-deniz-announces-elimination-of-itgi-by-tap>.

signed a MoU in order to support the realization of TAP.³⁸⁴ TAP Company also introduced IAP (Ionian Adriatic Pipeline), WBR (West Balkan Ring) and Greece-Bulgaria interconnections for feeding the entire Balkan market.

5.5.2. Interconnector Turkey- Greece- Italy

The Inter-connector Turkey-Greece-Italy (ITGI) could be considered as the southern section of the South Corridor linking Greece to Italy. It is a project led by the Italian company Edison. The project was planned to deliver Caspian and Middle East gas to Europe via Turkey.³⁸⁵ Like the other Southern Corridor pipelines, the EU has supported the ITGI for gas supply security. The pipeline consists of three sections: Inter-connector Turkey-Greece (ITG), Inter-connector Greece-Bulgaria, Inter-connector Greece- Italy.

Map 5.5: Interconnectors From Turkey to Italy



Source: Interfax.

ITG is a 297 km-long natural gas pipeline, which connects the Turkish and Greek national gas grids. The Turkish section starts in Karacabey in Turkey and runs to Komotini in Greece. The length of the Turkish section is 210 km, of which 17 km is under the Marmara Sea. The length of the Greek section is 86 km. The 26 BCM in the pipeline has the capacity of 7 BCM of natural gas. By 2012 the capacity had been expanded to 11 BCM, of which 8 BCM will be delivered to Italy after the Greece-

³⁸⁴ Trans-Adriatic Pipeline Project.

³⁸⁵ Marco Margheri, "ITGI Project," (conference paper, Second Gas Forum, Maribor, April 16, 2008).

Italy pipeline becomes operational.³⁸⁶ The realization of Inter-connector Turkey–Greece (ITG) (together with supply of gas from Turkey to Greece) is based on the Intergovernmental Agreement between Greece and Turkey dated 23 February 2003.³⁸⁷ Turkish BOTAŞ and Greek DEPA currently operate the ITG section of pipeline.

The Greece–Italy pipeline will be more than 807 km, of which 590 km will be onshore pipeline in Greece and more than 217 km will be laid on the Adriatic seabed. The pipeline will be connected to the Turkey–Greece pipeline at Komotini and will run to Igoumenitsa, Thesprotia. The offshore section (Poseidon pipeline) will go from Igoumenitsa to Otranto in the Apulia region in Italy.³⁸⁸

Concerning the development of the Inter-connector Greece–Italy (IGI), an Intergovernmental Agreement was concluded between Greece and Italy on 4 November 2005. Finally, the Intergovernmental Agreement among Italy, Greece, and Turkey regarding the development of the Turkey–Greece–Italy Transportation Corridor was signed on 26 July 2007, covering an additional 15% discounted gas offtake to Turkey over netback price.³⁸⁹ However, the agreement for the construction of a connector (Interconnector Greece-Bulgaria or IGB) between companies was in March 2010. Finally, the framework for transit agreement was signed between Italian energy company Edison, Greek energy company DEPA, and Turkish company BOTAŞ, on 17 June, 2010.³⁹⁰ This Memorandum of Understanding defines the general terms and conditions for the gas transit for the ITGI Project through Turkey, including the use of Turkey’s existing domestic pipeline system.

As an extension of projects, the IGI will establish the link between Greece and Italy — the so-called Poseidon pipeline. The project is under development by IGI Poseidon SA, a joint venture between Edison and Greek company DEPA. IGI also involves the onshore section in Greece and the offshore section to Italy (planned for 2015).

³⁸⁶ Karbuz, “Gas Export Infrastructure in the Caspian Region and its Neighbourhood: Today and Tomorrow.”

³⁸⁷ Margheri.

³⁸⁸ Ibid.

³⁸⁹ BOTAŞ.

³⁹⁰ European Commission, Directorate-General for Energy, “Gas Infrastructure Priority Projects – Status Quo & Way Forward,” (ENER B1 - Energy Policy, Security of Supply & Networks, Vienna, June 29, 2010).

Poseidon aside, other efforts to build ITGI include the realization of the Interconnector Greece-Italy (IGI), which comprises a 600 km pipeline through Greek territory. The initial capacity of the Poseidon pipeline will be divided into Exempted Capacity that is equal to 1.015 MM CM per hour (approximately 8 BCM) and Open Season Capacity to be determined through the Open Season procedure. The ITGI-Poseidon is among the Southern Gas Corridor Projects included in the European Recovery Plan with EUR 100 million. Accordingly, the EU agreed to finance the construction costs up to 45 million (more than 30% of its cost). The total project cost and transportation is estimated at USD 1.3 billion — ITG: USD 300 million, IGI-Greece: USD 500 million and IGI-Poseidon: USD 500 million. Additionally, the IGB (160km) was proposed as a branch of the ITGI to Bulgaria, known as Stara Zagora-Komotini, and partly financed from EU funds. The IGB will have a transportation capacity of 3-5 BCM/year.³⁹¹

As mentioned before the first natural gas that will fill the Southern Corridor Projects will be produced in Shah Deniz Phase II, the consortium announced that the ITGI project had been eliminated from the options in 2012.³⁹² Therefore the ITGI project could be possible when new natural gas transport opportunities (South Stream southern branch, EastMed Gas via Greece, other non-Caspian options) emerge, then ITGI would become an option again.

5.6. TURKEY'S NATURAL GAS TRANSIT STRATEGY

According to BOTAŞ Gas Master Plan 2030, Turkey could transport 150 BCM gas volumes on the Anatolian Gas Corridor.³⁹³ Turkey has already a well-diversified domestic pipeline system, which is currently receiving gas from three different sources. One is Russian sources that deliver inlet points via Thrace and the Black Sea. The other two, Azerbaijan and Iran, also sell their gas to Turkey. Hence, Turkey is naturally viewed as a 'Natural' or 'Physical' Gas Hub Centre and competitive sources

³⁹¹ Karbuz, "Gas Export Infrastructure in the Caspian Region and its Neighbourhood: Today and Tomorrow."

³⁹² "Shah Deniz Announces Elimination of ITGI By TAP," *Middle East Economic Survey*, February 21, 2012, accessed September 5, 2012, <http://www.mees.com/en/articles/4085-shah-deniz-announces-elimination-of-itgi-by-tap>.

³⁹³ Levent Özgül, "Southern Corridor and Turkey: Zoom to the Elements of Anatolian Gas Supply Projects," (unpublished conference paper presented at 5th Caspian Oil and Gas Trading and Transportation Conference, Baku, 18–19 April, 2011).

from the Caspian and Middle Eastern regions are the foundation of Turkey's Southern Corridor strategy. Levent Özgül, strategy and business development manager at Turkey's BOTAŞ, the state pipeline company, outlined Turkey's energy profile and its capacity in his outstanding conference paper which was presented in Baku on April 18, 2011. As mentioned in the previous chapter, he clarified the potential of Turkey's domestic capacity for transportation of Caspian gas. He added that Turkey has more than 12,000 km of high pressure domestic pipeline system, which has 340 MW installed capacity in eight compressor stations, and has well-defined and well-regulated Entry-Exit points. He claims that the pipeline system has 85 BCM/year physical maximum throughput capacities on gas inlet/entry points if further upgrades were performed, but it was only designed for 58.2 BCM current gas receiving design capacity as well as having further bottlenecks for transportation from east to west due to the lack of investment on the pipeline routes.³⁹⁴ According to CERA 2010 reports, BOTAŞ would have the lion's share of gas trade (at 90%) and control 38 BCM gas transportation. At the moment, the Turkish pipeline network could not transport much more than 12 BCM per year of Caspian or Middle Eastern gas across Turkey to Europe due to domestic demand increasing, which is further limiting Turkey's ability to act as a transit state.³⁹⁵ The Turkish Energy and Natural Resources Ministry has drawn up Turkish natural gas transit strategy in three stages. According to long term strategic planning submitted by Levent Özgül, Turkey's main target is to transport 35 BCM — 50 BCM to Europe.

Turkey has two LNG terminals, of which only one of them is available for Qflex/Qmax, and 535.000 m³ LNG total storage capacity. However, the technical and energy policy of BOTAŞ has not enough capacity to operate the Southern Gas Corridor by using the domestic pipeline system.³⁹⁶ Hence, the Ministry of Energy and Natural Resources introduced three stages of the country's national energy strategy, short-term, medium-term and long-term strategies.

5.7. CONCLUDING REMARKS

³⁹⁴ Özgül.

³⁹⁵ CERA, *European Gas Country Profile: Turkey* (Cambridge, Massachusetts, CERA, 2011).

³⁹⁶ Ibid.

Turkey is one of the significant players in the formation of the Southern Gas Corridor. Turkey's natural gas transit strategy is not competitive with the Russian South Stream. Turkey's constructive relations with Russia, Iran and Azerbaijan will help to establish confidence building between natural gas producer and consuming countries. By doing this, Turkey is becoming an attractive option for the pipelines and other energy projects. Turkey supports interconnecting pipelines in the Southern Gas Corridor in order to create interdependencies among supplying and demanding countries in the region.

Turkey stands equal to all possible projects which serve to enhance the EU's energy supply security. Turkey has the ability to expand Mature Trunk line capacity interconnections with most major pipelines serving the Turkish energy grid and expand the BOTAŞ domestic network with Caspian-Middle East and Europe gas networks. Turkey will manage to transport more gas from Azeri Shah Deniz Phase II. It is important to note that the transit strategy of Turkey could be replaced with the realization of TANAP in which the BOTAŞ network would not need to be upgraded. Moreover Turkey has a bigger perspective to attract gas from other resources to meet its growing demand and the extra capacity could be transported through TANAP and other projects to Europe that have already made Azerbaijan the first gas supplier to the southern corridor. Despite not having enough supply sources, the Nabucco concept was considered to be the best option for the EU's natural gas supply. The project was not politically and economically feasible to access Caspian, Middle East and Eastern Mediterranean sources. Turkish authorities believe that together with Azeri gas, the additional feeder of the Southern Corridor will be Northern Iraqi sources and Turkmenistan's gas sources and Iranian and Qatari sources will be added. Hence, this thesis will present further options for the Southern Corridor and evaluate Turkey's energy diplomacy capacity to realize those ambitions from which Turkey and the European Union would mutually benefit.

Chapter 6

EASTERN ROUTES OF THE SOUTHERN CORRIDOR: TURKMENISTAN AND IRAN

6.1. INTRODUCTION

After the collapse of the Soviet Union, the controversy over the status of the Caspian Sea between the five littoral states — Russia, Kazakhstan, Turkmenistan, Iran and Azerbaijan — dominated regional energy politics. The root of this problem originates from uncertainty about the definition of the Caspian Sea (whether it is a ‘sea’ or ‘lake’) under international law. The importance of the Caspian Region is that it has rich hydrocarbon sources, with proven reserves of conventional natural gas amounting to 13 TCM (without the new discoveries in Turkmenistan), or 7% of the world total. Remaining recoverable resources are much larger, at an estimated 26 TCM.³⁹⁷ However, the production potential in the Caspian Region is still a controversial issue. Due to the lack of export infrastructure and capital investment the region’s gas resources have not yet been fully discovered.

If the region opens up to the international market, the developments will generate a lot of projects to bring the flow of petroleum to Europe; however, most of them would avoid transfer through Russia. For instance, Azerbaijan and Turkmenistan have taken their own initiatives to diversify their energy trade due to disputes with Russia in the last decades. Hence, some difficulties between Russia and the Caspian states have apparently not been resolved; nevertheless, economic co-operation has increased a balancing of relations between parties. These up-and-down relations change gas supply contracts and create various joint ventures between some Russian oil companies and the Caspian states’ national petroleum companies.

According to the IEA’s *World Energy Outlook 2010* calculations, marketed gas production in Caspian countries has dramatically increased (from around 188 BCM in 2008, and estimated to reach 260 BCM in 2020). It seems that gas demand of Caspian countries is less than production, contributing to the region’s net export figures.

³⁹⁷ IEA. *World Energy Outlook 2010* (Paris: International Energy Agency, 2010), 524.

According to BP, in 2011, Azerbaijan, Kazakhstan, Uzbekistan and Turkmenistan produced 14.8 BCM, 19.3 BCM, 57 BCM and 59.5 BCM of natural gas, respectively.³⁹⁸ Moreover it is estimated that total net exports will be 100 BCM in 2020 and 130 BCM in 2035.³⁹⁹

For the Southern Corridor, it is important to note that Turkmenistan is the key long-term supplier country. Kazakhstan has the potential to join this corridor as another gas supplier to Europe with its conventional and unconventional gas resources that are so far unexploited due to oil priorities. Additionally, Uzbekistan can also be added as a possible contributor to the Southern Corridor going through Turkey. These countries are landlocked by the two hydrocarbon rich countries, Russia in the North and Iran in the South, and looking possibly as much eastward as westward for their oil and gas exports. However, the uncertainty about energy governance and the complexities of financing for constructing pipelines through several countries is a major barrier to their development.

There are two other regions playing a key role in transportation of energy from the Caspian Sea; the Black Sea and the Southern Caucasus. Compared to the Caspian Sea, despite being geopolitically important for transport of oil and gas, the natural resources of the Black Sea have not been discovered yet. Turkey is more confident that the Black Sea is classified as international water, which is naturally divided between littoral states. At the one end, the Southern Caucasus is more problematic due to ethnic unrest and civil war in Georgia and Azerbaijan, which forces Turkey to follow more diplomatic policies towards the region, especially since the JDP government's coming to power in December 2002. As a result of more balancing policies, Turkey left behind the scepticism towards Russia and Iran and then successfully managed to launch strategic projects such as Blue Stream with Russia and the Tabriz-Erzurum pipeline with Iran. In this framework, the other two projects have been under way: the South Caspian and Trans-Caspian Natural Gas Pipeline Projects.

³⁹⁸ BP, *Statistical Review of World Energy 2012*.

³⁹⁹ IEA. *World Energy Outlook 2010*.

This chapter investigates the role of the two countries' (Iran and Turkmenistan) pipelines for Turkish energy trading strategy and the certainties and uncertainties regarding the pipeline project reaching Turkey from the Caspian and Black Sea regions. In fact, in comparison to the Persian Gulf, Turkey has got direct access to the Caspian Sea energy sources by joining pipeline consortia and oil and gas pipeline projects. Geopolitically thinking, Turkey is located in a place between Europe and Asia; however, this geopolitical condition has inspired Turkey to introduce itself as an energy trader and hub country between these supplier and demanding countries of EU-28. Turkey has already gained great credibility as an energy transit country in the energy environment. However, there are still many conflicts between Turkish and EU energy policies. Hence, this thesis also explains the European initiatives of the Caspian Development Corporation and Turkey's energy regime. Consequently, it will give a great depth to discussions of the contingencies and certainties of the pipeline politics between Caspian Sea states and Turkey. The general argument of this chapter is that Turkmen gas deposits are more essential sources of the Southern Corridor to Europe, while both Azerbaijan and Iran are viewed as 'transit countries' for the Turkmenistan natural gas sources. Moreover, the additional natural gas supplies from Turkmenistan could feed the spare capacity of TANAP and TAP if possible.

6.2. THE CASPIAN SEA DISPUTE

“Following the breakup of the Soviet Union, a dispute began over the maritime borders of the Caspian Sea. The fact is that there is no consensus for common use or equal share among the littoral states. Hence, it is not governed by a condominium system, even though the littoral states ratified Treaty-1940 between Soviet Union and Iran in 1991.”⁴⁰⁰ Turkmenistan, Russia, Iran, Kazakhstan and Azerbaijan, the littoral states surrounding the Caspian Sea, have yet to come to an agreement over the borders. “The dispute essentially revolves around whether or not the Caspian has the legal status of a lake or an inland sea; the former implying that the waters should be divided out in their entirety in proportion to coastline length, and the latter denoting that there should be a central area of the Caspian which has international status.”⁴⁰¹

⁴⁰⁰ Cited from Arınç and Elik

⁴⁰¹ Ibid.

“Turkmenistan's dispute with Azerbaijan over the Serdar/Kapaz field in the southern Caspian is one example of how the lack of agreement on maritime borders has kept fields from being developed. Azerbaijan has chosen to proceed with hydrocarbon resource exploitation in its national sector of the Caspian regardless, having recently drilled the deepest gas well in the waters at its Shah Deniz field. Turkmenistan will need to strike a deal with Azerbaijan on their maritime border in the Caspian before any subsea pipeline linking the two countries is built, and even then Russia and Iran may raise objections if there still is no multilateral agreement on the division of the sea's resources and its legal status. A resolution to the dispute is still a long way off; however, until then Turkmenistan will be deprived of its proposed new export route.”⁴⁰²

6.3. PIPELINE POLITICS IN THE REGION

There are four pipeline options for Caspian Sea oil and natural gas exports: namely North–Northwest (Russia), Westbound (Georgia and Turkey), Eastbound from Kazakhstan and Turkmenistan to China, and Southbound (Iran). Some scholars claim that the ‘Great Game’ between the great powers and the regional powers has also been played out in pipeline politics and their relative gain in the oil and natural gas consortia in Caspian Sea resource management. The exclusion of Russia and Iran from the Baku–Ceyhan petroleum consortium in 1994 was an important Turkish challenge against Iranian and Russian initiatives in the Caspian Sea.⁴⁰³ Additionally, Turkey managed to complete building of the Blue Stream pipeline with Russia and the Tabriz–Erzurum gas pipeline with Iran. In the sense that Azerbaijan’s oil was the centre of energy exploration and transportation disputes while Kazakhstan–Turkmenistan’s hydrocarbon sources are larger than the Azeris’, and mostly rely on the Russian transportation system. Turkmenistan, a fairly small and isolated country, has been mostly ignored in the European energy environment; however, it is purported to have the fourth largest natural gas deposits in the world. What we consider here is that Iran is one of the best options for transportation of Turkmen gas to the Southern Corridor. If nuclear negotiations between Iran and the US reach some

⁴⁰² Ibid.

⁴⁰³ Ahmet Öztürk, “Management of Trans-boundary Mega-projects in the Post-Cold War Eurasia: The Case Studies of GAP Water and Baku-Ceyhan Pipeline Projects” (unpublished Ph.D diss., Keel University, 2006).

success, Iran will be entering the global energy market. We will explain in the following section what huge capacity of natural gas Iran has. Consequently, it supports our argument that Iran will be either a transit country for Turkmenistan gas or one of the biggest feeders of the Southern Corridor. Since the beginning, Iran-Turkmenistan relations have been friendly and more co-operative in the Caspian Sea region. In order to explain the importance and export capacity of Turkmenistan, this chapter outlines both Turkmenistan's and Iran's natural gas profile in the following sections.

6.4. THE FIRST EASTERN OPTION FOR THE SOUTHERN CORRIDOR: TURKMENISTAN

Despite on-going discussions about the exact size of Turkmen gas reserves, the country has undoubtedly significant gas resources — the highest in the whole region after Russia. Further exploration offshore in the Caspian Sea should further add to reserves in the future.⁴⁰⁴ The majority of reserves are located in the east (72%); however, there are also sufficient reserves in the west (28%) of Turkmenistan. In BP's *Statistical Review of World Energy 2013*, it is declared that Turkmenistan's proven natural gas reserves are 17.5 TCM.⁴⁰⁵ According to BP, the proven reserves of Turkmenistan were 2.3 TCM in 2002.⁴⁰⁶ The reason behind this incredible increase of reserves is the new giant discoveries of natural gas fields in recent years. The largest natural gas fields are in the Amu Darya basin, with perhaps half of the country's natural gas reserves located in the giant Dauletabad-Donmez field. In addition to Amu Darya, Turkmenistan contains large natural gas reserves in the Murgab basin, particularly the giant Yashlar deposit. During the last ten years, Turkmenistan has also discovered seventeen new natural gas deposits in the Lebansky, Maryinsky, and Deashoguzsky regions of the country.⁴⁰⁷

There was a speculative dispute in the Gaffney, Cline and Associates' (GCA) report on the estimation of Turkmenistan's South Yolotan-Osman gas fields (renamed as

⁴⁰⁴ Mehmet Ögütçü, "Gelecek hikayeleri: Türkmenistan doğal gazıyla yeniden 'Büyük Oyun'u tetikledi [Future Stories: Turkmenistan triggered again the Great Game with her natural gas reserves]," *AB Vizyonu*, 23 September, 2009, accessed 10 May, 2012, <http://www.abvizyonu.com/guncel/mehmet-ogutcu-yeni-enerji-duzeni-ulusal-sampiyonlar-ruslar-ve-siyasetciler.html>.

⁴⁰⁵ BP, *Statistical Review of World Energy 2013*.

⁴⁰⁶ Ibid.

⁴⁰⁷ IEA. *World Energy Outlook 2010*.

