

Akdeniz University
Institute of Social Sciences

University of Hamburg
School of Business, Economics and Social Sciences

Ayça AYANLAR

**THE EU'S SECURITY OF ENERGY SUPPLY and TURKEY'S ACCESSION:
TURKEY'S ROLE AS A POTENTIAL ENERGY HUB FOR THE EU**

Joint Master's Programme European Studies Master Thesis

Antalya / Hamburg, 2014

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Supervisors

Prof. Dr. Stefan COLLIGNON, University of Hamburg

Ass. Prof. Sanem ÖZER, Akdeniz University

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Başkan : Doç. Dr. Ayşegül ATEŞ (İmza)

Üye (Danışmanı) : Prof. Dr. Stefan COLLIGNON (İmza)

Üye : Yrd. Doç. Dr. Sanem ÖZER (İmza)

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ABBREVIATIONS

| | |
|---------|---|
| Bcm | Billion Cubic Meters |
| BOTAS | Petroleum Pipeline Corporation |
| BP | British Petroleum |
| BTC | Baku-Tbilisi-Ceyhan Pipeline |
| BTE | Baku-Tbilisi-Erzurum Pipeline |
| Btu | British Thermal Units |
| EC | European Commission |
| ECSC | European Coal and Steel Community |
| EIA | Energy Information Administration |
| EU | European Union |
| EURATOM | European Atomic Energy Community |
| GCS | Greater Caspian Sea region |
| IEA | International Energy Agency |
| ITGI | Interconnector Turkey Greece Italy |
| LNG | Liquid Natural Gas |
| Mtoe | Million Tonnes of Oil Equivalent |
| NATO | North Atlantic Trade Organization |
| RSCT | Regional Security Complex Theory |
| SCP | South Caucasus Pipeline |
| TANAP | Trans-Anatolian Natural Gas Pipeline |
| TAP | Trans-Adriatic Pipeline |
| TEN-E | Trans-European Energy Networks |
| TFEU | Treaty on the Functioning of the European Union |
| US | United States |
| UNDP | United Nations Development Programme |
| WHO | World Health Organization |

ÖZET

AB’NİN ENERJİ ARZ GÜVENLİĞİ ve TÜRKİYE’NİN ÜYELİK SÜRECİ: TÜRKİYE’NİN AB İÇİN POTENSİYEL ENERJİ HUB OLMA ROLÜ

Bu tezin amacı, AB enerji arz güvenliği bağlamında Türkiye’nin rolünü ve AB’ye üyelik sürecine etkisini analiz etmektir. Bu bağlamda deneysel yöntem kullanılarak istatistiki verilerden ve geniş kapsamlı literatür araştırmasından yararlanılmıştır. AB’nin kendi enerji arzını sağlama konusunda ciddi sorunlarla karşılaştığı, siyasal olarak istikrarsız bölgelere yüksek derecede bağımlı olduğu gözlemlenmiştir. Enerji güvenlik teorisi, AB enerji güvenliğinin en iyi şekilde ulusüstü seviyede tanımlandığını göstermiştir. Sonuç olarak, komşu transit ülkeleri de içeren enerji politikaları ve stratejileri AB’nin güçlü bir ortak politikaya ihtiyacını bariz bir şekilde gündeme getirmektedir. Bu gereksinimlerin resmi AB belgelerinde de açıkça belirtilmesine rağmen; AB, enerji konusunda kolektif bir eylem gerçekleştirememektedir. Bu araştırmada, jeostratejik konumu itibariyle Türkiye’nin, potansiyel enerji hubu olarak AB’nin enerji arz güvenliğine katkı yapabileceği belirtilmektedir. Diğer taraftan, Türkiye iç ve dış kaynaklı bir çok sorunla yüzleşmek zorundadır. Türkiye’nin gerçek anlamda enerji hubu olma arzusu da bu nedenle kısa vadede ulaşılabilecek gibi görünmemektedir. Buna rağmen, Türkiye-AB enerji işbirliği özellikle önemli boru hattı projeleriyle devam etmektedir. Öte yandan, bu tezde AB ile enerji arz güvenliği alanında işbirliği ve Türkiye’nin üyelik sürecinin ilerleme süreci arasında olumlu herhangi bir ilişkiye rastlanmamaktadır.

