TURKEY'S ENERGY STRATEGY AND DEVELOPMENT OF CEYHAN AS AN ENERGY HUB

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Approval of the Graduate School of Social Sciences

Prof. Dr. Meliha Benli Altunışık
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science/Arts / Doctor of Philosophy.

Assoc. Prof. Dr. Pınar Akçalı
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

Prof. Dr. Meliha Benli Altunışık
Supervisor

Examining Committee Members

Assoc. Prof. Dr. Ceylan Tokluoğlu Cesur	(METU, SOC)
Prof. Dr. Meliha Benli Altunışık	(METU, IR)
Assoc. Prof. Dr. Oktay Tanrısever	(METU, IR)

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name : Deniz Değirmenci

Signature :

ABSTRACT

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Değirmenci, Deniz

M.Sc., Department of Eurasian Studies

Supervisor : Prof. Dr. Meliha Benli Altunışık

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This thesis aims to analyze the Turkish policy of being an energy hub. Within this context Turkey, as it is geographically very close to the two thirds of the world's proven oil and natural gas reserves, has a very big advantage to manage its location and the purpose of this study is to discuss the measures taken to utilize this advantage. Therefore relative weakness of Turkey in comparison to the other actors like Russia, the USA or the EU and the strengths of the Turkish policy like the geopolitical advantage, the ethnic link between Turkey and the newly independent states of the Caspian and the already existing infrastructure for the transportation of oil and natural gas like Kirkuk-Yumurtalık Pipeline, Baku Tblisi Ceyhan Oil Pipeline, Ceyhan Terminal, and Baku Tblisi Erzurum Natural Gas Pipeline are discussed. With this respect, this study argues that, as a result of the existing and planned projects, Ceyhan's claim to become a hub is a realistic objective and in addition to BTC and Kirkuk-Yumurtalık Pipeline, the realization of Samsun-Ceyhan Pipeline will increase Ceyhan's potential as an energy hub.

Key Words : Pipelines, Ceyhan, the Caspian, Turkish Energy Policy, Trans Anatolian Pipeline

ÖZ

TÜRKİYE'NİN ENERJİ STRATEJİSİ VE CEYHAN'IN BİR ENERJİ TERMİNALİ OLARAK GELİŞİMİ

Değirmenci, Deniz

Yüksek Lisans, Avrasya Çalışmaları

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Bu tezin konusu Türkiyenin bir enerji merkezi olma politikasını incelemektir. Bu bağlamda dünyadaki petrol ve doğal gaz rezervlerinin üçte ikisine yakın olduğundan Türkiye'nin büyük bir coğrafi avantajı vardır ve bu çalışmanın amacı bu avantajı kullanmak için bugüne kadar atılan adımları incelemektir. Bu nedenle Türkiye'nin Amerika Birleşik Devletleri, Avrupa Birliği ve Rusya gibi diğer aktörlere nazaran görece zayıflıkları ve Türk Politikasının, jeopolitik avantaj, Hazar Bölgesinin bağımsızlıklarını yeni kazanan devletleri ile olan etnik bağ ve Kerkük Yumurtalık Ham Petrol Boru Hattı, Bakü Tiflis Ceyhan Ham Petrol Boru Hattı, Ceyhan Terminali, Bakü Tiflis Erzurum doğal gaz boru hattı gibi halihazırda var olan teknik altyapısından kaynaklanan avantajları tartışılmıştır. Dolayısıyla bu çalışma var olan ve planlanan projeler sayesinde Ceyhan'ın bir enerji merkezi olarak geliştirilmesi hedefinin gerçekçi bir hedef olduğunu ve Samsun Ceyhan ham petrol boru hattının inşa edilmesi ile birlikte Ceyhan'ın bir enerji merkezi olma potansiyelinin artacağını savunmaktadır.

Anahtar Sözcükler : Boru Hatları, Ceyhan, Hazar, Türk Enerji Politikası, Trans Anadolu Boru Hattı

To the people of Turkey, who deserve better conditions to live.

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CHAPTER 1

INTRODUCTION

The development in the nineteenth and twentieth century supersedes any other time period in the history of mankind and oil is the most important commodity of this era leading this leap. Therefore sustainability of oil supply, transportation and trade has primary importance for the continuity of the world system. In the words of Wallerstein, every country seeking a better place for its presence in the core should have greater power[1], and the history of the twentieth century shows that such a power can only be achieved by being a part of the infrastructure of oil.

The importance of oil and its effects to the history of mankind can easily be proven by the change in the world population in the last two centuries. Although it is estimated that there were 1 billion people living in the world in the 1800s, the world population has increased a tremendous six folds in the industrialization

[1] Wallerstein defines the dependency theory in his famous work; "The Modern-World System" in which he brings the core and periphery explanation for the use of power.

era; reaching 6 billion by the year 2000[2]. In its pursuit of reasoning for this big change, a curious mind should try to find the facts leading to the difference. Examining the steps taken by the mankind, show that men became faster and stronger than ever in the preceding two hundred years. This advancement in speed and strength was more than mankind could achieve on his own; it was vastly due to utilizing energy from outer sources. In this respect, what was new in the last two centuries is the introduction of hydrocarbons in the industry. In fact, they were already being used before the industrialization era. However, the mass scale exploitation of hydrocarbons had only started after the introduction of steam engine which was invented in the late 17th century. The first commercial applications of this invention can be seen with the Watts' Engine in 1775 and it is spread to the industry around 1800, which is the starting point of the population boom mentioned above. That being said, it can be stated that coal played the prominent role at the beginning of the industrialization era. On the other hand, the real change came with the invention of a more efficient way of using hydrocarbons; namely petroleum. Internal combustion engine, which uses a derivative of oil as a fuel made the lives of the people faster and easier, increasing the acceleration of the deployment of industrialization. As a result, since energy became a vital element of all the basic parts of the industry, hydrocarbons themselves changed the system of distribution of power in the

[2] UN Report, 2004 data

world. The countries enjoying a continuous energy supply became to be the prevailing actors in the world system.

In the modern age, without introduction of necessary energy to the veins of the economy, every single country in the world would become fragile regardless of its size and power. Therefore, it is not surprising to see a struggle between countries to reach the energy sources to maintain a reliable and continuous energy supply for their economies. Especially in the 20th century, oil itself and its economic and political extensions have integrated every single structure of the world and hence, the positioning of the countries in the world system became directly correlated with their relation to oil. In this sense, countries having easy access to hydrocarbon reserves either by their geographical location or their political and military power, turned out to be the most important actors of the world trade and thus, gain great advantages on their counterparts. Eventually, there have already been many wars related to this struggle and it would not be wrong to expect many more to come in the future. Even the national borders of many countries were influenced throughout the 20^{th} century by the economic and political effects of oil and natural gas. For example oil played a significant role in determining the shaping the world after the World Wars I and II. It can even be argued that Six Day War or Yom Kippur War in the middle of this

century and the Gulf Wars at the end of the century are totally because of the search for dominance over the hydrocarbon resources.

Within this context Turkey, as it is geographically very close to the two thirds of the world's proven oil and natural gas reserves,[3] has a very big advantage to utilize its location for being an energy hub. This study intends to analyze the measures taken to achieve this goal. Such a detailed analysis is thought to be meaningful because being physically located between supply and demand would be either a curse or a blessing. Although a brief summary on the subject would easily end up with praise for the geographical location of Turkey, recent dramatic examples in its neighbors like Iraq or Georgia show that pessimistic predictions should also be considered. Erratic political and economic environment of the region force Turkey to increase its efforts to have a bigger stake from the energy pie. Keeping these facts in mind, it was thought that a study on the solid steps taken by Turkey so far would identify the current situation and clarify the urgent need for future progress like developing an energy hub in Ceyhan. Therefore this study argues that, as a result of the existing and planned projects, Ceyhan's claim to become a hub is a realistic objective. In

[3] Own calculations from BP Statistical Review of World Energy, June 2009

addition to BTC and Kirkuk-Yumurtalık Pipeline, the realization of Samsun-Ceyhan Pipeline will increase Ceyhan's potential as an energy hub.

In order to achieve the goal of analyzing Turkish policy on energy transportation, only oil and natural gas are taken into consideration within the context of this thesis. Although coal still constitutes about a quarter of the world's primary energy consumption, higher than natural gas[4], global coal reserves are located in many different areas of the world, having a rather homogenous distribution. Therefore, every country more or less has some coal; no country is in an urgent need for larger reserves. Moreover, with the current production rates, the world has enough coal for the next 120 years[5] and this makes coal prices more inelastic to regional and international economic instabilities and to political conflicts. On the other hand, oil and gas, which have a total share of about sixty percent of the world's energy consumption, are much in scarce than coal[6] and thus nearly all of the international events are affecting the price of oil and gas. Additionally, while most of the oil and gas production come from one area of the world, namely Middle East and Caspian region, the

[4] Turkey has also adequate amount of coal reserves; according to the TKI Annual Report 2006 ; coal reserves in Turkey is about 2,5 billion tons.

[5] Reserves to Production ratio for coal is 122 years according to the BP Statistical Review of World Energy, June 2009

[6] Reserves to Production ratio is 42 years for oil and 60 years for natural gas; BP Statistical Review of World Energy, June 2009

consumption is concentrated in other regions like European Union or the United States of America. Naturally, given the fact that the world economy is very dependent on these two commodities' supply, transportation of oil and gas has an integral part in the energy structure of the world. It can even be stated that the issue of transportation is as important as the amount of reserves and the policies deployed for transportation of oil and gas and their consequences deserve a big attention. In light of the above, in order to fully focus on the context, detailed analysis of pricing issues of these two commodities were excluded from the scope of this study and only supply of oil and gas to the world markets were chosen to be the main interest.

Additionally, in order to be able to confine the content of the study, only the Caspian hydrocarbon resources and their transportation to the world markets through Turkey were chosen as a regional constraint. Middle East region, although it has a clear advantage over the Caspian in terms of quantity, quality and production costs, has already an existing infrastructure for production and transportation. On the other hand Caspian attracts many investments with its sizable amount of hydrocarbon reserves accessible by the international oil companies. Moreover, none of the producing countries in the Caspian Region is

an OPEC[7] member and their production is out of cartel's control; thus constitute a very big importance for the Western markets. Meanwhile Turkey is a natural bridge between the Caspian and the Western countries in all aspects. Geographically, the Anatolian peninsula lies between the Caspian and Europe. Politically, Turkey is closer to the Western world with its secular democratic government and it shares the same ethnic origin and the same religion with most of the Caspian states. Economically, Turkey is an important trade partner of the US and the EU, while, it also has a diverse set of investments in the Caucasus and Central Asia. In this manner, Turkey plays a significant role for both parties to realize the aim of making Caspian hydrocarbon resources attainable.

Caspian Region, as located in the continent Asia, has no direct connection with the Western markets. Caspian Sea is surrounded by five states, four of which are the members of the Former Soviet Union. Except for Russia and Iran, all three other states around the Caspian Sea, namely Kazakhstan, Turkmenistan and Azerbaijan have gained their independence only after the collapse of the Soviet

[7] Abbreviation for "Organization of the Petroleum Exporting Countries". This organization is created by the Baghdad Conference on September 1960 with the founding members of Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Later on the organization is enlarged with the addition of Qatar (1961); Indonesia (1962) -- suspended its membership from January 2009; Socialist People's Libyan Arab Jamahiriya (1962); United Arab Emirates (1967); Algeria (1969); Nigeria (1971); Ecuador (1973) -- suspended its membership from December 1992-October 2007; Angola (2007); and Gabon (1975–1994). In 2009, with its twelve members, OPEC produced %36,33of the world's total oil production. www.opec.org

Union. In the preceding centuries, the region has always been in the middle of big empires, either as an integral part of them or as an insignificant small country between them. A variety of cultures have ruled the region from Greeks to Romans, Arabs to Ottoman Turks, and Persians to Russians leaving no room for an independent country. Therefore, especially in the beginning of 1990s, the three newly independent countries of Caspian were lacking the necessary skills to accommodate themselves in the international arena. Having explicit economic and political threats, they were in search for an urgent economic reconstruction and political support from the international community to survive and Western countries were ready to make the necessary economic and political investments. Because the region was a promising resource to meet the future Western oil demand; unlike many other hydrocarbon producing areas of the world, there was a huge potential to increase the production levels in the region and there was a positive attitude towards the investment of International Oil Companies. This suitable climate created an accumulation of technical and political opportunists. However, during the big rush to the hydrocarbon resources of the Caspian States, there occurred a big misunderstanding about the reserves of the region. Although there is a clear distinction between the proven and possible oil reserves[8] and only proven reserves can be included in the balance sheets of the oil companies, in the early 1990s possible reserve figures of Caspian were made

[8] Proven reserves are defined as oil and natural gas deposits that are considered 90 percent probable, while possible reserves are defined as oil and natural gas deposits that are 50 percent probable.

public by the politicians. With these figures in confused minds, Caspian was launched as the next Middle East of the world. This is hardly the case. There being a huge hydrocarbon potential, total size of the proven reserves of the Caspian Region hardly catches the half of the proven reserves of Kuwait.[9] But still, with the revisited peak oil scenarios of the 1970s, nowadays, every single drop of oil is important for the world markets. Moreover, the estimates on the probable reserves in the Caspian Region hint on the fact that there will be a considerable increase in the proven reserves of the area. In this sense, the Caspian Region is a very promising source for the continuous, reliable energy needs of the Western markets.

Therefore, the hydrocarbon resources of Caspian are very important for the world energy markets and transportation of these reserves is a key concept in having a reliable and sustainable energy market supply. In this manner, to be able to examine Turkey's role in the broader picture of transportation of oil and gas reserves of the Caspian, first the role of oil and gas in the Turkish energy strategy is examined in Chapter 2. Here, concept of energy security and diversification of supply were identified and the facts about the Turkish energy

[9] According to the BP Statistical Review of World Energy, June 2009, the proven reserves of Kuwait is 101,5 billion barrels, while the proven reserves of all the Caspian basin is 48 billion barrels.

strategy are given. Energy balance in Turkey is explained with statistical figures on the Turkish oil and gas demand. Moreover, especially in the wake of the record high oil prices of 2008 and recent developments in the world economy, Turkish government's initiative for exploration of oil and gas in Turkey is briefly discussed.

Turkish policy of being an energy hub in the region is challenged by many factors and players especially due to the continuous change of the political environment in the region. Thus, strengths and weaknesses of Turkey in implementing its policies are discussed. Thereof, relative weakness of Turkey is analyzed in comparison to the other actors like Russia, the USA or the EU. Moreover, the strengths of the Turkish policy like the geopolitical advantage, the ethnic link between Turkey and the newly independent states of the Caspian and the already existing infrastructure for the transportation of oil and natural gas like Kirkuk-Yumurtalık Pipeline, Ceyhan Terminal, and Blue Stream Natural Gas Pipeline are discussed. As a result, Chapter 2 draws the picture of the current energy situation of the country emphasizing the importance of being an energy hub.

In Chapter 3, the East-West Energy Corridor Policy is discussed from the Turkish energy strategy perspective for the transportation of Caspian hydrocarbon resources. First of all, history and context of the East West Energy Corridor Policy is explained. The negotiations for the Baku-Tbilisi-Ceyhan (BTC) main export pipeline, early oil options for the Azerbaijani oil and the construction phase of BTC with its economic and political challenges are revealed with the purpose of discussing the steps taken so far for the realization of Turkish energy policies. In addition, roles of the parties attending the project are stressed to make an analysis of the political support for the East-West Energy Corridor Policy. Moreover, share of the pipeline on international oil trade is also discussed to emphasize its importance for the world markets. Having said that, the energy corridor policy is not restricted to oil, Turkish proposals for the transportation of Caspian gas are also included in this chapter. In this respect, alternative routes developed for the Azerbaijani and Turkmen gas are analyzed with the dominant role on the Trans-Caspian Pipeline Project. The reasons lying beneath the failure of the aforementioned construction until now are discussed. After that, the history behind the construction of the Baku-Tbilisi-Erzurum Natural Gas Pipeline and the European leg of the East West Energy Corridor is also included in this chapter with a brief review of the Turkey-Greece interconnection system and NABUCCO project.

In the final chapter of this study, on-going projects around Ceyhan are analyzed. Since Ceyhan has been included in the Turkish energy strategy as the focal point of being an energy hub, Chapter 4 is dedicated to Ceyhan as a case study. In this sense, the Turkish Project of creating a new Rotterdam in the Mediterranean is discussed by the statistical facts about the Mediterranean Market. BTC, Kirkuk Yumurtalık Pipeline and Trans Anatolian Pipeline (TAP) Project are the main topics of this chapter. However, special attention was given to the ongoing TAP project because it would have a dual impact for Turkish energy strategy. First of all it would be a bypass for the heavily congested Turkish straits and it would decrease the vulnerability of the highly populated İstanbul and environmentally sensitive Bosphorous. Secondly, with the construction of a bypass line terminating in Ceyhan, East-West Energy Corridor Project would be strengthened by the addition of a North-South passage. Moreover, in this chapter, the role of Ceyhan in the international oil trade is discussed and the future projections of creating an energy complex including refineries, petrochemical facilities and an LNG terminal are summarized.

Within the perspectives summarized above, main aim of this thesis is to identify Turkey's role in making the hydrocarbon reserves of the Caspian accessible to the Western Markets in order to examine the success of the policy of being an

energy hub. To achieve this, already existing pipelines and future pipeline projects passing through Turkey are assessed within the scope of the energy strategy of Turkey towards Caspian. In this sense, special focus is given to identify Turkish Energy Strategy regarding the transportation of oil and gas resources of the Caspian Region. As it has already been mentioned by many scholars, a confined transportation role for Turkey would not make a substantial contribution to its aim of being a regional power both politically and economically. Therefore, the country has also other plans for the oil and gas transported via its territory. The most pronounced resolution is creating an energy hub in Ceyhan by utilizing the existing technical infrastructure in the region and by constructing new refineries and petrochemical plants. Therefore, the aim of the study is not limited to summarize the current situation, but also identify future possible developments by examining Turkey's proactive actions for being an energy hub.