Galkynysh), one of the world's largest. The consulting firm's low estimate for the field was 4 TCM, and the high estimate was nearly 14 TCM.⁴⁰⁸ The optimum estimate of 6 TCM would make Galkynysh one of the five largest gas fields on earth. It would also make it approximately five times larger than the Dauletabad gas field, previously believed to be Turkmenistan's largest, with 1.4 TCM.⁴⁰⁹ However, the Russian newspaper *Vremya Novostey* criticised the report as GCA did not actually produce their own data but based their estimations on the same possibly spurious Turkmen data.⁴¹⁰ "The World Energy Outlook 2009 of IEA report evaluated the new discoveries in the Galkynysh and Yashlar fields as the most significant reserve reappraisals, amounting to over 6 TCM. However, the problem for Turkmenistan is that the areas are not linked by pipelines and serve different markets. Therefore, the East-West Pipeline project is an important one to connect the east and west of Turkmenistan."⁴¹¹

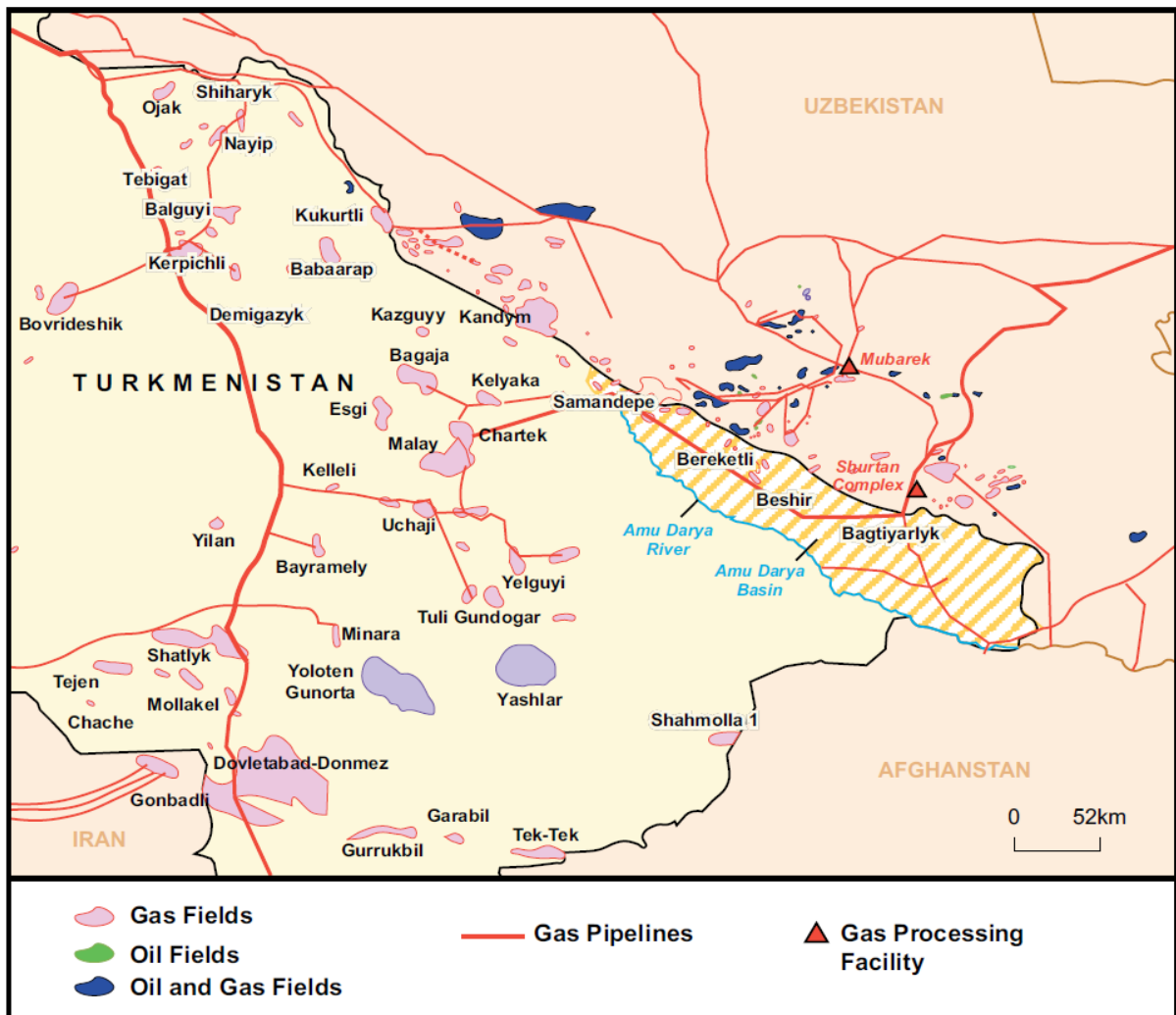
⁴⁰⁸ EIA/DOE, *Turkmenistan: Country Analysis Brief*.

⁴⁰⁹ Peter C. Glover, "Turkmenistan Joins the Natural Gas Elite: The South Yolotan-Osman Gas Field is one of the World's Largest," *Energy Tribune*, December 8, 2008, accessed 10 May, 2012, <http://www.energytribune.com/articles.cfm?aid=1046>.

⁴¹⁰ Cited from Arınç and Elik.

⁴¹¹ *Ibid.*

Map 6.1: Gas Fields and Pipeline Infrastructures in Eastern Turkmenistan



Source: CERA

The IEA, in its publication *The World Energy Outlook 2009*, projected that Turkmenistan will likely supply 2.4% of the world’s natural gas production in 2007-2030.⁴¹² The production of natural gas in the four Caspian producers (Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan) is projected to grow from 180 BCM in 2008 to almost 220 BCM in 2015 and 310 BCM in 2030, making a significant contribution to production growth in Eurasia.⁴¹³

“Natural gas reserves in Turkmenistan are more than sufficient to support an expansion in gas production and export in comparison to the other Central Asian

⁴¹² IEA. *World Energy Outlook 2009*.

⁴¹³ Cited from Arınç and Elik.

countries.”⁴¹⁴ In 2011 Turkmenistan has produced 59.5 BCM in 2011, while it was only 36.4 BCM in 2009 and the domestic consumption was 22.5 BCM in 2011.⁴¹⁵ On the other hand Turkmenistan’s total gas exports were 34.6 BCM in which Russia imported 10.1 BCM, Iran imported 10.2 BCM and China imported 14.3 BCM.⁴¹⁶ “Due to free consumption in the domestic market of Turkmenistan, the country has had the fastest consumption growth in the region, averaging 16.1% annually from 2000 to 2006, as compared with 6.3% per year for the rest of Central Asia.”⁴¹⁷ “The Turkmenistan government has ambitious targets to raise production to 250 BCM per year by 2030, of which 200 BCM would be exported. Turkmenistan’s total revenue from gas export in 2008 was USD 6.2 billion in 2009, and this is the main source of Turkmenistan public sector spending.”⁴¹⁸

“Russia provides the route to market for over 85% of the gas exported from Kazakhstan, Turkmenistan and Uzbekistan. This dependency relationship between Russia and Central Asian natural gas suppliers has become a major source of contention on the pricing issue when European gas demand is weak.”⁴¹⁹ Turkmenistan was a substantial natural gas producer under the Soviet Union. However, after the country became independent, Turkmen natural gas became a competitor with Russian natural gas. Since Turkmenistan’s only natural gas export routes ran through Russia, Gazprom limited Turkmen natural gas exports. “As a result, Turkmenistan’s natural gas production sagged throughout the 1990s. Following the resolution of a pricing dispute with Russia in 1998 and the construction of an export pipeline to Iran, Turkmenistan's natural gas production began to climb steadily.”⁴²⁰

⁴¹⁴ Ibid.

⁴¹⁵ BP, *Statistical Review of World Energy 2012*.

⁴¹⁶ Ibid.

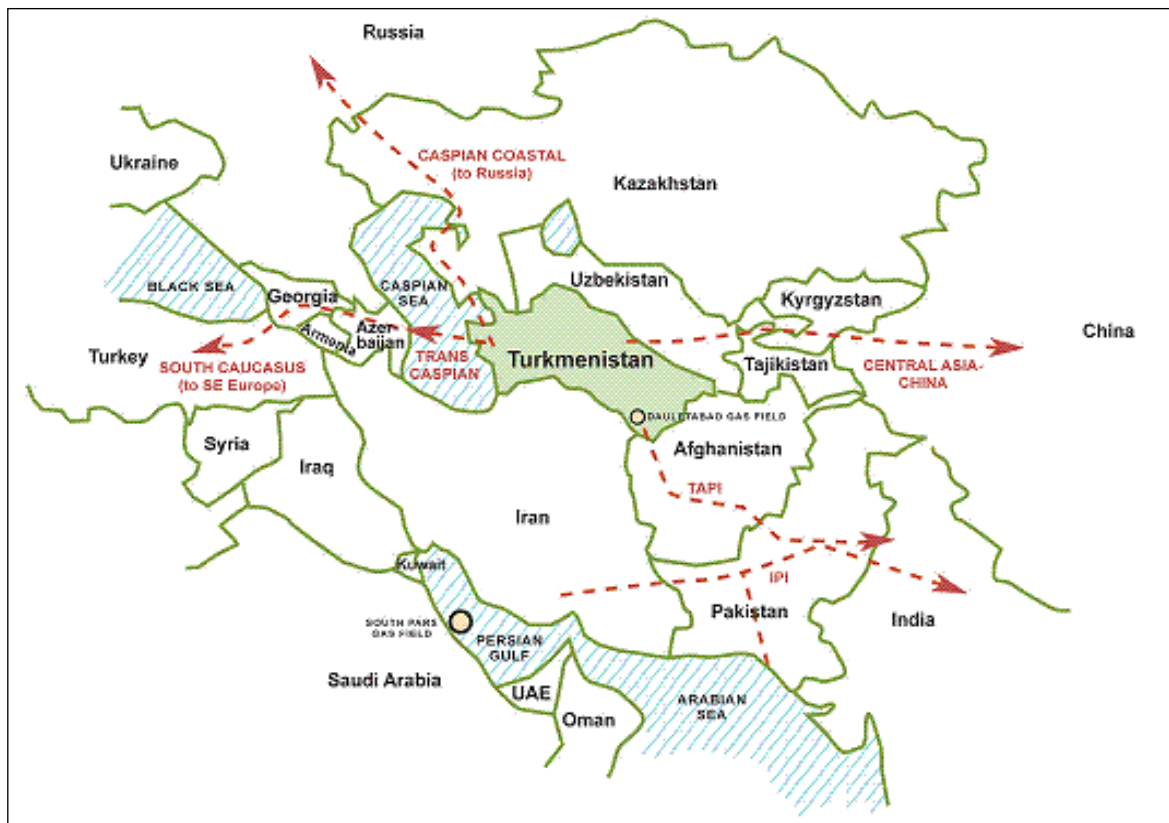
⁴¹⁷ Cited from Arınç and Elik.

⁴¹⁸ Ibid.

⁴¹⁹ Ibid.

⁴²⁰ Ibid.

Map 6.2: Existing and Possible Natural Gas Export Routes of Turkmenistan



Source: EIA

“It should be noted that although Turkmenistan has huge reserves, another key problem is how production will be mobilized. The current investment regime is not so conducive to foreign investment. International oil companies (IOCs) are allowed to have production sharing agreements (PSAs) only on offshore fields – which are not as attractive – while onshore fields are open to technical service contracts only.”⁴²¹ On the other hand, China, as the new and strongest buyer of Turkmenistan gas, has heavily invested in Turkmen fields, secured some government-to-government supported PSAs (e.g. Bahtiyarlık field) on the right bank of Amu Derya and commissioned massive financing plans for the development of Galkynysh via the state-run CNPC. The geology of the Turkmen offshore section of the Caspian Sea is not as prospective as the Azeri side. Besides China, India and Pakistan are now new markets for Turkmen gas from the TAPI Project (Turkmenistan-Afghanistan-Pakistan-India Pipeline). IGA, GTA and Gas Sale and Purchase Agreement (SPA) were signed in 2012.

⁴²¹ Ibid.

6.4.1. Turkmenistan-Iran Natural Gas Relations

Turkmenistan plans to increase gas sales to neighbouring Iran to 14 BCM after the building of the Devletubad Serakhs-Khangiran pipeline in the east, which increases export capacity by 6 BCM a year. The two sides have also discussed the possibilities of further increasing supplies to Iran to 20 BCM. The capacity of the Korpedje-Kord Kuy pipeline in the west will reach at least 14–14.5 BCM, from the current capacity of 8 BCM. Iran could be a transit territory for Turkmen gas to Turkey by using the existing natural gas pipeline, which could be expanded to 27 BCM transport capacity: Turkey is only buying 8 BCM from Iran, which will increase to 10 BCM. It is important to note that the Turkmenistan–Iran trade from the western pipeline is equally balanced, 8 BCM from Turkmenistan to Iran and 8 BCM from Iran to Turkey.⁴²²

“In conclusion, Turkmenistan’s role in supplying gas to China and Iran will grow this decade. China met 4.6% of its natural gas demand with Turkmen supplies in 2010, increasing to nearly 15.4% in 2015. Iran will also depend heavily on Turkmen gas imports during 2010–15, with almost all new Iranian gas projects, especially in the South Pars, delayed.”⁴²³ “The high dependency on Turkmen gas in China and Iran will allow Turkmenistan to set a price in line with European market prices for these countries. High-priced Turkmenistan gas will signal to other Central Asian gas producers, such as Uzbekistan and Kazakhstan, to expect a higher value for their gas in Asia as well, prompting them to set higher gas prices on any potential export projects.”⁴²⁴

“It is clear that the new export plans and agreements have changed the geopolitical power balance in the region. While China and Iran have strengthened their positions, Russia struggles, and the West is losing. At the one end, the strategic engagement of Russia and China in the region serves their geopolitical interests, which rejects the unipolar world under US domination. In the Caspian Sea region, their interests in the

⁴²² Ibid.

⁴²³ Kinnander.

⁴²⁴ Cited from Arınç and Elik.

region will not clash as long as China's main priority remains economic and Russia's political."⁴²⁵

6.4.2. The Trans-Caspian Gas Pipeline Project

The project was promoted by PSG International, which was formed by Bechtel Group, General Electric and Shell jointly. The pipeline was estimated to cost USD 2.8 billion. No information is publicly available concerning the estimated transportation tariffs.⁴²⁶ The Trans-Caspian Gas Pipeline (TCGP) is a proposed underwater pipeline between Turkmenbashi in Turkmenistan and Baku in Azerbaijan, possibly with a connection to the Tengiz field in Kazakhstan. It is noted that Turkmen gas, possibly together with Kazakh gas, through TCGP would further be shipped west through Georgia and Turkey via the South Caucasus Pipeline and the Southern Gas Corridor, in particular the Nabucco pipeline. As the pipeline aims at bypassing Russia, the project received strong support from the USA and Europe but was nonetheless difficult to implement without a strong intervention by the consumer countries of the West.

The Presidents of the Republic of Turkey and Turkmenistan signed a Framework Agreement on October 29, 1998 for the implementation of the Turkmenistan–Turkey–Europe Natural Gas Pipeline Project. According to this Agreement, 30 BCM of Turkmen gas would be transported through this pipeline, with 16 BCM being supplied to Turkey and the remainder to Europe.⁴²⁷ The following year, on May 21, 1999, a Natural Gas Sale and Purchase Agreement valid for thirty years was signed by BOTAŞ and the Competent Body for the Use of Hydrocarbon Resources of the President of Turkmenistan, starting in 2002, and further to Europe at a later stage. The pipeline was to carry 16 BCM of Turkmen gas to Turkey and 14 BCM to Europe annually. The 1592-km-long Trans-Caspian Gas Pipeline was planned with a capacity of 30 BCM.⁴²⁸

⁴²⁵ Ibid.

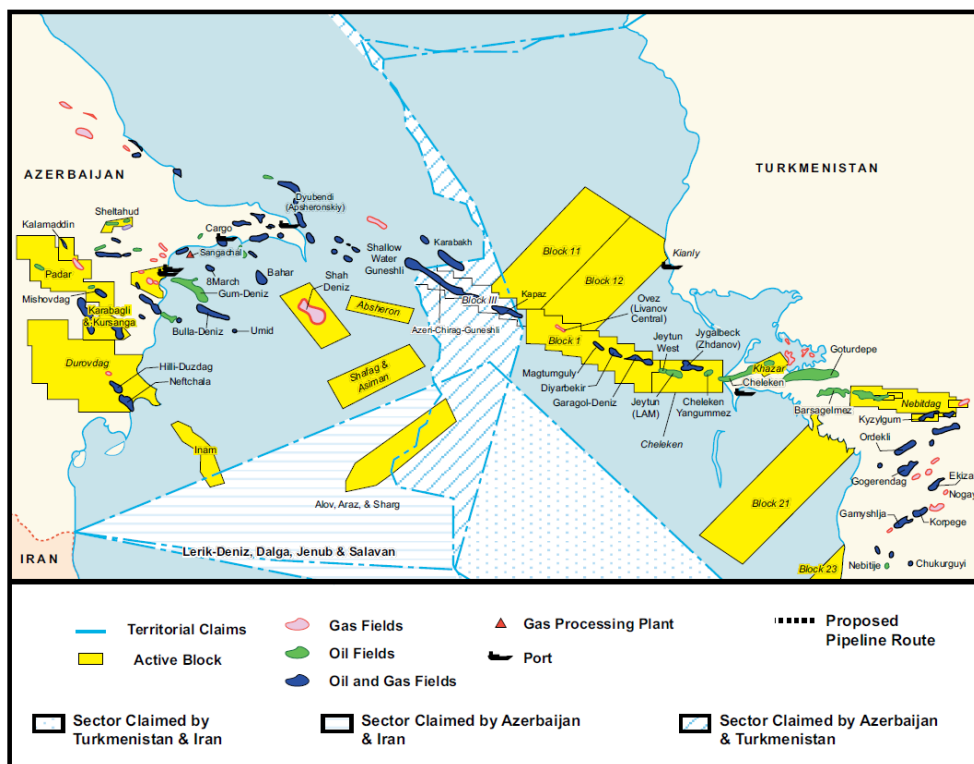
⁴²⁶ Ibid.

⁴²⁷ "Turkmenistan-Turkey Cross Caspian Natural Gas Pipeline Project," BOTAŞ, accessed September 12, 2012, <http://www.botas.gov.tr>.

⁴²⁸ Ibid.

The Trans-Caspian gas pipeline was seen by the west as a means to ending Russia’s monopoly over gas export routes from landlocked Caspian and providing the EU markets with an alternative to Russian gas.⁴²⁹ The US considered the project as a means of isolating Iran. The project was heavily criticised by Russia and Iran, who are also resource owners. Russia claims that any gas or oil pipelines across the floor of the Caspian Sea would be environmentally unacceptable.⁴³⁰ Russia has also taken the legal position that a potential pipeline project, regardless of the route it takes on the seabed, would require the consent of all five Caspian littoral states in order to proceed. Iran has pointed out that treaties signed by Iran and the Soviet Union in 1921 and 1940 are still in force and that any action taken without the consent of all the littoral states would be illegal.⁴³¹

Map 6.3: Caspian Offshore Gas Fields



Source: CERA

⁴²⁹ Sergei Blagov, “Russia Tries to Scuttle Proposed Trans-Caspian Pipeline,” *EurasiaNet* (2006), <http://www.eurasianet.org/departments/insight/articles/eav032806.shtml>.

⁴³⁰ Ibid.

⁴³¹ John Daly, “Tensions Increasing Over Caspian Energy Riches,” *OilPrice*, November 17, 2011, accessed September 5, 2012, <http://oilprice.com/Geopolitics/International/Tensions-Increasing-Over-Caspian-Energy-Riches.html>.

On the other hand, Azerbaijan and Turkmenistan have bilateral and littoral problems with the Caspian Sea. The capacity allocation of Azerbaijan caused second thoughts about sharing the pipe capacity after discovery of the Shah Deniz gas field, making it difficult to agree with Turkmenistan on capacity allocations for the pipeline by asking for a larger share in the pipeline capacity. In addition, there were payment and price issues. Turkmenistan demanded an advance payment, which was found unacceptable by the potential investors. Secondly, the absence of a legal framework governing the use of the Caspian Sea made the project unfeasible.⁴³² However, there are some significant new efforts to materialize the project. For instance, during 2007 and 2008, new steps have been taken by many Western actors to revive the project as well as gain access to gas fields that might feed into the pipeline. However, no concrete results have been achieved. In the meantime, Turkmenistan focused on developing alternative projects, such as the Caspian Coastal Pipeline with Russia and Kazakhstan (that would reinforce Russia's control over Turkmenistan's exports, though the project seems suspended at present) or the Turkmenistan-China pipeline (which is now already operational).⁴³³

In December 2008, OMV and RWE established the Caspian Energy Company to assess options for the building of a Trans-Caspian pipeline from Turkmenistan, and to look for partners for a project which would build and operate such a pipeline. When Turkmenistan stressed in a statement on April 4, 2009 that it wished to see new routes developed that constituted the shortest and most convenient routes to market, hopes were raised again for revitalizing the Trans-Caspian gas pipeline.⁴³⁴

Today, three possible options are considered for bringing Turkmen gas to the Western markets: 'transportation by pipeline' joining Azeri and Turkmen offshore installations with a 60-km pipeline onshore link to Kazakhstan, to connect with a route to Azerbaijan; 'transportation as LNG'; and 'transportation as CNG'. It is a fact that the strong Russian opposition to the concept of laying a physical pipe on the Caspian

⁴³² Cited from Arınç and Elik.

⁴³³ Ibid.

⁴³⁴ Ibid.

seabed makes the pipeline option problematic, and the other two options are currently too costly when the distance travelled is considered.⁴³⁵

Azerbaijan-Turkmenistan-EU dialogue has been continued since 2011 to implement an IGA between Azerbaijan and Turkmenistan for development of the Trans-Caspian pipeline and Turkmen gas flow through Europe. Turkey is attending the meetings as a broker/mediator and observer state.

6.5. THE SECOND EASTERN OPTION FOR THE SOUTHERN CORRIDOR: IRAN

Iran has the second largest natural gas reserves in the world with proven reserves of 33.6 TCM.⁴³⁶ Two-thirds of Iranian natural gas reserves are located in non-associated fields and have not been developed.⁴³⁷ In 2011 Iran produced 151.8 BCM and consumed 153.3 BCM. Iran exported 8.4 BCM to Turkey and 0.7 BCM to Armenia and imported 10.2 BCM from Turkmenistan.⁴³⁸ Although Iran has immense reserves, the numbers prove that Iran is a net importer of natural gas. The main reason is considered to be the sanctions of the West.

Whilst the Tehran government continues to be one of the largest crude oil and gas exporters in the world, they are facing many difficulties in finding and replacing crude oil and natural gas reserves due to the international economic sanctions that have been imposed in response to Iran's secret nuclear program. Under the US Iran-Libya Sanctions Act (ILSA), US and non-US companies are discouraged from doing business in Iran. These sanctions have potentially blocked the involvement of foreign companies in the development of the South Pars gas field development projects. In 2012, the EU governments imposed sanctions on Iranian state companies covering oil and natural gas sales.⁴³⁹ However, the rapprochement of Iran with the West in 2013 has the potential to change this picture but a positive development for Iranian gas was not recorded in the international media.

⁴³⁵ Ibid.

⁴³⁶ BP, *Statistical Review of World Energy 2013*.

⁴³⁷ EIA/DOE, *Iran: Country Analysis Brief*.

⁴³⁸ BP, *Statistical Review of World Energy 2012*.

⁴³⁹ Reuters, "EU Sanctions Target Iran Oil, Gas, Tanker Companies," October 16, 2012, accessed October 18, 2012, <http://www.reuters.com/article/2012/10/16/us-iran-nuclear-eu-idUSBRE89F08N20121016>.

On the other hand, Tehran governments are looking for partnerships with Eastern state-owned companies, such as CNPC, Indian Oil, ONGC, and Gazprom, to develop Iran's under-invested oil and gas fields as European oil and gas companies withdraw from their operations in the country.