SUMMARY

THE EU'S SECURITY OF ENERGY SUPPLY and TURKEY'S ACCESSION: TURKEY'S ROLE AS A POTENTIAL ENERGY HUB FOR THE EU

The purpose of this thesis is to analyze the EU's security of energy supply, Turkey's role in this regard and the effect of this relation on the Turkish EU accession process. To this end, the research was carried out by using empirical data from energy statistics, in addition to a broad literature review. The thesis finds that the EU faces considerable challenges in securing its energy supply, most notably due to its high import-dependency on a number of politically unstable regions. Applying theories of energy security, it is shown that in the European context, energy security is best defined on a regional level. Consequently, there is a strong need for common European energy policies and strategies that include neighboring energy transit countries. While these are properly defined in official EU documents, there is a lack of implementation due to collective action problems. Concerning the role of Turkey, the thesis finds that Turkey has an extraordinarily important geostrategic position as a potential regional energy hub, with the potential of improving the EU's security of energy supply. At the same time, Turkey faces many domestic and external challenges and still has a long way to go to become a real energy hub. Nonetheless, EU-Turkey cooperation on energy security is advanced, notably in the view of major pipeline projects. However, this thesis does not find evidence for a link between cooperation in the field of energy security and progress in the overall accession process, for which prospects generally remain negative.

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INTRODUCTION

After nearly half a century of negotiations with the European side – from the first signed agreement with the European Economic Community in 1963 to the official recognition as a candidate country to the European Union (EU) in 1999 – Turkey’s accession negotiations finally started in October 2005. At the same time, the EU became increasingly concerned with security of its energy supply and Turkey was seen as an important partner in this regard, notably because of its geostrategic location. Turkish officials even argued that the EU could significantly improve its energy security by accepting Turkey as a member state.¹

However, impetus in the accession talks was abruptly lost in 2006, when the European Council decided that negotiations on eight chapters, including the energy chapter, cannot be opened and no chapter be concluded unless Turkey officially recognizes the Republic of Cyprus.² As the Cyprus conflict is still on-going today, the partial freeze of the accession negotiations remains valid. Moreover, accession fatigue and major reservations vis-à-vis Turkey’s readiness to join the EU make an accession very unlikely in the short to medium term. Nonetheless, the EU has acknowledged Turkey’s emergence as an increasingly important geopolitical actor and the EU Council decided to open a new accession chapter (regional policy) in June 2013, 50 years after the Ankara agreement of 1963.³

When it comes to energy supply, the EU is heavily import-dependent, especially on Russia, the Middle East, North Africa and other politically instable regions. Not least after Russia temporarily cut off the gas flow to Ukraine in 2009, the security of energy supply of the EU was brought on the agenda as a first priority. In the absence of a real common European energy policy, which is difficult to achieve in the view of sovereign member states and problems of collective action, the EU has nonetheless defined a number of strategies and policies which will be discussed in this thesis.

Turkey, on the other hand, disposes of a unique geostrategic position, surrounded by countries which together account for more than 70% of the world’s proven oil and gas

¹ Tekin. A. Williams. P. (2009). *Europe’s External Energy Policy and Turkey’s Accession Process*. p. 1f.

² This is of course a highly sensitive and politicized issue that cannot be treated in this thesis. The legal nature of this issue is that there was an additional protocol to be signed after the EU enlargement of 2004, extending the Turkish customs union with the EU to all its new members. As Turkey refused to extend this to the Greek part of Cyprus which became EU member in 2004, the protocol was never ratified by the Turkish parliament, so that Turkish airports and maritime ports remain closed to (Greek) Cyprus. Cf. Bernath. M. (2013). p. 17

³ Bernath. M. (2013). *EU-Turkey 50 years. Long Journey to Europe*. p. 17f.

reserves.⁴ With a rapidly evolving natural gas supply system and many pipeline projects under construction, Turkey is set to become a main energy hub for natural gas of Russia, the Middle East and the Caspian Region to international markets and Europe.

The overall aim of this master thesis therefore is to investigate the role of Turkey for the EU's energy supply security. In this respect, the question of whether strategic considerations and EU-Turkey cooperation in the field of energy have an influence on Turkey's accession process is raised. The exact research questions and the hypothesis that drive this thesis as well as the methodology used are presented in the following subparts 1A and 1B. In order to find an answer to this rather complex question, the thesis is organized as follows. The first part of the thesis concentrates on the EU and its characteristics in the field of energy policy, whereas the second part focuses on Turkey and EU-Turkey relations.