CHAPTER 2

ROLE OF OIL AND GAS IN TURKISH ENERGY STRATEGY

2.1 Introduction to the Energy Strategy

Starting with the industrial revolution, the term "Energy" gained a crucial importance in setting political priorities of the countries and especially after the First World War, energy policies have always been given a significant focus by every single country. Within the set of energy sources, one may count many alternatives but with its share in transportation, oil has the primary importance and thus the economic future of all the countries became dependent on this single commodity throughout the 20th century. In this manner, before getting more specific, it would be wise to explore the ways of setting energy policies in general and try to identify the importance of oil for world's political structure.

By its very nature, energy issues cannot be separated from both economy and security and they are all regarded as "high politics", very similar to the security policy.[10] Hence, such an important element of the state structure should include variety of factors like developing a sufficient infrastructure or optimizing the use of energy. Additionally in order to decrease external dependency, some extra precautions are necessary like supporting national resources or diversification of supply. Moreover, as Matlary puts, nowadays those issues are broadened even more with the introduction of some environmental constraints on energy issues due to the affects of global warming.[11] However, each of these topics in this diverse set of priorities would constitute enough discussion points for a separate study. As stated earlier, scope of this study is limited to the transportation of the Caspian hydrocarbon resources to the Western markets through Turkey, thus, this chapter will mainly focus on one aspect of the energy policy; energy security. This is because in developing an energy policy for a country, security is fundamental in setting the relations with the international actors. Quoting Kalicki and Goldwyn, energy security is the 'assurance of the ability to access the energy sources required for the continued development of national power'.[12] Therefore, it can be stated that in drawing the borders of the energy policy of

[10] Janne Haaland Matlary, Energy Policy in the European Union, Mc Millan Press, 1997, p. 7, 25

[11] Ibid.

[12] Jan H. Kalicki and David L. Goldwyn, Energy and Security, Johns Hopkins University Press, 2005, p.9

any country, the main focus is energy security and considering the share of hydrocarbon resources in the energy pie, assuring energy security can only be provided by safeguarding affordable, reliable and diverse supplies of oil and gas to ensure the domestic development.

Although such an explanation of energy security is enough for a brief definition, some of the terms used in the definition still need some clarification in order to understand the idea behind this concept. For example, by saying affordable, the need for decreasing or at least stabilizing the economic burden created by hydrocarbon imports is stressed. However, this is a very hard task to accomplish given the pricing structure of oil and gas. In fact, it is the price of oil which makes things complicated since gas prices are generally bound to the oil prices[13]. Oil is an internationally traded commodity for the past 150 years since it began to take a part in the industrialized society in 1800s and its importance for the world economy increased day by day after the First World War. Getting into details, the stages for the pricing of oil can be divided into four different major time-periods from the beginning of the 20th century, namely; 1928-1947, 1947-

[13] Jim Jensen, Ralf Dickel, Andrei Konoplyanik and Yulia Selivanova explains the details of the natural gas pricing in their report "Putting a Price on Energy International Pricing Mechanisms for Oil and Gas" published by Energy Charter Secreteriat. It is clear that there are some certain times in history when the gas prices became irrelevant with the oil prices. However given the areas of use for gas (i.e. heating and electricity production), oil products are the natural substitutes for gas and this creates a direct link between the prices of these two commodities.

1971, 1971-1986 and 1986-to this day. The first three of these periods have been ruled by the Seven Sisters[14] and OPEC and in either way they can be defined as oligopolistic.[15] On the other hand, starting with the mid 1980s, the oil sector is ruled by the commodity-type pricing mechanism and the prices are very volatile. Especially after the official selling price system, which was based on long-term fixed-price contracts of OPEC, lost its importance the pricing mechanism became to be controlled by the demand and supply balance. In this manner, financial markets became an important factor affecting the market and with such a pricing mechanism, it is impossible to have oil and gas without the risk of volatile prices and all of the countries have an exposure to the price fluctuations. For example in 2008, oil prices doubled in less than a year, hitting record highs above 147$/barrel in July[16] before collapsing down to the values as low as 36$/barrel in December. Therefore, nowadays it is far from certain that one of the biggest priorities of the governments in the world is fixing the burden of the hydrocarbon resources in their economies. Thus, the relative economic power of any country within the world system is closely related with the process of making a balanced energy policy.

[14] The term Seven Sisters refers to the seven international oil company which had the control of oil until the 1970s. The group includes five US companies; Exxon (Standard Oil of New Jersey), Mobil, Gulf, Texaco, Standard Oil of California (SOCAL), one UK company; British Petroleum and one joint venture of UK and the Netherlands; Royal Dutch / Shell.

[15] Ralf Dickel, Miharu Kanai and Andrei Konoplyanik, "Putting a Price on Energy International Pricing Mechanisms for Oil and Gas", Chapter 3, Energy Charter Secreteriat, 2007, p.53

[16] "Oil hits new high on Iran fears", 11.07.2008, http://news.bbc.co.uk/2/hi/business/7501939.stm

In this manner, since any threat on the oil's strategic transportation routes creates big instabilities in the international markets and cause higher prices, it can be claimed that oil prices is directly affecting international politics. Because increased oil prices would lead to increasing costs, unemployment and even immigration as a domino effect, with possible results in political unrest and even wars.[17] Especially after the 9/11 terrorist attacks to the United States and the war against terrorism, the relation between the oil prices and the political environment became more evident. The production and transportation of oil is so vulnerable to the attacks that even without certain actions of the terrorist organizations, the prices are affected with their threats. For example crude oil prices rose by nearly US $1 in December 2005, in response to a video statement of Ayman al-Zawahiri calling for attacks aimed at oil facilities in the Middle East.[18] Although it can be claimed that the affects of such events are temporary, it is certain that there is a butterfly effect which turns a micro-actor to a global player. Considering the huge amount of oil consumed globally (more than 80 million barrels per day), only 1 dollars increase in its price would create an additional 30 billion dollars burden in the world economy annually, even

[17] Gökırmak, Mert "Türkiye Rusya İlişkileri ve Petrol Taşımacılığı Sorunu: Jepolitik bir Değerlendirme", in Sönmezoğlu Faruk; "Değişen Dünya ve Türkiye", Bağlam Yay., İstanbul, Mart 1996, pg 154

[18] Jennifer Giroux and Caroline Hilpert; "The Relationship Between Energy Infrastructure Attacks and Crude Oil Prices", Journal of Energy Security, October 2009 Issue.

without considering the side-effects of such an increase in the oil price. Therefore, it is not surprising to see more and more threats to the energy infrastructure from the organizations aiming to create instability and the term “reliable” stands for the need of supplying the energy market with sustainable oil volumes and sustainable prices.

Considering the above mentioned fragility of the hydrocarbons supply structure, having a totally reliable and affordable energy source is nothing but a dream. However, sudden price peaks and hence destructive effects of such a price volatility would be somewhat diminished by the availability of extra supply or having long term supply agreements with relatively stable prices. What is more, keeping a stockpile, which amounts for a certain percentage of the hydrocarbons used in a year, would also decrease the threat derived from the terrorist attacks or acts of God. Especially after facing up with the effects of the modern sense of globalism, the world economic system became vulnerable from the effects of a regional instability, unrest, natural disaster or acts of terror. In being so, hydrocarbon prices are the first to get influenced. Thus, a stockpile proved to be important in the global situation in the last decade. In fact, there is already a structure to meet such an aim of creating national stocks called ‘emergency

response system', initiated by International Energy Agency (IEA).[19] In this system, every IEA member has the obligation to maintain emergency reserves sufficient to sustain consumption for at least 90 days with no net oil imports.[20] However, the system is limited with 27 member countries. Then again, full cooperation cannot be achieved in a crisis environment. Therefore, main precautionary measures to maintain the reliability of oil and gas are only met by the national governments.

As explained above, providing the national market with affordable and reliable energy is a very hard task to achieve as it is highly dependent on international developments. In addition to affordability and reliability third to come in the energy security is diversity of supply. This gains extra importance as such diversification can solely be achieved by national policies. Moreover, diversity of supply would make consumers less dependent on one specific source and hence, decreases the risk of disruption due to the instability of an oil producing region. Overall, basic rule of energy security dictates that the consuming

[19] International Energy Agency, which has 27 members, has been founded after the oil crisis of 1973-1974 in an effort to ensure reliable, affordable and clean energy for the citizens of the members. In this manner, the most important function of the agency is creating a base for developing energy strategies by providing statistical data of the energy industry. In this manner the most important achievement of the agency is the establishment of an urgent response system for the member countries by convincing them about the importance of a stockpile.

[20] Agreement on an International Energy Program; http://www.iea.org/about/docs/IEP.PDF

countries would benefit when oil comes from diverse channels. As Yergin says, the rule stated by Churchill ninety years ago continues to hold true; diversification of supply is the starting point of energy security.[21] On the other hand according to Matlary, "ensuring supply is not only a question of diversification of having more than on supplier; it also requires consideration of the political stability of the suppliers."[22] Therefore, a strategy to create diversified channels for the primary energy needs of a country is not enough. A balanced energy security strategy should also be proactive in establishing continuity and stability in its supply routes. In this sense, considering the importance of Baku-Tbilisi-Ceyhan Crude Oil pipeline for the Turkish energy policy and the European security of supply, the political unrest and Russian intervention in Georgia in late August 2008 would be a good example for emphasizing the importance of stability in a transport country further. In this case, the armed clash in Georgia, even if it did make any harm to the BTC pipeline itself, eventually led to the shifting of transportation of some of the Azerbaijani oil back to Novorossiysk and Iran. According to some analysts like Cevdet Aşkın[23], especially after the Georgian clash, Azerbaijan has initiated a shift towards Russia in an attempt to show Russia that Azerbaijan is willing to

[21] Daniel Yergin, 'Energy Security and Markets' in Jan H. Kalicki and David L. Goldwyn (ed.), "Energy and Security", Johns Hopkins University Press, 2005, p.55

[22] Janne Haaland Matlary, Energy Policy in the European Union, Mc Millan Press, 1997, p. 26

[23]"Enerji koridoru olma projesi 'ağır yaralı'", 06.09.2008 http://www.referansgazetesi.com/haber.aspx?HBR_KOD=105553&KTG_KOD=482

cooperate with Russia. On top of this, such security concerns are not only limited with the aggression between countries, in some cases even a terrorist attack would lead to such consequences. For example in 2008, after an attack to the BTC pipeline by the terrorist organization PKK on Turkish soil, the pipeline has damaged and the oil flow has been interrupted. During the repair of BTC pipeline after the fire caused by the attack, Azerbaijan made a swap agreement with Iran in order to trade 5.000 – 10.000 barrels/day[24] of Azerbaijani Oil through Iran. Therefore, as the examples illustrate, even when there is a solid connection with the resource, supply of hydrocarbons is not always fully secured if continuity cannot be achieved. As a result, it can easily be claimed that uninterrupted flow of energy resources can be achieved with a strategy seeking cooperation not only with the related countries including producers, transit countries and the consumers but also with the related third parties.

In the light of above, energy security is the most important factor in the energy policy of any country in the world. Not surprisingly, the energy strategy of Turkey is also very dependent on this concept. Despite the fact that Turkey enjoys its geographical advantages for the supply of hydrocarbon resources, there are still some challenges regarding the security of supply. A set of

[24] "5,000 to 10,000 b/d Swap of Azeri Oil through Iran" 30.08.2008, http://www.shana.ir/133639-en.html

determined actions for cooperation between the related parties should be accomplished provided Turkey wants to secure its future hydrocarbon supplies.

2.2 Facts About Turkish Energy Strategy

Turkey, as one of the biggest developing countries of the world, has a sizable amount of energy consumption. The statistical figures show that demand is increasing year by year considerably. According to the Ministry of Energy and Natural Resources, in 2008, the primary energy consumption of the country was 99,6 million tons of oil equivalent (mtoe)[25] with oil and gas having the major share with 52 percent (28,5 million tons of oil having 33% share on the total energy consumption and 30,5 billion cubic meters of gas having 29% share on the total energy consumption). More, primary energy production of Turkey constituted only 27 % of the total consumption, which means that the country is heavily dependent on imports in its energy consumption. Worsening the situation, the projections show that the demand will increase up to 126 mtoe in

[25] Turkey's energy consumption cannot be underestimated; final energy consumption of Turkey in 2006 figures is 99,6 mtoe, this figure for all of the EU-27 is 1176,12 mtoe. Therefore today Turkey is about 1/10th of the European Union, but with its ever increasing demand which is far more than EU, Turkey will have even a larger share (European Energy Commission EU Energy and Transport in Figures 2007/2008 Statistical Pocketbook, European Communities, 2008, pp.35-86).

2010 and to 222 mtoe in 2020, without a considerable increase in the production, making the country even more dependent on imports.[26]

In fact, roadmaps and action plans to make Turkey a self-sufficient country in hydrocarbon consumption has already been initiated. Türkiye Petrolleri Anonim Ortaklığı (TPAO) has oil wells in the south-eastern part of Turkey and currently producing about 36.500 barrels/day of oil domestically. The state-owned company produces an extra 57.500 barrels/day of oil from its shares in overseas assets. This statistically meets 12% of the country's demand. Furthermore TPAO also operates three recent discoveries of gas fields in the western part of the Black Sea. In addition to those already existing assets, the company has carried out 3 D seismic studies in the Black Sea with Petrobras in the recent years and it is expected that the first offshore drilling will take place in 2010. The officials of the company are very hopeful about the results and they even claim that Turkey will be self-sufficient in terms of oil in the 100th anniversary of its foundation, namely in 2023.[27]

[26] All the statistical data is taken from the 2008 Budget speech of Mr. Hilmi Güler, minister of Energy and Natural Resources.; http://www.enerji.gov.tr/belge/2008_Butce_GK_Konusma.pdf

[27] All the necessary data has been taken from the TPAO Annual Report, 2008

However, for the time being, Turkey still lacks the necessary resources to meet its national energy demand. As mentioned above, approximately 73 % of the country's primary energy consumption is met through imports. Due to high oil prices, the amount that has been paid in 2007 for the energy imports has reached 33,8 billion dollars; 21,7 billion dollars of which is paid only for oil and gas.[28] This amount equates to nearly half of the national trade imbalance. It should be noted that trade imbalance is the most important negative economic indicator that the country suffered in the previous years. Both trade imbalance and geographical advantage of the country pressures Turkey to diversify its hydrocarbon resources in order to have cheap and reliable energy sources. Needless to say, the official energy strategy of Turkey aims as being an energy hub by enjoying its geographical advantage. Being located on the crossroads of the Western markets and the 71.8% of the proven natural gas reserves and 72.7% of the proven oil reserves of the world[29], the country enjoys a very favorable geographical location. Securing the transit of hydrocarbon resources of the Middle East and Central Asia, Turkey tries to benefit from this fact. The national strategy even goes further; by creating a specialized hydrocarbon port and utilizing refining and petrochemical facilities in the Mediterranean port of Ceyhan, the country aims to be the leading energy player like Rotterdam.

[28] D. Volkan Ediger, the energy advisor of the President; http://www.petroturk.com/?pid=4956

[29] Both of the oil and natural gas ratios are own calculations from BP World Energy Review, June 2008 edition. In the calculations Middle Eastern and Central Asian resources are taken.

Moreover, Turkish foreign policy does not only seek the role of being an energy hub. Turkey is one of the biggest investors in the Eurasia and Caspian Regions. In addition to its economic ties, Turkey also bears the responsibility of supporting these nations in their social and economic development.[30] In the words of Demirel, former president of the Turkish Republic, this aim can be examined easily; "Turkey see this rich region of oil and gas reserves, not just as a source of energy, but as an element of stability. Just as the founders of the European Community saw coal and steel as a source of peace and stability, we see oil and gas in our region serving the same role."[31] The East-West Energy Corridor aims to transport Caspian and Central Asian energy resources to Western Markets via safe and diversified routes, as well as ensuring security and stability in the transit countries.[32]

Therefore, in developing the energy strategy of Turkey; challenges, cooperation prospects, and opportunities arising from the conjuncture should be clearly identified and carefully evaluated. Chance can be defined as 'being in the right place at the right time'. Along the lines of the above, Turkey would be regarded

[30] Turkish Ministry of Foreign Affairs; www.mfa.gov.tr

[31] İskit T., "A New Actor in the Field of Energy Politics", Perceptions, Vol.1 No.1, 1996.

[32] US House of Representatives "High Resolution 1187"
http://thomas.loc.gov/cgi-bin/query/D?c110:1:./temp/~c1101uvFGS

as a very lucky country with its location being between supply and demand. However, this sentence can easily be reversed; being in the wrong place at the wrong time would be disastrous. Due to the ever-increasing importance of the primary energy resources, conflicts arose in the region and many more are expected in the future.

As a result, in analyzing Turkish energy strategy, strong points and weak points of the country should all be considered. In this sense, strengths of the country can be listed as; geopolitical advantage, already existing infrastructure for the transportation of oil and natural gas and the ethnic linkage between Turkey and the newly emerged Caspian states. On the other hand, since Turkey is only a mediocre regional actor within the current political environment of the world, its polices and strategies are highly dependent on the ‘others’ and this weakens the Turkish political elite’s hand in developing Turkish energy strategy.