Iran has also looked toward firms from India, China and Russia to take an increased role in Iranian natural gas upstream development. Iran's buy-back scheme is considered insufficient for upstream investors, where foreign firms hand over operations of fields to the National Iranian Oil Company (NIOC) after development against payment from natural gas production to cover their investment. Iran's government policy is now focused on exploration and development of gas projects, substituting gas for oil products in the domestic market, increasing the share of export, utilizing gas in petrochemicals and other gas-based industries (including GTL); increasing the use of compressed natural gas in transport, investing in LNG production and reducing gas flaring.⁴⁴⁰

6.5.1. South Pars Gas Development Projects

Of this, over two-thirds of Iranian natural gas reserves are located in non-associated fields (such as South and North Pars, Kish and Kangan-Nar) and have not yet been developed. After South Pars, the most important gas field of Iran is North Pars, followed by the Agnar, and the onshore Nar-Kangan, Tabnak, Homa, Shanoul and Varavi fields.⁴⁴¹ Although there are several other fields, which are currently online or in the development phase, most of their use is currently restricted to serve the domestic market and reinjection.

The South Pars field, covering 3700 km², is the world's largest offshore natural gas field. It falls within the Qatari and Iranian territorial waters in the Persian Gulf. Current estimates are that South Pars contains 8 TCM or more of natural gas, of which a large fraction will be recoverable.⁴⁴² South Pars has already attracted around

⁴⁴⁰ "Gas Industry 2010," National Iranian Gas Company Publications, accessed January 18, 2013, <http://www.iraniangas.ir/files/publications/sarmayeh-en.pdf>.

⁴⁴¹ "National Iranian Gas Company 2010," National Iranian Gas Company Publications, accessed December 21, 2011, [http://www.iraniangas.ir/files/publications/National%20Iranian%20Gas%20Company%20\(2010\).pdf](http://www.iraniangas.ir/files/publications/National%20Iranian%20Gas%20Company%20(2010).pdf).

⁴⁴² EIA/DOE, *Iran: Country Analysis Brief*.

USD 15 billion in investment; however, its development has been delayed by technical, contractual and political problems. The development of the South Pars gas field ranks high among Iran's exploration and development projects. Although the Iranian authorities have chosen to develop this huge field through thirty different phases (each one of at least 10 BCM, some even 20 or 30 BCM), presently the phases of 28 need to be developed. At the moment, all the gas produced from the first 10 phases will either be consumed domestically as final energy or will be used for reinjection for oil recovery. Further developments up to Phase 24 will be envisaged in Iran's fourth five-year economic development plan, which is scheduled to be finalized in the future. However, two withdrawals from the South Pars Phases in May 2005 (Petronas' withdrawal from a joint venture with TOTAL to develop Pars LNG, and Aker Kvaerner's withdrawal in June from the South Pars Phases 15-16, both in May 2005) created some pessimism regarding the development of projects.⁴⁴³ Turkey would like be one of the investors in the South Pars gas field. In so doing, TPAO would develop Phases 22, 23 and 24 of South Pars and BOTAŞ would participate in the construction of the 1850-km IGAT-9 gas trunkline from Assaluyeh to Bazargan, close to the Turkish-Iranian border. However, they have failed to do so.⁴⁴⁴ It is important to note that Turkish TPAO and Iranian authorities sat at the negotiation table for the South Pars gas field development, but failed to sign a long-term agreement. There are two reasons behind this failure: UN economic sanctions and business risk for Turkish TPAO investment in Iran. Furthermore, the Iranian side did not allow any PSA agreement or any netback pricing mechanism and did not mitigate any compensation for insurance and financial risks. Turkish authorities complain that doing business in Iran is very difficult and non-profitable.⁴⁴⁵

6.5.2. Iran's Pipeline Infrastructure and Export Capacity

Export infrastructure and projects of the Iranian transmission system, developed in the 1970s, were designed to export about 10 BCM to the then-Soviet Union, through the IGAT I pipeline, which has a maximum transport capacity of 12 BCM. The Iranian

⁴⁴³ "Present and future supply sources to satisfy EU gas imports," (OME's Technical paper n°2.1 - RS 1c 2006, New Energy Externalities Developments for Sustainability Project co-funded by the European Commission within the Sixth Framework Programme 2002-2006).

⁴⁴⁴ TPAO.

⁴⁴⁵ "TPAO İran'dan vazgeçti [TPAO had left Iran]," *Hurriyet*, August 21, 2010, accessed December January 12, 2012, <http://www.haberinyeri.net/tpao-irandan-vazgecti-83587h.htm>.

revolution put an end to this program, and the domestic system was progressively upgraded to feed the internal market. The domestic gas infrastructure mainly consists of two corridors. The main one from the Southern gas fields, near the Gulf coast, to the North comprises four pipelines (IGAT I, II, III and IV) for a total capacity of more than 100 BCM. The second corridor brings gas produced in the Eastern field of Sarakhs to the west and is also used to ship imports from Turkmenistan (up to 8 BCM). The IGAT V, VI and VIII pipelines will reinforce the existing domestic network.⁴⁴⁶

Iran has also built an east-west line to export gas to Turkey and Armenia (and possibly to Europe in the long term strategic planning). As we mentioned above, the current export capacity to Turkey is 10 BCM. Another main gas export pipeline project consists of building a 35 BCM gas line (IGAT VII) from Asaluyeh, in the south-west, towards the east to supply Pakistan and further to India (Iran-Pakistan-India Pipeline – IPI). The SPA between Iran and Pakistan was finally signed in 2012 and the kick-off meeting for construction was held in the first quarter of 2013 despite the massive pressure of the US for TAPI. There is also a project to build an offshore pipeline across the northern Gulf to supply Kuwait with 3 BCM. Finally, Iran also has important LNG export projects linked to the development of South Pars.⁴⁴⁷

There are four liquefaction plant projects on the Persian Gulf coast near Kangan with capacities between 12 and 13 BCM each. If they all materialized, Iran would have an additional export capacity of 50 BCM in 2010.⁴⁴⁸ However, such timing and volumes remain rather uncertain given the increasing competition in the LNG business and the US embargo on Iran. It should also be mentioned that most LNG plants use processes developed by US companies. Two of these projects (Iran LNG and Pars LNG, with a total capacity of 25 BCM) would be used to export gas to East Asia, especially to India and China.⁴⁴⁹ The 13 BCM Persian LNG plant should be dedicated to Europe, while destinations for the 12 BCM NIOC LNG terminals remain open. On the other hand, all LNG investments have been postponed or delayed due to international

⁴⁴⁶ “National Iranian Gas Company 2010.”

⁴⁴⁷ Ibid.

⁴⁴⁹ “Gas Industry 2010.”

pressure and shortfall of finance. Planned Iranian export capacity (but not realized as of 2013) is shown in Table 6.1 by LNG and pipeline.

Table 6.1: Iranian Gas Export Capacity (BCM)

| | 2004 | 2010 | 2020 | 2030 |
|-------------------|------|------|------|------|
| Pipeline | 6.5 | 19 | 56 | 56 |
| To Turkey | 6.5 | 14 | 20 | 20 |
| To Kuwait | | 3 | 3 | 3 |
| To Armenia | | 2 | 2 | 2 |
| To Pakistan/India | | | 31 | 31 |
| LNG | 0 | 24 | 50 | 50 |
| Pars LNG | | | 20 | 20 |
| Iran LNG | | 12 | 13 | 13 |
| Persian LNG | | | 13 | 13 |
| NIOC LNG | | 12 | 12 | 12 |
| TOTAL | 6.5 | 44 | 106 | 106 |

Source: ‘An Overview of Iranian Gas Industry’ National Iranian Gas Company, 2009.

6.5.3. East Anatolian Pipeline to Turkey (Tabriz-Ankara)

As some detailed information is given in Chapter 3 regarding Turkey’s imports from Iran, this section focuses on the pipeline system between Turkey and Iran and Iran’s relations with Turkey regarding the natural gas trade. The Iran–Turkey pipeline is a long distance natural gas pipeline, which runs from Tabriz in Northwest Iran to Ankara in Turkey. The Iran-Turkey pipeline was to be completed in 1999. However, due to political dispute between the two capitals resulting in delays, deliveries started only in 2001.

The project started with the signing of the Intergovernmental Agreement between Turkey and Iran on August 30, 1996. However, since the beginning, the agreement has created a huge controversy between Washington and Ankara and the US government openly expressed their objections to the Turkish energy strategy. US officials tried to convince the Turkish government not to continue with the project. However, the Turkish policymakers were determined to diversify Turkey’s gas supply

and therefore went ahead with the contract. According to the 1995 US Iran Sanction Act (ISA), companies that make an investment of more than USD 20 million within one year in Iranian's energy sector will be liable to sanctions. However, no sanctions were imposed on Turkey due to each country being responsible for the construction of its section of the pipeline, which meant that this could not be regarded as a Turkish investment in Iran. Furthermore, the US State Department did not impose ISA sanctions, on the basis that Turkey would import gas from Turkmenistan that would transit through Iran.

The content of the agreement basically provided for the delivery of natural gas over a period of twenty-three years with exports of 4 BCM in 2002 rising to 10 BCM after 2010.⁴⁵⁰ According to the Agreement, both countries were responsible for their respective parts of the pipeline: Turkey's share includes the segment of the 1095-km pipeline from the Iranian border, plus other delivery costs to the point of consumption, and Iran's share relates to producing gas and its own pipeline costs, including its 275-km section of the pipeline. The project cost of the Turkish section and transportation reportedly amounted to USD 600 million; however, no information is publicly available concerning transportation tariffs.⁴⁵¹

6.5.3.1. Interruptions and Difficulties in The Iranian–Turkish Gas Trade

Since the beginning of Iranian natural gas exports to Turkey, there have been ongoing disputes between the two sides about either the volume or the price of the gas. In 2002 Turkey postponed Iranian gas imports due to lack of gas demand and gas storage capacity. The new Turkish government was not happy with the contract agreement of 1996 and wanted to renegotiate the price and/or the take-or-pay terms of the contract. Both sides agreed on securing a lower price and reduction in take-or-pay.

The renegotiated agreement provided for the following conditions: a price reduction by 9% with that percentage increasing proportionately with the quantity of gas purchased; if Turkey purchases the entire annual contract quantity, the reduction would be more than 12%; a decrease in the take-or-pay level, from 87% to 70% was achieved. In other words, if BOTAŞ does not purchase up to 30% of the annual

⁴⁵⁰ “Gas Export Infrastructure in the Caspian Region and its Neighborhood: Today and Tomorrow” (OME Discussion Paper HC-3/2010, July 2010).

⁴⁵¹ Ibid.

contract quantity, it will not be obliged to pay for the rest. The dispute over price continued during 2004, and the natural gas flow from Iran was cut off for four days during December 2004 because of ‘technical reasons’. Due to this ongoing dispute, Turkey once again halted deliveries of gas from Iran in mid-April, 2005.⁴⁵²

Turkey tackled Iran over the price of natural gas in 2004 in the International Court of Arbitration (ICC), and also requested compensation for the unstable flow of natural gas into Turkey and the below-par quality of the gas. The case was decided in favour of Turkey in February 2009 with respect to the pricing aspects of the dispute. However, the court stated that the insufficient quality and the instability in the flow should be left for another case. Turkey may consider taking further steps against Iran at the ICC over the ‘take-or-pay’ conditions.⁴⁵³ In 2006, Iran cut off supplies to Turkey on 19 January due to cold weather in Tabriz. Turkey had to compensate by importing more from Gazprom through the Blue Stream pipeline. In September 2006 and August 2007, supplies were once again interrupted when explosions three times on both sides of the border hit the gas pipeline. Turkey again compensated by increasing its imports from Gazprom through Blue Stream. In late December 2007 and January 2008, Turkmenistan cut off gas deliveries to Iran which forced the latter to use its own gas for domestic demand and, in turn, led to an interruption in deliveries to Turkey.⁴⁵⁴ Turkmenistan claimed the interruption was due to technical problems and the need for emergency repairs. However, there has been speculation that the real reason was more due to a price dispute between Turkmenistan and Iran, with the latter refusing to accept what Turkmenistan regarded as a market price.

As a result, Turkey halted deliveries to Greece, since the Azeri flows intended for Greece were used domestically. BOTAŞ also purchased LNG to make up the shortfall and used up to a third of its stored gas. Eventually, on 17 November 2008, Turkey and Iran signed a MoU on natural gas production and export. The document stipulated that Turkey would be involved in the development of the South Pars gas field and a proposed pipeline that would both deliver Iranian gas to Europe via Turkey, but also

⁴⁵² Kinnander.

⁴⁵³ Ibid.

⁴⁵⁴ Ibid.

supply the Turkish market.⁴⁵⁵ Reference is given to the possibility of Turkmen gas transiting Iran and Turkey to Europe. Like such foreign investors as Royal Dutch Shell, Spain's Repsol, French Sofregaz and French Total, Turkey considered that the political situation in Iran made the country unstable for investments. Hence, Turkey withdrew some investment from Iran.⁴⁵⁶ Having Iranian gas recorded as the most expensive gas (~550\$) in its import portfolio, BOTAŞ applied to ICC one more time for price revision in 2012.⁴⁵⁷

6.6. CONCLUDING REMARKS

Based on the pipeline-specific data and information presented in the chapter, and just for illustration purposes, a comparison of four pipeline systems was made; this aimed to show the potential of Caspian Sea countries and the political difficulties of exporting gas to Europe. The comparisons, which are based on technical, economical and regulatory characteristics of the pipelines, take into account each of the pipelines, those already operational, and those at different stages of development.

There were no projections given in this chapter in order to follow the rationale of the work; however, the analysis offered an insight into long-term supply contracts and the necessary investment for both parties. The question remains as to which transport option for the Caspian Sea region is feasible enough to attract the international gas companies' investment in the region. Caspian energy producers wish to sell their oil and gas directly at market prices to have security and continuity of demand and to diversify their export sources and routes to maintain balanced energy geopolitics. They do not want the militarization of energy security nor to rely on one single foreign country poking its nose into their domestic affairs. Transit countries (Georgia, Turkey and Azerbaijan) also want to stimulate their interests in strengthening their bargaining positions with the West by becoming energy hubs, and to enjoy the economic benefits from the Azeri oil and gas production, which are expected to peak in the present decade.

⁴⁵⁵ Ibid.

⁴⁵⁶ "Gas Export Infrastructure in the Caspian Region and its Neighborhood: Today and Tomorrow."

⁴⁵⁷ BOTAŞ

Stern's article offers five different scenarios on Turkmen gas export to the European energy market. The first scenario looks at the Trans-Caspian Pipeline, a 300 km shore-to-shore pipeline connecting Turkmenistan and Azerbaijan natural gas networks.⁴⁵⁸ The SCP, which has operated since 2007 with a 7 BCM capacity transporting gas from the Shah Deniz Phase I to Turkey, could be increased to a technical maximum of 20 BCM as SCPX expansion project to allow Azerbaijan to transport gas from the second Shah Deniz Phase II to the west through TANAP and then TAP. For any additional transit gas from Turkmenistan, SCPX or further expansion of that corridor is required to increase the transport capacity over 30 BCM.⁴⁵⁹

The second scenario needs technological advances that could be applied in the Caspian Sea. European companies have tie-in solutions for offshore transport between two platforms. A tie-in solution can interconnect Turkmen and Azeri gas production platforms using the existing offshore pipeline grid. The concept consists of the tie-in pipeline itself, and a subsequent landfall pipeline to the Azeri shore, which can draw on existing pipelines and routes. This solution through the Caspian Sea is seen as technically and economically the most realistic option in terms of implementation. The offshore connections between the two platforms could comprise more than 2,000 km of oil and gas pipelines; however, this requires a solution to the problem of defining national sectors in the Caspian Sea.⁴⁶⁰

The third scenario uses the traditional natural gas transport solution of shipping gas across the sea in CNG and LNG vessels. LNG is clearly not economical due to the short distance of transportation, on the other hand the more feasible CNG is a new technology and an important challenging point for a massive investment decision for Caspian. The fourth scenario involves the rehabilitation and extension of the existing pipeline from Iran to the Turkish border and uses that to transport gas. European companies are still refraining from involving Iran due to the international political environment.

⁴⁵⁸ Jonathan Stern, *Security of European Natural Gas Supplies* (London: Royal Institute of International Affairs, 2002); see also J. Stern, "UK Gas Security: Time to get serious," *Energy Policy* 32, no. 17 (2004): 1967-1979.

⁴⁵⁹ Cited from Arınç and Elik.

⁴⁶⁰ Ibid.

With the signing of the successive Turkey–Azerbaijan natural gas agreements in October 2011, December 2011 and June 2012 introducing TANAP, Ankara loudly repeated its goal of becoming a future ‘energy hub’ by allowing the creation of a Southern Corridor. This is one of the EU’s highest energy security priorities. While Azeri gas supply contracts with Russia and Iran are similar to the Turkish one,⁴⁶¹ Europe has not been ready to see Turkey’s new opening as an act of a regional power. Turkey gives unconditional support to most of the projects, sharing common interests of the Caspian region and EU countries, and applying EU laws on Turkish territory that would primarily serve EU interests; however, the EU has lacked long-term coherent policies on supply security. Turkey and the EU have failed to complete all the regulations in regard to thirty-five chapters of EU accession so far. Thirteen chapters, including energy, are still blocked by the EU commission, the self-interest of which should be served by Turkey’s new energy policy. For instance, European Coordinator Van Aartsen defined Turkey’s role as an ‘interconnector’ and also wrote that Turkey should act as a bridge. He presumes that rather Baku, Romania, Greece and Italy have more potential to be energy hubs.⁴⁶² In addition, some energy lobbies undermine Turkey’s geostrategic position in energy transport. Turkey’s development as a European energy hub is not a foregone conclusion; however, it is promising, given its lucky location between countries that harbour over 70% of the world’s oil and gas reserves to its east, north and south, and one of the world’s biggest energy markets to its west.

On the other hand, Turkey’s role as a regional facilitator, its rhythmic diplomacy and ‘zero problems with neighbours’ policy have helped improve its relations with neighbours, especially Armenia. In the Caucasus region, Turkey’s incentives increased following the ‘football diplomacy’ in September 2008, which helped in the creation of the Caucasus Stability Platform.⁴⁶³ However, this rapprochement does not affect Turkish-Azeri relations. The question remains as to how practical the protocols, which were signed by the Turkish and Armenian governments, will be in terms of developing a secure energy corridor from the Caspian Sea to the EU.

⁴⁶¹ Simon Pirani, *Russian Gas, Central Asia and the Caspian* (Chatham House, 2010).

⁴⁶² Jozias van Aartsen, “European Coordinator for Southern Corridor,” (activity report, September 2007-February 2009).

⁴⁶³ Bülent Aras and Hakan Fidan, “Turkey and Eurasia: Frontiers of a New Geographic Imagination”, Special issue on Turkish foreign policy, *New Perspectives on Turkey* 40 (2009): 195-217.

The chapter reached the conclusion that Turkmenistan has the necessary resources to provide Europe, Russia, Iran and China with gas. The main obstacle for Europe, unlike the other three export outlets, is the lack of a reliable transportation route. The only way that Turkmen gas can reach Europe is via Russia, Iran–Turkey, or Azerbaijan–Georgia–Turkey. This is the biggest challenge because both Russia and Iran will be unwilling to let their current and future domination of Turkish and European gas markets be captured, even in a small measure, by Turkmenistan. Hence, the option for transport via Turkey through Azerbaijan is the most desirable from a security of supply perspective.

The main fact is that Europe will depend on Russian gas for many decades. The Heartland of energy geopolitics, to diminish Russian dominance in Europe (*i.e.* the Main Objective), will be based on accessing/paving the way and tapping for either the giant Iranian or Turkmen sources. Based on the recent global gas market conditions and geopolitics, with the severe pressure on the Iranian regime, exploitation and westward evacuation of the supergiant Galkynysh field could be considered as the eastern extension of the Southern Corridor.

Chapter 7

SOUTHERN ROUTES OF THE SOUTHERN CORRIDOR: MIDDLE EAST AND EAST MEDITERRANEAN SEA

7.1. INTRODUCTION

After the Ottoman Empire's withdrawal from the region, and the discovery of oil, the Middle East region — especially the Persian Gulf, Strait of Hormuz and Suez Canal — has become a key strategic location for the management and transport of hydrocarbon sources in the global and regional power struggle. Following the withdrawal of Great Britain from the Persian Gulf, an independent Arab Gulf Sub-Security System emerged in 1971. As an aftermath of the Iranian Islamic Revolution, the importance of the region dramatically increased, and the rift created a new regional alliance against the rising threat to the Gulf Arab states — namely, Saudi Arabia, Kuwait, Qatar, Oman and Bahrain — which came together to establish the Gulf Co-operation Council in 1981. Due to the Iran–Iraq war, there was a chance of Iraq being excluded from this regional co-operation. The Iraqi invasion of Kuwait was followed by the US-led war in 1991 against Saddam Hussein and the US-led invasion of Iraq in 2003 removed Saddam Hussein's regime. Although war and instability have become a part of the oil- and gas-rich countries, the presence of the US's proxy powers in the 1970s and its hard powers since the 1980s have successfully managed the risks to the energy trade.

Due to the complex interdependency relations between the supplying and demanding countries, energy-related institutions such as OPEC have been established to develop an energy regime and pricing regulations. Consequently, the corporate states in the Middle East integrated with the global economic system. At a domestic level of analysis, the export dependency of the Middle Eastern states has created corporatist states, which restrict the power and rent distribution in Middle Eastern societies.⁴⁶⁴ However, the post-colonial state structure, especially the Arab monarchies and the

⁴⁶⁴ A. Ehteshami and E. C. Murphy, "Transformation of the Corporatist State in the Middle East," *Third World Quarterly* 17, no. 4 (1996): 753-772.

authoritarian states in the Middle East, could not respond to the new societal dynamics of the Middle East anymore. Hence, the inception of the Arab revolution is a radical response of the Arab Street, triggered in Tunisia and expanded throughout the Middle East.⁴⁶⁵ Although there has been a huge impact of this political development on societal, regional and systemic levels, this chapter's focus is on the gas pipeline projects of Turkey–Iraq, the Pan-Arabian and the possible Turkey–Qatar gas pipelines connecting Turkey with Europe.

The new critical discoveries of natural gas in the Eastern Mediterranean Basin introduce Israel, Cyprus and potentially Lebanon as other players in the energy market. After this groundbreaking discovery, Israel needs to consider energy sources management and a secure transport regime for south-borne supply that will possibly be added to the southern section of the Southern Corridor. However, it needs a legal solution regarding the contesting claims on EEZs for license exploration from Turkey and Lebanon.