More specifically, section 2A contains an empirical overview of European energy supply characteristics and the related problems which are subsequently put into a wider geopolitical context. Section 2B provides a theoretical framework for energy security and sets out the strategic implications for the EU, while section 2C presents the EU's energy policies and strategies and investigates whether and how these respond to the challenges found in the previous parts. In the second part, the focus of the second part is then shifted to Turkey. Section 3A presents Turkey's geostrategic location, the characteristics of its energy policy and its potential role as a regional energy hub. Section 3B looks at current and potential future EU-Turkey cooperation in the field of energy, not least in the form of energy pipeline projects. Finally, the last section of this thesis puts the analysis in the broader context of the Turkish accession negotiations and tries to assess whether current or potential future cooperation in the field of energy policy have an impact on the prospects of Turkey to become EU member.

In the conclusion, the main results of the thesis are summarized and discussed critically. On this basis, the hypothesis as well as the assumptions behind (see 1B) are evaluated and either kept or rejected.

The thesis focuses on energy security and its geostrategic, political and economic implications. Given the limits of the analysis as regards space, time and other resources, not all important aspects can be treated. One central limitation of this thesis is that it does not take into account the very important environmental aspects of energy security. However, it has to

⁴ IEA. (2009). Energy Policies of IEA countries. Turkey. p. 8.

be stressed that environmental security and energy security need to be considered equally in a more comprehensive debate.⁵ Moreover, when treating the complex issue of energy security it is clear that energy efficiency has to be mentioned as a crucial part. However, the large topic of energy efficiency and all its potential aspects and implications are not covered by this thesis which seeks to focus on the security of supply on the one hand and EU-Turkey energy relations on the other hand.

Finally, as this is not a thesis about the Turkish accession process as such, but rather on energy policy and its potential implications on the latter, many important factors concerning the accession process have not been taken into account. Consequently, all statements concerning the accession process are made cautiously and without claiming any comprehensive or final judgment.

Methodology

The research for this thesis was conducted using both a literature review as well as empirical data. The literature used has been critically evaluated and has been collected from books, journal articles, online journals, official EU reports and documents, think tank reports and online newspapers. The statistical data used have been collected from national and international institutions such as the International Energy Agency, Eurostat, the US Energy Information Agency or the Turkish Ministry of Foreign Affairs. Moreover, in order to reach further understanding and analyze the topic better, two interviews have been conducted.⁶ However, due to the limited amount these interviews are not a central part of the research, but rather used to support some arguments when it fits with the analysis and argumentation in the thesis. The following five interview questions have been inquired:

- 1) What are the current and future challenges for the EU's security of energy supply?
- 2) What is Turkey's role for the EU's energy supply?
- 3) Which could be the formula for EU-Turkey and EU-Russia relations in terms of energy security and especially in the view of a potential diversification in the EU's energy supply?
- 4) According to Turkish officials, Turkey provides energy security for the EU if the EU accepts Turkey's membership. What do you think about this claim?

⁵ Cf. Grevi, G. (2006). CFSP and Energy Security. p. 4.

⁶ The interviews were conducted in person and via written request with two representatives from the EU side. The first interview was carried out personally with Marat Terterov, who is the founder and principle director of the European Geopolitical Forum, co-founder and executive director of the Brussels Energy Club and political advisor at the Energy Charter Secretariat. The second interview with Philip Lowe, Director-General of the European Commission's Directorate General for Energy, was done via written request.

- 5) Is Turkey a good partner for the EU but not important enough to become a member?

The different methodological elements will be used throughout the thesis. The first section (2A) starts with an empirical overview of the EU's energy security situation, thus presenting and analyzing the data that was compiled from various sources. Section 2B, in contrast, will be mostly theoretical and thus rely on a literature review and section 2C, finally, outlines the EU's energy strategy and is for a large part based on the analysis of reports and documents published by the European Commission. Part 3 mainly follows a similar methodological concept, empirical data in 3A, analysis of official European Union documents and reports in 2B and literature review in 3C. However, all methodological elements will be flexibly used throughout the thesis, when it serves the argumentation.

CHAPTER 1

RESEARCH QUESTION and HYPOTHESIS

This thesis examines the characteristics of the security of energy supply of the European Union and Turkey's role in this regard. The overall aim of the thesis is to analyze to what extent Turkey can bring benefit to the EU in terms of security of energy supply and, if yes, whether this could positively influence the Turkish accession process. The following questions are therefore behind the analysis:

- What are the current and future challenges for the EU's security of energy supply?
- What is Turkey's position in regional energy cooperation and what could be its role in the EU's developing energy strategy?
- How does this context influence the Turkish accession process to the EU?