2.2.1 Strengths of Turkey in Developing Her Energy Strategy

To give the full picture, solidifying the role of Turkey in the region, main instabilities of Central Asia and Caucasus should be mentioned. In the words of Tuncay Babalı, the problems of the region can be summed in five different core areas.[33] First of all, economic transition from centralized economy to a liberal one is a very big challenge and it has consequences like corruption and uneven distribution of wealth in the region countries. Secondly, ethnic structure of the region causes big dilemma and conflict. After the fall of the Soviet Union, artificial borders, ethnic problems, language problems and low number of majority "titular nations" became the problematic issues in the region. Generally there is a diverse ethnical character of populations. Only in Azerbaijan and Turkmenistan (in Azerbaijan Azerbaijanis constitute 90 % and in Turkmenistan Turkmen population constitute 85%) there exists a majority of a titular nation. Elsewhere in the region, namely in the Russian part of the Caspian, Kazakhstan and Iran, the titular nations have a minor share in the total population (In Kazakhstan 47% is Kazakh[34], in Iran 49 % is Persian and in Russian provinces

[33] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 34

[34] Recent studies show that Kazakh population is increasing in Kazakhstan, CIA Fact book 205 states that 51 % of the Population is of Kazakh origin.

of the Caspian, Russian people are in minority).[35] This fact added with the historical disputes within the ethnic minorities creates a very suitable base for instability. In this respect, it is not surprising to see ethnic conflicts within the geographically small area of Caucasus. In the short period of time after the breakup of the Soviet Union, the region has faced up with Russian-Chechen conflict, Nagorno Karabakh conflict, Georgian Abkhazian conflict and Georgian Ossettian conflict. All of them have resulted in armed aggression. Moreover, the region also suffers from lack of democracy due to the authoritarian rulers and political Islam and terrorism. In this manner, Turkey with its previous experiences and regional strength would play an important role in maintaining stability and creating economic development in the region.

Turkey's geopolitical importance arises from its stable and West oriented democracy in a region where ethnic struggles, democratic restrictions and even wars are daily events. Although Turkey has its own ethnicity problems, namely Kurdish minority problems, it still is at peace in the ocean of conflicts. In the near future, maintaining the sovereignty and independence of the newly independent states of the Caspian will pose importance for providing energy security for both national and international markets. Turkey with its democratic

[35] CIA Fact book 2005 (est.)

heritage and peaceful relationships would then constitute a pivotal role for the Western strategies as an ally. Although the main export pipeline for Azerbaijan has already been chosen as BTC and gas reserves of the country will be transported to the West through South Caucasus Gas Pipeline (SCP), there are still some important projects waiting to be realized. Kashagan field of Kazakhstan will start operation within five years and the solution for the access to the Turkmen gas has not been found yet. With its complicacy by nature, route selection for the flow of energy resources would not even strongly involve Turkey at the time of decision making, but Turkey would play a significant role, whatever the choice will happen to be.

The second point of strength for Turkey is the fact that Turkey has the necessary skills and infrastructure to track the hydrocarbon resources of the region. Kirkuk-Yumurtalık Pipeline, Blue Stream Natural Gas Pipeline, Baku-Tbilisi-Ceyhan Pipeline (BTC), South Caucasus Gas Pipeline (SCP) the oil terminal in Ceyhan and above all, the growing energy market of the Turkey itself creates a suitable environment. Moreover, the Turkey-Greece Interconnector system and the NABUCCO project are increasing the regional importance of Turkey. Additionally, good business relationships between the regional countries and the Turkish business elite make the cooperation easier.

Finally, Turkey aims at having a major role in the region with its ethnic proximity with the Turkic States of Central Asia and Caucasus. Such a move clearly affects the decisions taken in establishing energy policy of Turkey. In early 1990s, there was a common understanding among the scholars that Turkey has lost its strategic importance for the West in general and for the NATO in specific after the demise of the Soviet Union.[36] In the cold war era, foreign policies of most of the western countries were heavily influenced by the political views of realism in which security was of primary concern. Turkey, as is located in the frontiers, had a very important safeguarding role. However, after the end of the bipolar world and the Cold War, such a geographical position meant nothing more than having the risk of being very close to the instable areas of the world where ethnic clashes began. It can further be noted that Turkey had been one of the biggest losers of the new system with its weakening status. On the other hand, according to some scholars[37] such a change in the political climate of the world did offer great opportunities for Turkey, especially with its ethnic links with the Central Asian States. In the era of regional crisis, such a linkage was

[36] For the list of the scholars supporting this view, see Kamer Kasım, 'Turkey's Foreign Policy towards the Russian Federation' Abant İzzet Baysal Üniversitesi, p.3. In his article, Kasım gives a list of references from different scholars i.e. Kemal H. Karpat, Ian Bremmer and Shireen Hunter etc.

[37] Kemal Kiriççi 'The end of the Cold War and Changes in Turkish Foreign Policy Behavior' Foreign Policy, Vol. 17, No.3, 1993, p.10 and Mehmet Öğütçü, ''Religious Bias' in the West Against Turkey as a Bridge in Between', Foreign Policy, Vol.17, No.3, 1993, p106.

even thought to put Turkey into a regional superpower role within its own sphere of influence extending from the Adriatic to the eastern China.[38] Therefore, by utilizing the historical and ethnic connections with the region, Turkey targets a leading role and its strategy is based on this fact.

2.2.2 Weaknesses of Turkey in Developing Her Energy Strategy

Although there are certain advantages of Turkey in its relations with the Caspian Region, Turkey is also faced with difficult political challenges due to its relative weakness when it is compared with other major actors in the region like Russia or the USA. Turkey is in between the ideologically and economically different parts of the world, namely East and West, hence it should consider the policies of both of the parties in determining her own energy strategy. Therefore, in analyzing Turkish perspective in developing its energy security, at least Russian and the U.S. policies over the region should be mentioned.

[38] Graham E. Fuller and Ian O.Lesser with Paul B.Henze and J.F. Brown, 'Turkey's New Geopolitics: From Balkans to Western China' in 'Turkey's New Eastern Orientation' Boulder:Westview Press, 1993 and Gaham E. Fuller, 'Central Asia and Transcaucasia after the Cold War: Conflict Unleashed, conference paper presented in 'The End of the Cold-War:Effects and Prospects for Asia and Africa' conference held at the School of Oriental and African Studies-SOAS, University of London, in 21-2 October 1994.

Russia

First of all, in Turkey's search for a regional superpower role, Russia should be noted as the most important rival of Turkey in the area with its previous rule in the Central Asia and Caucasus. Russia was enjoying a great administrative power in the newly born republics of the region especially in the beginning of the 1990s. All the political elites in these countries were either of Russian origin or had some ties with the former communist party and even the leaders of these countries -except for Kyrgyzstan- were former politburo members.[39]

After the independence of the Caspian Republics, since all of them are landlocked within the continental Asia, the old Soviet pipeline system was the only route for making oil and gas accessible to the world markets. Therefore, Russia used this to strengthen its position for future deliveries of oil and gas to the West. Currently, Russian soil is still the only exit route for both Kazakhstan and Turkmenistan.[40] Due to some technical, geographical, economical and political reasons hydrocarbon resources of Caspian Region, especially gas is

[39] Kamer Kasım, 'Turkey's Foreign Policy towards the Russian Federation' Abant İzzet Baysal Üniversitesi, p.3.

[40] Kazakhstan has recently started to utilize BTC pipeline, it also has some deliveries to China and there are Iranian swap agreements for its oil. In the same manner, Turkmenistan exports gas to China and Iran. However, all the mentioned gateways are very limited and they do not constitute any reasonable share if compared with the trade with Russia.

mainly controlled by Russia. With its already existing infrastructure to transport the gas to its heartland and even further to the Western market, Russia is ready for purchasing any amount of gas to be exported by the Caspian states. Such kind of dominance gives Russia the chance to buy cheap gas from Kazakhstan and Turkmenistan and use it for domestic consumption. Therefore, extra quantities of its own resources become available for Russia to be exported to the Western Markets.

Moreover, the historical *"divide et impera"* strategy is still valid for Russia in the region. Especially for the hydrocarbon resources of the region, Russian government facilitates its two state owned energy goliaths; Gazprom and Transneft to make separate deals with the landlocked energy rich countries of Caspian, preventing them from taking cooperative actions. Needless to pinpoint that any energy related deal excluding Russia is a target of the Russian diplomacy and Russian companies. Many cases to date validate such claims in the projects like BTC, SCP, NABUCCO or Trans Caspian Pipeline Project. For example, in 2008, Russian President Medvedev has made an official visit to Azerbaijan and during the visit, a meeting was been held between the energy officials of the parties, in which Gazprom made an offer to buy the Azeri natural

gas with the European prices.[41] Although Russia does not need this expensive source for its operations, such a move would easily lead to the dismantling of the already problematic NABUCCO cooperation. This paves the way to note that Russia is simply against any cooperative action between the hydrocarbon-rich countries of the Caspian and the Western players. The reasons behind those cannot be easily explained by the imperial aims of Russia. "Russian Oil production is expected to start falling off after 2015, while the Caspian Sea Region is expected to show major incremental increases during 2020-2025 in both oil and natural gas."[42] Therefore, Russia seeks a dominant role in the region securing its future power and nothing can stand on its way. Especially its recent support for the secessionist movements of Abkhazia and South Ossetia, both of which are within the striking distance of the BTC pipeline route, makes it clear that the determination of Moscow to maintain its control over the flow of Caspian oil continues.[43]

[41] Tuğrul Erkin, 'Rusya'nın Kafkaslardaki Stratejik Ortağı; Azerbaycan', Referans Gazatesi; 07.07.2008.
http://www.referansgazetesi.com/haber.aspx?HBR_KOD=101005&KTG_KOD=236

[42] Paula Dittrick "Offshore Technology Conference: Caspian sea region to become major non-OPEC oil supplier by 2025" Oil and Gas Journal, May 6, 2003

[43] Michael T. Klare, 'Blood and Oil: The Dangers and Consequences of America's Growing Petroleum Dependency', Metropolitan Books, 2004, p.158-159

As the recent Georgian battle with the Ossetian separatist forces which was then followed by the Russian invasion into the parts of Georgia made it clear that, there is always an imminent threat of a regional war in the region which would jeopardize global peace with the introduction of the Western forces. Even if such a dooms day scenario does not happen, it is for sure that future does not promise a solution for the already entangled political structure of the region, which is a strong challenge for Turkey.

U.S.

> *Eurasia is the world's axial supercontinent. A power that dominated Eurasia would exercise decisive influence over two of the world's three most important economically productive regions, Western Europe and East Asia. A glance at the map also suggests that a country dominant in Eurasia would almost automatically control the Middle East and Africa. With Eurasia now serving as the decisive geopolitical chessboard, it no longer suffices to fashion one policy for Europe and another for Asia. What happens with distribution of power on the Eurasian landmass will be of decisive importance to America's global primacy and historical legacy.*[44]

[44] Z. Brezinski 'A Geostrategy for Eurasia' Foreign Affairs, Vol.76, No.5 (1997) pp.50-65

As Zbingiew Brezinski, the former US National Security Advisor notes, the US interest in the Eurasia is very clear. In this concept, although there are many issues to be covered in this huge landmass varying from security to religion, from ideology to politics, it can easily be claimed that energy plays the most important role in the power struggle and most of the potential energy reserves in Eurasia lies within the borders of the Caspian region.

It is far from certain that the United States as being the sole super power of the world after the demise of the Soviet Union has economic and political interests in all over the world. However, Caspian, being located between Russia and Iran, has a primary importance in the agenda of the US. In order to be able to create self sufficient democratic governments in the region which would sooner or later be the allies of the US, steps were taken varying from technical and economic actions to political assistance. Having control over the Central Asia or at least managing good relations with the Central Asian states means too much to the US. By having ally countries in the Central Asia which would stand firmly on their own, the so called rogue state of Iran would be isolated, Russian dominance in the region would be weakened and control over the inevitable growth of China could be achieved. As Julia Nanay says; the driver of the US in the region is geopolitics, not merely energy security. In this manner, the key manifestations

of the US government's interest has been for the East-West energy corridor which found its shape under the BTC Pipeline, that brings the Caspian oil to markets via Turkey.[45]

Given the above mentioned policy of the U.S. and its support for the existing energy strategy of Turkey for the Caspian, one may think that the U.S. would not be a threat for Turkey. However, although until now the U.S. policies had a clear support for Turkish claims about being an energy hub within the East-West Energy corridor context, it can easily be claimed that such a support is not an unconditional support. From a policy perspective, the regional issues of production and transportation in the Caspian region is interwoven with the US strategy for global energy security. The US policy can and should promote increased oil and gas trade and investment with Russia and the Caspian Sea region, which will contribute to the diversity of supply and to the future economic growth and security of these countries- a result that will have considerable consequences for the US energy and foreign policy objectives.[46] Thus, any political shift in the US from these goals would certainly leave Turkey

[45] Julia Nanay, Russia and the Caspian Sea Region in 'Energy Security; Toward a New Foreign policy Strategy' Jan H. Kalicki and David L. Goldwyn (ed.) Woodrow Wilson Center Press, 2005, p.139

[46] Julia Nanay, Russia and the Caspian Sea Region in 'Energy Security; Toward a New Foreign policy Strategy' Jan H. Kalicki and David L. Goldwyn (ed.) Woodrow Wilson Center Press, 2005, p.146

vulnerable and such dependence has some destructive consequences in developing strategies about Turkish energy security. In any case, any kind of action taken to create a transport corridor through the Caucasus would certainly need the U.S. commitment for security which would require a constant pledge to align with the US policies. It can be argued that for Turkey such a situation is as dangerous as Russian influence in the region.

CHAPTER 3

TURKISH ENERGY STRATEGY ABOUT THE TRANSPORTATION OF OIL AND NATURAL GAS RESOURCES OF THE CASPIAN REGION

Caspian represents nearly four percent of the World's proven oil and gas reserves.[47] If a comparison is made with other crude oil producers, it can be stated that Azerbaijan has about the same amount of proven oil with Norway or Angola, while the proven reserves of Kazakhstan can be compared with Libya or Nigeria.[48] However, necessary exploration and production work has not been carried out in the region during the Soviet era, drawing the production figures of Azerbaijan and Kazakhstan down. For example, while Kazakhstan produces roughly 1,5 million bbl/day, Nigeria outweighs this figure with its 2.5 million bbl/day production with 2007 figures. In the same manner, while Norway has a daily production capacity of 2.5 million bbl/day, Azerbaijan could only be able

[47] For detailed figures about the proven reserves of the countries in the area please look to the Appendix I

[48] Azerbaijan has 7 billion barrels of oil while Angola and Norway's proven reserves are 9 and 8.5 billion barrels respectively. In the same manner, Kazakhstan has 39.8 billion barrels of oil while Libya and Nigeria's proven reserves are 41.5 and 36.2 billion barrels respectively.

to produce 0,9 million bbl/day in the year 2007.[49] Therefore, unlike many other producers, Caspian is very promising for future Western oil demand, since there is a huge potential to upgrade the production levels and there is a warm attitude towards the investments of International Oil Companies (IOC) in the region.

Moreover, with the initial estimates about probable reserves in Caspian, there is also the expectation of a considerable increase in proven reserves of the area. In one of the high resolutions of the US House of Representatives, region is even called to have "10 percent of the world's oil reserves, and 32 percent of gas reserves."[50] In addition to these statistical figures, none of the countries in the region are OPEC members.[51] For these reasons, Caspian hydrocarbon reserves constitute a great importance for world energy market to diversify and stabilize its supplies. As it has been stated by İpek; the region could be the next North Sea in the future, which was discovered in late 1960s but emerged as a key stabilizing source after the 1973 oil crisis and embargo.[52]

[49] All the statistic is from BP Statistical Review June 2008.

[50] US House of Representatives "High Resolution 1187"
http://thomas.loc.gov/cgi-bin/query/D?c110:1:./temp/~c1101uvFGS

[51] Since the reserves of Iran has a very limited share, and all the other littoral states are not the members of OPEC, the region is thought to be out of OPEC's area of influence.

[52] Pınar İpek, "The Aftermath of Baku-Tbilisi-Ceyhan Pipeline", Perceptions, SAM, Spring 2006, p.2.

Given the importance of the hydrocarbon reserves in Caspian, their availability in the World Markets is very crucial. Thus, the issue of transporting these resources to the Western Markets became one of the biggest priorities of the last decade. As a matter of course, the issue has been called as the Great Game of the twenty-first century in an analogy with Rudyard Kipling's description for Russian-British competition in Central Asia for the control of trade routes to India in the nineteenth century.[53] Different power cycles supported various projects from utilizing already existing Russian network to constructing pipelines to the Persian Gulf or to the Mediterranean. All the parties were claiming that their project is the most economical way of transportation. But in reality, the show was nothing but a competition for power. In its quest for a greater role in the new world system shaped after the Cold War, Turkey was included in this race by utilizing its geographical advantage and ethnical connections with the Caspian countries.

[53] Ariel Cohen, "The New Great Game: Pipeline Politics in Eurasia", Caspian Crossroads, Vol.2, Issue 1, Spring-Summer 1996

3.1 East West Energy Corridor

As Bagirov notes, the interest for the Caspian hydrocarbon resources predates back to the 19th Century. Caspian region, namely Azerbaijan, is the world's oldest known oil producing region which was supplying nearly half of the world's total demand at the beginning of the 20th century.[54] Moreover, the first oil pipeline was also built in Azerbaijan in 1877-78.[55] However, after the communist rule, control over the resources of Caspian was taken by the Soviets and they were closed to the rest of the world until the end of Cold War. Lacking the necessary investments and exploration, Caspian lost its importance during this era. But starting with the late 1980's, downsizing of the oppressive rule of Soviets gave the necessary opportunity to the Western oil companies to negotiate about the future of the Caspian hydrocarbon resources. As a result, after long negotiations, so called "Contract of the Century" was signed on September 1994 between Azerbaijani state oil company SOCAR and a group of foreign oil companies led by the British Petroleum Company (BP).[56] The $8 billion contract

[54] Sabit Bagirov, Azerbaijani Oil: Glimpses Of A Long History; Perceptions, SAM, June - August 1996, p.2-3

[55] Volkan Ediger, Osmanlı'da neft ve petrol, ODTÜ Yayıncılık, 2005, p.84

[56] In the original agreement the investors were; British BP (17,1%), and Ramco (2,1%), American companies; Amoco (17%), Pennzoil (4.8%), Unocal (9.5%) and Exxon (5%), Azerbaijan's SOCAR (10%), Russia's Lukoil (10%), Norway's Statoil (8.6%), Japanese Itochu

was aiming to develop Azerbaijani Chirag and Guneshli offshore oil fields in the Caspian Sea, eventually reaching peak production levels of 800.000 bbl/day and would last for 30 years.[57] The signing of such a big contract created the necessary atmosphere for the others to come. Only in Azerbaijan, by the year 2000, twenty-one international contracts have been signed with 33 oil giants representing 15 countries.[58] Similar developments were also achieved in Kazakhstan and in Turkmenistan. For example, in Kazakhstan, the amount of foreign investment in the oil and gas industry skyrocketed in its first decade of independence, reaching tremendous 13 billion dollars.[59] In the same manner, Turkmenistan has also capitalized the positive atmosphere for investments in the Caspian, making various contracts with a set of Western companies.[60]

"The Contract of the Century" and the prosecuting developments aiming to produce hydrocarbon resources of the Caspian were perfect achievements for the Western world. They were creating huge amount of investment opportunities for

(7.45%), Turkey's TPAO (6.75%) and Saudi Arabia's Delta (1.7%). Sabit Bagirov, Azerbaijani Oil: Glimpses Of A Long History; Perceptions, SAM, June - August 1996, p.10.