Since the Post-Cold war, there have appeared threats to the territorial integrity of Iraq (due to the US-led invasion) and Syria (due to the catastrophic civil war), which influence the Justice and Development Party's regional politics. Turkey pursues bilateral and multilateral diplomatic initiatives, such as the Iraq's Neighbouring Countries process or the High Level Strategic Co-operation Council between Iraq and Turkey. Turkish policy makers achieved some success in creating an interdependent relationship based upon energy co-operation through which political and security relations have also been stabilized not only with KRG, but also with the central government of Iraq. However, due to the military coup of General Sisi in Egypt, Turkey's relations with Egypt are getting worse and that put an end to the Pan-Arab Natural Gas Pipeline project as a southern route option of the Southern Corridor. The uneasy relations with the Bashar Al-Assad regime also block the Pan-Arab Natural Gas Pipeline. On the one hand, Turkey's worsening relations with Israel challenge Turkish Cyprus and put at risk Turkey's initiative on uncertain maritime continental shelves issues in the international community. This argues that there is only one feasible option, which is basically that Iraq gas and oil will join to the southern route

⁴⁶⁵ M. Lynch, "Obama's Arab Spring?," *Foreign Policy* (2011), accessed April 12, 2012, http://www.lynch.foreignpolicy.com/posts/2011/01/06/obamas_arab_spring.

of the Southern Corridor. Therefore, this chapter will basically explore Turkey's capability to access Middle East and East Mediterranean natural gas sources to develop the southern section of Southern Corridor.

7.2. MIDDLE EAST NATURAL GAS RESOURCES MANAGEMENT

Proved natural gas reserves in the Middle East were estimated at almost 80.5 TCM as of December 2012, accounting for almost 43% of world natural gas reserves.⁴⁶⁶ The region has nine super-giant oil fields, each exceeding 1 TCM of proved reserves, out of around twenty such structures in the world. The world's largest non-associated gas field is in Qatar's North Field. Many experts believe that the natural gas reserves in the Gulf have been underestimated, possibly to a large extent. In this context, a comparison of the ratio of oil reserves to gas reserves on a regional basis is very revealing. The Gulf might be a particularly 'oily' region, but should the average global ratio of oil to gas reserves be applied to the region, the potential for new gas discoveries is indeed vast.

Although exploration of the Gulf hydrocarbons sources have been carried out for almost a hundred years, most of it has been heavily concentrated on crude oil rather than gas. As a result, gas discoveries have occurred accidentally rather than by design. Indeed, gas discoveries in the past were often not given much value, and many wells encountered that had gas rather than oil were considered dry holes, or were not fully delineated or appraised. Vast quantities of gas have been located in the oil fields or accumulated in deep structures. Huge unconventional gas prospects in Saudi Arabia and exploration campaigns in Oman, the UAE, the unexplored Western Iraq Desert and Qatar are important possible resources in the Middle East. It is only in recent years that expeditions have been specifically carried out for discovering gas in various Gulf countries. This effort has involved drilling in previously identified but unexplored structures by using more state-of-art technology for exploring deep wells. Deep horizons promise to hold more gas reserves than oil, though it is this very fact that has discouraged the drilling of expensive deep wells in many countries in the east.

⁴⁶⁶ BP, *Statistical Review of World Energy 2013*.

The average undiscovered resources in the Middle East are estimated at 36,000 BCM.⁴⁶⁷

7.2.1. Developments in Natural Gas Production and Consumption

Since the mid-1970s, countries in the Gulf have made considerable strides towards the exploitation of their natural gas reserves, especially the associated ones. A number of important gas projects have subsequently been undertaken or are currently under construction or study. Apart from Qatar (and Iran, with which it shares South Pars) most of the gas produced in the region, still in associated form, is linked with crude oil, which is not expected to increase greatly beyond the current level in the foreseeable future. This implies serious constraints on domestic gas flows. The most significant gas-related developments in the Gulf are taking place in the UAE, Qatar and Oman, where petroleum industries have been less politicised and where foreign investment in petroleum projects has been permitted. However, after the recent sanctions on Iran, we expect Iraq and Egypt to become the gas exporter countries. Israel can be also added as a new player in the energy market. A considerable amount of gross gas production is used in the re-injection of oil fields. The re-injected gas is expected to continue to grow in the ageing oil fields, to extract which, enhanced oil recovery facilities are installed.⁴⁶⁸

The major portion of marketed natural gas production in the Gulf is consumed locally without trading in a gas market and has been growing inexorably. The natural gas in the region is used in various vital and politically sensitive applications such as power generation, water desalination, industries and petrochemicals, gas-condensate recycling plants, oil reservoir uplift, enhanced oil recovery and gas-to-liquids plants. All these sectors are expected to continue growing vigorously. The policy of utilising natural gas domestically offers the advantage of reducing the local demand for oil, hence reserving a maximum share of crude oil production for export. This growth in gas demand, coupled with supply constraints, is resulting in an increase in gas deficit in most of the countries in the region, as well as a growing potential for gas trade within the area, where non-associated gas-rich producers can supply gas to the

⁴⁶⁷ OME, "Present and Future Supply Sources to Satisfy EU Gas Imports (2006) New Energy Externalities Developments for Sustainability," (OME's technical paper n°2.1 - RS 1c, project co-funded by the European Commission within the Sixth Framework Program 2002-2006).

⁴⁶⁸ Ibid.

countries or regions that are facing shortage of gas. The conclusion for the coming years is that only the Gulf countries with large non-associated reserves (Qatar and Iran) are the current candidates to become major gas exporters.⁴⁶⁹

There are three regional natural gas pipeline projects that would be connected with Turkey — the Iraq–Turkey, Egypt–Turkey (also called the Arab) and the Qatar–Turkey via Iraq–Turkey gas pipelines. It is essential to note that the Northern Iraq non-associated gas resource is considered as the most feasible and affordable source for Turkey’s medium- and long-term energy strategy. Although Qatar has the third biggest natural gas reserves, considering its huge investment in the LNG trade, the Qatar-Turkey pipeline connection is still under consideration although many challenging points exist. However, the Egyptian and Qatar options for Turkey’s energy strategy are far beyond the natural borders.

7.2.2. The First Potential Southern Option for the Southern Corridor: Iraq

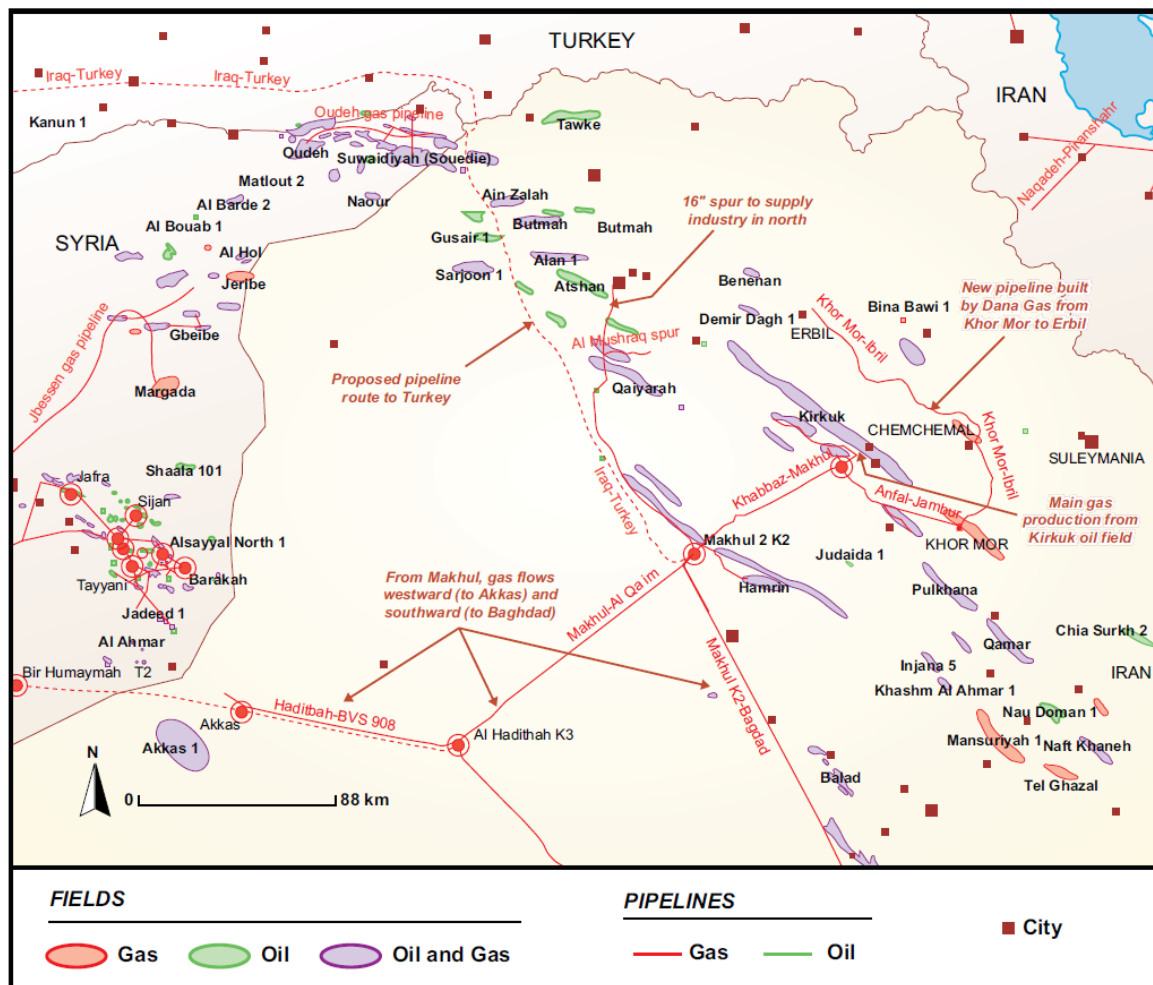
BP’s *Statistical Review of World Energy (2013)*, estimates that Iraq’s proven natural gas reserves are 3.6 TCM and that 70% of these resources lie in the Shia dominated Basra region in the south of Iraq.⁴⁷⁰ Iraq’s proven gas reserves are the tenth largest in the world; however, around two-thirds are associated with oil fields, including the old and tired Kirkuk oil field in the north. According to OME’s report,⁴⁷¹ a large part of the proven gas reserves in Iraq, estimated at around 3.1 TCM, are in the form of gas caps (10%) and associated gas (70%). Almost all gas caps are located in the northern and central Iraqi fields, while most of the associated gas reserves are located in the southern oil fields. The ten proven non-associated gas fields are located in the north-east regions of Iraq; however, only Kormor and Chemchemical gas condensate fields in KRG in the north and Akkas field in Anbar province in the west are in production for Iraq.

⁴⁶⁹ Ibid.

⁴⁷⁰ BP, *Statistical Review of World Energy 2013*.

⁴⁷¹ “Present and future supply sources to satisfy EU gas imports (2006) New Energy Externalities Developments for Sustainability” (OME’s Technical paper n°2.1 - RS 1c).

Map 7.1: Natural Gas Infrastructure of Northern Iraq



Source: CERA

The Arab Petroleum Research Centre estimates that the Iraqis have an undiscovered gas potential of 9,250 BCM, of which 4,600 BCM is non-associated and 4,650 BCM is associated gas.⁴⁷² Considering the fact that northern Iraq has been exploited with ‘hi-tech’ tools recently, the western desert region is largely unexplored and the geological studies highlight the presence of several prospective exploration areas, the above-mentioned resource potential seems highly plausible.⁴⁷³ (See Map 7.1)

Iraqi gas production has risen since 2003 and had reached 0.8 BCM in 2012.⁴⁷⁴ Significant volumes of associated gas is either flared or reinjected to enhance oil

⁴⁷² Nicolas Sarkis, “Iraq: Growing Doubts About the Possible Signing of Short-term Technical Assistance Agreements,” (Arab Oil and Gas, Bulletin of information and studies published fortnightly by Arab Petroleum Research Centre XXXVII (887), 1 September, 2008).

⁴⁷³ EIA/DOE, *Iraq: Country Analysis Brief*.

⁴⁷⁴ BP, *Statistical Review of World Energy 2013*.

recovery efforts. Iraq's ten-year strategic plan for 2008–2017 set a goal of increasing the natural gas production to 70 BCM per year and to end the flaring of natural gas. Reportedly, Iraq has an export potential of 10 to 15 BCM⁴⁷⁵ in so doing, and several export proposals, including the northern export routes through Turkey to Europe, have been considered by international gas companies. Iraq's hydrocarbon sector is underdeveloped and waiting for a huge investment. The injection of almost USD 5 billion in foreign and government funding has been the only reason the country has remained able to continue exporting oil until now. In the meanwhile, the cash is running out fairly fast, and future funding will not be forthcoming until the instability and security issues are resolved. If these obstacles are overcome, Iraq could become a very important gas supplier, especially to Europe through Turkey, considering its relatively abundant resources.

According to OME estimates, the Iraqi gas production can reach around 50 BCM in 2030, taking into consideration the possible development of the non-associated fields and the reduction in flaring. Half of this can be locally used, leaving the remainder for export. The domestic gas consumption will most probably concentrate on electricity generation, especially after converting the oil-fired power plants into gas-fired plants and constructing new gas-fired power plants. As was the case before the war, the current government in Iraq would like to increase the domestic gas consumption in order to release more oil for export. Currently, Iraq has about 1000 MW of unused generation capacity owing to its lack of gas feedstock. As of April 2005, the operating generation capacity stood at about 5,500 MW (below the peak demand figure of about 7,800 MW).⁴⁷⁶ The current total installed capacity, however, is close to 9,500 MW. According to the Economic Intelligence country report, Iraq will probably need 40,000 MW of total generating capacity over the next 10 years.⁴⁷⁷ Currently, all gas produced is consumed domestically.⁴⁷⁸ Because of the present uncertainty and chaos in the country, it is not possible to have a clear understanding about what the future may hold. However, it is clear that Iraq needs oil and gas exports to help develop its

⁴⁷⁵ EIA/DOE, *Iraq: Country Analysis Brief*.

⁴⁷⁶ "Turkey begins supplying electricity to Iraq", The Electricity Forum, accessed September 2, 2012, <http://www.electricityforum.com/news/sep03/iraqpowers.html>.

⁴⁷⁷ The Economic Intelligence Unit Limited, *Country Report of Iraq* (April, 2011), accessed June 5, 2012, <http://www.eiu.com>.

⁴⁷⁸ BP, *Statistical Review of World Energy 2013*.

economy.

The natural gas network is still underdeveloped in Iraq, notably because of the geopolitical context during the last few decades. Iraq's gas system consists of a north-south corridor bringing gas from production fields near Kirkuk to Bagdad and Basra. One difficulty Iraq presently faces is the timing and the cost of repairing the pipelines that are frequently sabotaged following the American invasion. While the attacks on the oil and gas infrastructure continue, it is apparent that the existing infrastructure's condition is a great obstacle to the reconstruction effort. The on-going work is costing a vast amount of time and money for fixing and replacing existing units rather than boosting capacity.

Two export projects — the Turkey-Iraq pipeline and the Kuwait-Iraq pipeline—have been discussed by the Turkish-Iraqi and Kuwaiti-Iraqi governments. The MoU for gas exports from the Rumailah field at market prices to Kuwait for up to 2 BCM was agreed by the Kuwaiti and Iraqi governments in December 2004. The Turkey–Iraqi pipeline will start from Kirkuk to the southeast of Turkey, and is planned to bring 10 BCM to 20 BCM to Turkey, thereby supplying an important amount of gas to Europe.⁴⁷⁹

7.2.2.1. The politics of the Turkish and Iraqi energy trade

Since the Ankara Agreement in 1926, Turkey–Iraq energy relations have been steadily developed in accordance with political development and the recognition of Iraq as a legitimate state under the British Mandate. By the signing of this agreement, Turkey left behind the Ottoman territorial claim, including oil and gas fields in the densely populated Kurdish Northern Iraq. With this positive attitude towards a new state, namely Iraq, Turkey's neighbourhood relations became more friendly, which resulted in the Sadabat Pact in 1936 and the Baghdad Pact in 1954. The Baathist revolution in 1958 was a breaking point for Turkish–Iraqi relations. Though Turkey kept away from internal Arab power struggles, especially Arab nationalism, Turkey and Iraq successfully managed to construct the Kirkuk-Yumurtalık Petroleum pipeline, which was commissioned in 1977, and has carried Iraqi oil to the

⁴⁷⁹ “Present and Future Supply Sources to Satisfy EU Gas Imports (2006) New Energy Externalities Developments for Sustainability,” (OME's Technical paper n°2.1 - RS 1c).

international energy market. While the Iraq-Syria petroleum pipeline was closed during the Iran-Iraq war, Turkey successfully managed to follow an active neutrality policy to benefit the war time economy of Iraq by keeping the Kirkuk-Yumurtalık oil pipeline open. Turkey and Iraq also agreed the right of hot pursuit in 1984, which allowed Turkey to operate military incursions in Northern Iraq.

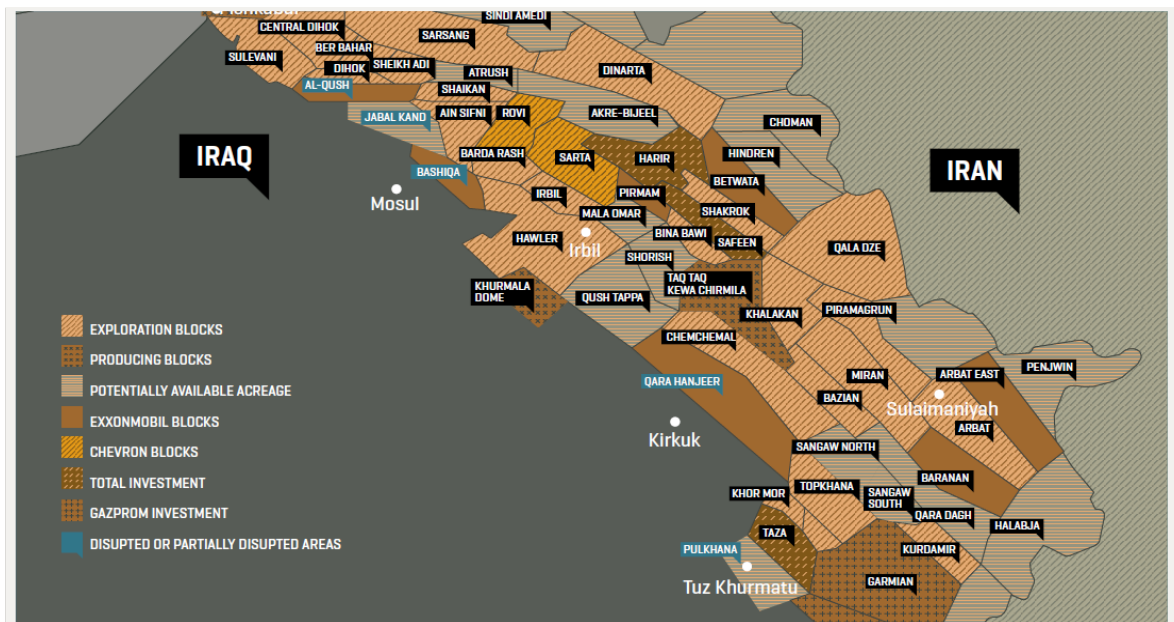
The situation, however, changed after the collapse of the Soviet Union. Kurdish nationalism became a transnational issue, especially with the revival of Saddam's Iraq as a regional hegemonic power after its invasion of Kuwait in 1990. Turkey supported the UN's economic sanctions against Saddam's regime by closing the petroleum pipeline and allowing access to Turkey and İncirlik airbases during the US-led operation in 1991. Rather than co-operating with the Iraqi government, Turkey made a right of hot pursuit agreement with the Kurdish Autonomous Government against the Kurdish guerrillas located in Northern Iraq. In addition, in accordance with the Turkish-Kurdish co-operation, Turkey deployed four military units to Northern Iraq to avert the possible civil war between the Kurdish groups.

However, Turkey's initiatives in Iraqi Kurdistan were brought to an end by the US-led invasion of Iraq. Due to the failure of the March 1st Memorandum in 2003, Turkish-American relations have undergone scepticism and strain in the Middle East. In addition, the 'bag affair' made Iraq a place of power struggle between two allied countries. Turkey, however, successfully followed a soft power strategy to gain a foothold in the Middle East and restore its relations with the Kurdish Regional Government (KRG). Turkey avoided participating in the political dispute between the central government of Iraq and the KRG regarding the development and allocation of oil and gas resources management in Northern Iraq. Besides, the questions that continue to mount over the security of the energy infrastructure, the uncertainties in relation to financing of the projects and the share deals in Iraqi Kurdistan are yet to be properly addressed.

The international media announced as a major milestone that the Turkish Government and KRG signed a comprehensive oil and gas co-operation agreement in spring

2012⁴⁸⁰ Based on this strategically ground-breaking agreement, a new state entity established under BOTAŞ will farm-in to five licenses of KRG, of which three of them including Choman and Hindren will be operated by the company.⁴⁸¹

Map 7.2: Oil Blocks of Kurdish Regional Government of Iraq



Source: Northerniraqinfo

Moreover, the company will also farm-in to main game changer ExxonMobil’s six licenses as well as securing some special investment opportunities related to Ninewa and Kirkuk Provinces. On the other hand the company is also on the negotiation rounds for securing long-term gas SPA for Genel Energy’s Miran and Bina Bawi fields. The cost of exploration, development, production and supplying the KRG gas to the Turkish border is far lower than that of the costly Caspian gas resources. Therefore accessing and securing the KRG gas resources even as an upstream player is very important for growing and expanding the Turkish economy for the 2020s.

The plan also covers several oil and gas pipelines bringing the hydrocarbons to the BOTAŞ system for domestic consumption, to Ceyhan LNG liquefaction facility, Ceyhan Marine Oil Terminal and for marketing to Europe. This landmark agreement comprises multibillion dollar investment plans of Turkish entities for KRG and plays

⁴⁸⁰ International Crisis Group - Middle East, *Iraq and the Kurds: The High Stake Hydrocarbons Gambit* (Report No: 120, April 19, 2012).

⁴⁸¹ Rafiq Latta, “Ankara Poised To Unleash KRG Upstream Investment,” *Middle East Petroleum and Economic Publications* 9 (November 2012): 14-17.

the main actor role in the gas value chain instead of that of a simple transit country. This agreement resulted in strong objections from Baghdad, including the expelling of TPAO from the consortium which won the fourth round exploration and development tender for Block-9 in the south. TPAO is also a partner in the consortiums for the service contracts of the Mansuriya and Siba gas fields tendered by the central Iraqi Government as the third round. TPAO has eventually \$5.5 billion investment responsibilities in the central Iraq oil and gas fields, which requires 25 billion capital expenditure.