These questions have developed the following **hypothesis**:

“Given the structure and the characteristics of the EU's energy supply and Turkey's geostrategic position, Turkey can improve the EU security of energy supply and thereby positively influence its accession process.”

This hypothesis includes a number of points and assumptions which will be addressed in this thesis. First of all, the main characteristics of the security of energy supply of the EU have to be investigated, in order to identify the EU's main strengths and weaknesses in this regard as well as to understand and analyze the EU's energy strategy against this background. It also implies the presumption that Turkey might possibly influence the EU's security of energy supply. In order to check these assumptions, firstly, the concept of security of energy supply has to be defined and secondly, Turkey's distinct role in this field has to be analyzed. Finally, the hypothesis creates a link between the issue of energy security and Turkey's accession process in general. Hence, the existence and the nature of this link will have to be investigated.

More specifically, the following (direct or indirect) assumptions made in the hypothesis will have to be checked critically:

- 1) Turkey has a favorable geostrategic position relevant for the field of energy security.
- 2) The EU has deficiencies in the field of energy security.
- 3) Turkey has the potential ability to improve the EU's position.

- 4) Energy security matters in the accession process.
- 5) Turkey's role in the field of energy security can have a positive effect for its accession to the EU.

Only if all these assumptions prove to be correct, the hypothesis can be deemed appropriate. Therefore, they will be addressed and checked throughout the thesis and an assessment will be provided in the concluding section. In any case, it is important to point out that the hypothesis can by no means be verified, as there is no causality between the different assumptions and it is thus impossible to prove that the hypothesis is correct. In case the thesis finds assumptions to be incorrect, the hypothesis will be rejected. However, even if it is found that all assumptions are appropriate and the hypothesis thus deemed appropriate, it may well be wrong in reality due to different reasons that are outside the analysis of this thesis. It can well be argued that it is hardly possible to say whether Turkey's role in energy security can really influence the accession process or whether there is a link at all. The aim of this thesis therefore is to gather sufficient evidence for the above-stated assumptions, in order to conclude with an evidence-based judgment, without claiming that the analysis is comprehensive.

1.1 EU Energy Policies, Strategies and the Security of Supply Challenge

The first part of the thesis focuses on the EU's energy security challenge. Section 2A therefore looks at the empirics and characteristics of European energy supply and the involved problems in detail. Section 2B subsequently defines the concept of energy security and sets out the strategic implications for the EU. Finally, section 2C, taking into account the results of the previous sections, investigates how EU energy policies and strategies respond to these challenges.

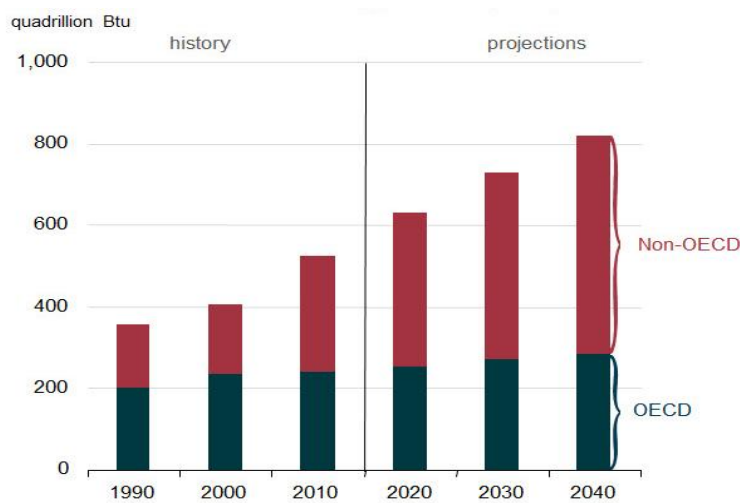
1.2 European Energy Supply and its Challenges: Empirical Facts

As the EU is not only dependent on the regional, but also on the global energy market, the current and future global developments in terms of energy will also affect the EU to an important extent. This is why a brief look will first of all be taken at the global energy developments.