[57] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 166.

[58] Nasib Nassibli, "Policy Priorities towards the Caspian Sea", in Shirin Akiner (ed.), "The Caspian; Politics Energy and Security", Routledge Curzon, 2004, p. 172.

[59] Majid Jafar "Oil, politics and the new 'Great Game'", in Shirin Akiner (ed.), "The Caspian; Politics Energy and Security", Routledge Curzon, 2004, p. 202.

[60] Germana Canzi, "Turkmenistan's Caspian Resources", in Shirin Akiner (ed.), "The Caspian; Politics Energy and Security", Routledge Curzon, 2004, p. 184.

the region, increasing the possibility of the establishment of a Western style democratic rule in the region. The wealth coming from the hydrocarbons would be the source for sustained economic growth, social modernization and political stability. Moreover, the contracts were securing the growing energy demand of the Western Market. However, one crucial detail was missing in the initial agreements; Caspian, as being located in the landmass of the Asian continent, was lacking the necessary transportation channels for the resources to be extracted.

At the beginning of 1990s, most of the transportation facilities of the Caspian countries were at the end of their economic life and they would be insufficient when extra quantities of oil and gas become accessible. In addition to this, all of them were either linked to the Russian system or they were passing through Russia and western powers were reluctant to facilitate them. Because, Russia was still trying to dominate the Caspian states after the end of Cold War. Even it was lacking the necessary economic, political and military potential for being a hegemonic power; it was relying on the Soviet heritage. Throughout the Caspian, there were many Russians living in the FSU countries and Russian was the common language. Nearly all the political elites were ex-Politbureau members. Technical expertise was totally Russian and the economies of the

littoral states were heavily dependent on Russia. In such circumstances, relying solely on the routes passing through Russia would strengthen its position and would threaten the independence of the newly born countries of Caspian. On the other hand, especially for the early stages of production, alternatives were limited and Russian routes were inevitable. Additionally, within the set of alternative gateways, projects aiming to pass from Iranian territory were strongly opposed by Washington, due to the "1996 Iran and Libya Sanctions Act".[61]

As a natural result of the above mentioned facts, under the supervision of the US, East-West Energy Corridor Policy has been developed by a group of related parties led by Turkey. The main theme lying under the policy was creating diversified transport routes for the Caspian hydrocarbon resources in reaching Western Markets. Thereof, it was aiming to have pipelines bypassing the Russian territory, without opposing Russia directly. In this manner, East-West energy corridor was not only seeking to diversify the supply of hydrocarbon resources imported to the West, but also "it would contribute to spreading

[61] The Act was passed by the US Congress in 1996 and includes economic, trade, scientific and military sanctions against Iran www.fas.org/irp/congress/1996_cr/h960618b.htm

European influence into a wider area to its east, something that could be termed diversification with Europeanization through Turkey."[62]

With this evaluation in mind, the EU would be expected to be a major political actor for the Caspian hydrocarbon resources but in practice it is not. This should not mean that it has no effect; most of the oil and gas exported by the Caspian states is going to the EU Market. Existing pipelines in the region and ongoing projects are all aiming to meet the demand in the EU. On the other hand, the EU does not have an active strategy towards the region. As Larson notes; "the EU has traditionally failed to acknowledge the magnitude of the strategic nature of energy trade."[63] In theory, Brussels is fully aware about the security of supply, especially after the recent incidents between Russia and Georgia, Ukraine, Belarus, Moldova, Lithuania, Estonia. In this sense, a common external policy of the EU to serve Europe's energy interests has already been created in 2006. The policy seeks to diversify the sources and to create a dialogue between producers and transit countries. However, mainly because of the general characteristics of the concept of Energy Policy, members of the EU are reluctant to fully support

[62] Volkan Özdemir, "Turkey's Role in European Energy Security", in Svante E. Cornell, Niklas Nilsson (ed.), Europe's Energy Security, Central Asia-Caucasus Institute Silk Road Studies Program, 2008, p. 108.

[63] Robert L. Larsson, Europe and Energy: Dodging Russia, Tackling China and Engaging the U.S., in Europe's Energy Security, Svante E. Cornell and Nikolas Nilsson (ed.), Central Asia-Caucasus Institute and Silk Road Program, 2008

the idea of common energy policy by separating their energy strategy from their sovereignty. Different priorities set by the EU member states lead disunity in the EU energy agenda and create a cacophony, making it impossible to cooperate.[64] Given this inability of the nation states of the European Union, and the huge economic and technical participation of the European companies in the region, it can be claimed that the interests of the EU is supported through its private companies operating in the region, like BP, Shell, ENI, ENEL, Basf. But such a claim is also not valid given the fact that these companies have different priorities resting on their complex set of relations with many actors.[65]

With this political climate, as Baran says, the idea of having an oil pipeline on the East -West route was developed by Turkish officials at the beginning of 1990s. As she clearly presents, Turkey was harshly affected by the closure of the Kirkuk-Yumurtalık Pipeline following the first Gulf War. Being forced to close its world-class port at Ceyhan which is capable of handling very large crude carriers (VLCC)[66], made Turkish authorities to improve alternatives to facilitate

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[64] "Disunity Hampers Common Energy Policy", Oxford Analytica, 1 December 2005. http://www.oxon.com/display.aspx?ItemID=ES122587

[65] Correlje and van der Linde, "Energy Supply Security and Geopolitics: A European Perspective", Energy Policy, 2006, No. 34, pp 532-543.

[66] VLCC is a very large crude carrier which has a typical capacity between 200.000 DWT and 315.000 DWT.

it as a major international hub. Beyond this fact, having a secure end point for the Caspian hydrocarbon resources would give Turkey an enormous leverage in the region, increasing its strategic importance. Because, after the end of Cold War, all of a sudden Turkey's importance was decreased for the Western world, destroying the countries' stance in its international relations. After all, by the help of utilizing East-West Energy Corridor Policy, Turkey would arise as a regional power by offering its partnership to the newly independent countries of Caspian in their integrations to the regional and international institutions. [67] In this manner, according to the Turkish plans, East-West Energy Corridor project was not limited with the energy itself. As Turkish President Mr. Ahmet Necdet Sezer noted in the groundbreaking ceremony of the BTC; "East-West Energy Corridor can be called as the Silk Road of the 21st century".[68] Turkey aims to expand oil and gas pipelines with rail lines, communication networks and highways, connecting Asia with Europe.[69] The natural result of such a development would be increased Turkish influence in the Caucasus and Central Asia. Therefore, both the intent itself and the actions taken so far for the East-

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[67] Zeyno Baran, "The Baku-Tbilisi-Ceyhan Pipeline: Implications for Turkey", in Svante E. Cornell and S. Frederick Starr (ed.), "The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West", Central Asia-Caucasus Institute and Silk Road Program, 2005, p.104-105.

[68] Officials open oil pipeline, the new 'Silk Road', 25.5.2005
http://www.usatoday.com/money/industries/energy/2005-05-25-oil-pipeline_x.htm

[69] In order to reach this goal there are already some steps taken and the construction of Baku-Tbilisi-Kars railway has been initiated; Turkish Ministry of Transport and Communication; http://www.ubak.gov.tr/ubak/ubak_anasayfa

West Energy Corridor were certain victories for the Turkish foreign policy. Because, such a walkway strengthened the Turkish proposal for being an energy bridge and creating an energy hub at Ceyhan. The support for this policy was made public by the presidents of Azerbaijan, Georgia, Kazakhstan, Turkey and Uzbekistan with the Ankara Declaration on 29 October 1998. Declaration did not only strengthen Turkish position but also led to the realization of the BTC pipeline. Quoting from the Declaration; "realizing the East-West Corridor, including CPC, the trans-Caspian and trans-Caucasus oil and gas pipeline systems, which are commercially acceptable, just and non-discriminatory, is an extremely significant project in transporting to the world markets, the hydrocarbon resources produced in the Caspian Sea region and other related countries."[70]

In its initial step, East-West Energy Corridor represented two major elements; transportation of oil and transportation of gas and after the completion of Baku-Tbilisi-Ceyhan Oil Pipeline and Baku-Tbilisi-Erzurum natural gas Pipeline, the corridor seems to be completed. However, as the US president declared in the letter he has sent to the groundbreaking ceremony of the BTC pipeline; only "an

[70] Emanuel Karagiannis, "Energy and Security in the Caucasus", Routledge Curzon, 2002, p.188

essential component of an East-West Energy Corridor initiative"[71] has been finished so far. This is because, although Baku Tbilisi Ceyhan oil pipeline constitutes the major oil transportation gateway for Azerbaijani oil, the aim of transporting Caspian oil would only be accomplished if the Kazakh participation to the project is achieved; transforming the project into Aktau-Baku-Tbilisi-Ceyhan pipeline. In the same sense, South Caucasus Gas Pipeline (SCP) would only be effective if Turkmen gas is added to the BTE pipeline through a Trans-Caspian connection. In the following parts of this study both of the elements of East-West Energy Corridor are going to be analyzed by means of BTC and BTE pipelines.

3.2 Baku Tbilisi Ceyhan Crude Oil Pipeline

3.2.1 History

Azerbaijan is one of the first producers of oil and in the initial era of oil boom, it was the center of the oil market. By the end of 19th century, Russia was the

[71] Richard Allen Greene "Hopes and risks in Caspian project," The New York Times, 23 September 2002.

world's leading oil producer due to its rule in Azerbaijan and Baku's oil deposits which were figured prominently in the military campaigns of both World Wars.[72] Besides losing their importance in the Soviet era, hydrocarbon resources of Azerbaijan were paid attention again after the end of Cold War. Because, unlike any other region in the world, there was a huge potential in Caspian given to the order of Western companies. The U.S. State Department's Director of International Energy Policy, Glen Rose express this fact by stating that "From an energy perspective, [Azerbaijan] will be one of the key sources in meeting the marginal demand over the next couple of decades."[73] Therefore, soon after the collapse of the Soviet Union and the declaration of independence of Azerbaijan, Western companies came to the scene and made many agreements to increase the production from the Caspian. However, as it has been discussed before, transportation of natural resources to the necessary markets is as important as the resources. In this sense, Caspian would mean nothing if commercially viable routes were not utilized. Hence, just after the conclusion of negotiations for exploration and production in Azerbaijan, search for the route of the main export pipeline began.

[72] Daniel. Yergin, "The Prize: The Epic Quest for Oil, Money and Power", Simon and Schuster, 1992

[73] Emanuel Karagiannis, "Energy and Security in the Caucasus", Routledge Curzon, 2002, p.1

Turkey, with its growing population and continuous development, arose as one of the most important potential consumers of Caspian. As the statistical figures designate, energy demand in the country is increasing year by year considerably.[74] More, primary energy production of Turkey constitutes only 27 % of the total consumption, which means that the country is heavily dependent on imports for its energy needs. Given the existing growth rates, without a considerable increase in the production, the country would be even more dependent on imports in the following years. Thus, Turkey has shown great interest to the Caspian Region in the wake of the events after the end of the Cold War and played an active role in the signing of the so called "Contract of the Century". In addition to this participation to the exploration and production agreement, soon after the contract, Turkey also proposed a transportation route to transfer both Azerbaijani and Kazakh oil to the Mediterranean port of Ceyhan with an annual capacity of 50 million tons. Baku-Ceyhan Pipeline Project, which was offering a direct open sea access; was a favorable way for transportation of oil to supply the Western Markets including Turkey. On the other hand, it was very long and there were some technical difficulties in the construction, decreasing the feasibility of the project.[75] But especially at the initial steps, the issue of economic benefits from the project was disregarded by Turkey and it

[74] For a detailed analysis in the energy consumption figures of Turkey, please check Chapter 2.

[75] BTC Pipeline is 1.075,366 km long. According to the cost there are estimates between $3 billion and $3,9 billion.

was seen as a project primarily of geopolitical importance.[76] It would be a further step in Turkey's search for dominance in the Caspian Region and it was having both strategic and security advantages.

Nevertheless, Turkey was not alone in its ambitions. Russia at one hand was active in the pipeline discussions with its Soviet heritage and well developed pipeline infrastructure, and Iran on the other, was offering the shortest and cheapest route for the future development of the hydrocarbon resources in the region. However, at the end of the day, the US supported Turkish Plan and East West Energy Policy prevailed with BTC as a main export pipeline. As Oktav clearly identifies, in gaining such an overwhelming victory, the main success of Turkey was drawing the US to its strategic way of thinking. Turkey achieved to dictate that importance of BTC comes from its geo-strategic and political significance and the economic disadvantages of the project may be disregarded.[77] Such a determination of the US in supporting Turkish Policy towards Caspian hydrocarbon resources can clearly be identified in the words of U.S. Ambassador Richard Morningstar, Special Advisor to the President and

[76] Zeyno Baran, "The Baku-Tbilisi-Ceyhan Pipeline: Implications for Turkey", in Svante E. Cornell and S. Frederick Starr (ed.), "The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West", Central Asia-Caucasus Institute and Silk Road Program, 2005, p.106.

[77] Özden Zeynep Oktav "Turkey: the Evident Beneficiary in the Caspian Pipeline Diplomacy" Perceptions, SAM, Spring 2005, p.27

Secretary of State for the Caspian Basin Energy Diplomacy; "US will press ahead as vigorously as possible on the East-West energy corridors". Moreover, he notes that "building a Baku-Ceyhan oil Pipeline and a trans-Caspian gas pipeline (TCGP) makes absolute sense for both national security and commercial reasons… Both pipelines will increase energy security by avoiding the concentration of a vast new source of oil and gas in the Persian Gulf Region."[78]

However, gaining such a support was not an easy task to achieve; although it took three years to conclude the "Contract of the Century" after the independence of Azerbaijan, the construction of the Main Export Pipeline (MEP) could only be initiated with prolonged efforts, 9 years after the contract. There were various pipeline proposals at the initial stage, but especially after the neglection of the Iranian routes, three main alternatives were left on the table; Baku-Supsa, Baku-Novorossiysk and Baku-Tbilisi-Ceyhan (BTC).[79] Within the set of these pipelines, BTC was not the most attractive one with its two main disadvantages. First of all, during 1990s oil prices were clashed, even testing

[78] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 172

[79] Ibid. p.168

single figures. Therefore, Azerbaijani International Oil Company (AIOC)[80] was opting to choose the cheapest transportation option and BTC, with its calculated cost of $2,4 billion, was out of range. Secondly, there were capacity problems about BTC. Initial agreement consisting of Azerbaijani Chirag and Guneshli offshore oil fields was aiming to have a peak production of 40 million tons oil per annum. On the other hand, feasibility of the BTC was made for volumes as high as 50 million tons per year. In fact, Turkish proposal was aiming to have Kazakh oil within the project of BTC. But this issue was dubious and such an option would not be viable at least for the near future, decreasing the feasibility of the project.

While the decision process for Main Export Pipeline was being carried out, early oil from Azerbaijan came on stream. At this stage Turkey promoted Baku-Supsa Pipeline for early oil with a belief that any East-West option was preferable to shipment north to Russia or south to Iran.[81] In order to be able to exert extra pressure on the decision, Turkey even proposed a preferential credit and a guarantee to buy all of the early oil; which was estimated to be 4 to 5 million

[80] Azerbaijani International Oil Company (AIOC) is a consortium formed by the signatory parties of the Contract of the Century. Its shareholder structure changed after the initial contract but it still holds the operation of the Azeri Chirag and Guneshli fields of Azerbaijan.

[81] Zeyno Baran, "The Baku-Tbilisi-Ceyhan Pipeline: Implications for Turkey", in Svante E. Cornell and S. Frederick Starr (ed.), "The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West", Central Asia-Caucasus Institute and Silk Road Program, 2005, p.106.

tons annually.[82] On the other hand, Russia was supporting Baku-Novorossiysk pipeline with the intention to make it the main export route with future expansions. Babali says Russia may have even utilized its military and political power to convince Azerbaijan. After all, as he paraphrases from Ilham Aliev; "the question of selecting an oil transport route was a political and not an economic decision for Azerbaijan".[83] As a result, with the intention of satisfying both parties, on 09 October 1995 Azerbaijan declared that both of the pipelines will be utilized for the early oil.

Following the declaration of the routes for early oil, an important decision was taken for Kazakh oil. Caspian Pipeline Consortium, which was established for the aim of transporting Kazakh oil to the Western Markets, initiated the construction of the CPC Pipeline in 1996.[84] This development had a dual affect on the destiny of the BTC. On the negative side, it meant that the projected Kazakh participation to the BTC would be halted at least for an indefinite period of time. However, on the positive side, it degraded the potential of any expansion at Baku Novorossiysk Pipeline. Because, limited capacity of the

[82] MEED, 20 October 1995, p. 31; Turkish Probe, 17 May 1996, p. 19, 20

[83] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 169.

[84] John Roberts, "Pipeline Politics", in Shirin Akiner (ed.), "The Caspian; Politics Energy and Security", Routledge Curzon, 2004, p. 81.

Novorossiysk terminal would not be capable of dealing both Kazakh and Azerbaijani oil at the same time. Moreover, development of this new 700.000 bbl/day pipeline, added with the already existing tanker traffic would make the situation at the congested straits even worse. In this sense, Turkish claims for a pipeline bypassing the straits became lauder, increasing the chance of BTC as a main export pipeline.