7.2.2.2. Turkey-Iraq Natural Gas Pipeline Project

Turkish energy strategists consider that the Iraq-Turkey Gas Pipeline Project has become one of the most feasible projects for the Turkish national gas grid and ultimately makes Turkey the corridor to Europe by transporting Middle Eastern gas. Additionally, an LNG liquefaction terminal in Ceyhan (Turkey) is also being considered to process and transport a portion of the gas to the world markets. The south-eastern branch of BOTAŞ's natural gas grid connecting the Iraqi border province Şırnak is planned to be commissioned in 2018.⁴⁸² Looking at the political process, the chronological developments demonstrate the geo-strategic importance of the project for the Southern Gas Corridor.

The legal framework of this project, notably the Intergovernmental Agreement, was signed by the Iraqi and Turkish governments on 26 December 1996. The agreement envisages an integrated project involving field development, production and the processing and pipeline transportation of gas from the north-eastern part of Iraq. After signing of the ITGEP (Iraq-Turkey Gas Export Pipeline) consortium between Shell, BOTAŞ, TPAO and Tekfen in 2005 and signing of the Governmental MoU in 7 August 2007, Turkey and Iraq declared their intention to transport Iraqi gas to Europe through Turkey as well as their decision to form a group that could establish co-operation between the Iraqi Petroleum Ministry, BOTAŞ and TPAO in order to initiate the related feasibility studies.⁴⁸³ With this inception, European companies such as OMV from Austria and MOL from Hungary, as well as Crescent Petroleum and Dana Gas from the United Arab Emirates, completed the deal with the Iraqi

⁴⁸² BOTAŞ.

⁴⁸³ BOTAŞ and TPAO.

government to develop gas resources in Northern Iraq on 17 May 2009. Accordingly, OMV and MOL took a 10% stake each in the regional operating unit handling of the project. On 27 May 2011, the European Union signed a MoU on ‘Strategic Energy Partnership’, which provided a political framework for reinforcing energy relations between Iraq and the EU.⁴⁸⁴ The MoU included an assessment of the Iraqi hydrocarbon transit and supply network, plans for the safety and reliability of the pipelines, and identification of sources and supply routes for gas from Iraq to the EU.

On the other hand, EMRA has given engineering firm Siyah Kalem until the end of 2013 to prove it has a contract to import gas from Northern Iraq, in the third and longest extension to the company’s application. The company has applied to Turkish energy regulator EPDK to import an initial 700 MCM from Iraq in 2014, rising to 1.5 BCM in 2015, 2.5 BCM in 2016 and 3 BCM/year from 2017-31. It needs to submit a valid purchase contract with the Northern Iraqi authorities to win the licence. The extension comes amid disagreements between Turkey and its southern neighbour over access to hydrocarbon resources in the semi-autonomous north of Iraq. The central Iraqi government disputes the right of the Kurdish north to make independent agreements for oil and gas.⁴⁸⁵

7.2.3. The Second Southern Option for the Southern Corridor: Qatar

Qatar is the third huge reserve of natural gas in the world which immediately makes them one of the important players in the international natural gas market. In 2011 the total natural gas production was 146.8 BCM, the consumption was 23.8 BCM and the exports were 121.8 BCM.⁴⁸⁶ In total 102.6 BCM has been exported through LNG facilities which made Qatar the world’s largest LNG exporter in 2011.⁴⁸⁷ Despite huge investment in LNG technology, the Qatari government began to consider pipeline options to increase its natural gas exportation. As mentioned above, the Qatar–Turkey gas pipeline is considered one of the most reliable options. Whether Qatar’s options for pipeline routes go through the Saudi territory or the offshore pipeline goes through

⁴⁸⁴ “Energy from Abroad: Iraq,” European Commission, 2011, accessed April 25, 2012, http://ec.europa.eu/energy/international/bilateral_cooperation/iraq_en.htm.

⁴⁸⁵ Argus

⁴⁸⁶ BP, *Statistical Review of World Energy 2012*.

⁴⁸⁷ Ibid.

Kuwait is still controversial. It will be possible to export Qatar's natural gas to Europe using an alternative pipeline passing through Iraq and Turkey, which is a cheaper and more secure method. Qatar has already been selling gas to Kuwait by using the LNG route in the Gulf. One of the major causes of concern for Qatar is that they do not want to have inter-dependency with Saudi Arabia. Qatar can possibly use subsea pipelines, which will be interconnected with the Iraqi pipeline, through the Bahrain maritime border and reach Kuwait. It is obviously of particular importance for Qatar to secure long-term sales contracts for natural gas transported through these pipeline projects to the EU countries.⁴⁸⁸

In fact, not only the EU, but Iraq and Turkey also need Qatar's natural gas for their domestic consumption. As mentioned above, Iraq does not have sufficient natural gas reserves in the central and southern parts of the country. For this reason, even the oil wells in Basra utilise seawater instead of natural gas. Natural gas drilling in the Kurdish regions of Iraq can only supply Northern Iraq. It will, therefore, be beneficial to Qatar if its natural gas is also supplied to Turkey and Iraq, and integrated with the Southern Corridor. However, Qatar insists on continuing to sell its natural gas in the form of LNG. Doha is not enthusiastic about a pipeline project, but could be persuaded.⁴⁸⁹ Thus, the Kuwait pipeline was shelved owing to the political disagreements between Saudi Arabia and Qatar.

Turkey's access to the Gulf energy sources is one of its long-term strategies; it aims to interlink with the Arab pipeline to the Turkish national grid. Turkish Prime Minister, Mr. Recep Tayyip Erdoğan, during the third World Future Energy Summit held in 2010, said that the project was part of his country's strategic plan to secure energy for the future. "The most important project is the Qatar-Turkey natural gas pipeline that we are working on, and it will be implemented soon. We strongly believe that, besides its economic value, this project will be very important for all the countries in the region", he said.⁴⁹⁰

⁴⁸⁸ MEED, *Middle East Business Intelligence*, Issue 22, 28 May–3 June, 2010.

⁴⁸⁹ Hasan Kanbolat, "Qatar-Iraq-Turkey-Europe Natural Gas Pipeline: From Dreams to Reality", *Today's Zaman*, January 25, 2011, accessed May 12, 2012, <http://www.todayszaman.com/columnist-233395-qatar-iraq-turkey-europe-natural-gas-pipeline-from-dreams-to-reality.html>.

⁴⁹⁰ "Turkey Pushes for Qatari Gas Pipeline", *Pipelines International*, January 19, 2010, accessed May 12, 2012, http://pipelinesinternational.com/news/turkey_pushes_for_qatari_gas_pipeline/011964/.

In 2013, the Turkish and Qatari energy ministries discussed establishing a ‘working group’ of officials to negotiate the agreements. Qatar is shipping 7.5 BCM to the EU but is expected to supply 30 BCM of natural gas annually.⁴⁹¹ Turkish Energy Minister, Taner Yıldız, described the Qatari-Turkish ties as historic, after which both Turkish and Qatari governments discussed the purchase of 4 BCM of LNG from Qatar. The trade volume between the two countries nearly reached USD 1.5 billion in 2010; however, the bilateral trade capacity of Turkey and Qatar can be met at USD 8 billion if the Qatar-Turkey gas pipeline project materialises in the coming decades.⁴⁹²

According to the Qatar–Turkey energy working group, the gas pipeline is planned to start from Ras Laffan in Qatar, pass through Qatar, Bahrain, Saudi Arabia, the neutral zone and Kuwait waters and then finally reach the Iraqi waters, and the joint domestic line connection of Basra and Haditha along the strategic pipeline.⁴⁹³ The pipeline will reach Turkey via parallel routes of Kirkuk-Ceyhan petroleum. The length of the pipeline over the territories is estimated to be 1,200 km in Iraq, 650 km in the Iraq–Turkey pipeline route, and 500 km between Ceyhan and Ankara, with 2,900 km length in total, including the sea section. Though the pipeline is planned with an initial annual capacity of 20 BCM, it has an actual capacity of 30 BCM. The total estimated cost of the pipeline is about USD 10.1 billion.⁴⁹⁴

7.2.4. The Third Southern Option for the Southern Corridor: Egypt’s Pan-Arab Gas Pipeline

The proven natural gas reserves of Egypt have increased immensely over the past two decades, from 265 BCM in 1986 to 1,869 BCM in 2004.⁴⁹⁵ According to the *BP Statistical Review of World Energy 2013*, Egypt’s total proven natural gas reserves

⁴⁹¹ “Qatar and Turkey Eye Gas Pipeline”, *Gulf Times*, August 18, 2009, accessed May 4, 2012 http://www.gulftimes.com/site/topicsarticle.aspx?no=2&item_no=309735&version=1&template_id=57&parent_id=56.

⁴⁹² “Turkish, Qatari Leaders Agree on Building Gas Pipeline”, *Hürriyet Daily News*, August 19, 2009, <http://www.hurriyetdailynews.com/n.php?n=turkish-qatari-leaders-agree-on-building-gas-pipeline-2009-08-19>.

⁴⁹³ Kanbolat.

⁴⁹⁴ Ibid.

⁴⁹⁵ “Egyptian Petroleum Ministry’s estimation as at 1 July 2004,” Arab Republic of Egypt Ministry of Petroleum, accessed June 4, 2012, <http://www.petroleum.gov.eg/en/pages/default.aspx>.

were 2 TCM.⁴⁹⁶ The rise of Egypt in the gas sector was largely due to intensified exploration activities that have led to twenty-six new discoveries, which are primarily the non-associated fields in 2007 and 2008 alone in regions of the Mediterranean, Western Desert, Nile Delta, and the Gulf of Suez.⁴⁹⁷ In 2012 the gas production was 60.9 BCM and the domestic consumption was 52.6 in Egypt.⁴⁹⁸

The Pan-Arab natural gas pipeline aimed to transmit Egypt's natural gas to Turkey across Jordan and Syria, and to Europe. Egypt has the capacity to transport 10 BCM of natural gas to Jordan, Israel and Syria. Egypt supplies 80% of the electricity generation of Jordan. Jordan receives 3.4 BCM natural gas in plateau term, and the remaining 6.6 BCM is planned to be given to Turkey across Syria.⁴⁹⁹ In tandem with Russian Sroytransgaz operating the Syrian section of the Arab Gas pipeline, the pipeline belongs to the state's energy company EPC, owner of the project, and is 382 km in length.⁵⁰⁰ The construction of the pipeline started in 2005 and was successfully completed in 2010.⁵⁰¹

The first two phases of the Arabian Natural Gas Pipeline, which was 1,236 km in length, was completed, while the third phase of the Arab Gas Pipeline was half completed (see Map 7.3). The pipeline reached the Humus province of Syria during this phase. Two MoUs were signed between the Energy Ministries of the two countries, on 20 August 2009 and on 23 December 2009, within this concept. In addition, and within the frame of the MoUs signed between Turkey and Syria, the natural gas networks of the two countries planned to establish the pipeline network by the end of 2011. In this framework, tender decisions were taken for the interconnection of Turkey's and Syria's natural gas networks (Interconnect Turkey-Syria, ITS) on 21 September 2010, the preparations for which were in process before the internal war in Syria. The MoUs also provide an opportunity for the sale of natural

⁴⁹⁶ BP, *Statistical Review of World Energy 2013*.

⁴⁹⁷ EIA/DOE, *Egypt: Country Analysis Brief*.

⁴⁹⁸ BP, *Statistical Review of World Energy 2012*.

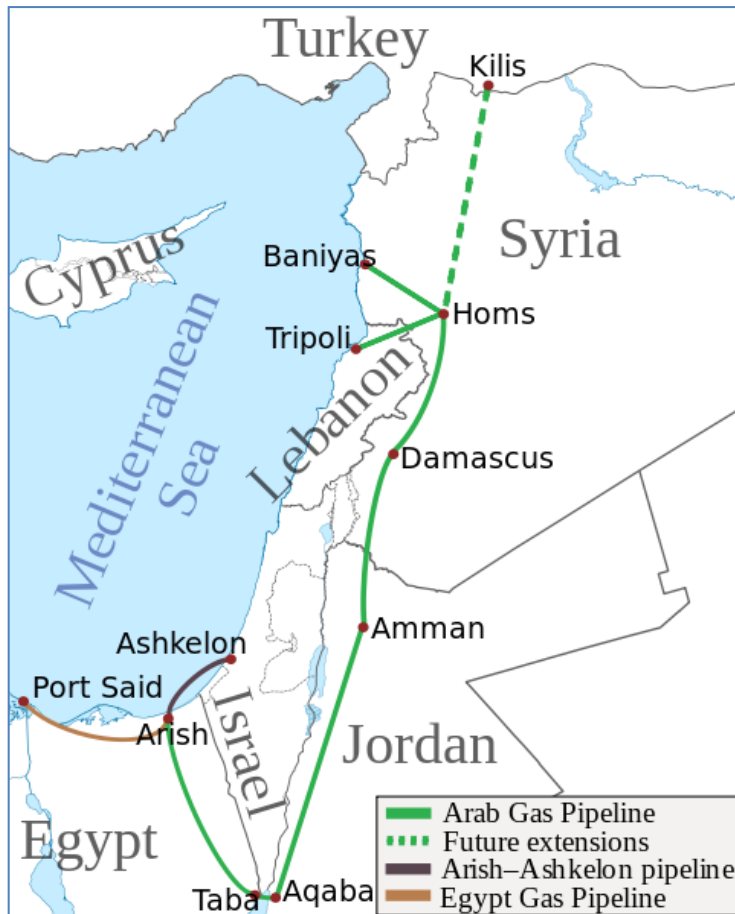
⁴⁹⁹ Simon Wardell, "Ministers Discuss Third Phase of Arab Gas Pipeline Project," *CERA Global Insight*, May 19, 2006.

⁵⁰⁰ "Russian Foreign Minister Assesses Syria Ties, Mideast Issues in SANA Interview," *BBC Worldwide*, March 6, 2007.

⁵⁰¹ "North and South Middle Area Gas Exploitation Project," Sroytransgaz, accessed September 5, 2012, <http://www.sroytransgaz.com/projects/syria/gas-processing-plant-2>.

gas transmitting from Arab countries. However, Turkey’s energy strategies for Syria are sceptical but open to co-operation. The deterioration of the relations of Syria with its neighbours has frozen the development of the pipeline extension through Turkey.

Map 7.3: The Arab Gas Pipeline Project



Source: BOTAŞ

7.2.5. Turkey-Egypt Energy Relations

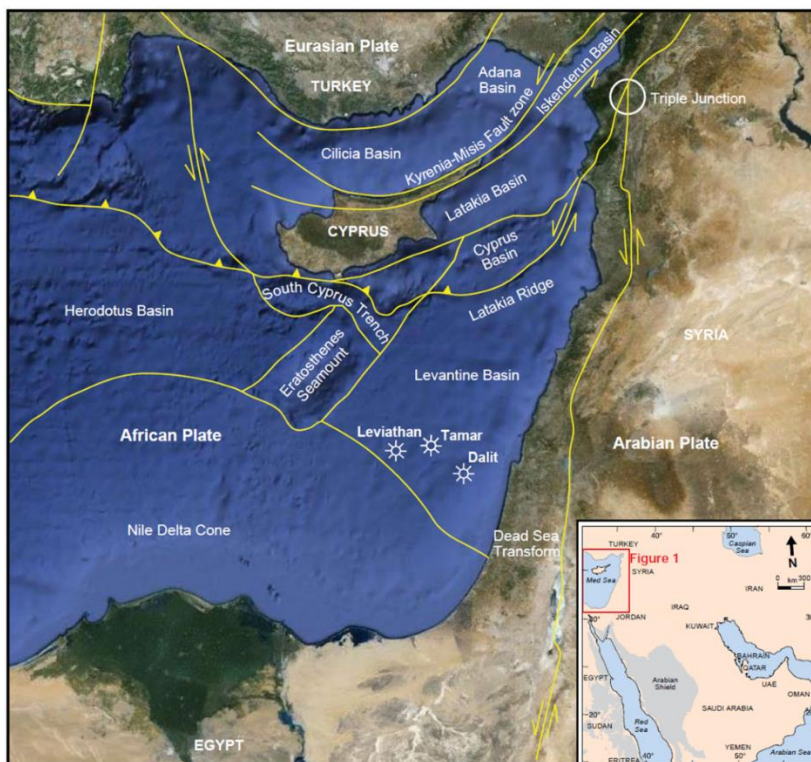
The Arab Gas pipeline project is designed to connect with Turkey, starting from the Syrian city Homs, reaching to Kilis province in Turkey and possibly transporting Egyptian gas to Europe. Related to this project, a Framework Agreement was signed in Cairo by the Minister of Energy and Natural Resources of Turkey and the Oil Minister of Egypt on 17 March 2004, in order to import natural gas by BOTAŞ from the Egypt Natural Gas Company, EGAS, and to transit gas from Egypt to Europe through Turkey. According to the agreement, Egypt will export 2–4 BCM of natural

gas to Turkey and 2–6 BCM to the European markets through Turkey.⁵⁰² The legal framework of the agreement between Egypt and Turkey mentioned above maintains continuance of co-operation and collaboration between the two countries in natural gas supply.

7.3. THE RISE OF THE EAST MEDITERRANEAN SEA IN THE GAS SECTOR

The discovery of a giant natural gas field in the eastern Mediterranean promises to bring an entirely new dynamic to the Levant. Houston-based Noble Energy plays an essential role in the offshore field of Cyprus, block 12 (shown in Map 7.5) and the Israeli Leviathan structure. The reservoir of natural gas amounts to an estimated 459 BCM in the Leviathan structure in Israel’s offshore exclusive economic zone. The discovery of the Noble gas field in 2009, the giant Tamar gas field and the smaller Dalit gas field has increased the importance of the Mediterranean Sea’s geopolitical position, and particularly the importance of Egypt, Cyprus and Israel (see Map 7.4).

Map 7.4: Hydrocarbon Basins of Eastern Mediterranean

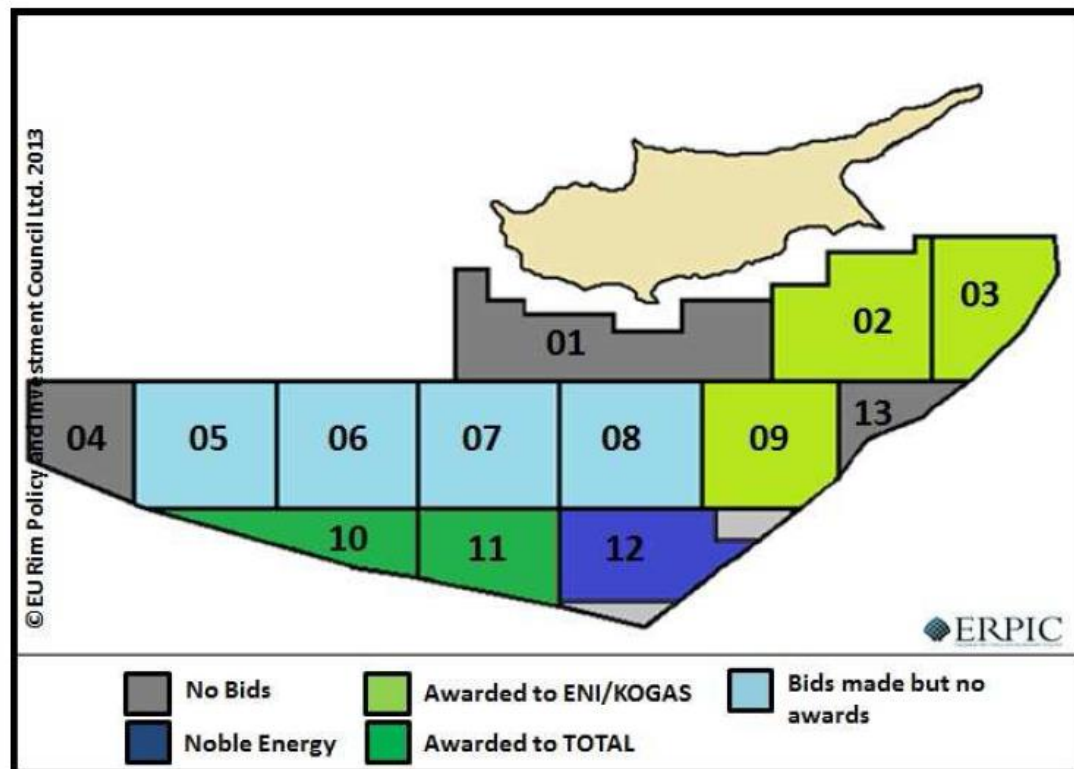


Source: Energy Tribune

⁵⁰² BOTAŞ.