In 2012, **global energy consumption** increased by 1.8%. Compared to the average growth of 2.6% over the last ten years this increase is rather low and partly explained by the

economic slowdown as well as by increasing energy efficiency.⁷ However, global energy demand will continue to increase in the long run. The US Energy Information Agency (EIA) estimates in its International Energy Outlook 2013 that total global energy consumption will increase from 524 quadrillion British thermal units⁸ (Btu) in 2010 to 630 quadrillion Btu in 2020 and 820 quadrillion Btu in 2040 (Figure 1.1). This amounts to a 56% increase from 2010 to 2040. Since only a modest increase for the OECD countries' energy consumption is expected, the lion's share of the global increase (85%) is due to the explosion of energy demand in the emerging economies, notably Asia.⁹

Figure 1.1 Total Global Energy Consumption between 1990 and



Source: EIA (2013)

As regards the **share of different types of fuel**, global oil consumption continued to decline for the 13th consecutive year, but oil still remains the most frequently used fuel with a share of 33.1% in 2013. This is not followed, as one might expect, by natural gas (23.9%), but by coal which experienced a significant increase to the share of 29.9% of global primary energy consumption. This is mainly explained by the fact that China alone now accounts for half of the share of global coal consumption. The remainder of global energy consumption is filled by hydro-energy (6.7%), renewables (4.7%) and nuclear energy (4.5%).¹⁰

Figure 1.2 shows that all types of fuel are expected to be increasingly used in terms of volume until 2040. The resources with the slowest projected energy growth are petrol oil and

⁷ BP Statistical Review of the World Energy 2013. p. 2

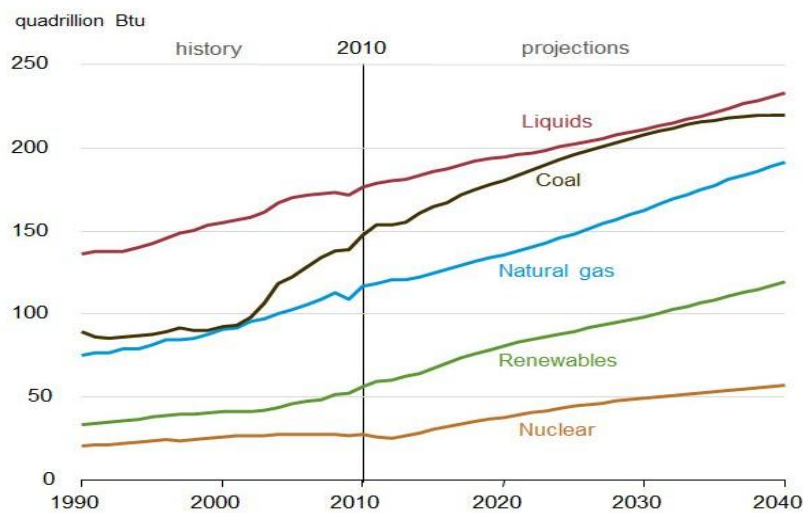
⁸ The British thermal unit (BTU or Btu) is a traditional unit of energy, equal to about 1055 joules. It is the amount of energy needed to raise the temperature of one pound of water by one degree of Fahrenheit. Cf. Available Online via: <http://www.businessdictionary.com/definition/British-thermal-unit-Btu.html>. Access Time: 15.12.2013.

⁹ EIA. International Energy Outlook 2013. Available online via: <http://www.eia.gov/forecasts/ieo/index.cfm>. Access Time: 20.12.2013).

¹⁰ BP (2013). p. 3-5.

other liquid fuels, not least due to high prices. While total energy demand is set to increase by 1.5% per year from 2010 to 2040, it is only 0.9% for liquids. The most quickly growing consumption is expected for nuclear energy and renewables, with an average increase of 2.5% per year. Natural gas is expected to have a 1.7% increase in consumption, and the sharp increase of coal consumption will slow down to 1.3% average growth until 2040. Nonetheless, fossil fuels will remain the world's major energy resources. Liquid fuels, coal, and natural gas are expected to fulfill more than three quarters of global energy consumption in 2040.¹¹

Figure 1.2 Global Energy Consumption by Fuel Type, 1990-2040



Source: EIA (2013)¹²

These international developments are different, but in many aspects also similar for the EU, which experiences elevated energy prices, increasing importance of green energy as well as energy access challenges. However, the most relevant feature of **EU energy characteristics** for this thesis is its rather high and rising energy dependency. For example, the International Energy Agency (IEA) estimates that the EU's oil consumption accounts for 13.5 million barrels daily in 2013, while it only manages to satisfy 2.4 million barrel (18%) with its own resources.¹³ The EU's energy consumption in the world is ranked second after

¹¹ EIA (2013).