The impetus for the realization of BTC was achieved by the Ankara Declaration on October 29, 1998. As it has been mentioned before, East-West Energy Corridor policy was institutionalized by this declaration. BTC, with its mammoth length and cost would only be realized with a brief intent to help the Caspian countries in gaining their full independence by decreasing the Russian influence in the region. This declaration showed that such kind of goals would make sense and BTC is more than a dream. Moreover, attendance of Kazakhstan has created an extra advantage for the BTC. Although CPC Pipeline was being constructed for the Tenghiz oil, any future exploration in Kazakhstan would still be a source for BTC. As Baran notes, “Kazakhstan was important because, at the time, it was unclear whether there was sufficient oil in Azerbaijan to justify a

major new pipeline."[85] Major steps followed the declaration and after various negotiations about the financing of the pipeline, on November 1999, Turkey, Georgia and Azerbaijan signed the Intergovernmental Agreement of the Baku-Tbilisi-Ceyhan Crude Oil Pipeline Project.

It bears noting that the discovery of the huge Shah-Deniz natural gas and condensate field coincides the Intergovernmental Agreement for BTC. In fact, as stated before, AIOC consortium, headed by BP was initially suspicious about the feasibility of the BTC due to its capacity. According to the initial estimates, if it is fed only by the Azerbaijani oil, during its economic life BTC would be short of the necessary amount to be transported. Because of this reason, despite the huge political support for BTC, AIOC was hesitant and it did not take positive steps voluntarily. However, the climate has changed in a perceivable manner after the affirmative results in the exploration of Shah Deniz field. Especially with the distillate resources available at Shah Deniz, Azerbaijani oil alone became sufficient enough to meet the minimum requirement of BTC. Thereof, the necessity for Kazakh deposits decreased and the project proved to be commercially acceptable even in the absence of Kazakh oil. As Babali says, this

[85] Zeyno Baran, "The Baku-Tbilisi-Ceyhan Pipeline: Implications for Turkey", in Svante E. Cornell and S. Frederick Starr (ed.), "The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West", Central Asia-Caucasus Institute and Silk Road Program, 2005, p.108.

fact was made public by the CEO of BP in 2001[86] when he declared that BTC is commercial, based on the Azeri-Chiraq-Gunashli and Shah-Deniz (condensate) reserves alone, and he reiterated BP's determination to go ahead with the project.[87]

With its proved commercial value and full economic and political support from Turkey and other MEP participants, financing of the pipeline has been achieved. After the necessary technical agreements, Baku-Tbilisi-Ceyhan Pipeline Company (BTC Co.) was established in 2002 and the construction has been initiated in the same year. The main participants of the company were more or less the same with the AIOC consortium. In its current structure, while BP is holding the lion share with 30,10%, others shareholders can be listed as; SOCAR 25,00%, Chevron 8,90%, Statoil 8,71%, TPAO 6,53%, ENI 5,00%, Total 5,00%, Itochu 2,50%, Inpex 2,50%, Conoco Phillips 2,50%, Hess 2,36%. The interesting thing in the shareholder structure of BTC is the shares of ENI, Total and Conoco Phillips. While these companies are not represented in the AIOC consortia, they were included in BTC. Without having the necessary oil to transport, the shares of these countries do not make any sense. But it was not

[86] Especially after the acquisition of Amoco by BP, the company became the principal operator of the AIOC consortium.

[87] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 174.

meaningless either; these companies added with Inpex (It as shares both in the AIOC consortia and Kashagan) holds nearly 50% of the Kashagan field.[88] The field, which was discovered in 1999, has more than 14 billion barrels of oil reserves. Although it has not started production, when it starts to operate, huge amount of oil will be available for export. By the year 2016, expected production from Kashagan is 1,2 million bbl/day and at least half of this amount is to be shipped across the Caspian Sea to be fed into the BTC pipeline.[89]

Three years later from the establishment of BTC Co., construction of the BTC pipeline has been completed in 2005 and first oil has been pumped from Azerbaijani Sangachal terminal near Baku with festivities. Running 443 km through Azerbaijan, 249 km through Georgia and 1076 km through Turkey to the Ceyhan Marine Terminal, Azerbaijani oil has reached to the Mediterranean in 2006. The first oil was loaded at the Ceyhan Marine Terminal (Geidar Aliyev Terminal) onto a ship on June 4, 2006 which was followed by the official opening ceremony on 13 July 2006, and pipeline started its operations.[90] After

[88] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 183.

[89] Cagatay, Soner and Gencsoy Nazli, "Startup of the BTC pipeline: Turkey's Energy Role", The Washington Institute for Near East Policy, May 27 2005.

[90] "Bakü-Ceyhan'a tarihi açılış", 13 Temmuz 2006
http://hurarsiv.hurriyet.com.tr/goster/haber.aspx?id=4746371&tarih=2006-07-13

two years of operation, at the end of October this year, it has been stated that Baku-Tbilisi-Ceyhan oil pipeline has transported 470 mm barrel crude oil.[91]

3.2.2 Recent Developments in BTC

Since all the oil and natural gas of Azerbaijan is obliged to be exported via third countries, the main export pipeline; BTC constitutes a great importance for the country. Other alternatives in Georgia like Batumi (via rail with the capacity of 70.000 bbl/day) or Supsa (via 150.000 bbl/day pipeline) are very limited. Other route; Novorossiysk in Russia (via 100.000 bbl/day pipeline) has the disadvantage of mixing the precious Azerbaijani oil with the Russian blend, decreasing its value. In this manner, BTC is the only exit which has the capacity to transport all the production. Moreover, it can easily be claimed that by creating a transportation advantage to the Azerbaijani oil, BTC not only makes it accessible but also increases the value of the traded quantities. According to the recent market analysis, Azeri Light crude oil gained an increasing importance in the Mediterranean market due to its quality,[92] and its availability at Ceyhan

[91] "BTC pipeline transported 470 mln barrel oil so far", 20.10.2008 http://bsanna-news.ukrinform.ua/newsitem.php?id=6204&lang=en

[92] 34,9 API and 0,145% sulphur content.

port.[93] Especially with the capacity of Ceyhan for loading very large crude carriers,[94] Azeri oil found itself many markets like USA or Asia. As a result, after BTC came on stream, the shareholders of Azerbaijan International Operating Company (AIOC), which have a stake in BTC Co, have reoriented all the oil coming from Azeri-Chirag-Guneshli (ACG) through Baku-Tbilisi-Ceyhan pipeline.[95]

However, this does not mean that BTC is a very safe gateway. There were always concerns about the security of the East-West Energy corridor due to the problematic ethnic structure of the areas on its route. Georgia has some important tensions within its borders with the separatist minorities like South Ossetia and Abkhazia, while PKK, a Kurdish terrorist organization, threatens the route across Turkey. During the construction of the BTC and in the initial period of its operation up to this year, the project was not affected by these potential threats. On the other hand, all of a sudden, the worst scenario has happened at the beginning of August 2008. First, on 5th of August BTC was closed after a

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[93] JBC FSU/CEE Insight, 19 June 2008, p.3.

[94] The Ceyhan port is suitable to load vessels up to 400.000tons DWT.

[95] "BTC Co shareholders stop pumping oil via Baku Novorossiysk and Baku-Batumi routes", 19.04.2008 http://en.apa.az/news.php?id=24983

terrorist attack in Turkey,[96] and only three days later, Georgian forces entered South Ossetia, initiating an armed conflict with Russia. As a natural result of these developments, production at Azeri-Chirag-Gunesli fields of Azerbaijan has been suspended, creating a huge loss for the operators of ACG field and BTC pipeline.[97] The loss of the Azerbaijan from the mentioned incidents is 800.000 bbls/day of production for over than two weeks.[98] According to the US Department of Energy estimations, Azerbaijan's total loss due to the halted operations is approximately 17 million barrels of oil, which is equivalent to a 1 billion dollars decrease in revenues.[99]

During the clash between Russia and Georgia there were rumors about BTC stating that the Russian forces targeted the oil pipeline, but such claims turned out to be untrue. On the other hand, even though the war has not destroyed the infrastructure, the conflict in the region suspended the operations and created doubts about the security of the pipeline, which might have serious long-term consequences. Even before the recent incidents, there were some concerns about

[96] Reuters, Thursday, 07 August 2008 10:05:52

[97] According to the Reuters the loss of BP is approximately USD300m for each quarter BTC is down, exclusive of transportation tariff income.

[98] Supply: Azerbaijan: A Treasure in the Caucasus, JBC Market Watch, August 2008, p.13.

[99] "Azerbaijan suffers $1B loss from BTC", 18.09.2008 http://www.upi.com/Energy_Resources/2008/09/18/Azerbaijan_suffers_1B_loss_from_BTC/UPI-35751221749607/

the security of the BTC; therefore it is not surprising to see more questioning comments in the future. As the JBC analysts put in; "Georgia has established herself as a strategically important player for the West as a transit country for Caspian energy bypassing Russia and the Middle East, i.e. Iran. But this status could be reconsidered as the region may prove to be too risky to secure long-term supplies."[100]

The crisis led SOCAR to alternative routes and the company utilized 100.000 bbl/day Baku-Novorossiysk pipeline and Iranian swap agreements in August 2008. Moreover, other alternatives were also taken into consideration such as 150.000 bbl/day Baku-Supsa pipeline and 50.000 bbl/day Baku-Batumi rail connection. Regarding with these developments, SOCAR Vice President Elhar Nasirov told that "Azerbaijan would continue its post-BTC explosion policy of exporting oil to Iran and Russia even though shipments through Georgia had resumed, because of the increased risks in the Caucasus. We do not want to insult anyone, but it is not good to have all your eggs in one basket, especially when the basket is very fragile."[101] In this manner, although BTC is constructed with huge investments and it cannot be replaced by the alternatives easily, the

[100] JBC FSU/CEE Insight, 14 August 2008, p.1;

[101] "Analysis: Azerbaijan diversifies oil export routes", 03.10.2008 http://www.upi.com/Energy_Resources/2008/10/03/Analysis_Azerbaijan_diversifies_oil_export_routes/UPI-67981223064821/

volume to be transported via BTC would be affected due to the security concerns. Such moves are important to motivate Georgia and Turkey in ensuring the security of BTC.

Although the security concerns are overshadowing the BTC, there are also some positive developments for the pipeline like the Kazakh participation to the project. In this sense, an agreement between Kazakhstan and Azerbaijan to transport 40.000 bbl/day Kazakh oil via BTC was signed on 16 June 2006 and it has been ratified by the Kazakh parliament on 26 March 2008[102], leading to the introduction of Kazakh oil to the BTC on October 2008.[103] According to the agreement, oil coming from Tengiz oilfield will be transported via Caspian to Baku, where it will be included in the BTC system adding the Kazakh oil to the oil basket of Ceyhan. The amount of oil to be transported is subjected to increase up to 100.000 bbl/day. Moreover, the appetite of Kazakhstan to utilize BTC has not been degraded even after the recent clash at Georgia. In the words of the newly appointed president of the state-owned Kazmunaigaz, Kairgeldy

[102] "Kazakh Parliament ratifies agreement on Azeri BTC", 31.03.2008 http://www.neurope.eu/articles/84898.php

[103] The exported quantity was 17400 mtons. "For the first time BTC exported Kazakhstan's oil in October", 17.11.2008, http://abc.az/eng/news_17_11_2008_29497.html

Kabyldin; “the conflict in Georgia would not lead to any change in plans, as the risks of transiting the Caucasus have not increased”.[104]

The estimates about the Kazakhstan show that the country has a very big potential in increasing the production and export of oil and natural gas. According to the JBC analysts, by the year 2015, the oil production of the country will increase 300.000 bbl/day, reaching 1,7 million barrels per day and therefore the exports of the country will increase substantially.[105] In fact, there are already some important changes in the oil production of the country with the output from Tengiz field reached to 535.000 bbl/day from its initial 300.000 bbl/day level after a 6 billion dollars investment which has been completed in September 2008[106]. However, since the country is landlocked, limited number of pipelines is the only possible way for Kazakhstan to export its oil and gas. The situation is very serious and it can even be stated that Kazakhstan’s output can continue to grow only if it gets access to more pipeline capacity beyond 2010. For the time being, most of the Kazakh oil exports are achieved through Caspian Pipeline Consortium’s pipeline, namely CPC and the remaining part is exported to China and Russia. In this manner, although there are some plans for the

[104] JBC FSU/CEE Insight, 18 September 2008, p.1.

[105] JBC FSU/CEE Insight, 16 October 2008, p.6.

[106] JBC FSU/CEE Insight, 18 September 2008, p.1.

expansion of the CPC pipeline to 1,35 million bbl/day, the negotiations with Russia has not come to an end and the capacity stands to be 655.000 bbl/day.[107] According to the Russian transportation company Transneft, which has a 24% share in the CPC Pipeline, the expansion project would make sense only if the pipeline proves to be more profitable and 700.000 bbl/day Bourgas-Aleksandropoulos pipeline is completed, bypassing the chronically congested Turkish Straits. Therefore, Kazakhstan is seeking alternatives to sustain the security for its production and oil trade and utilizing BTC for some of the oil exports is the most viable alternative for the near future.

In this manner, in order to increase the shipments through BTC a new project called Kazakhstan Caspian Transportation System (KCTS) have been initiated. BTC Pipeline's capacity is increased to 1,2 million bbl/day at the beginning of 2009 and there are more aggressive plans to increase the capacity even further up to 1,6 million bbl/day in the next few years. KCTS came to the agenda with these moves and according to this new project oil produced from Tengiz and Kashagan fields is intended to be transported through BTC. However, although the Kashagan field in Kazakhstan is very promising[108], the start of production

[107] JBC FSU/CEE Insight, 01 May 2008, p.3.

from the field still seems to be a very challenging task to achieve. The initial agreement on the production of oil from the field had been achieved in 2000 and at that time the first output was expected in 2005. During the works are being carried out, this optimistic guess was revised to 2008, 2010, 2011 and in 2008, another revision was made for the first production as 21012/2013.[109] But still those predictions are found to be too optimistic by the Kazmunaigaz' chairman; Timur Kulibayev.[110] There are several reasons for the revisions of the operating consortium[111]; varying from technical ones to economics, from bureaucratic ones to taxation but with every delay costs are increasing for the consortium.[112]

On the other hand, in any case oil will be extracted from Kashagan sooner or later and when it is produced, a new transportation channel will be required. In this sense, KCTS seem to be very attractive. It will be a 730 km pipeline within Kazakhstan from the city of Yeskene to the Caspian port of Kuryk. From that point on, oil will be shipped across the Caspian to reach the Azerbaijani capital

[108] According to many sources, with the estimates about the reserves of about 13 billion barrels, Kashagan is stated to be the biggest oil discovery of the world in the last 30 years, surpassing Tengiz field.

[109] JBC Energy Market Watch, May 2008, p.32

[110] JBC FSU/CEE Insight, 18 September 2008, p.2.

[111] The consortium consists of seven oil majors with the leadership of Italian company ENI.

[112] With the recent announcements of delays the cost estimates of the first phase have been increased from 10 billion dollars to 19 billion dollars and the total cost estimates for the lifespan of the field has been doubled, reaching 130 billion dollars.

Baku and BTC Pipeline will be facilitated to transport the Kazakh oil to the Turkish Mediterranean port of Ceyhan. If such plans are realized, 400.000 bbl/day Yeskene-Kuryk pipeline is intended to be completed in 2012 with an estimated cost of 3 billion $. The cost includes 1,4 billion $ pipeline, 600 million$ oil terminal and tankers.[113] Azerbaijani and Kazakh governments have already agreed to work together in June 2006. According to the agreement, Azeri national oil company SOCAR and Kazakh oil company Kazmunaigas will form a joint venture to realize KCTS.

The choice of Kazakhstan for the Kashagan oil would constitute a big importance for the Turkish energy strategy. Utilization of BTC would be the best alternative but even if the expansion of CPC is chosen to be the gateway it would still be used by Turkey. The exit point of CPC is Black Sea and any oil in the Black Sea is a potential source for the Trans Anatolian Pipeline project. In this manner, for any extra Kazakh oil at the Black Sea, Turkish officials and Turkish companies should follow an active strategy to include it within the Trans Anatolian Pipeline system. In any case if Kazakh oil is achieved to be exported through Ceyhan, the importance of the terminal would be increased and this would help the aims of Turkey for making Ceyhan as an energy hub.

[113] JBC FSU/CEE Insight, 01 May 2008, p.4.

3.3 Trans Caspian Natural Gas Pipeline Project and Baku Tbilisi Erzurum (BTE) Natural Gas Pipeline (South Caucasus Pipeline)

It has been clearly stated in Turkish Energy Strategy document[114] that the East-West Energy corridor policy has two main aims; transportation of the Caspian oil to the Western markets and building a pipeline network for the utilization of the gas reserves of Caspian in Turkey and in the European Union (EU) market. As of 1999, Ankara Declaration showed that, one of the biggest components of this policy; BTC would be achieved. Moreover, the remaining part of the Caspian oil, which will not be transported via BTC, namely the Kazakh oil was also reaching the Western Markets through CPC. On the other hand, at that time there were no solid achievements for the second mission of the policy; utilizing Caspian gas. In this manner the aim of Turkish Energy Strategy as being a bridge between Central Asian hydrocarbon reserves and the consumers in Europe would only be achieved with the addition of natural gas into the system with a link to the biggest possible source; Turkmenistan. Although some projects were on the table for transporting Turkmen gas through a pipeline under the Caspian Sea, there were structural problems about the Trans-Caspian Gas Pipeline.

[114] Republic of Turkey, Ministry of Foreign Affairs, Turkish Energy Strategy, January 2009.