Controversies over the maritime zone between Lebanon and Israel could not stop the development in these offshore boundaries. The Noble-Delek partnership, which was in the process of initiating the development of the Tamar gas field for the delivery of gas to onshore Israel by 2013, halted work on the USD 3 billion project, arguing that the new tax regime would make it much more difficult to secure finances.⁵⁰³

Map 7.5: Natural Gas Field Searches at South of Cyprus



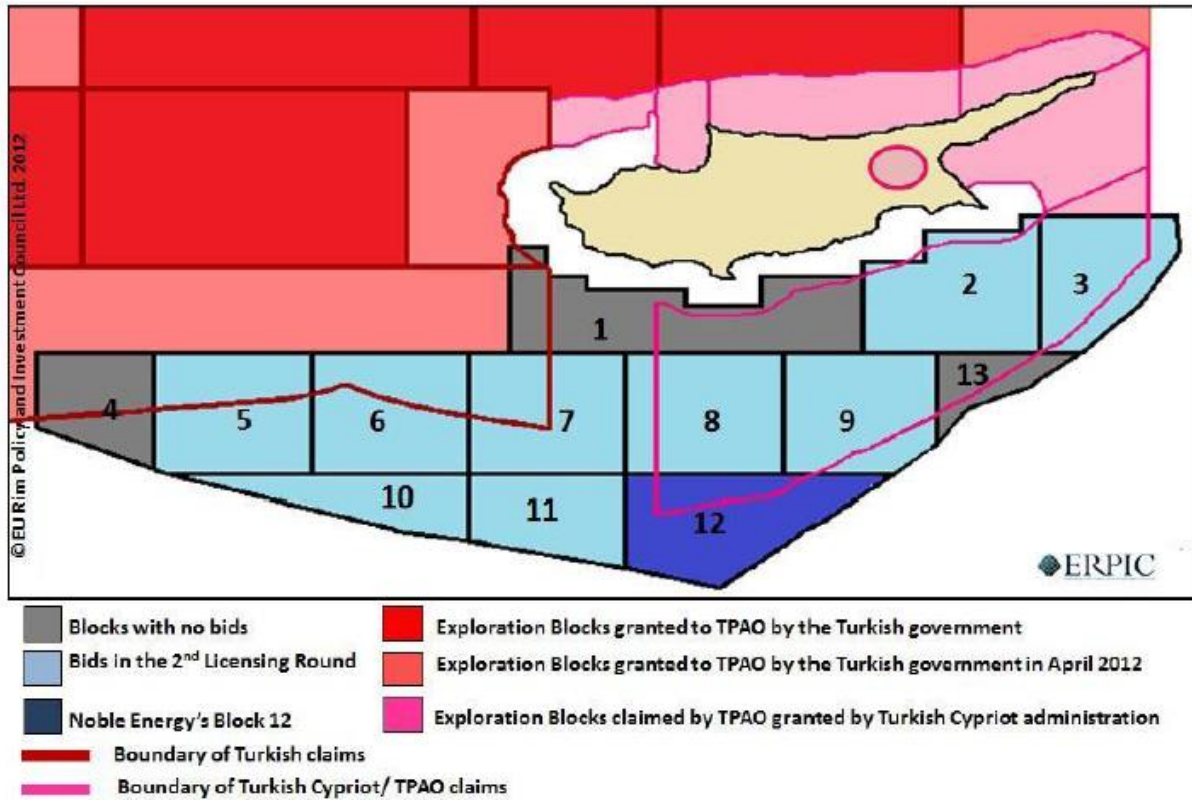
Source: ERPIC

On a number of occasions, Turkey has complained to the UN about Nicosia’s actions in seeking to establish an EEZ — that lies entirely to the south of the island — and explore the hydrocarbons there. Ankara has also expressed its displeasure with Egypt and Lebanon for signing delineation agreements with Cyprus, although the accord with Lebanon has yet to be ratified by the Lebanese parliament. Cyprus has, in turn,

⁵⁰³ United Press International (UPI), “Israel Declares Victory with New Gas Field,” January 7, 2011, accessed May 12, 2012, http://www.upi.com/Business_News/Energy-Resources/2011/01/07/Israel-declares-victory-with-new-gas-field/UPI-61751294402204/.

complained to the UN that Turkish warships have, on occasion, harassed the vessels conducting seismic surveys in its waters.⁵⁰⁴

Map 7.6: Turkey’s Reaction to Exploration by Greek Cypriot Administration



Source: ERPIC

Like Israel, Cyprus is totally dependent upon imports to meet its energy needs. Israel used to depend on Egypt and other regional energy giants for natural gas. The Israeli Energy Company made an agreement with the East Mediterranean Gas Company for supply security of gas to Israel in August 2005. In this endeavour, Mr. Yitzhak Tshuva, the owner of the Israeli Energy Company and the Leviathan co-owner of Delek Energy, was quoted saying that Leviathan has made Israel ‘an energy-independent country’.⁵⁰⁵

⁵⁰⁴ Charles Coe, “Leviathan find creates new energy dynamic in eastern Mediterranean,” *Middle East Oil and Gas Monitoring News Base*, January 11, 2011, accessed July 29, 2013, <http://www.newsbase.com>.

⁵⁰⁵ Ethan Bronner, “Gas Field Confirmed Off Coast of Israel,” *New York Times*, December 30, 2010, accessed June 5, 2012. <http://www.nytimes.com/2010/12/31/world/middleeast/31leviathan.html>.

Israel will export some of its massive offshore gas finds and wants its first customers to be the Palestinian Authority and Jordan.⁵⁰⁶ Besides these small markets, Israel is also looking to export LNG to Europe and Asia and Israel does not have a preference among the larger markets, despite current higher prices in Asia. The level of gas exports is not defined by the Israeli government, but it will be at least 300 BCM.⁵⁰⁷ The final decision will be made by the Israeli government, but definitely there will be exports. The new Israeli Government, elected in February 2013, would likely make the final decisions on gas exports and it would be one of the most important issues facing the new government.

On April 5, 2012 the governmental gas committee released preliminary recommendations that gas exports be permitted after a 25-year reserve of gas supplies is guaranteed for Israel's domestic use. The committee said the 25-year reserve level should begin in 2018 and, prior to that, a minimum reserve of 400 BCM should be guaranteed. Israeli gas discoveries, in the form of proven reserves and potential reserves, totalled 750-800 BCM, and the committee added that the figure could double within the next few years as exploration activity is expected to increase dramatically.⁵⁰⁸

According to a 2010 report by the US Geological Survey, the Levantian Basin in the Eastern Mediterranean Sea has potential gas reserves of 3.5 TCM of gas, and about 40% of those reserves would fall within Israel's exclusive economic zone.⁵⁰⁹ Domestic demand in Israel is now about 5 BCM/year but is expected to rise to 16 BCM/year by 2016. Israel generates most of its electricity from coal and oil, and also plans to install 3,000 MW of solar generation capacity by the end of the decade, accounting for 10% of demand.

Houston-based Noble Energy has major stakes in the Leviathan and Tamar fields, the two largest Israeli offshore fields discovered so far, as well as stakes in several other licenses. The interim report recommended that exports be based on the size of each

⁵⁰⁶ Ron Nissimov, "Natural Gas of Israel," *Platts LNG Daily*, May 4, 2012.

⁵⁰⁷ Ibid

⁵⁰⁸ Ibid.

⁵⁰⁹ "Assessment of Undiscovered Oil and Gas Resources of the Levant Basin Province, Eastern Mediterranean," *US Geological Survey* (2010), accessed March 3, 2013, <http://pubs.usgs.gov/fs/2010/3014/pdf/FS10-3014.pdf>

reservoir. A reservoir with reserves exceeding 200 BCM would be required to supply a minimum of 50% of its total output to the local market, reserves of 100-200 BCM would be required to supply a minimum of 40%, 50-100 BCM for a minimum of 25%, and reservoirs of less than 50 BCM would not face any restrictions. However, no gas exports would be permitted until the requirements of the Israeli economy are met. The committee estimated that total domestic demand through 2040 would be 420 BCM.

Israel is exploring a number of options for exporting gas, including building an onshore liquefaction plant near the Red Sea port of Eilat, installing a floating liquefaction facility or developing a joint venture with Cyprus, as that island's marine Exclusive Economic Zone borders Israel's and Noble is spearheading Cyprus' gas exploration efforts. Building a liquefaction plant near Eilat would allow LNG cargoes to be shipped to Asia without traversing the Suez Canal.

In March 2012, initial talks were under way for the sale of LNG from the Tamar field with Russia's Gazprom Marketing & Trading. The talks are between Gazprom and Next Decade, a joint company set up by South Korea's Daewoo Shipbuilding & Marine Engineering and its partner D&H Solutions, specifically to sell LNG from a proposed floating LNG facility at the Tamar field. The volumes being discussed were 2-3 MTPA on a non-exclusive basis beginning in 2017, based on LNG prices in Asia or an alternative price mechanism to be agreed upon by the parties. An Exclusive Commercial Agreement was signed on February 2012.⁵¹⁰

The partners in the Tamar consortium have been given an option to participate in the marketing company as well as in the proposed FLNG facility. The maximum level of gas sales is likely to peak at 11.84 BCM/year. The maximum production level is expected to be reached in 2018 and to continue through 2035, and would take into account sales to the local and export markets.⁵¹¹

There is a second agreement between DSME and Israel Land Development Energy for a similar FLNG facility. The exact terms would be worked out in the future once the size of potential gas reserves in the Sarah and Mira offshore licenses are

⁵¹⁰ Argus

⁵¹¹ Ibid.

determined, the Israeli company said. Two exploratory drillings are due in the first half of 2012. The two companies are also discussing the sale of 4.3 BCM of gas over a 15- to 20-year period.

In addition, there have been discussions about a joint Israeli-Cypriot liquefaction terminal in Vasilikos along the island's southern coast to export gas from the two countries. The plan calls for gas from the Cyprus Block 12 prospect (198 BCM) and from the adjacent Leviathan to be sent by pipeline to the terminal and then exported as LNG. Noble and its Israeli partners - Delek Drilling and Avner Oil and Gas - plan a second exploration drilling to determine the exact size of the Block 12 discovery. Cyprus and Israel also are looking at building electric lines linking the two countries, as they are both currently on isolated electric grids and would have nowhere to turn in case of a shortage. Cyprus is also looking at a power line connection to Greece via Crete. If both projects happen, Israel would be connected to the European Union power grid and could sell electricity to Europe that would be produced from Israeli gas, adding that it could help reduce the widespread perception of the "crazy Middle East."⁵¹² Israel would be a reliable Middle Eastern supplier, unlike many other countries in the region. Israel also is looking to use its gas resources to develop a gas-based chemical industry and fuel its transportation industry with gas. Israel has been getting gas from its offshore Mary B well and from Egyptian pipeline supplies, but both sources are seen as unreliable, as Egyptian supplies have repeatedly been interrupted since the forced resignation of former President Hosni Mubarak in February 2011, and the Mary B is being quickly depleted.

The East Mediterranean Gas Supply venture, known as EMG, delivered 2.5 BCM of gas to Israeli customers in 2010 and was due to increase volumes to 3 BCM last year. But with the fall of the Mubarak regime, the pipeline and related infrastructure that move Egyptian gas to Israel have been attacked 14 times, as many militants do not want Egypt to send gas to Israel and also criticise the peace accord that was reached between Israel and Egypt in the 1970s. Egyptian supplies fell 67% in 2011 to 825 MCM with deliveries to local customers on only 137 days that year. The gas deal between Egypt and Israel was the most important economic outcome of the peace

⁵¹² Ibid.

accord, and it has been said that one lesson from the political tumult in the Arab world is that Israel should take contracts with Arab countries “with a grain of salt.”

Israel agreed a couple of years ago to pay Egypt more for its gas than what was originally agreed, after some Egyptian leaders claimed the Israeli supplies were being sold at an unfairly low price, but it would not be willing to do so again. Egyptian supplies to Jordan have also been interrupted due to the attacks on the infrastructure. Earlier in 2012, the Energy and Water Ministry instructed the Yam Thetis consortium — comprising Noble Energy, Delek Drilling and Avner Oil and Gas — to cut back on its gas production in order to extend the limited supply from the Mary B wells to at least partially cover peak demand in the summer.

Before the end of January 2013, a consortium of Italy's ENI S.p.A. and Korea Gas Corporation (Kogas) signed contracts with the Cypriot government to explore for hydrocarbons in Blocks 2, 3 and 9 within the EEZ. This consortium will see ENI as operator with an 80% stake in the blocks, while Kogas will hold the remaining 20%.

ENI stated at the time that the award was of "significant importance", with the firm excited about the potential for the eastern Mediterranean's Levantine Basin as an exploration frontier with "giant gas potential". Then, French major Total S.A. signed an agreement on February 6, 2013 with Southern Cyprus to drill for oil and gas in two blocks – Blocks 10 and 11. These blocks are adjacent to Block 12 and its Aphrodite field, which Noble estimates holds up to 257 BCM of gas.⁵¹³

Cypriot exploration for hydrocarbons would not be a proper oil and gas story without the territorial disputes that often accompany the whiff of petroleum. Just as another island territory, the Falklands in the South Atlantic, has been the subject of renewed diplomatic antagonism between Argentina and the UK recently, old tensions are being reawakened in Cyprus. Drilling for oil in the Falkland Islands helped bring attention once again to the question of its sovereignty, with Argentina's foreign minister declaring that any hydrocarbons there are Argentinean. In the same way, Turkey has barged into the Cypriot oil and gas story, with Turkish Energy Minister Taner Yıldız declared that “revenues generated from drilling should be shared between the Turkish

⁵¹³ Platts.

Republic of Northern Cyprus and the ethnically Greek-dominated Republic of Cyprus”.⁵¹⁴

Turkey has threatened that it might take action against any companies involved in drilling for hydrocarbons in the EEZ. But the Cypriot government has made it clear that it has a sovereign right to explore for natural resources on its territory and will continue to do so, while acting in line with international and European Union law. Despite the Turkish warnings, the companies involved in exploring for hydrocarbons are moving ahead with their plans. Total is expected to begin drilling in its blocks in 2014, with the construction of a terminal beginning in 2015. Meanwhile, Noble Energy has asked for permission from the Cypriot government to present its data from Block 12 to Total, ENI and Australian company Woodside Petroleum Ltd. In December 2012, Woodside bought a 30-percent stake in the Israeli Leviathan field, which borders Block 12.⁵¹⁵

Noble has stated that Leviathan represents the largest exploration success in the company's history. Discovered in 2010, it holds gross mean resources of 485 BCM of gas. Noble has a near 40% working interest in the discovery. Noble seems to be in the driving seat with the Leviathan discovery in Israeli waters being next door to the Aphrodite discovery in Cyprus and it could even be the same reservoir, according to most of the analysts. The Israeli discovery could be developed by producing to an onshore LNG plant on Cyprus or through a Floating LNG (FLNG) development. During the next three years, up to ten exploration wells are expected to be drilled in Cypriot waters. But before then, this year will likely see Total and ENI work out and present plans for how they will acquire seismic data on their newly-purchased blocks.

After the successive discoveries on Tamar (257 BCM), Leviathan (481 BCM) and Block 12 (198 BCM) which are three of the world's five largest discoveries of the decade, Greek DEPA proposed an “Eastern Mediterranean Pipeline” for exportation of the resources⁵¹⁶ (shown Map 7.7).

⁵¹⁴ “Cyprus Row Axes Italy’s ENI from Turkish Deals,” *Hürriyet Daily News*, accessed March 28, 2013, <http://www.hurriyetdailynews.com/cyprus-row-axes-italys-eni-from-turkish-deals.aspx?PageID=238&NID=43736&NewsCatID=348>

⁵¹⁵ Ibid.

⁵¹⁶ Harry Sachinis, “Assessment of Pipeline Options into Greece from the Eastern Mediterranean,” (Chairman & CEO, DEPA, March 28, 2012)

Map 7.7: The East Mediterranean Pipeline Project and Possible Connections



Source: DEPA

Due to the further announcements of USGS that the total reserves at the Levantine basin could be three times more than what has already been discovered, the pipeline options have been studied and discussed in the international arena. DEPA preliminarily estimated that the region could export more than 16 BCM/year. Several scenarios have been considered by DEPA to carry East Med gas to Europe:

- 1) A pipeline from the field to Cyprus;
- 2) a pipeline connecting Cyprus with Crete;
- 3) a pipeline from Crete to mainland Greece.

The pipeline would be able to carry around 8 BCM/year and will have a total length of around 1150km. DEPA underestimated a major subduction zone along the route and stated that none of the constructability challenges are insurmountable based on experience from similar projects (e.g. Galsi, Medgaz). DEPA announced (based that the paper studies) the pipeline is technically feasible. The ITGI System and its branches will be integrated to the Eastern Mediterranean Pipeline on the onshore section after landfall Greece.

It was proposed that a pipeline from the Eastern Mediterranean will create strong synergies with the ITGI system and will connect the East Med to the European grid. Moreover, evaluation of geological and geochemical data acquired since 1985 from

scientists working in the Libyan Sea indicate the possible existence of huge hydrocarbon deposits in an area of 80,000 km², which is equivalent to the Levantine Basin (combined EEZ of Israel, Lebanon, Syria and Southeast Cyprus). Ionian Sea (Apulian Platform), southern Crete, Herodotus Basin and the Mediterranean Ridge are accounted as huge potential hydrocarbon prospects for Greece who have declared an EEZ for exploration.

However, the Eastern Mediterranean Project could be very expensive for the upstream investors in the Eastern Mediterranean and so a short connection from Cyprus to the Turkish network system could be a cheaper and better alternative. If the political atmosphere becomes more suitable for the talks to evaluate the upstream and pipeline projects for the benefit of all parties then the most economic and convenient option may be realized. It is also important to note that the recent discoveries of Eastern Mediterranean could be used as a peace instrument to foster the weak political relations of the region.

The discovery of the Tamar gas field will have the potential to transform not only Israel's economy, by fulfilling its domestic demands for power generation over the next 30 years and still yielding export earnings from the surplus produced,⁵¹⁷ but also its relationship with the regional actors. Since Israel has realized its energy potential is dependent on co-ordination and co-operation with Cyprus and Greece, in line with a tradition of seeking security from its neighbours, a realignment of interests can be observed; not only rapprochement with Cyprus and Greece but also alienation from Turkey.⁵¹⁸

7.4. CONCLUDING REMARKS

The importance of the Middle East for the Southern Corridor dominates the Eurasian energy environment in which the discovery of Eastern Mediterranean natural gas sources has changed the regional balance in the maritime zone of Egypt, Israel, Cyprus. Turkey, however, is interested in the Iraqi pipeline as a means to introduce itself as a transit country in the Eurasian natural gas environment. The case with Iraqi

⁵¹⁷ Alan Craig and Clive Jones, "Discovery of Israel's Gas Fields and their Geopolitical Implications," (The Emirates Occasional Papers, No. 81, 2013, United Arab Emirates: The Emirates Center for Strategic Studies and Research), 7.

⁵¹⁸ Ibid., 9.

gas transported from the Kurdish region, the internal competition between the Arab states in the Arabian Gulf and the rise of Israel in the Mediterranean Sea are some of the challenging issues for Turkey's energy geopolitics. Even though Turkey's use of the energy economy as an instrument of soft power facilitated the attempts to improve relations with the KRG; Turkey's policy of balancing its relations with Baghdad and Erbil was problematic during the crisis between the KRG and the central government in Baghdad due to the disputed territories, oil contracts with international companies and KRG's share of the national budget. The Baghdad government's centralization efforts, Maliki's Shia discourse and strong alliance with Iran, and his government's support of the al-Assad regime in the Syrian civil war, are mutual discomforts shared by the KRG and the Turkish government. Additionally, the high level of trade relations and energy co-operation also made the relationship more vital to both sides.

Turkey and Israel have not only lost their alliance relationship but have also realised that the two countries' interests in the Mediterranean Sea and Northern Iraq are incompatible. Israel's close ties with Greek Cyprus and the Kurdish Regional Government, and Turkey's close ties with Hamas, tightened the bilateral relations in the last decades. Due to the discovery in the Mediterranean Sea, especially in the Israeli maritime zone, Turkey has suspended the Blue Stream extra transport capacity to Israel. Any possible gas export routes to European markets through the Mediterranean connecting Israel, Cyprus and Greece will be considered as a threat to Turkey regarding its ambitions as a transit hub in the region. Turkey believes that this option is not economically and politically feasible. The southbound routes are the best transit options for East Mediterranean natural gas transport. Turkey would rather establish interdependence relations with Iraq. Finally the ambiguous situation of Syria and increasing tension in the region creates great risk for the utilization of natural gas resources and impedes the future natural gas pipeline projects.

Chapter 8

TURKEY AS A REGIONAL NATURAL GAS HUB: 'ANATOLIAN GAS CENTRE'

8.1. INTRODUCTION

Geopolitically speaking, Turkey has a very strategic position at the crossroads between energy supplier and consumer countries, especially from the Caspian Sea region and the Middle East region to Europe. This strategic positioning helps us to describe Turkey as a natural gas hub, transit or crossroad country in international gas markets. Turkey has already hosted the major oil and gas pipeline system of Baku-Tbilisi-Ceyhan, the Kirkuk-Yumurtalik petroleum pipelines and the Baku-Erzurum, Tabriz-Erzurum and Blue Stream natural gas pipeline systems. Turkey aims to expand and complete eastern and southern natural gas pipeline systems to feed the Southern Corridor and would like to establish an Anatolian Gas Centre.

Since the late 2000s, Turkey's successful management of the nexus of foreign policy and energy geopolitics has proved a great initiative to play an essential role in the natural gas sector. Turkey's foreign policy and long term natural gas strategy aims to establish interdependence relations between gas producer and consumer countries. This thesis has already developed the feasibility, availability and sustainability of the Southern Corridor in previous chapters. Therefore, the main goal of this chapter is to explain how Turkey fulfils a role in the region as an anchor of stability, reliable energy supply and a meeting place between Europe and Asia. It is assumed that Turkey has an opportunity to establish a physical hub mechanism, which would be more effective in the international energy market. There must be a strong sense of strategic direction, and a credible commitment that this direction will be consistent and sustained in Turkey's energy diplomacy. Turkey's rational energy diplomacy and reasonable natural gas pricing and trading mechanism give us necessary evidence to assess Turkey's foreign policy capacity and the rationality of its energy strategy for being a natural gas hub.

8.2. DISCUSSION OF TURKEY'S CAPACITY FOR BEING AN ENERGY HUB

A large literature has appeared on the discussion about the importance of Turkey's geopolitical position and whether it provides Turkey with any initiatives for being a natural gas hub. Simone Tagliapietra discusses Turkey's potentiality for being a gas corridor and a gas hub in his article.⁵¹⁹ He identifies that even though Turkish-Azeri relations achieved the TANAP project, there are many difficulties in transporting Turkmen, Iranian and East Mediterranean gas to Europe via Turkey. He concluded that Turkey has no potential to become a hub in the region in the medium term (up to 2020-2025). He believes that the Southern Gas Corridor, which supplies 10 BCM of natural gas to the EU, will only provide less than 3% of the EU natural gas demand. Looking at the long term (2025-2030), Tagliapietra sees that Turkey's potential to become an energy hub is still uncertain. He clarifies the conditionality for being a natural gas hub as follows: Azerbaijan could well be able to supply more volumes of natural gas to the EU, Turkmenistan could be in the position to supply a considerable amount of natural gas (20-40 bcm/year) to Turkey and to the EU, Iraq could also be in the position to supply some natural gas volumes to the EU from KRG and Iran could well have the potential to improve its natural gas supply to Turkey.

Furthermore, if substantial additional natural gas reserves are discovered in offshore Israel and Cyprus, the project to evacuate Eastern Mediterranean gas to Turkey via pipeline could become commercially viable and politically feasible, but only if in the meantime the Cyprus dispute were finally resolved.⁵²⁰ Since those are the conditions for Turkey to become a regional natural gas hub, it is not seen that Turkey will be a hub in the long term. On the other hand, in another discussion the real weakness of Turkish foreign policy has been given as the East Mediterranean Sea dispute. Ebru Oğurlu argues that any possible gas export routes to European markets through the Mediterranean, connecting Israel, Cyprus and Greece, will be considered as a threat to Turkey's energy policy of being a transit hub in the region.⁵²¹ Even though there are some oil and gas discoveries that can raise hopes of the prospect of significant wealth,

⁵¹⁹ Tagliapietra, . *Turkey as a Regional Natural Gas Hub: Myth or Reality?* 9-11.

⁵²⁰ *Ibid.*, 29.