¹² EIA (2013). World Energy Demand and Economic Outlook. Accessible Online via: <http://www.eia.gov/forecasts/ieo/world.cfm>. Access Time: 10.11.2013.

¹³ International Energy Agency. (2011). Accessible Online via:

<http://www.iea.org/statistics/statisticsearch/report/?&country=EU27&year=2011&product=Balances>. Access Time: 01.01.2014.

the USA and the EU is the world's largest energy importer. This situation threatens the security of energy supply and poses severe challenges for a European energy policy.¹⁴

The total oil, natural gas and coal consumption of the EU makes up approximately 76% of its **total energy consumption** (see Table 1). The EU obtained 85% of its oil, 41% of its solid fuel and 67% of its natural gas from external resources in 2011 (see Table 3). In this context, the EU's current import dependency lies at 54% and it is estimated that it will increase to 65% until 2030. At the same time, it is estimated that the energy demand in the EU will increase by 26.3% in 2030 compared to 2000.¹⁵

Table 1.1 The EU's Energy Consumption by Energy Source From 2000 to 2030, in Percent of Total Gross Inland Consumption.

| | 1990 | 2000 | 2010 | 2020* | 2030* | 2050* |
|--------------------|------|------|------|-------|-------|-------|
| Solids | 27.3 | 18.6 | 15.9 | 14.2 | 10.8 | 7.6 |
| Oil | 38.3 | 38.3 | 35.1 | 33.1 | 32.3 | 30.5 |
| Natural Gas | 16.7 | 23.0 | 25.5 | 28.1 | 27.4 | 24.3 |
| Nuclear | 12.7 | 14.1 | 13.4 | 11.7 | 12.6 | 13.3 |
| Renewables | 4.4 | 6.0 | 10.4 | 16.7 | 19.9 | 24.4 |

Source: European Commission (2013): EU Energy, Transport and GHG Emissions. Trends to 2050. p. 88

*Forecast by European Commission

Table 1.1 shows the European Commission's assumption for the development of the **use of different energy sources** until 2050. What is striking is the strong expected increase of the share of renewables and the strong decline of fossil sources, notably solids (coal), in the long run. For the moment, however, more than three quarter of European energy consumption are satisfied by fossil fuels and even with this rather optimistic scenario it would still be around 70% in 2030. Another interesting assumption is that the share of both nuclear energy and natural gas is set to remain rather stable until 2050. Thus, it seems that natural gas will continue to play a very important role for the EU's energy mix and that the exit of atomic energy in some member states does not prevent others from increasing their use of nuclear energy. Given the EU's strong import dependency, the fact that nearly 60% of total energy demand is expected to be filled by natural gas and oil in 2030 and around 55% in 2050 can lead to the expectation that the problem of energy dependency and security of energy supply will remain even in the long run.

¹⁴ Latif. H. Küresel Enerji Çıkmazında, Türkiye'nin Nükleer Enerji İhtiyacı ve Çevre Paradoksu. Okan Üniversitesi. Sosyal Bilimler. p. 3

¹⁵ Misiagiewicz. J. (2012). Turkey as an Energy Hub in the Mediterranean Region. *Journal of Global Studies*. Vol.4. No.1 p. 109.

Eurostat statistics show that energy consumption in the EU amounted to hardly imaginable 1.7 billion tonnes of oil equivalent (toe)¹⁶ in 2011 only. The biggest consumer member states are, in line with the size of the economy, Germany, France, the UK, Italy, and Spain (see Table 1.2). Table 1.2 also shows the energy dependence rate across EU member states.

Table 1.2 EU Energy Consumption and Dependence Rates Across Member States in 2011

| Member State | Gross inland energy consumption in 2011, in million toe ¹⁷ | Energy dependence rate in 2011 (%) |
|----------------|---|------------------------------------|
| EU-27 | 1698.1 | 53.8 |
| Denmark | 19.0 | -8.5 |
| Germany | 316.3 | 61.1 |
| Ireland | 13.9 | 88.9 |
| Spain | 128.5 | 76.4 |
| France | 259.3 | 48.9 |
| Italy | 172.9 | 81.3 |
| Netherlands | 81.3 | 30.4 |
| United Kingdom | 198.8 | 36.0 |

Source: Eurostat, news release (13.02.2013).¹⁸

The large variance of **energy dependence ratios** across EU member states is directly visible. While Germany's dependence rate (61.1%) is above the EU-average of 53.8%, France's energy dependence (48.9%) is slightly below the average. The UK and the Netherlands, thanks to domestic resources of the North Sea, have rather low dependence rates, while those of Italy and Spain are very high. Denmark is the only net energy exporter in the EU, but its share of total EU energy consumption is negligible.