Trans Caspian Pipeline project, which was a product of the East-West Energy Corridor Policy, came to the agenda after the independence of the Caspian countries, just like the BTC project. It was aimed to transport 30 bcm gas from the Turkmen reservoirs to the Western markets. The pipeline was projected to pass through Caspian, Azerbaijan and Georgia to reach Turkey, where 16 bcm of gas would be consumed and the remaining 14 bcm would be transferred to the EU.[115] Although a positive climate existed in the mid 1990s due to the support of the Turkmen government, the project was halted in 2000 for an indefinite period of time.[116] There were various reasons for such a development. First of all, Turkmenistan was having problems with one of the transit countries; Azerbaijan over the disputed Kyapaz deposit (It is named as Sedar field according to the Turkmen records) and Azeri and Chirag fields. The disputes between the parties were so fierce that they even led to the cancellation of exploration activities in the Kypaz/Serdar field.[117] Moreover, with the unsettled legal status of Caspian, an underwater passage was also strongly opposed by Iran and Russia.[118] Secondly, Canzi notes that Turkmenistan was a challenging place to make

[115] John Roberts, "Pipeline Politics", in Shirin Akiner (ed.), "The Caspian; Politics Energy and Security", Routledge Curzon, 2004, p. 86.

[116] Ronald Soligo and Amy Myers Jaffe, " The Economics of Pipeline Routes: The Conundrum of Oil Exports from the Caspian Basin"i in Kalyuhnova, Jaffe, Lynch and Sickles (ed.), "Energy in the Caspian Region", Palgrave, McMillan, 2002, pp.125-127.

[117] Vladimir Mesamed, "Turkmenistan: Oil, Gas, and Caspian Politics", in Michael P. Croissant and Bülent Aras (ed.) "Oil and Geopolitics in the Caspian Region", Preager, 1999, pp.214-215.

[118] Ali Granmayeh, "Legal History of the Caspian Sea", in Shirin Akiner (ed.), "The Caspian; Politics Energy and Security", Routledge Curzon, 2004, p. 28.

business for the Western companies due to the high level of bureaucratic red tape, corrupt officials and lack of transparency.[119] Additionally, as she continues; the incomprehensive attitude of behavior of President Niyazov of Turkmenistan, mostly affected "by the prospect of concluding a major Turkmen-Russian gas deal" undermined the project. Finally, with the decision for the construction of the Blue Stream Pipeline, a Russia-Turkey gas pipeline passing under the Black Sea, evaporated the potential demand in the Turkish market for the Turkmen gas and the project was halted.[120]

Discovery of Shah Deniz by BP came to the scene in the eve of these events in 1999.[121] In fact, before the exploration of the gas reserves in the Shah Deniz Region, considerable amount of gas for exports was not present in Azerbaijan. Even after the discovery, in the light of the estimates about the production potential of the field, a separate gas pipeline may have been found as unfeasible, at least in the field's initial stage of operation. However, luckily BTC project was on its way for construction. Hence, before the commercial production from

[119] Germana Canzi, "Turkmenistan's Caspian Resources", in Shirin Akiner (ed.), "The Caspian; Politics Energy and Security", Routledge Curzon, 2004, p. 186.

[120] Kamer Kasım, 'Turkey's Foreign Policy towards the Russian Federation' Abant İzzet Baysal Üniversitesi, pp 18-20.

[121] According to the Energy Information Administration (EIA), estimates about the potential of the field is between 425 bcm and 1 trillion cubic meters (tcm). http://www.eia.doe.gov/emeu/cabs/Azerbaijan/NaturalGas.html

Shah Deniz field has started, there was already groundwork for the pipeline, decreasing the fixed costs. Therefore, Azerbaijan suddenly became an important option for the ever increasing gas market in Turkey and in Europe. Negotiations have been initiated immediately and a gas pipeline was projected on the route of BTC.[122] . In this manner, it can easily be claimed that BTC has played a significant role for the construction of South Caucasus Gas Pipeline (SCP).[123]

Construction of the SCP was officially approved by the Shah-Deniz consortium[124] in 2002. The initial capacity of the pipeline has been set to 8,4 bcm, according to the estimations for the production of Phase-I of the Shah Deniz field. Original plan is to expand this capacity up to 16 bcm with the introduction of the production coming from Phase-II.[125] But through revisions its expansion can be extended up to 30 bcm if any Turkmen gas would be available

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[122] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 181.

[123] Svante E. Cornell, Mamuka Tsereteli and Vladimir Socor, "Geostrategic Implications of the Baku-Tbilisi-Ceyhan Pipeline", in Svante E. Cornell and S. Frederick Starr (ed.), "The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West", Central Asia-Caucasus Institute and Silk Road Program, 2005, p. 22-23.

[124] Consortium consists of British BP (%25,5), Norwegian Statoil (%25,5), Azeri SOCAR (%10), French Total (%10), United Arab Emirates' NICO (10%), Russian-Italian LukAgip NV (%10) and Turkish TPAO (%9). SCP shareholder structure is the same with the consortium.

[125] In 2008, Shah Deniz will be capable of producing 8,4 bcm annually. However, with the completion of Phase-II this figure would rise to 20 bcm per year.
http://www.eia.doe.gov/emeu/cabs/Azerbaijan/NaturalGas.html

in the future.[126] The construction of the 692 km pipeline was completed in early 2007 and currently it transports gas from the Shah Deniz field of Azerbaijan to the Turkish city of Erzurum, where it integrates with the Turkish natural gas grid.

Realization of SCP was a great achievement for the Turkish energy policy. Because, as it has been explained above, Trans-Caspian Pipeline was halted for an indefinite period of time and without the gas link, East-West Energy Corridor Project would be crippled. In this sense, the meaning of SCP is more than the gas it carries. Introduction of such a connection between the Caspian and Turkey paved the way for the construction of Turkey-Greece Interconnection System, moving Turkey one step further in materializing its aims. The system between Turkey and Greece has started its operations on 10 August 2007 with an initial capacity of 8 bcm. The project is aimed to be extended to Italy through Adriatic, with an increased capacity up to 22 bcm. [127] By the help of this connection, for

[126] Svante E. Cornell, Mamuka Tsereteli and Vladimir Socor, "Geostrategic Implications of the Baku-Tbilisi-Ceyhan Pipeline", in Svante E. Cornell and S. Frederick Starr (ed.), "The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West", Central Asia-Caucasus Institute and Silk Road Program, 2005, p. 22-23.

[127] Nicklas Norling "The Nabucco Pipeline: Reemerging Momentum in Europe's Front Yard" in Svante E. Cornell, Niklas Nilsson (ed.), Europe's Energy Security, Central Asia-Caucasus Institute Silk Road Studies Program, 2008, p. 130.

the first time in history, in November 2007 Caspian gas became accessible for the European market without passing through Russian territory.[128]

Since the southern corridor is vital for Europe, both Turkey and the EU aim to have other connections. In this sense, in 2002 Nabucco project has been initiated to create a link between the natural gas reserves of the East and the markets of the West, namely Europe. The pipeline will start from Turkey and would be linked to the Central European gas rig in Austria, passing through Bulgaria, Romania, and Hungary and it is proposed to carry both the Caspian and Iranian gas. However, since Trans Caspian Pipeline Project is not viable in the foreseeable future it seems that filling the Pipeline with the necessary supply will be a problematic issue. Above all there is a strong opposition by the US for the utilization of Iranian gas, and although there are some other proposals for filling the line with Iraqi gas or Egyptian gas, no solid steps have been taken so far. Moreover, Turkish Policy aims not only to transport the hydrocarbon reserves to the Western Markets but also to have both secure and commercially profitable pipelines to bring stability and prosperity to the region and such a dual policy creates problems between Turkey and the EU regarding with the tariffs.

[128] Volkan Özdemir, "Turkey's Role in European Energy Security", in Svante E. Cornell, Niklas Nilsson (ed.), Europe's Energy Security, Central Asia-Caucasus Institute Silk Road Studies Program, 2008, p. 104.

Still, especially after the intergovernmental Ankara Agreement signed on 13 July 2009, Nabucco Project has already gained the legal ground and the final investment decision will be given at the end of 2010.

By the help of already operating SCP and Greece-Turkey Interconnector System and Nabucco Project passing through Turkey onto their way to Europe, Turkey would have the opportunity to re-sell the gas it buys from other suppliers. Moreover, if these two lines would be fully added to the European supply chain, further additions to the Turkish natural gas system like Iraq or Egypt would easily be achieved. Even the halted Trans-Caspian pipeline project would be refreshed making the Turkmen gas and even Kazakh gas available for direct transportation to Turkey and to Europe. Both of those developments would solidify the Turkish aim of being an energy hub.

In this manner Caspian natural gas reserves, namely the reserves of Azerbaijan, Turkmenistan and Kazakhstan deserve a big attention for the Turkish energy policy. Current gas production of Azerbaijan is about 27 bcm and production from Shah Deniz constitutes nearly 30 percent of the total Azeri production. Although only the first phase of the Shah Deniz Project became on stream it

produces 8 billion cubic meters per year. With the extension of the project to the second phase in 2013, this figure is expected to rise to 20-30 bcm constituting more than 50% of the total natural gas production of the country. If we take into account that the domestic use of Azerbaijan is about 11 bcm, it is far from certain that the country is already a net exporter and in the future, the importance of the country will increase with the potential increase in the exported volumes. However, such a potential is in the agenda of various potential customers varying from European countries to Turkey, Russia, Israel and even Iran.[129] In this manner, recent action of Russia with its natural gas goliath; Gazprom is very important. In being very disturbed with the moves of its European customers, it got into action and in June 2008 made an official offer to SOCAR, the state owned Azerbaijani oil and Gas Company, to buy all the output of the second phase of the Shah Deniz. According to the JBC analysts, the offer includes long term contracts at European prices and aims at preserving the status quo of Gazprom in the European market.[130]

In this manner it worths mentioning about the Turkmen hydrocarbon reserves. What is unique about Turkmenistan is that for all of the natural gas exporters of

[129] JBC FSU/CEE Insight, 12 June 2008, p.2; According to JBC report, currently 33 different interested entities are holding talks for the purchase of natural gas from Shah Deniz.

[130] Ibid, p.2

the world; namely Russia, Iran, Qatar, Norway, Nigeria, always natural gas is the second important commodity of export after oil. However, for Turkmenistan, since the oil reserves of the country are very limited the situation is totally different. Therefore, the country heavily dependent on the income coming from the natural gas sales. Moreover, Turkmenistan, like all of the Eurasian countries, has declared its independence just more than a decade and there are huge development moves in the country. Hence, the country wants the wealth of the natural gas and it wants it now. Such a unique property explains the moves of Turkmenistan. Especially in the Turkmenbasi era, nearly all of the countries which make an official visit to Turkmenistan have signed a memorandum of understanding for the natural gas imports from the country. Consequently, Turkmenistan's commitments have already surpassed its possible production in the coming years.[131] Even if we exclude the 33 bcm Turkmenistan-Afghanistan-Pakistan-India (TAPI) Pipeline due to the security concerns and lack of financial support, the country has commitments for supplying 133 bcm.[132] Current production of the country is 72 bcm, 14,4 bcm of which is consumed within Turkmenistan.[133] Without doubling its production levels, Turkmenistan is

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[131] Although Turkmenistan's possible natural gas production is somewhere between 67-80 bcm, its commitments are as follows: Russia up to 90 bcm, China 30 bcm, Iran up to 13 bcm. Additionally the country has signed some memorandum of understandings for Trans Caspian Pipeline Project and Trans-Afghan-Pakistani-India Pipeline Project.

[132] JBC FSU/CEE Insight, 08 May 2008, pp. 3-4;

[133] CIA, The 2008 World Book;

already in trouble. In addition to these, there is also a big confusion about the amount of country's natural gas deposits. According to the government figures of Turkmenistan, recoverable gas potential of the country is 22,4 trillion cubic meters (tcm), placing the country to the fourth place in the world. However, a most reliable source, BP Statistical Review of World Energy states that they are nearly insignificant with an amount of 2,67 tcm. Therefore, it is hard to say whether if Turkmen gas would be available or not if the construction of Trans-Caspian Pipeline is achieved.

According to the JBC, recent audits by a British independent energy consulting firm, Gaffney Cline and Associates, shows that the claims of Turkmen government about the potential of its gas reserves would be correct.[134] Additionally, there is a warm climate between Azerbaijan and Turkmenistan, increasing the potential for a settlement about the Caspian dispute. In fact, in his very recent visit of Ilham Aliyev, the President of Azerbaijan, to Turkmenistan on 28 November 2008, cooperation on the areas of mutual interest have been discussed. During the meetings held in Ashgabat, possible ways for the delivery of 10 bcm Turkmen gas to the European customers through SCP and even the joint development/production opportunities for the disputed Kypaz/Serdar

https://www.cia.gov/library/publications/the-world-factbook/index.html

[134] JBC FSU/CEE Insight, 12 October 2008, pp. 4-5;

offshore field were negotiated.[135] Such developments draw an optimistic picture for the introduction of Turkmen gas to the European market in the foreseeable future.

Another possible supplier of the natural gas strategy of Turkey is Kazakhstan. However, although the country has considerable natural gas reserves[136] the natural gas sector in the Kazakhstan is not developed. This is mainly because the distribution of the population in the country and the location of the reserves. While natural gas reserves are mainly located in the western part of the country, the most populated areas in the country is located in the east. Therefore, since the supply and demand is in different areas and the demand is not big enough for the costs of changing the already existing pipeline networks dependent on imports, the natural gas demand is met from imports.[137] Additionally, thanks to the vast reserves of oil in the country natural gas is not of primary concern for the time being. However, it is far from certain that vast natural gas resources of the country will be facilitated in the near future and markets for those resources

[135] "Azerbaijan, Turkmenistan Specify Priorities", 01.12.08 http://capital.trend.az/index.shtml?show=news&newsid=1359489&catid=615&lang=en

[136] 1.9 trillion cubic meters, nearly 1.1 percent of the world total. For further details please check the Appendix I.

[137] Svetlana Tsalik, Robert Ebel (ed.) 'Caspian Oil Windfalls: Who will benefit?', Open Society Institute, 2003, p. 131.

like European Union will be required. More, as it has been mentioned before, Kazakh and Azerbaijani governments have initiated KCTS project which aims transporting Kazakh oil to Baku, preferentially by constructing a pipeline passing through Caspian. If the project prevails, a dual pipeline system would be chosen and Kazakh and/or Turkmen gas would be transported to Baku.[138] Therefore, although it is dependent on "too many ifs", there is still an open door for the realization of Trans-Caspian Pipeline project.

[138] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 184.

CHAPTER 4

CEYHAN, THE FOCAL POINT OF THE TURKISH ENERGY POLICY OF BEING AN ENERGY HUB

Turkey strongly desires to utilize its geographical advantage of being at the intersection point of supply and demand of hydrocarbon resources. For this reason, as it has been discussed in the previous chapters, Turkish energy strategy is based on the bridge role of the country and many steps have been taken. Especially starting with the 1990s a fierce competition for the Caspian hydrocarbon resources was made and Turkey achieved to be the prevailing actor for being the main export route for Azerbaijan hydrocarbon reserves with the construction of BTC and the SCP Pipelines. First Azerbaijani oil has been loaded from Ceyhan in June 2006 and first Azerbaijani gas has been received in 2007. However, Turkish strategy is not limited with the transportation of these resources. The strategy is defined by the energy officials, as being an energy hub, not a terminal. In the words of Babalı, to achieve such an aim "Turkey intends to join all oil and natural gas pipelines running through its territory at the Mediterranean port of Ceyhan." In this manner, as Hilmi Güler, previous

Minister of Energy and Natural Resources declared in the official opening ceremony of the Blue Stream, "Uniting the pipelines we want to make Ceyhan an analogue of Rotterdam (the largest freight port and energy market)" [139]

However unfortunately such a big desire may not be very realistic considering the Port of Rotterdam. Because the chosen rival is situated in the heart of North Western Europe and it enjoys the advantage of being the hub for the international flow of goods. In 2007 figures the Port of Rotterdam had a throughput of a massive 400 million tons, nearly 200 million of which was crude, mineral products and chemicals.[140] In another words it deals with 20% of the total production capacity of Northwestern Europe energy sector. Hence, having these figures in mind, aiming to create a new Rotterdam in Ceyhan is a very assertive task to achieve. Currently, Ceyhan has only facilities to handle BTC and Kirkuk-Yumurtalık Pipelines and some other jetties mainly for the LPG imports of LPG companies, imports of Sugözü power house and fertilizer exports of Toros Company.[141] It does not have a container port and facilities only for bulk cargoes. Moreover, considering the hinterland of the region neither

[139] Tuncay Babali, "Caspian Energy Diplomacy; Since the end of Cold-War", Turkish Foreign Policy Institute, 2006, p. 122.

[140] Port of Rotterdam Annual report, 2007. The actual figures are 97 million tons crude, 57,3 million tons mineral oil products and 32,3 million tons of Chemical Products and edible oils.

[141] CEYHAN LİMAN YÖNETMELİĞİ; http://www.mevzuat.adalet.gov.tr/html/27254.html

Adana nor the east Mediterranean does not have sufficient industrial facilities to feed such a big port. On the other hand Ceyhan still constitutes a big importance both for Turkey and the Mediterranean with its existing infrastructure and projected developments. Therefore in order to draw the Picture of the region the existing structure should be examined.

4.1 Crude Oil in Ceyhan

For the time being Crude oil flows to the Ceyhan region from two main sources; Iraq and Azerbaijan. In addition to those also domestic production achieved in Turkey reaches to region by a separate pipeline, but the quantity and quality of the domestic crude is inconsiderable if compared with the oil coming from the other two pipelines. In 2007, nearly 250 million barrels of oil has reached to the port of Ceyhan from these destinations. With the figures of the first ten months, it seems that this amount will increase by %50 in 2008 and would reach to 380 million barrels. This means that in 2008, every single day 1 million barrel oil is loaded from Ceyhan terminals. If we think that the total oil production of the world is about 81 million bbl/day[142], nearly 1,25 percent of the total oil

[142] BP Statistical Review of World Energy June 2007 publication.

production is shipped from Ceyhan. Additionally, a sizable amount of the oil and products is either used locally or transported by pipelines, only 40 million bbl/day of this amount is transported by sea.[143] Therefore, nearly %2,5 of the seaborne oil trade is made from Ceyhan. Moreover, the capacity of the pipelines reaching to the terminal is well above the actual figures. Iraq-Turkey Pipeline has the nominal capacity of 1,4 million bbl/day and BTC can transport 1 million bbl/day. This means that, if these pipelines are fully operated, Ceyhan terminal would affect nearly %6 of the seaborne oil trade.