⁵²¹ Ebru Oğurlu, "Turkey Amidst the Shifting Geopolitics in the Eastern Mediterranean", in *Rethink Paper* no. 9 (May 2013): 2, <http://wp.me/p3TIQJ-O>.

they have many risks and uncertainties in the region. These discoveries have the potential for destabilizing the region, which could lead the way for a competition among regional actors.⁵²² According to Oğurlu, since energy geopolitics is an important element of Eastern Mediterranean politics, regional relations have been also bruised because of the claims and rivalry between Turkey and Cyprus regarding the recently discovered energy sources. Oğurlu states that the discovery in Israeli offshore occurred at exactly the same time as relations with Turkey were rapidly worsening because of the Freedom Flotilla incident. The closeness of the resource-rich area to the Cypriot-Israeli maritime border and then the souring Turkey-Israeli relations paved the way to a rapprochement between Israel and Cyprus.⁵²³ Israel and Cyprus signed a maritime agreement in December 2010 agreeing to collaborate on oil and gas explorations in Cyprus's Exclusive Economic Zone. Thus, Turkey has opposed the legitimacy of this agreement since Turkey has claimed that Greek Cypriots do not represent the entire island and are not authorized to conclude such agreements. Consequently, the energy dispute will possibly widen the already existing gap between the two parts of Cyprus.

Alan Craig and Clive Jones open another discussion about how the discovery of gas fields, Tamar in 2009 and Leviathan in 2010, will have the potential to transform not only Israel's economy and energy security but also its relationship with the regional actors. It is estimated that Israel will have sufficient gas to fulfil its domestic demands for power generation over the next 30 years and still profit in export earnings from the surplus produced.⁵²⁴ Furthermore, the discovery of these gas fields will have impacts on security relations across the region. Since Israel has realized its energy potential is dependent on co-ordination and co-operation with Cyprus and Greece, in line with a tradition of seeking security from its neighbours, a realignment of interests can be observed, not only rapprochement with Cyprus and Greece but also alienation from Turkey.⁵²⁵ The authors also place emphasis on the need for a legal solution regarding the contesting claims on EEZs for the license exploration from Turkey and Lebanon.

⁵²² Ibid, 3.

⁵²³ Ibid.

⁵²⁴ Alan Craig and Clive Jones, "Discovery of Israel's Gas Fields and their Geopolitical Implications," (*The Emirates Occasional Papers*, no. 81, 2013, United Arab Emirates: The Emirates Center for Strategic Studies and Research), 7.

⁵²⁵ Ibid., 9.

According to them, some Israeli analysts argue that Turkey's objections are mainly presented because of its concern over whether the discoveries of gas fields might lessen Turkey's importance as an energy transit hub by proposing alternative routes of gas supply.⁵²⁶ In conclusion, Craig and Jones argue that for the first time in Israel's history, it is close to achieving its energy policy based on reliability, affordability and environmental sustainability, despite the regional tensions. Thus, the emergence of a security regime with Greek Cyprus, a market demanding energy supply in Europe and Asia, and its military superiority in the region would serve Israel in exploiting its new resources.⁵²⁷

Bud E. Fackrell's article emphasizes the importance of energy security for almost every human activity.⁵²⁸ The uneven distribution of energy resources and the geopolitical situation necessitate a growing interdependence and the need for co-operation between not only producer and consumer but also transit countries. He argues that like many other countries, Turkey has to secure reliable energy for its economic development. Thanks to its geopolitical position, Turkey neighbours the hydrocarbon countries and can access abundant supply for its growing economy, but not without challenges for many different reasons. Despite the challenges in the region, Turkey has played its role in the region successfully.⁵²⁹ He states that with the interconnections of energy projects from the eastern and southern routes, Turkey will become the primary route for natural gas transport. Fackrell also mentions the Baku-Tbilisi-Ceyhan oil pipeline project and the Southern Corridor as Turkey's contribution to regional and global energy security. He underlines the importance of Shah Deniz Phase II as the key to opening the Southern Corridor and bringing the Caspian gas to Europe for the first time.⁵³⁰ In Turkey, with the Shah Deniz partners and under the leadership of the State Oil Company of the Azerbaijan Republic (SOCAR), TANAP will be a strategic connection for the Southern Corridor. Since TANAP will take the

⁵²⁶ Ibid., 31.

⁵²⁷ Ibid., 46-47.

⁵²⁸ Bud E. Fackrell, "Current Developments in Regional Energy Security and Turkey," *Insight Turkey* 15, no. 1 (2013): 66.

⁵²⁹ Ibid., 67.

⁵³⁰ Ibid., 70.

gas from Turkey's eastern border with Georgia to the western border, the project will play a crucial role in developing Turkey as a gas hub.⁵³¹

Gareth Winrow emphasizes the role of Turkey as an energy transit state to meet the energy demands of the European Union. The Southern Gas Corridor has been acknowledged by the EU as a priority in order to diversify its energy sources and decrease European dependence on Russian energy. Within this perspective, Winrow states Turkey's importance as a transit country; however Turkey's becoming an energy hub country is seen as less promising in the near future.⁵³² Winrow argues that being an energy hub would mean that Turkey could utilize its economic and strategic advantages. Firstly, Winrow argues that Turkey's gas demand will likely increase by presenting statistics about Turkey's energy outlook. On the other hand, Winrow makes a distinction between an energy transit and an energy hub state. Winrow defines a transit state as "oil and gas from energy producing states cross the territory of energy transit states to reach energy consumers", while an energy hub is defined as "physical energy hubs, on the other hand, have extensive infrastructure which makes the state a focal point for energy transportation. This may entail a developed pipeline network, refineries, storage facilities, gas liquefaction plants, regasification terminals and petrochemical units".⁵³³ Regarding becoming an energy hub, Turkey needs a considerable amount of investment in gas storage and the gas pipeline network. According to Winrow, Turkish officials perceive the energy hub concept as controlling energy trade to their advantage by using Turkey's geographical location.

Furthermore, Turkey also could want to use its strategic position to heighten its international influence and ease its accession to the EU. Winrow also concludes that helping EU member states to diversify their energy imports will not accelerate Turkey's prospects for membership of the EU.⁵³⁴ Nonetheless, being an energy transit country has not enhanced Turkey's accession process to the EU. The Greek Cypriots have vetoed the opening of the energy chapter, since Turkey has opposed oil and gas

⁵³¹ Ibid., 71.

⁵³² Gareth Winrow, "Turkey: An Emerging Energy Transit State and Possible Energy Hub," *The International Spectator* 46, no. 3 (2011): 79.

⁵³³ Ibid., 81.

⁵³⁴ Ibid., 82.

exploration in the eastern Mediterranean by the Greek Cypriot government.⁵³⁵ Since the South Stream Project has been perceived to be the major rival to Nabucco, Turkey seems to be involved in a delicate balancing game. According to Winrow, Turkish authorities may be seeking to ensure that supporting the South Stream Project does not endanger the prospects for Nabucco, the ITGI or the TAP.⁵³⁶ However, the failure of the Nabucco project does not reduce Turkey's nomination as an energy hub.

According to an energy expert, John Roberts, Turkey currently cannot be truly defined as an energy hub in the framework of trade and energy market privatisation and regulations. According to him, a real hub could be a trading hub which provides open, transparent and competitive market opportunities for multiple suppliers that meet multiple customers.⁵³⁷ Turkey's EU accession process may facilitate establishing a true transparent functioning hub. On the other hand, ex-European Co-ordinator for the Nabucco Pipeline Project, Jozias Van Aartsen, defined Turkey's role as 'an interconnector'. He believes that Turkey should behave in her foreign policy as a bridge country rather than as a hub country.⁵³⁸

8.3. TURKEY'S POSSIBLE ECONOMIC GAINS FROM BEING ENERGY HUB

The major discussion in this section is if Turkey's Anatolian Gas Centre were established, what kind of initiatives and gains it would bring for Turkey? In order to answer this question, we have to look at pricing questions in the natural gas market. It is certain that, unlike other internationally traded commodity markets, the dominant prices mechanism for the international gas trade uses 'oil indexation', which originated in Europe in the 1960s. The oil indexation mechanism also spread to the Asian energy trade. Minister of Economic Affairs Jan Willem de Pous established the new Dutch concept of gas pricing in 1962. The Dutch model became known as the *Nota de Pous*.⁵³⁹ This model encourages a state to get maximum benefit from end-

⁵³⁵ Ibid., 83.

⁵³⁶ Ibid., 91.

⁵³⁷ John Roberts, "Turkey as a Regional Energy Hub," *Insight Turkey* 12 (2010): 39-48.

⁵³⁸ Jozias Van Aartsen, "European Coordinator for Southern Corridor."

⁵³⁹ Anthony J. Melling, "Natural Gas Pricing And Its Future: Europe As the Battleground," Carnegie Endowment for International Peace (2010), http://carnegieendowment.org/files/gas_pricing_europe.pdf.

user pricing. However, the ‘Netback-Pricing’ model with the market value principles is aimed at reducing end-user pricing. The ‘cost-plus’ pricing starts with the production cost, and adds transportation services, overheads and profit margin, to arrive at the sales price.⁵⁴⁰ The ‘netback-pricing’ is calculated by taking all of the revenues from the oil, less all costs associated with getting the oil to a market. Netback-pricing is a contractual arrangement in which the price of gas at the wellhead is based upon the processed gas or products.

Nevertheless a new development in the energy sector has changed pricing mechanisms in the European Union. The US Henry Hub has introduced a new mechanism to the gas sector based on hub pricing.⁵⁴¹ The British liberal natural gas mechanism promotes the US hub model. The first link was established between the UK gas network and the Belgium gas system, which led to spreading commodity markets to continental Europe. In terms of pricing system, almost half of European gas pricing is still linked to oil prices.⁵⁴² Norway, UK and the Netherlands led spot indexation. Russia and North Africa remain oil linked prices systems, but the trend is shifting towards spot indexation. According to a Reuters report, only 34.8 to 37.7 percent of all major European gas supplies are now priced off openly traded hubs such as Britain's National Balancing Point.⁵⁴³ There are commonalities of nine European hubs on the price indexation system. The hub system offers different gas prices options. These are: (1) National Balancing Point (NBP), based in Great Britain;(2) Title Transfer Facility (TTF), based in the Netherlands; (3) Zeebrugge Hub (ZEE), based in Belgium; (4) Central European Gas Hub (CEGH), based in Austria;5) Gaspool (GSL), based in Germany; (6) Net Connect Germany (NCG), based in Germany; (7) Points d'Echange de Gaz (PEG) including Peg Nord, Peg Sud and (8) Peg TIGF, based in France; (9) Punto di Scambio Virtuale (PSV), based in Italy. Table 8.1 below demonstrates the European Hub price, which is lower than Turkey’s purchasing gas prices.

⁵⁴⁰ Ibid.

⁵⁴¹ US Energy Information Agency, “Henry Hub,” 2014.

⁵⁴² Melling.

⁵⁴³ Reuters, “Most of Europe's gas supplies still linked to oil prices.”

Table 8.1: European Gas Hub Prices (per TCM)

| EU'S HUB | Day Ahead | June |
|---------------------|------------------------|-------------------|
| | Day Ahead \$ / 1000 m3 | June \$ / 1000 m3 |
| UK-NBP | 292.16 | 289.92 |
| Dutch TTF | 282.83 | 297.38 |
| Belgian -Zeebrugge | 286.19 | 299.62 |
| French PEG Nord | 293.28 | 304.85 |
| French PEG Sud | 376.12 | 373.88 |
| German GasPool | 288.06 | 301.86 |
| NET Connect Germany | 288.80 | 301.86 |
| Austrian CEGH VTP | 305.59 | 318.28 |
| Italian PSV | 316.04 | 315.29 |

Source: PLATTS, May 1, 2014

As we mentioned in the theory chapter, Turkey's Post Cold War geopolitics are changing. Rather than a security oriented foreign policy agenda, Turkey has continued to pursue a more proactive policy to gain a foothold in the new international system. Turkey sees itself as a centre of the universe, which gives Turkey full confidence to take initiatives on the Southern Corridor and to establish an Anatolian Gas Centre. If Turkey increased its attractiveness for the establishing of an Anatolian Gas Centre, Turkey would be able to go through price revision close in order to reduce purchasing prices. The arbitration cases between Turkey and Iran about gas price revision close demonstrate that Turkey currently has no capacity to bargain with Iran or others. For instance, according a Press TV report, Iran charges Turkey \$490 for every 1,000 cubic meters of natural gas. This is while Turkey claims that the Republic of Azerbaijan and Russia supply gas to Turkey at \$335 and \$425 per 1,000 cubic meters respectively. It seems that although Turkey is the closest country to the natural gas producing countries, the table demonstrates that Turkey is paying the highest prices.⁵⁴⁴ Turkey rather prefers to diversify its supply and demand sources than to re-export strategy towards Europe. To this end Turkey's soft power strategy has become more

⁵⁴⁴ "Iran likely winner of gas price dispute with Turkey" *Min. Press TV*, April 18, 2014, <http://www.presstv.ir/detail/2014/04/18/359040/iran-will-likely-win-turkey-gas-price-case/>

applicable by creating interdependent relations in the economic and political environment and its natural gas dependency on Iran and Russia will be dramatically reduced.

Table 8.2: BOTAS Import Prices

| Country | 2012 (Price \$/100m2) | 2013 (price\$/100m2) | Discount (% in 2013) |
|-----------------------|--------------------------|-------------------------|-------------------------|
| Russia (Western Line) | 446 | 429 | 3.81 |
| Russia (Blue Stream) | 445 | 428 | 3.82 |
| Azerbaijan | 354 | 449 | 1.41 |
| Iran | 530 | 507 | 4.34 |

Sources: Gulmira.

8.4. THE ANATOLIAN GAS CENTRE AS THE NEW ENERGY HEARTLAND OF EURASIA ON THE CROSSROADS

Given its unique position, Turkey's objective of being an energy hub for 'East-West' and 'North-South' energy corridors is not just an ambition. The fact is that Turkey has the potential to transport 6–7% of the world's oil by 2020. For instance, Ceyhan port is expected to become a major 'energy hub' and the largest oil outlet terminal in the Eastern Mediterranean.⁵⁴⁵ The Ceyhan Terminal has already been designed to receive the crude oil reaching Ceyhan from Kirkuk/KRG, Basra, Baku and Samsun (Russian supplies to Samsun), even Tabriz/Tehran in the longer term.

The security of the European energy supply is required for diversification of sources of energy import by building new transit ways and influence in its immediate region through mutual dependence. In tandem with the EU, Turkey can play a crucial role for Europe in maintaining its energy security by diversifying its gas sources, decreasing Europe's dependence on gas provided by the Russian Federation.

Turkey is considered as an energy hub and a big energy market as a consumer itself in the Eurasian energy environment. Hence, it is essential to examine Turkey's dependency on energy and its related policy strategies, especially for natural gas supply and transport to the EU. Turkey's overall energy picture in the first part of this chapter will demonstrate the potential energy market in Turkey as well as explain

⁵⁴⁵ Republic of Turkey Ministry of Energy and Natural Resources, *2010-2014 Strategic Plan*, accessed on March 3, 2012, http://www.enerji.gov.tr/yayinlar_raporlar/ETKB_2010_2014_Stratejik_Planı.pdf.

Turkey's strategies and positioning as an 'energy corridor'. In later sections, the concept of being a hub in natural gas markets will be examined with Turkey's unique position between Asia and Europe.

Therefore, this chapter tries to highlight the foundation of the main gas strategy of Turkey: not only to be an "energy corridor" or "energy terminal" but to become the most comprehensive "Anatolian Gas Centre as the New Energy Heartland of Eurasia on the crossroads" (in the unique geography of Turkey) where the energy is to be produced, procured, transported, transited, transformed, processed, exchanged, interchanged, traded, stored and marketed in a well-regulated, liberalized, accessible and internationally correlated environment. Turkey has developed an inter-agency capacity within the country and interaction abilities for co-operating and co-ordinating energy policies with regional and international actors. Turkey liberated its foreign policy from the confines of security rhetoric and appropriated a new policy of maximizing political and economic relations with the neighbours and prioritizing high level political dialogue and economic interdependence in regional policy. While having such a regional perspective, Turkey restructured the institutional framework of foreign policy and regional economic relations and created new structures to enforce the existing framework. Turkey's domestic capacity in terms of pursuing a central role in regional energy geopolitics is at the highest level, and capacity building at home leads to projection of this capacity to regional involvement, leading or taking part in various energy projects. Turkey's search to host multiple oil and gas pipelines accommodates this search to evolve to a regional energy hub. Turkey aims to develop domestic capacities and regional energy policies to go beyond being a host country of pipelines and emerge as an energy trading state with the necessary legal and physical infrastructure.

8.5. TURKEY'S FOREIGN POLICY AND INTERDEPENDENCE RELATIONS FOR BEING A GAS CENTRE

The dynamic shift in Turkish foreign policy occurred when the Justice and Development Party took power in Turkish politics in 2003. The architect of Turkey's critical geopolitical discourse, Ahmet Davutoğlu, was appointed as Foreign Minister of Turkey in 2009 and has changed energy geopolitics. His interdependence strategy in the economic sector, especially upstream project investment and long term pipeline

politics, has encouraged a new vision of Turkish energy diplomacy. The integration between the Ministries of Energy and of Foreign Policy have facilitated the development of a more coherent energy diplomacy, which has already achieved the opening of the Southern Corridor that gives a great ability to launch the ‘Anatolian Gas Centre’ project. Davutoğlu argued that Turkey, thanks to its geographical position, possessed a strategic depth which it had hitherto failed to exploit and that Turkey should develop an active engagement in the regional political systems in the Middle East, Asia, the Balkans and Transcaucasia.⁵⁴⁶ Together with BOTAS, the Ministry of Energy and Natural Resources, Foreign Affairs and the EU General Directorate operate daily and long term energy diplomacy.

According to CERA’s report, Turkey was already the sixth biggest natural gas consumer country in Europe and will be the second biggest market in Europe in 2030. The major problem in pricing issues of natural gas purchasing contract is that BOTAS operates 80% of long-term contract management between Turkey and natural gas exporting countries. Therefore, we cannot talk about the existence of supply-demand prices that determine Turkey’s natural gas pricing. In this regard, BOTAS is the only actor which determines natural gas prices in the Turkish natural gas market. If there is no transparency or liberalized market conditions, we do not have any chance to introduce Turkey as a trading hub country for the Southern Corridor. Geopolitically speaking there is only the strong argument that Turkey is natural physical hub and has a chance to establish an Anatolian Gas Centre. Turkey’s physical hub concept and Anatolian Gas Centre is making the Southern Corridor feasible that would diversify Turkey’s and the EU’s natural gas supply security. In so doing, since the last two decades, Turkish foreign policy has achieved some success in receiving Azeri Gas from Shah Deniz Phase I in 2007 and will have more potential gas from Shah Deniz Phase II in 2018. It is a fact that Turkey is heavily dependent on Russian and Iranian gas supply. It is important to note that the opening of the Southern Corridor with TANAP has not only been reducing Turkey’s dependency on these countries but also satisfies its own domestic market. TANAP also encourages Turkey’s transit strategy towards the West. If Turkey’s energy supply security strategy and the interdependence strategy of Turkish foreign policy gain initiatives in

⁵⁴⁶ Davutoğlu, *Stratejik Derinlik*.

the eastern and southern routes of the Southern Corridor, the Anatolian Gas Centre will transport 150 BCM gas to Turkey. Since 2007 Turkey's foreign policy and the state-owned company BOTAS have already achieved success in initiating Azeri natural gas sources management. Turkey has launched transport from Shah Deniz Phase I to the Greece national grid and will transport Shah Deniz Phase II in 2018.

As discussed in previous chapters, Nabucco is the famous project for the Southern Corridor. Since the beginning, Turkey has supported the policies of the EU's Caspian Development Co-operation and Energy Charter Treaty for the Nabucco pipeline project, which is why Turkey signed an International Government Agreement (IGA) in 2009. In fact Turkey continuously encourages in various diplomatic environments. However, due to lack of a common energy policy, EU had to announce its dissolution in January 2014. One of the key reasons behind the failure of Nabucco is that the EU started supporting Russia's South Stream pipeline project after crises had twice occurred between Russia and Ukraine. Due to changes in the politics of Nabucco, the owners of the Shah Deniz Phase II consortium, BP and SOCAR, had launched new projection and transportation prices for gas towards South Eastern Europe. In fact, Azerbaijan does not want to compete with Russia's Central Europe market. That is why the Azeri-Russian deal on purchasing 1 BCM from Shah Deniz proves that they have very balanced relations in choosing the Shah Deniz Phase II consortium sale strategy toward South Eastern Europe. The Consortium evaluated the options of Nabucco Classic and Nabucco West to transport Shah Deniz Phase II, but the final decision has been made in favour of TANAP, which separated from Turkey's national grid.

Turkey's positive approach to new policy change is very rational for the opening of the Southern Corridor. Therefore, Turkey signed the Intergovernmental Governmental Agreement (IGA) of TANAP in 2012 while the Nabucco project was alive. Some policy makers believe that the failure of the popular Nabucco project will cause the fading of Turkey's discourse of being a hub which will attract the resources located in the south and east of the Southern Corridor. However, Turkey's interactive capacity in energy and foreign policy diplomacy facilitates opening the Southern Corridor via TANAP and TAP gas networks. This achievement in Turkish energy strategy makes more feasible Turkey's Anatolian Gas Centre concept.

The most recent development between Russia and Ukraine in Crimea enforces EU policy strategy for supply security. The nuclear negotiations between Iran and the US create a new option for Turkey's Anatolian Gas Centre concept, which feeds the Southern Corridor. In parallel with this, the investment decision for TANAP and TAP projects in December 2013 can be considered as a great success of Turkey's policy strategy. If Turkey succeeds in obtaining natural gas from southern and eastern gas resources, Turkey will certainly establish the Anatolian Gas Centre. In addition to this, Turkey's good relations with the KRG will be increased with the Anatolian Gas Centre. On the other hand, Turkey's uneasy relations with Israel and Southern Cyprus weaken Turkey's energy policy in East Mediterranean Sea sources management.

As we concluded, Turkey is naturally 'a physical hub' from north to south and from east to west, but due to state-owned company BOTAS' market monopoly in the Turkish natural gas market, there is no evidence to introduce Turkey as 'a trading hub' in the international energy environment. Even though TANAP transports 10 BCM natural gas to Europe, which is counted as 3 % of Europe's natural gas supply, it enables Turkey to continue her claim of being a natural gas hub by opening the Southern Corridor after the failure of the Nabucco project. Turkey's hub concept is different from the EU's hub concept that more often determines prices of natural gas in international markets. However, Turkey's hub is only aimed at reducing its own natural gas price, which is the highest purchasing contract of Europe, and securing its own natural gas supply-demand security by operating the new pipelines from east and south. Finally, the Anatolian Gas Centre is aimed at materializing the country's energy strategy plan by developing more reliability and interdependence between producing and consuming countries.