Table 1.3 shows the development of the EU's overall **import dependency** from 1995 to 2011 as well as for different types of fuel. It can be observed that total energy import dependency rose above 50% over the last decade and amounted to 53.8% in 2011. It has risen for all types of fossil fuels and is especially high for oil (nearly 85% in 2011). Although it is lower for gas (67%) and solid fuels (41.4%), the increase for these two types of fuel was particularly strong since 1995.

¹⁶ The tonne of oil equivalent is the amount of energy set free if one tonne of oil is burned.

¹⁷ Tonnes of oil equivalent.

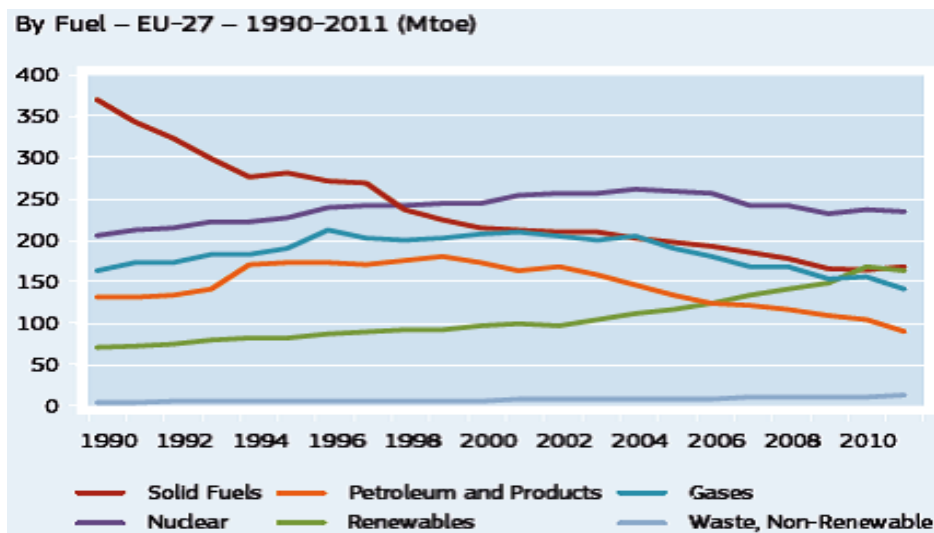
¹⁸ Available online via: http://europa.eu/rapid/press-release_STAT-13-23_en.htm. Access Time: 05.01.2014.

Table 1.3 EU-27 Import Dependency by Fuel Type, 1995-2011

| Import Dependency | 1995 | 2000 | 2005 | 2009 | 2010 | 2011 |
|-------------------------------|------|------|------|------|------|------|
| Total | 43.2 | 46.7 | 52.4 | 53.8 | 52.6 | 53.8 |
| Solid Fuels | 21.4 | 30.5 | 39.2 | 41.1 | 39.4 | 41.4 |
| Petroleum and Products | 74.3 | 75.7 | 82.2 | 83.2 | 84.1 | 84.9 |
| Gas | 43.5 | 48.9 | 57.7 | 64.3 | 62.4 | 67.0 |

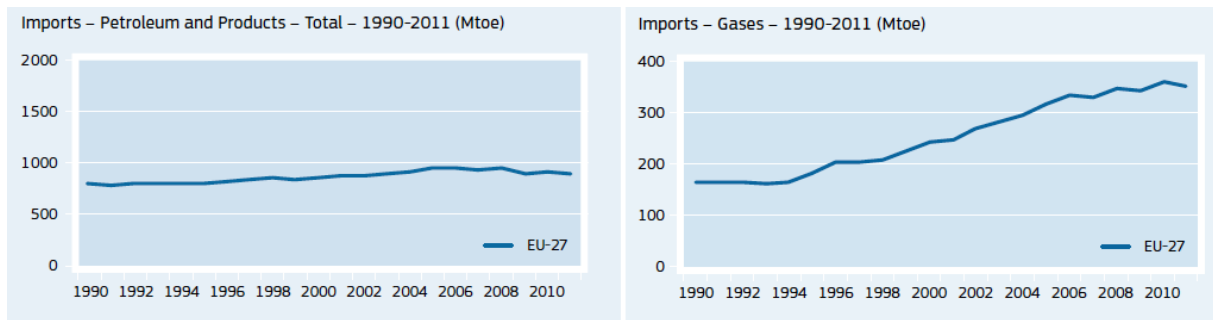
Source: European Commission (2013). EU energy in figures – statistical pocketbook 2013. p. 22