Currently studies are being carried out for the expansion of the capacity of BTC up to 1,2 million bbl/day next year and even higher figures like 1,6 million bbl/day would be possible, especially if larger volumes of Kazakh oil is injected into the pipeline. In addition to this, a new pipeline project is on the way, which would soon transporting at least 1 million bbl/day oil from the Black Sea port of Samsun[144] to Ceyhan. Therefore, in the near future capacity of the port of

[143] International Maritime Organization (IMO), "Shipping's Environmental Creditentials" http://www.imo.org/includes/blastDataOnly.asp/data_id%3D18414/EnvironmentArticlebySGJan2007.doc

[144] Although the starting point of the Trans-Anatolian Project has been revised in 2007 with the Decree of General Directorate for Petroleum Affairs, No 5516 dated 13.09.2007, and new starting point is defined to be Ünye, the Project is still known as Samsun-Ceyhan Project and in this paper the Project is going to be called as Samsun-Ceyhan Pipeline.

Ceyhan would eventually reach to 4 million bbl/day constituting nearly %10 of the world's total seaborne crude trade with the figures of 2007.

Moreover, the other outlet of the Central Asian hydrocarbon reserves is also passing through Turkey, namely from Turkish Straits and considering the fragile situation of Istanbul, this route is also considered to be supported by a secondary pipeline passing through Turkish soil, Trans Anatolian Pipeline. By definition, chokepoints are "a common concept in transport geography, as they refer to locations that limit the capacity of circulation and cannot be easily bypassed, if at all."[145] In this manner, Bosphorous is a very good example of a chokepoint, which is the only exit of the Black Sea and its littoral states, namely Bulgaria, Ukraine, Romania, Russia and Georgia. Especially considering the regulatory agreement for the Turkish Straits, namely Montreux Convention, the utilization of the Bosphorous and Dardanelles is very easy and cost effective. Because, in section 1 Article 2 of this agreement it is stated that "In times of peace merchant vessels shall enjoy complete freedom of transit and navigation in the Straits, by day or by night, under any flag and with any kind of cargo, without any formalities. . . ." Therefore, especially after the demise of the Soviet Union this

[145] Jean-Paul Rodrigue , "Straits, Passages and Chokepoints A Maritime Geostrategy of Petroleum Distribution" in Cahiers de géographie du Québec, Volume 48, numéro 135, décembre 2004, p. 357-374

seaway became one of the most crowded routes of the world and many of the commercial activities of these countries in the Black Sea is channeled through this route. Considering the rush to the vast oil and natural gas deposits of the Caspian Sea and the Central Asia, especially the oil and oil products transit through the Black Sea and Bosphorus to reach outside markets, increased day by day. In this manner even if the pipelines would offer a faster and safer alternative and Trans Anatolia Pipeline Project is brought to the scene with this fact in mind. However, as Brito puts in, the cost differentials favor use of maritime transportation. His study in 1999 shows that the while the cost of transporting oil along the Baku-Ceyhan pipeline would be between US$1 and US$2 per barrel, shipping oil with tanker through the Bosphorous and Dardanelles costs 20 cents per barrel.[146] In this manner it is not surprising to see a tremendous increase in the transport through Turkish straits. But still the physical restrictions of the straits are a concern which would make a pipeline project viable. Because although the amount of oil and petroleum products which has transited from the straits in 1996 was about 60 million tons per year, with a tremendous increase this figure reached to an amount of 150 million tons

[146] Brito, Dagobert L. (1999) Congestion of the Turkish Straits: A Market Alternative. Working Papers, Rice University, Department of Economics. [On line].
http://www.ruf.rice.edu/~econ/papers/1999papers/08Brito.pdf

in 2007[147] and it is even expected to increase in the following years, exceeding 200 million tons per year after 2010. According to the statistics, nearly 7,5 percent of all the oil transported by sea passes through Turkish straits and in the following years this percentage is expected to increase up to 10 percent. Such an increase would not be sustainable and it is far from certain that an extra outlet from Black sea is necessary.

Moreover, there are mainly two important disadvantages of the Turkish straits. First, it is difficult to navigate through the Bosphorus to the Mediterranean. Because of this reason, there is a length constriction in the Bosphorous and the vessels longer than 300 meters cannot pass from the Turkish straits. This means that ULCC's and VLCC's cannot be utilized in this region, adding extra burdens on the transportation costs of the oil coming from the Black Sea. Secondly due to the weather related closures and the overloaded tanker traffic of the straits, especially in the wintertime many tankers wait for long periods of time and this results in large amounts of demurrage.

[147] http://www.denizcilik.gov.tr/tr/ The exact figure is 149.320.062 million tons for the Dardanelles strait and 143.939.432 million tons for the Bosphorous. (1 barrel is approximately 140-150 kg)

Therefore Trans Anatolian pipeline project, which starts from the northern Black sea port of Turkey; Samsun and after a 550 kilometers passage through the country ends in the Mediterranean port of Ceyhan, is a very attractive alternative. However, in pipeline projects the most important phase is the beginning, in which two or more competing projects came to the scene, looking for political and economic support from the related parties varying from countries to multinational companies and international organizations. Because such kind of huge investments should meet the needs of many participants even they have conflicting interests. In this manner, it is not surprising to see development periods which last longer than the construction and in some cases like the one in Samsun-Ceyhan and Bourgas Alexandropoulos, development phase would even last decades. Although the initial idea of Burgas Aleksandropoulos predates back to 1994, and the first agreement between Bulgaria, Greece, and Russia was made in January 1997[148] on a plan to build an oil pipeline linking the Bulgarian Black Sea port of Burgas with Alexandroupolis on the Mediterranean coast of Greece, by the year 2008 the construction of the line has not started yet.[149] The same is also true for Samsun-Ceyhan project which came to the scene on 2002, the actual construction has not been started yet, even though the groundwork ceremony has been made on

[148] Nadir Devlet, Turkey's Energy Policy in the Next Decade, PERCEPTIONS • Winter 2004 – 2005 p.73

[149] The trilateral agreement between Russia, Bulgaria and Greece about the construction of the line had been achieved in 2007; http://www.milliyet.com.tr/2007/03/16/ekonomi/axeko01.html

2007[150]. For the time being, both of the projects with their solid backgrounds are trying to get the upper hand by utilizing extra support from the third parties. Therefore, for the time being it is not easy to decide which one of these two projects will become the successor.

Burgas-Aleksandropoulos offers a shorter route of 285 kilometers, therefore it seems advantageous with its lower initial construction cost. Moreover, the open support from the two Russian giants; Rosneft and Gazprom added with the Kazakh guarantee to supply Burgas-Aleksandropouls line with 350.000 bbl/day oil[151] makes it very favorable. However, it passes through two different countries which creates a difficult environment for construction and passage tariffs. As Karagiannis puts in the most important thing in deciding the route of a pipeline is the countries on the route. As he states; "The greater the number of countries between the producer and the consumer, the more difficult the project operation becomes and the greater the chance that some political instability will afflict some part of the venture."[152] Moreover in both ends of the pipeline, namely in

[150] http://www.ntvmsnbc.com/news/406192.asp

[151] JBC FSU/CEE Insight, 15 May 2008, p.4.

[152] Emmanuel Karagianis, "Energy and Security in the Caucasus", Routledge Curzon, 2002, p.5

Burgas and in Aleksandropoulos, the poor port conditions would require additional investments if large quantities of oil is planned to be shipped.

On the other hand Samsun-Ceyhan with its two important shareholders from Turkey and from Italy[153] has also a very important political and economic support. Moreover, recently in this year with the Shell's declaration about its consideration to join the Samsun-Ceyhan pipeline project, it gained momentum, by lessening the concerns about the quantity of oil that will be transported through the pipeline. Additionally with the already existing export terminal in Ceyhan and the trading activities in the region added with the potential synergy which will be created by BTC and Kirkuk Yumurtalık Pipelines makes Samsun-Ceyhan Pipeline project very favorable. However still the project would be an expensive choice by doubling the length of Bourgas-Alexandropoulos pipeline with its 550 kilometers line, although it offers more stability with its sole host country; Turkey.

[153] At its initial stage a Turkish Company Çalık Holding and its Italian counterpart ENI has decided to initiate the Project and since that time many companies like Lukoil of Russia and Shell of United Kingdom showed interest to the Project.

In 2006, soon after its establishment ENI took the %50 share of the Trans Anatolian Pipeline Company from Çalık Energy., which was established for constructing the Samsun-Ceyhan Pipeline. Moreover, recently in 2008 answering the questions about the rumors of Shell's participation in this project, CEO of Shell, Jeroen van der Veer told that "Shell would not participate in any pipeline project in which its own oil does not flow" and added that "oil pipelines are very complicated projects in which the governments should take active roles bear responsibilities and the oil to be transported should be guaranteed." Additionally he stated that "the current financial crisis makes the situation even complicated."[154] Addition of Shell to the Samsun-Ceyhan Pipeline (Trans Anatolia Pipeline (TAP)) would be a very decisive step for the realization of the project. Given the ideas of Van der Veer it seems that such a possibility is not too far. Because Turkish government clearly supports the pipeline and in addition to this Shell has a %18,52 share in the huge Kashagan field, which would come into operation soon and would be the main potential for the TAP. Moreover, ENI, the operator of the Kashagan field is already a partner of the project. Even if these two companies are included in TAP, the project will receive %37 of the oil coming from Kashagan.

[154] Reuters, Friday, 14 November 2008 10:43:34RTRS

Currently, oil exports of Kazakhstan are about 1 million barrels for a day.[155] However as Nanay puts in, after the Kashagan field[156] comes to operation,[157] this figure is estimated to rise 1,6 million bbl/day in 2010 and to 3,6 million bbl/day in 2020. Therefore, there is a certain need for alternative routes to transport this extra amount. Building a pipeline connecting the onshore Bolashak production centre with the Baku-Tbilisi-Ceyhan pipeline or carrying the oil to Baku through Caspian with tankers are the most prominent options. Moreover, Kazakh government has passed a legislation recently to use BTC for its oil exports up to 1 million bbl/day.[158]

However, still some extra transportation alternatives required and there are already some projects for this purpose including the use of existing

[155] CIA Fact book 2007 version

[156] The most part of the 39.8 billion barrels proven oil reserves of Kazakhstan exists in this field. In fact the main purpose of the operating consortium (leaded by the Italian Company ENI) in this field was starting production in 2008. However due to the hard working condition caused by climate, technical difficulties and environmental considerations this date has been delayed to 2010 at the end of 2007 Because of this reason Kazakhstan government requested a compensation. After negotiations the parties reached an agreement at the beginning of this year for the increase of Kazmunaigas shares in the project up to 16,81%. http://www.eni.it/en_IT/company/operations-strategies/exploration-production/explo-country-kashagan.shtml

[157] Julia Nanay, Russia and the Caspian Sea Region in 'Energy Security; Toward a New Foreign policy Strategy' Jan H. Kalicki and David L. Goldwyn (ed.) Woodrow Wilson Center Press, 2005, p.142

[158] The necessary approval of the Kazakhstan Parliament to carry the Kazakh oil via BTC has been achieved in 24.04.2008 and the firs Kazakh oil has been loaded to the line in 12.05.2008. http://www.referansgazetesi.com/haber.aspx?HBR_KOD=97264&KTG_KOD=236

infrastructure, such as the Caspian Pipeline Consortium pipeline and the Atyrau-Samara pipeline, both of which are expected to undergo a capacity expansion. However, since Dardanelles and Istanbul straits are already overloaded, projected increase would not be carried to the Mediterranean by seaborne vessels. Because of this reason several options are examined by the Kazakh government and the operating consortium including the Burgas-Alexandroupolis Oil Pipeline and Trans Anatolian Pipeline. [159]

Having all of these positive indications, Trans Anatolian Pipeline Project is on the verge of realization but still the Project desperately requires supply stipulation and Russian support is the only way to have such a guarantee. Turkish government is aware of this fact and all the authorities are spending continuous efforts to achieve Russian participation in the Project. Recently those efforts began to bear its fruits. In his latest visit to Turkey, on May 2010, Russian President Medvedev clearly gave a green light to the Trans Anatolian Pipeline Project stating that the Project is not a rival of Burgas Aleksandropoulos Project in which Russian companies hold 51% share. Russian president even went further proposing to clear Turkey's Black Sea straits from

[159] According to the list given by John Roberts, there were 8 proposals in 2004. John Roberts, "The Turkish Gate. Energy Transit and Security Issues", EU-Turkey Working Papers, No. 11, (October 2004), pp. 20-22.

oil tankers and transport oil via two pipelines. According to the Izvestia Russia believes that transporting oil from the straits is a long and costly way, which would easily be reverted to the dual pipeline system of Burgas Aleksandropoulos and Samsun-Ceyhan.[160] According to the newspaper Russia proposed to manage two pipelines from a single center by which the crude oil to be transported from Black sea would easily be classified according to the sulphur levels and to be transported from the two pipelines separately.[161] Although there is an objection for the Project from the oil companies and there is not any solid step taken so far, the proposal shows Russian interest to the Samsun-Ceyhan Pipeline.

4.2 Refining and Petrochemical Industry in Ceyhan

Petroleum industry can be divided in three main components; upstream, midstream and downstream. While upstream operations include exploration and production, midstream consists of processing, storing, and transportation of crude oil. Downstream on the other hand, have more technical operations, which include chemical transformations. It commonly refers to refining, distribution and selling of petroleum products to the end-users. Additionally petrochemical

[160] http://www.worldbulletin.net/news_detail.php?id=58161

[161] Ibid.

industry is also included within these set of operations. All the economic and technical parameters are different in these three major components of the industry. However, they are also much related to each other since crude oil is the main element in their operations. Therefore, having two big pipelines terminating in Ceyhan, and one equally big project waiting to be materialized, Ceyhan stands in the middle of Midstream and Downstream business and it is not surprising to see an interest from various investors for building refineries and petrochemical plants at the region. Availability of three different types of crude oil, namely Iraq, Azeri and Kazakh oils added with the potential Russian oil makes Ceyhan unique for refining. Because although most of the liquid hydrocarbons coming out of the ground are called crude oil, in fact they differ from each other in means of their chemical compositions and quality. In order to obtain the required specifications for their operations, refineries generally make blends from various types of hydrocarbons supplied from different locations. Therefore, Ceyhan, by having at least three types of crude oil available without any extra cost of transportation has a very important advantage for operating a refinery. Such an advantage would naturally lead to the decrease in freight costs, which naturally increases profitability.

However, Ceyhan region has also some important drawbacks for the construction of a refinery. First of all, most of the demand of Turkish market is localized in the Marmara Region since it is the industrial center of the country. Ceyhan, as being situated in the southern part of Turkey, is very far from Marmara region and the products of a refinery should be transported long distances either by trucks or by tankers. Both of the transportation methods would decrease the economic attractiveness of a refinery at Ceyhan for the Turkish market. Because conveyance of big quantities of petroleum products by road is a very expensive method and the facilities for transportation of petroleum products by sea within the borders of Turkey is limited. According to the coastal navigation legislation of Turkey, only Turkish flag vessels are permitted to make transportation within the ports of Turkey. [162] The capacity of the Turkish flag vessels is very limited and the existing fleet is very old. The only alternative is building a new fleet which would require big investments.

Secondly, considering the structure of the Turkish market, the projects aiming to build a refinery in Ceyhan Region would be exporting much of their production to the Mediterranean market. Because Turkish market is very stable in terms of Gasoline and Fuel Oil production and consumption and the country is even

[162] Türkiye Sahillerinde Nakliyatı Bahriye (Kabotaj) ve Limanlarla Kara Suları Dahilinde İcrayi Sanat ve Ticaret Hakkında Kanun Legislation No: 815, Date: 19/4/1926

having an excess capacity with its sole refining company; Tüpraş. In 2009 the company has exported more than 3 million tons of its excess Gasoline and Fuel Oil production to the Mediterranean market.[163] Gasoil, on the other hand has a very interesting consumption trend. Especially with the favorable taxation system of the government, Gasoil consumption is well above the production and about 8 million tons of Gasoil has been imported in the year 2009 on top of the 4,7 million tons of production of Tüpraş.[164] In this manner it is very clear that the gasoil production of a proposed refinery in Ceyhan will have a direct access to the Turkish market. But still it should be mentioned that the production schedule of a refinery cannot be restricted to Gasoil. In any kind of refinery while processing crude oil, three main streams are produced, namely Gasoline, Fuel oil and Gasoil. With the current structure of the Turkish market, Tüpraş, by having four different refineries in four different consumption areas have certain logistical advantages over its possible competitor in Ceyhan. Moreover the company has already initiated a big project in its İzmit Refinery which would be converting the excess Fuel oil production into the middle distillates, namely Gasoil. With this move it is far from certain that the company will have a higher Gasoil production and lower Fuel Oil production, cutting down its Product imports and increasing its share in the more profitable local market. If we think the fact that İzmit Refinery is very close to Istanbul, the main consumption area

[163] Petrol Piyasası Sektör Raporu 2009, Energy Market Regulatory Authority, 2010, p.14.

[164] Ibid, p.13

of Turkey, such a step would move Tüpraş one step further in meeting the local demand. Therefore we can easily claim that when a refinery in Ceyhan begins to operate, its Gasoline and Fuel Oil production will be consumed in the local market to a certain extent and much of the production will have to be exported. Considering the size of the refinery projects in Ceyhan and a standard refinery production schedule, if a refinery with 10 million tons per year capacity is built in Ceyhan, only 3-4 million tons of Gasoil will be produced, which would not meet the shortage of the Turkish market and the country will still be short of Gasoil. More, such a refinery would create about 6-7 million tons of excess Gasoline and Fuel Oil in the already overflowed Mediterranean market.[165] Therefore feasibility of an export refinery in Ceyhan would not be positive.