8.6. CONCLUDING REMARKS

This chapter has explained that Turkey has every major gas and oil producer within easy reach of Eurasia which has already offered Turkey an opportunity for being a hub, or bridge, or corridor, between Asia and Europe and also a market in its own right. If Turkey achieves the Anatolian Gas Centre strategy and makes the Southern Corridor operational, Turkey will reduce its highest purchasing prices and guarantee its supply-demand deficit. Turkey, which does not have major energy resources, is as mindful as the EU countries of a dependence on Russian gas, and has been seeking a

deal to import LNG from Qatar and Iraq and pipeline options from Caspian Sea. Therefore, Turkey has been trying to make the most of its geostrategic position between energy-rich regions like Russia, Central Asia and the Middle East, and the European market. By diversifying energy supply sources from different sources, Turkey's dependency on Russia and Iran will be dramatically reduced for the long-term strategic plan. Arguably, a more strategic question about Europe's natural gas security alternatives could be the buyers' (mainly the EU, specifically Germany) and sellers' (mainly Russia and Iran) preferences. In this case, if Iran and Russia choose to use the Iran, Iraq, Syria as the transit routes by-passing Turkey to European markets, Turkey's strategies to become an energy hub may fail, though at least the effort to secure supply for the growing energy needs in the Turkish market may profit from these attempts. Nevertheless, alternative pipeline routes for the southern corridor over Anatolia to transfer natural gas are not restricted to the Turkish option solely. There are other options such as Russia, Iran, Iraq, Syria, Mediterranean Sea and Europe about which many signatories have intentions to expand alternative routes and corridors. Turkey supports the pipeline projects envisaged to secure the energy supply of the region. The fact is that Turkey stands equal to all possible projects which serve the EU energy supply security. Turkey is becoming a centre of attention for the pipelines and other energy projects. Turkey endorses the inter-connecting pipelines that create interdependencies among the countries in the region to become an energy centre.

CONCLUSION

1. INTRODUCTION

Natural gas politics has introduced new phenomena into the foreign policy making of Turkish geopolitics since the last two decades. So it would create an awareness of Turkey's power of geopolitics spatially and in use of the geopolitics for creating a "natural gas centre" in the region. Hence, this chapter provides a general framework and findings for the descriptive and analytical chapters. It also reviews all the discussions, within three sections, in order to consolidate findings. This thesis assesses Turkey's foreign policy behaviour and the capacity of geopolitics in confidence building between Central Asia-Caspian Sea-Middle East-North African regions and European Union. This research provides an analytical evaluation of the Eurasian natural gas puzzle in order to identify Turkey's role in the so-called Southern corridor. The detailed discussion and assessment of the Southern corridor offers an important comparison between the possible projects and the natural gas pipeline passing through the Turkish border to the European natural gas market.

2. ARTICULATION OF THEORIES OF FOREIGN POLICY AND ENERGY INTERDEPENDENCE RELATIONS

This thesis has attempted to present three types of theoretical approaches from International Relations paradigms, in Chapter 1. It has given some implications for foreign policy making theories in Chapter 2, explaining Turkey's new vision in the international energy environment. One of the significant contributions of this study is the measurement of continuity and change in Turkish foreign policy and its interaction capacity in energy diplomacy. The capacity of Turkish foreign policy has been explained, that reflects a progressive development in Turkish energy and foreign policy. Turkey's interaction capacity with both the regional and international systems has been explained in the concept of these structural approaches. In a sense Turkey's interaction capacity has become the major unit level of analysis in this thesis. Rather than energy security issues, the major focus of this thesis is on the role of the energy interdependence relations of Turkey, which manage supply security by providing transit security in the region. From a theoretical perspective, the thesis has successfully applied the energy sector to international relations as an instrument of

Turkish foreign policy making. Hence, this pluralistic model and pluralistic theoretical explanation introduces the new concept of an Anatolian Natural Gas Centre (AGC).

Henceforward, the research has ascertained that the combination of these theoretical propositions encourages using an integrated model for natural gas geopolitics as the means of Turkish foreign policy making. As mentioned in Chapter 2, Turkey's foreign policy behaviour overlaps with the EU's foreign policy behaviours in the context of common energy policy. In addition to this, Turkey's 'zero problems' approach to neighbouring countries and 'soft power' strategy has been matched with the general principles of interdependence theory of IR. This thesis has ascertained that Turkey has expanded its economic sphere of influence by co-operating with conflicting parties in the Caspian Sea and Middle Eastern regions. This thesis has also showed that Turkey recognises its capacity to contribute to the EU's energy security and is able to regulate its market liberalisation in parallel with the European Union. In a sense, Turkey's co-operative and independent attitude and its confidence building between suppliers and demanding countries does support the EU-27's energy security by the opening of the Southern Corridor, which is certainly diversifying the EU's natural gas supply and transport.

3. TURKEY AND THE EURASIAN NATURAL GAS PUZZLE

Since the coal and steam agreement of the EEC in 1951, energy has become a major variable for European integration. Nuclear technology is not only used for military purposes but also for electricity generation, especially in the European energy market. Europe achieved the creation of a single body under Euratom in order to control nuclear technology.

On the one hand, Europe was faced with OPEC's oil embargo in 1974, which created a dispute about the necessity for common energy politics. In this framework, Europe has followed more dynamic politics to achieve energy efficiency, competitiveness, and market liberalization policies. However, even though EU-27 creates Energy Directives under the body of the European Commission to create a common energy policy, the politics of natural gas is characterized by differences between EU27

countries. The fact is that each country generally follows independent policies to manage long- and short-term contracts with the supplier countries.

On the other hand, the absence of a single body that could be responsible for energy relations in the European Commission provides diversification in a positive way because natural gas supplier countries worry that one voice in the EU would reduce the price while facilitating long term contracting. Due to this concern, Russia and Turkmenistan launched energy market diversification towards the Asian market, especially China, Pakistan and India, whilst increasing import dependency on Russia. Furthermore, the reducing of indigenous production in the EU has become a major issue for the EU's energy security. The EU and Russia have to establish reliable natural gas relations in terms of pricing and long term contracting. Russian dependency on gas export is the main determining factor in the Russian economy. This could contribute significantly to the interdependent relations between Russia and the EU. In addition to the Southern Corridor, Turkey plays a crucial role in co-operation between Russia and the EU as Turkey gave permission for the South Stream.

As has been explained, Turkey is considered to be the second fastest growing energy market in the world after China and an expanded economy unique in Europe in 2012. However, Turkey is very much dependent on energy imports. Among others, natural gas plays a very crucial role in Turkey's primary energy supply. The growing demand for natural gas has to be met with new import options in parallel with the EU-27 countries. This thesis has found that Turkey has to introduce new energy liberalization policies that can be integrated with the EU's common energy policy agenda. This integration process can be continued with Turkey's grand strategy about the EU accession process. Therefore, Turkey has to create its own natural gas market dynamics and transit regime in order to attract the most significant natural gas reserves of the Caspian-Middle Eastern region. It is a fact that 70% of natural gas reserves of the world are located in these regions. If Turkey manages to transport some part of this, this will support the EU's natural gas supply security.

The thesis has introduced the importance of being an integrated and effective gas centre rather than being a simple transit country (as in the case of BTC). Turkey has transformed its energy geostrategy into the concept of the "Anatolian Gas Centre"

(AGC) with the realisation of the. This strategy is also highly dependent on resolution of the Caspian Sea's status between littoral states. Turkey has maintained support of Azerbaijan's initiatives and encouraged improving Turkmen-Azeri relations. The controversies over Caspian Sea delimitation between Azeri and Turkmen impede the entrance strategy of the EU to Turkmenistan which has huge natural gas reserves. The background of this long enduring conflict is interactive due to the facts of continuous Azeri blockage of Turkmenistan until the last volume of Azeri gas has been booked for EU and continuous Turkmenistan blockage of interconnection because of the non-robust and non-unified support of the EU against RF and China which are dominant positions in Ashkhabad. It is a fact that alongside Russia or the EU, the existence of Chinese investment and long-term contract challenges both parties in the Caspian Sea region. It is a fact that if Turkmenistan's natural gas is transported from Azerbaijan and reaches Europe via AGC, this will create balancing relations between Turkish-European and Russian natural gas trade but also be a strong geopolitical achievement against the "backyard" of the Russian Federation.

Diversification is an important factor in securing energy supply. It is a fact that this might help not to politicise the Russian-European natural gas trade and to improve confidence building between the EU and gas supplier countries. Shah Deniz Phase II will be the first natural gas for the AGC directly transited through Turkey to the EU-border(s).

The expansion of AGC seems to be difficult due to Russian political pressure over Caspian Sea littoral states. The other sources of AGC would be Iran's natural gas. Again, this could not be added to the AGC in the short term because of the EU's economic sanctions against Iran. However, Turkey expects that Iran's natural gas should be transported via AGC through Turkey to the European natural gas market.

One of the potential sources of AGC is the Middle East region, especially from Iraq, Qatar and Egypt. Whilst the instability in the Middle East region impedes the expansion of AGC, the author believes that Middle Eastern sources of natural gas should be added to the AGC. Turkey needs to develop balancing relations with Middle Eastern countries and has to introduce a rational energy mechanism to transport both Caspian Sea and Middle East natural gas to the European energy market. The civil war in Syria and political instability in Iraq has caused the

suspension of the Arab Natural Gas Pipeline which starts from Egypt and goes through Syria and Turkey to Europe. Eastern Mediterranean gas is also one of the important sources for “Expanded” AGC.

As mentioned in Chapter 2, Turkey’s new foreign policy concepts (soft power, zero problems with neighbours and multidimensional politics), that have been introduced by Turkish Foreign Minister Ahmet Davutoğlu, provide a new vision for Turkey in the region. This new vision also becomes a useful tool for evolution of Turkey’s natural gas geopolitics. Turkey has allowed Russia’s South Stream pipeline project to pass through the Turkish maritime border in the Black Sea. This is the major characteristic of Turkish initiatives, demonstrating that Turkey does not follow competitive policies towards Russia, providing an alternative energy corridor from Russia to Europe. On the other hand, Turkey takes an active role in the AGC concept, which diversifies natural gas import routes for the EU and decreases the dependency level on Russian gas.

This thesis concluded that Turkey’s unbiased position on the natural gas transport projects increases the confidence with which it is regarded in the Eurasian energy market. It reached the conclusion that the major aim of Turkish foreign policy echoed by its energy politics is to interconnect natural gas pipelines with Turkey and to create interdependent relations with natural gas supplying and demanding countries, and to transform Turkey into a physical natural gas hub.

3.1. The Opening of The Southern Corridor

Europe already receives natural gas from Russia, Norway and North Africa. However, Europe certainly needs the AGC to provide additional natural gas for long term contracting with Caspian-Middle Eastern regions. This thesis has reached the conclusion that the EU has a capacity shortage on the horizon. As a partner of EU27, Turkey does not prefer to be a passive player; it rather uses its initiative to play an active role in natural gas contracting. The initiatives of Turkey have met with great success, especially in realisation of the TANAP, which has made Turkey a dominant figure in the Eurasian natural gas environment. This thesis analysed how, after the failure of the Nabucco pipeline project, pipelines will be developed within the context of the AGC under the following four sub-categories: 1) transit pipeline through

Turkey (TANAP), 2) pipelines connecting Turkey to Europe (ITG, ITB, and TAP), 3) pipelines interconnecting the Caspian Sea region to Turkey (SCP/SCPX-BTE) and 4) pipelines interconnecting the Middle East region to Turkey (Iraq-Turkey, ITS, Iran-Turkey). The signing of the Intergovernmental Agreement (IGA) of TANAP on 26 June 2012 made a standalone pipeline more realistic for transit, allowing important off-take to Turkey, and this will be constructed through Turkey, increasing Ankara's initiatives in the region. This thesis concluded that the initial gas will come from Shah Deniz Phase II in 2018. Pipelines connecting the Caspian region to Turkey happened with the South Caspian Pipeline. However, the capacities of this pipeline need expansion to transport additional volume from Shah Deniz Phase II to the Turkish border (SCPX).

Even though Turkmen gas has a long-term contract with China and prefers to expand its market options towards Asia, it is thought that Turkmen gas will be one of the suppliers of AGC. On the one hand, Iraqi gas sources and Qatar's LNG and pipeline options for the Southern Corridor will be developed by Turkey's initiatives if the region becomes more stable and attractive to foreign direct investment. As mentioned previously, Turkey has short-, medium- and long-term strategies regarding natural gas transport projects characterized by more co-operation with Russia and Iran. However, Turkey's transit policy and market liberalisation not only contribute to the EU's transport diversification but also help Russia not to use natural gas as a weapon in the Eurasian natural gas environment. Neither the Caspian Sea littoral states nor gas-rich Middle Eastern states want the militarization of energy security, and do not want to rely on one single transit country.

Georgia and Turkey are considered as transit countries, and each wants to increase its own interdependence relations with supplying and demanding countries, and would like to benefit from natural gas to feed domestic markets. In addition to this, Azerbaijan and Iran are considered as transit countries for Turkmenistan gas transport in this thesis. As explained, the development of energy technologies, such as the tie-in solution for Turkmen-Azeri gas production platforms, would supply natural gas to the existing pipelines in the Caucasus. In addition to this, this thesis has ascertained that Turkmen gas can be transported to Europe by using the Russian and the existing Iran-Turkish routes, or the routes of Azerbaijan–Georgia–Turkey. The option for transport

via Turkey through Azerbaijan and Russia will support Turkey's energy geopolitics. Turkey's strong interest is an Iraq–Turkey natural gas pipeline, massive upstream investment in Northern Iraq and rhythmic diplomacy to bring about the Qatar-Turkey natural gas pipeline and the desire for LNG trade focuses on the Middle East for diversification of energy geopolitics.

Turkey worries about the rise of the Eastern Mediterranean natural gas region as possible challenging actors. Turkey has classified the “Eastern Mediterranean Pipeline” from offshore Cyprus via Greece through Europe as simply “non-affordable” and an LNG export option is probable but needs huge capital expenditure. On the other hand, the situation would force Turkey to undertake initiatives in the maritime border of the Eastern Mediterranean, while Israel's co-operation with Greek Cyprus not only deteriorates political relations with Tel-Aviv but also creates a concern about the emergence of a ‘Cold War’ in the Eastern Mediterranean Sea. This thesis notes that if these crises are managed well in terms of the EU's energy security, Turkey's relations with the EU and Israel-Greek Cyprus can be questionable in energy geopolitics.

4. SYSTEMATIZING THE FINDINGS FOR TURKEY'S NATURAL GAS GEOPOLITICS

The discussion in this thesis, including this chapter in use for contextualizing the findings on Turkey's natural gas geopolitics, provides us with an explanation of Turkey's energy relations with energy suppliers and demanding countries, especially in Europe. This generalization, in a systematic explanation, can be narrowed and listed as follows:

(1) The thesis has successfully employed a pluralistic model and pluralistic theoretical explanation to explain how the energy sector has become one of the instruments of foreign policy making, in the sense that the geopolitics and interaction capacity of the country have been presented in the field of political science/international relations.

(2) Rather than identifying Turkey as an energy hub, transit corridor and hub, the thesis presented the new concept of an Anatolian Gas Centre, which makes more feasible the Southern Corridor.

(3) In the Eurasian environment, this thesis has found that the natural gas relationship between the EU and Russian Federation has been characterized by imbalanced interdependence relations so far. An integrated, well-planned, multi-dimensional and well-established AGC provides an alternative and strong option for EU energy security, even if it has initially a small amount of natural gas transporting, compared to the Russian and African corridors. Turkey's geopolitical importance in terms of energy transport and supply has been seen as economically and politically feasible in this thesis.

(4) This thesis has found that the Shah Deniz Phase II gas in Azerbaijan is the initial natural gas reserve that could be supplied through the AGC into Turkey and EU markets, among other natural gas reserves of Caspian Sea-Middle East regions.

As explained above, the most possible natural gas sources that would provide the first gas in the AGC were Azerbaijan's Shah Deniz Phase II resources; an IGA and Investment Agreement were signed between Turkey and Azerbaijan governments to construct a TANAP pipeline within the territory of Turkey that will transport Shah Deniz Phase II gas from the Eastern Border to the Western Border of Turkey. This means that EU regulations and stabilization of the Turkish transit regime via Nabucco IGA was replaced by new rules which are equally beneficial for all Turkish-Azeri and SDC parties.

In pipeline politics, (5) this thesis assumed that if the suppliers became partners of the consortium of the pipeline, the AGC would be opened for natural gas transport. The difference between TANAP and Nabucco Classic pipeline projects has been revealed to be that (6) if the natural gas supplier company becomes the pipeline shareholder, the project will become more feasible in economic and technical respects.

This thesis concluded that the AGC passing through Turkey to Europe will be opened with the realization of TANAP. (7) Beyond the TANAP pipeline, we believe that if the 10 BCM/a natural gas volume is marketed to South Eastern Europe, this gas will be carried by by the TAP natural gas pipeline.

As mentioned in Chapter 2, natural gas politics has become the main component of Turkish foreign policy making over the last two decades. Turkey prefers to be more active in long-term natural gas contract management, as that would create

interdependent relations between Turkey and supplying and demanding countries. Hence, this thesis concludes that (8) introducing interdependence relations between parties would provide confidence building for common energy politics and energy security in international relations.

As mentioned in Chapter 3, it is predicted that Turkey will become the second largest natural gas market in Europe in the 2030s. Hence, (9) the realization of the AGC does not only provide geopolitical advantages for Turkey; it also facilitates additional gas supplies for Turkey's growing natural gas market. Moreover, as Turkey is very much dependent on Russian natural gas supplies, (10) the AGC not only diversifies Turkey's natural gas supplies but reduces Turkey's dependence on Russia. (11) The additional natural gas coming from the AGC will also confer the ability to compete with the existing natural gas import contracts and to reduce the natural gas prices in the Turkish natural gas market.

5. THE SCOPE FOR FURTHER RESEARCH

This research has provided the geopolitics of natural gas pipelines in considering Turkey's energy relations with Europe and Caspian-Middle Eastern regions. However, there is scope for further research about the possible instruments of geopolitical game changers, such as future technological development in LNG trade, unconventional natural gas, Turkish accommodation of an international natural gas regime for being an energy hub, and the emergence of a Fifth Corridor of connecting Mediterranean resources directly to European markets via Greece.

There are two types of transport of natural gas: LNG and pipeline; this thesis mainly deals with pipeline politics because the pipelines cover the majority of natural gas transportation. In future, if LNG technologies become cheaper and expand in the global energy market, this balance could be changed and affect the geopolitics of natural gas. Further study will explore new LNG technologies and further CNG (Compressed Natural Gas) that might influence the natural gas trade in global politics.

In addition to this, unconventional natural gas (includes revolutionary methane hydrates) phenomena may have a potential that can change the proven natural gas reserves map of the world. If the environmental concerns can be eased and if

unconventional gas production becomes cheaper, the natural gas geopolitics may change fundamentally.

The absence of common energy policies between EU-28 countries and Turkey requires further examination in order to create a regional energy regime. Moreover, whether the natural gas market liberalization process that has been executed by the Turkish Government can introduce an alternative natural gas regime requires further research.

The other important issue for a new direction in energy studies is the transportation of Russian natural gas from Turkey to Europe. The co-operation between Moscow and Ankara about the South Stream pipeline project (this is a real milestone for Turkey's new multi-dimensional energy geopolitics) will change the paradigm in the energy sector. Hence, this is another parameter in Russian and Turkish foreign policy behaviour that needs to be researched.

In addition to this, this thesis only dealt with the East-West natural gas corridor passing through Turkey to the European energy market but has not dealt with Turkey's options of South-North. In fact, Turkey has the potential to act as a transit country for Ukraine. This country is dependent on Russia for its own natural gas security. However, it plays a crucial role between Russia and Europe for natural gas transportation. If a Turkish initiative for Ukraine's natural gas needs is implemented and the Russian South Stream passes through Turkey, this situation creates balancing relations between Ukraine and Russia. It is important to note that the crisis in recent years between two neighbours created insecurity for energy transportation. It is a fact that Russia could not have presented any alternative for Turkmenistan's natural gas except Ukraine. On the other hand, Turkey can transport natural gas from the Caspian Sea and Middle East by using the South-North Corridor and using the Bosphorus for LNG shipping. This scenario is also considered as another option for natural gas trade and transport in international energy trade. Hence, this needs further research in the foreign policy making of three Black Sea countries.

This thesis has endeavoured to elaborate Turkey's natural gas geopolitics and the impact of energy in Turkish foreign policy making. Whilst the thesis has provided detailed information about Turkey's growing energy market for investors and its role

in energy transport, it ignored the absence of Turkey in upstream for production, especially on the Caspian Sea and Middle East natural gas investments. We believe that Turkey needs to increase its investment for production of natural gas in those regions. If Turkey would like to be a major player and a transit or hub country, Turkey needs to make investments in both domestic and international upstream projects. Therefore, this is another important issue in Turkish foreign policy related to energy politics that requires further research.

6. EPILOGUE

This thesis investigates the natural gas geopolitics of Turkey and explores the impact of energy variables as foreign policy making tools. The major emphasis is on the importance of Turkey's geopolitical location for the so-called Fourth Corridor (Southern Corridor) which is now redefined with a broader perspective as the "Anatolian Gas Centre" and on the fact that Turkey's growing energy market increases its economic capacity. This thesis has tried to demonstrate that Turkey has enough physical, technical and human capital to integrate with the East-West and South-North corridors. In doing so, Turkey has been trying to increase interdependence relations and confidence building with supplier and consumer countries. Turkey's initiatives in the TANAP, TAP and Nabucco West projects put Turkey in the centre of the Eurasian energy environment. The existing pipelines connected with Russia (Balkan route and Blue Stream), Iran and Azerbaijan establish a grant for Turkey's regional energy mechanism that attracts the other natural gas producers and demanding countries. Moreover, Turkey's long-term Europeanization project together with its historical and cultural ties with Middle East and Caspian Sea countries have facilitated its implementation of an efficient and active international energy politics over the last two decades. Hence, this thesis succeeded in showing the importance of Turkey's existing and future role and impact in Eurasian natural gas security and growing natural gas market that attracts new supply sources.

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