But still the geographical advantage of Ceyhan in terms of the ease of transporting crude oil and availability of different kinds of crude oil makes the refinery projects viable, at least for the first refinery to be built. With the market conditions summarized here above, it can easily be claimed that building more than one refinery in Ceyhan would not be a wise decision in terms of economic sustainability. On the other hand in the verge of the economic prosperity of the first decade of the 2000's nobody was making detailed future projections and

[165] The conditions of the Mediterranean market is summed by Horsnell in "The Mediterranean basin in the world petroleum market", Oxford University Press, USA (September 7, 2000)

especially after the liberalization of the petroleum industry and the introduction of the new Petroleum legislation, all the parties rushed to utilize the advantages of Ceyhan's location. Various claims have been made and four license applications were submitted to the legal entity; Energy Market Regulatory Authority (EMRA) namely by Çalık- Indian Oil Company (IOC) Consortium, Petrol Ofisi-OMW Consortium, Socar-Turcas Consortium and Cevahir group. In the quest for constructing the first refinery at Ceyhan, all companies are trying to make their best and except for Cevahir group's project, all the other three seem to have their own advantages on the counterparts and are capable of building a refinery. However, as of today only one of the applicants were awarded with the license; Doğu Akdeniz Petrokimya Ve Rafineri Sanayi Ve Ticaret Anonim Şirketi, which is owned by the Çalık-Indian Oil Company (IOC) Consortium.[166] All the other three are pending for the confirmation.

On the other hand, despite being supported politically by the existing governmental elite, project of Çalık Energy has severe problems. First of all the global economic crisis, which has begun soon after the approval of Çalık Energy's Refinery License, decreased the profitability of any kind of Refinery investment. More, IOC, which is the partner of the consortium who would bring

[166] http://www.sabah.com.tr , 2007-12-08

the technical expertise, has declared that all the overseas investment plans has been suspended for an indefinite period of time.[167] Additionally the Project has been based mainly on the realization of the Trans Anatolian Pipeline Project which is in a dubious situation. Therefore, although Çalık-IOC Consortium has the upper hand by holding the necessary refinery license, other applications, especially POAS-OMW Consortium and Socar-Turcas Consortium should also be taken into consideration.

For example POAŞ as being the biggest retailer of Turkish market, is capable of meeting the existing demand in the Turkish market by its well developed supply chain. Most of the products of its proposed refinery are viable to the domestic market. Moreover, POAŞ has made a joint venture with one of the biggest energy companies of Europe; namely OMV, aiming to transfer the necessary technical skills and expertise to construct a refinery. But POAŞ also has two main difficulties. First of all, unlike the other two candidates, POAŞ does not have a direct connection with the crude suppliers available at Ceyhan. This means that the company would purchase its crude oil, most probably with higher prices than the others. Secondly, although there is not an official stance against POAŞ, recent conflict between the main shareholder of the company, Aydın

[167] http://www.borsagundem.com/haber/oku/ekonomi/8481/calikin_rafineri_ortagi_cekildi/print

Doğan and the prime minister of Turkey; Tayyip Erdoğan, creates an unannounced entanglement for the company. This negative approach showed itself in the process and the company's first application has been declined. Moreover although POAS has prepared its second application dossier in a couple of months and they got the approval of the necessary Environmental Impact Plan from the Ministry of Environment and Forestry, EMRA did not give the approval. EMRA rationalized its decision with the fact that in giving licenses, electricity production supersedes any other production facility and the area of the proposed Refinery of POAS is overlapping with the area of an electricity production plant of Diler Elektrik.

The situation for the Project of Socar-Turcas Consortium is also very interesting. Already existing Baku Tbilisi Ceyhan Pipeline makes the Project of this consortium very advantageous since Socar; the state owned Oil Company of Azerbaijan owns the lion share of the oil of this pipeline. Moreover the other partner; Turcas is a big retailing company in Turkey and it has become stronger with the recent merger with Shell Turkey[168]. After this operation Turcas became the owner of the 30% of the new company; Shell and Turcas Petrol A.Ş. which is the second biggest retailing company in Turkey according to the 2009 EMRA

[168] The two company has merged on 1 July 2006

Report. But still the Project of Socar-Turcas Consortium is exposed to problems. First of all the consortium did not grant for the license at first hand. Secondly, while waiting for the approval of EMRA, conjuncture has changed dramatically for the consortium. In the wake of liberalization, the sole petrochemical production facility of Turkey, Petkim has been privatized and Socar-Turcas Consortium has bought the company. Although this is a very positive move for the consortium, since Petkim, is located at Aliaga, which is very far from the Ceyhan region, it affected the refinery Project at Ceyhan negatively. The main feedstock of the petrochemical industry is naphtha and LPG, derivatives of oil produced by the refineries, and for the time being the supply of the Petkim facilities is achieved by Tüpraş and imports. However the company's global rivals are generally built within a complex of Refineries and receive their feedstock from the nearby refineries. Therefore, in order to increase the profitability of Petkim, the company has to produce its own feedstock and in case of the realization of the refinery Project of Socar-Turcas Consortium at Ceyhan, there will be a huge transportation disadvantage for the company. Naturally, after the addition of Petkim in the equation, Socar-Turcas consortium has changed their minds and initiated a plan to build a refinery at Aliaga quitting the plans for a refinery at Ceyhan.

As a conclusion, within the set of projects declared so far, none is in the verge of realization and Turkish energy strategy could not be successful so far. Although Ceyhan is a very promising land for the construction of a refinery and there are four projects, the structure of the Turkish Market, Turkish Legislation and the situation of the international markets prevented them to be materialized. However this should not mean that the strategy has failed continuous efforts for Ceyhan shows that it is only a matter of time to have positive steps. In this manner especially Russian participation for the Samsun-Ceyhan Pipeline Project is very promising and if this becomes to be true, considering the crude oil potential of the region, it is far from certain that at least one of the refinery Project at Ceyhan will be materialized.

CHAPTER 5

CONCLUSION

Energy and its effects on the world economy have proved to be one of the most important factors for the prosperity of the nations. Especially considering the role of hydrocarbons for the development of the human kind, it can easily be argued that the history of the "modern human-being" starts with the first commercial oil well which has begun operating on 27 August 1859[169]. This fact is proved with the developments in the latter parts of the history, creating a new system in the 20th century, making some scholars to call 21st Century as 'Hydrocarbon Man's Age'.[170] In the light of the above mentioned facts, it would not be wrong to say that one of the most important sources in the world which worth fighting is the hydrocarbons. Thus, security of supply of the hydrocarbon resources has a very important role in the power struggle of the countries in the world and Turkey, with its geographical advantage, aims to be an important variable in the security of supply equation of its Western allies.

[169] Daniel. Yergin, "The Prize: The Epic Quest for Oil, Money and Power", Simon and Schuster, 1992

[170] Ibid., Chapter 27

Especially after the end of the Cold-War, importance of Turkey has declined considerably for its long-lasting Western allies. Therefore, it can be observed that the foreign policy of the country has shifted towards being a regional power instead of a frontier guard of the Western countries. In this manner, besides other political tools, Turkey has also played the energy card and stimulated its geographical advantage of being close to the two thirds of the hydrocarbon reserves of the world. Since the golden rule of security of supply is having diverse channels of supply, using Turkish soil as an alternative mean of the transportation for the hydrocarbon reserves of the Caspian Region and the Middle East means independence for the Western countries. However, examining such a political move would require a detailed study of the recent developments and clarification of all the parties included. Since such an analysis would only be achieved by further studies, this thesis aimed only to summarize the brief facts about the Turkish energy policy and the current situation of Ceyhan as a case study. Although a brief explanatory research on the subject would include both the Middle East and the Caspian Region, in order to be able to draw the clear picture of the Turkish Energy strategy, the topic is even restricted to the hydrocarbon reserves of the Caspian region and only Turkish policies about the transportation of those reserves have been studied.

In this manner, first of all, the major steps for creating an energy strategy have been summarized and the importance of energy security and security of supply has been tried to be analyzed. Because, above all Turkey is a developing country and its industrial growth and economical recovery highly depends on energy. Thus, the energy consumption of the country increases tremendously (According to the statistics, oil consumption of Turkey will be doubled in the next 5 years and the natural gas consumption will be quadrupled in the next 20 years[171]). It can easily be supported that in the near future the main objective of the country will be concentrated on seeking continuous and cheap energy sources (With the 2004 statistics, the ratio of imported energy sources to the local production is 68.1% [172] and by the year 2020 it is expected to be 78% [173]). Thus, being situated close to the richest hydrocarbon sources of the world, namely the Middle East and the Caspian Region, Turkey will enjoy its geographical position. Not surprisingly, creating an energy strategy based on the transportation of the hydrocarbon reserves of the Caspian is not a choice but a must for Turkey. While being so, Turkish policy makers brought their aims one step further and

[171] Selma Stern, Turkey's Energy and Foreign Policy (2003), http://globalization.icaap.org/content/v3.1/03_stern.html (17.05.2004), s.2

[172] A. Yavuz Ege, 'Avrupa Birliği'nin Enerji Politikası ve Türkiye'nin Uyumu', A. Yavuz Ege (ed.), AB'nin Enerji Politikası ve Türkiye (Ulusal Politika Araştırmaları Vakfı (UPAV), 2004), s.29

[173] A. Necdet Pamir, 'Dünyada ve Türkiye'de Enerji, Türkiye'nin Enerji Kaynakları ve Enerji Politikaları', unpublished report, May 2003, s.12

instead of being a transit country, Turkish energy strategy has been designed for being an energy terminal.

However, initiating such a policy shift and defining itself as a regional power would bring its problems for Turkey as well. Therefore in the first hand already existing structure in the Caspian Region and the policies of the big powers have been identified and Turkish policies for establishing support from the related parties have been examined in the second chapter of this study. Turkish use of the kinship advantage, especially at the beginning of the post-Cold War era, has been briefly summarized. As being one of the biggest investors in the region and with her close historical, cultural and economic ties with the newly independent countries of the region, Turkey was acting not only along with her commercial interests but also bears the responsibility for supporting these nations in their social and economic development.[174] Moreover, starting from the mid 1990s Turkey initiated its efforts for gaining the support of the Western countries, namely USA and European Union for realizing its aims. In this long path, especially for creating a power vacuum in the region, USA voluntarily helped Turkey in its steps taken so far. Russia on the other hand, was a clear rival and her position against Turkish policies changed several times regarding with the

[174] Turkish Ministry of Foreign Affairs; www.mfa.gov.tr

political conjuncture. In this perspective the role of European Union is very interesting. Because the Union has always been reluctant and in receiving political support for the energy policies of Turkey, Turkish politicians could not be able to utilize the energy card in the sense they require. This is mainly because of the fact that a common energy policy in the European Union has never been achieved with the total cooperation of its members. Although the Union owes its existence to the European Steel and Coal Community[175], which was aiming to create a cooperation between France and Germany in the areas of energy[176] and industry to lead to a lasting peace, common ideals required for a unique energy policy could not be achieved within the EU. There have been many conflicts between the actors of the Union, namely the Commission, member governments and other interest groups including the international companies. The attempts to create a common energy policy in order to secure the supplies to the Europe and to maintain an internal energy market, has always been challenged by the national governments. In fact, every single player of the Union believes that a common energy policy would be beneficiary for all of the parties. However, when the cooperative action became necessary, political autonomy was guarded jealously by the national governments due to the

[175] Founded by Treaty of Pars in 1952.

[176] Coal was the main energy source of the industry at those times and the extent of the union has been increased for nuclear facilities later on due to the developments in the nuclear energy with the introduction of Euratom in 1955.

strategic economic importance of the energy sector.[177] In the words of Matlary, "there is still no common energy policy (CEP), nor is there an official mechanism to develop one."[178] Therefore despite being the fact that Turkish policies would be very beneficial to the European Union, enough support to her projects could not be achieved so far.

With these facts in mind, East-West Energy Corridor project has been designed by Turkey in the mid 1990s. Although the final aim of the country is securing the necessary hydrocarbon reserves in the cheapest and politically most advantageous way, Turkish policy makers saw the reality that any kind of international policy should also include the common benefit of the whole. In doing so, Turkey was having a solid ground. The project was very costly and politically hard to achieve, but it was based on the main principle of security of supply; diversifying the sources of the Western markets. Moreover, in seeking support for this project Turkey was also trying to have the upper hand by mentioning about the potential environmental threat to the straits. Petroleum must be stored and transported usually in large volumes and during storage or transport, oil and other petroleum products are sometimes spilled onto land or

[177] Padget, S.,'The single European energy Market: The Politics of Realization' Journal of Common Market Studies, vol xxx no. 1 March, 1992

[178] Janne Haaland Matlary, Energy Policy in the European Union, Mc Millan Press, 1997, p. 13

into waterways. When this occurs, human health and environmental quality may be at risk and every effort must be made to prevent oil spills, and to clean them promptly once they occur. The severity of impact of an oil spill depends on a variety of factors, including the area of the spill. Especially before the construction of the Baku-Tbilisi Ceyhan Pipeline, straits was the sole exit of the Black Sea and nearly all of the seaborne transportation of the hydrocarbon reserves of the Caspian was achieved through this highly populated area. Therefore, Turkish policy was based on the issue and Turkey persistently insisted that the utilization of the straits is unsustainable. Even after BTC came on stream, since the volume of oil transported from the straits could not be decreased to the required levels, Turkish claims regarding with the straits has not ended and they are being used as a valid claim for the Turkish proposal of Trans-Anatolian pipeline project.

Starting from the initial stages of the availability of Caspian resources for the Western markets, Turkey was always on the table. In this manner, especially the second half of the 1990's played a determining role in the faith of the Turkish energy policy. Turkish participation to the "Contract of Century" in this era is very important. Before the realization of this agreement Russian dominance on the region was unrivalled and the starting point of the Turkish policy of East-

West Energy Corridor; Baku-Tbilisi Ceyhan Pipeline Project could only be achieved by the help of this agreement. Consequently, regarding with the oil, in the fifteenth year of its start, it can be claimed that East-West Energy Corridor project has proved to be successful in some extent especially after the construction of the Baku-Tbilisi-Ceyhan Pipeline. But this is not the same for the natural gas. Although certain achievements like Baku-Tbilisi-Erzurum Natural Gas Pipeline and Turkey-Greece interconnection system are present, main aim of connecting Caspian resources with the west through Trans-Caspian Pipeline Project and NABUCCO project is only at their initial stage. But even if the other projects would not be achieved, BTC and BTE pipelines alone are certain victories for Turkey. Because, characteristically pipelines have huge initial costs but the operation costs are considerably low and they are easy to operate and pipeline contracts are made for 25-30 years and operational life of a pipeline even exceeds this period. In another words, pipelines connects supplier, transit country (depending on the route) and consumer to each other both economically and politically for a long period of time and helps sustainable stability for all the parties. Therefore Turkey, by achieving to realize BTC and BTE, created an advantageous position for the stability in her region.

However, Turkish energy policy is not only limited with this certain benefit. By utilizing its geographical advantage, Turkey also desire to materialize the policy of being an energy hub for the Western countries including European Union and United States of America, and aims to have economical and political benefits as well. This may even be speculated that Turkey is using this card for its ever existing aim; full membership in the EU. Therefore in line with the East-West Energy corridor strategy, Turkey has also designed an energy terminal in Ceyhan; the terminating point of the existing Baku-Tbilisi Ceyhan and Kirkuk-Yumurtalık Pipelines and projected Trans Anatolian Pipeline. The Project includes an energy free zone in the region and transforming Ceyhan as the biggest energy port of the world with crude oil export facilities, refineries and petrochemical factories. In this manner as it has been summarized in the last chapter of this study there are a number of projects related with Ceyhan. Within these set of projects Trans Anatolian Pipeline project deserve more attention with its potential benefits of decreasing the tanker traffic of the straits and making Russian crude oil available at Ceyhan. For the time being the construction of the pipeline has not been started yet but the recent developments and positive attitude of behavior from the Russia creates an optimistic atmosphere regarding with the project. On top of the Trans Anatolian Pipeline Project, four different refinery and petrochemical factory projects in Ceyhan have been made public so far. But three of them have been abandoned and only

one, the project of Çalık-IOC Consortium has received the necessary license from the governmental authorities. Even the mentioned project is in difficulty and the construction has not been started even after two years after its approval. Therefore, considering the facts about the Mediterranean market and the latest situation of the ongoing projects, creating an energy hub at Ceyhan still seems to be dubious. Above all, although the plans for Ceyhan have been initiated more than a decade ago, there is not any solid step taken so far except Baku-Tbilisi Ceyhan Pipeline. However due to the geographical and economic advantages of the region, it is not meaningless to think that positive steps will be taken in the future. Without being a second Rotterdam, Ceyhan is already an important region with its existing infrastructure and projected Trans Anatolian Pipeline and Turkish policy makers should take careful steps if they do not want to lose their advantage while trying to realize their aims.

In the final analysis, Turkey's energy strategy which identifies itself as the terminal for the hydrocarbon reserves of the Caspian by making them accessible to the Western Markets is a well established and consistent aim. More, Turkey has the geographical advantage and potential infrastructure to realize her policies and this policy would make a substantial contribution to Turkish aims of being a regional power both politically and economically. However, in order to achieve

this, special focus should be given to create an energy hub in Ceyhan and Turkey should take proactive actions for being successful in its policies. Therefore Ceyhan's claim to become a hub is a realistic objective and realization of Samsun-Ceyhan Pipeline will increase Ceyhan's potential as an energy hub.

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APPENDIX

Countries	Proven Oil Reserves (billion barrels)	Reserves/World Total Ratio (% Percent)	Proven Natural Gas Reserves (Trillions m^3)	Reserves/World Total Ratio (% Percent)
Azerbaijan	7	0.6	1.3	0.7
Kazakhstan	39.8	3.2	1.9	1.1
Turkmenistan	0.1	0	2. 7	1.5
Russia[a]	1	0.1	1.8	1.1
Iran[a]	0.1	N/A	0	0
Caspian Total	48	3.9	7.7	4.3
World Total	1237.9		177.4	

[a] Only the proven reserves in the Caspian Sea Region is included.

The data is taken from BP Statistical Review of World Energy June 2008 and CRS Report For Congress 4 March 2005 and the percentages are self-calculation.