The rising energy dependency ratio is not only explained by rising energy demand but also by **declining domestic production**. Figure 1.3 shows the EU-27 energy production by fuel type from 1990 to 2011. The comparably high domestic production of coal declined sharply since 1990, while the production of nuclear energy increased slightly but remained stable from 1990 to 2010. The rather low production of oil and gas became even lower, only renewable energy was increasingly produced over the last decade. However, its absolute production is still below that of nuclear energy.

Figure 1.3 EU-27 Energy Production, 1990-2010

Source: European Commission (2013). EU energy in figures – statistical pocketbook 2013. p. 35

An interesting observation can be made when comparing the import characteristics of **oil and gas**. Although oil has the highest import dependency ratio, its import in terms of volume stagnated since 1990, while the import of gases doubled from 1990 to 2011 (Figure 1.4). Hence, it can be expected that natural gas will play an increasingly important role in Europe's future energy mix, while the relative importance of oil, although still very high, will continue to decline.

Figure 1.4 Total Imports of Oil and Natural Gas Compared, 1990-2011

Source: European Commission (2013). EU energy in figures – statistical pocketbook 2013. p. 48

When it comes to **natural gas**, the IEA predicts that the EU's main natural gas demand will increase by 1.6% from 2010 to 2030, after an increase of 2.9% per year from 2000 to 2010.¹⁹ The biggest gas consumers in the EU are Germany, France, the Netherlands, the UK and Spain according to the Table 1.4. Overall, the major share of natural gas used in the EU has to be imported and most of the large member states are nearly or completely import-dependent. Table 4 shows that France, Germany and Spain import all of the gas they consume and Italy only to a slightly lesser extent.

Table 1.4 EU Natural Gas Consumption, Production and Imports in 2012 for Selected Member States, in Billion Cubic Feet (bcf) per Annum

| Member State | Natural Gas Consumption | Natural Gas Production | Natural Gas Imports |
|----------------|-------------------------|------------------------|---------------------|
| France | 1.501 | 22 | 1.600 |
| Germany | 2.656 | 318 | 3.065 |
| Italy | 2.426 | 275 | 2.359 |
| Netherlands | 1.285 | 2.257 | 512 |
| Spain | 1.109 | 6 | 1.225 |
| United Kingdom | 2.765 | 1.448 | 1.734 |
| TOTAL | 15.776 | 5.402 | 14.038 |

Source: BP Statistical Review of World Energy 2013. p. 22ff.

In general terms, the EU is considerably dependent on Russia, the Middle East, North Africa and Norway concerning energy issues. In 2011, the EU relied on **external import supply** for over 54% of its energy requirements which makes it the world's largest energy importer. The EU's oil imports in 2011 amounted to \$ 488 billion, which is larger than the GDP of Poland.²⁰ The EU's import dependency has risen by 8% in the last decade. The

¹⁹ Roberts. J. (2004). The Turkish Gate: Energy Transit and Security Issues. *Turkish Policy Quarterly*. 3(4). p.3.

²⁰ Institute International and European Affairs (IIEA). Energy Import Dependence Infographic. Accessible Online via: <http://www.iiea.com/blogosphere/eu-energy-import-dependence#sthash.57GxdAEc.dpuf> EU. Access Time: 20.04.2013.

European Wind Energy Association points out that this import dependence implies costs of approximately 700€ per capita per year.²¹ Given the increasing importance of natural gas, the EU's high import dependence in this regard might be problematic. For instance, natural gas import dependency in France is as high as 98%, in Germany 81%, in Finland 100% and in Italy 85%. Moreover, the EU only disposes of a tiny fraction of the world's gas reserves; its share is estimated to 2%.²²

The EU's imports of gas and oil are growing progressively and so grows the EU's dependence on other energy export countries. Therefore, price fluctuations in global energy markets are increasingly problematic for the EU and can ultimately threaten energy supply. The establishment of the IEA was meant to prevent supply deterioration and there are also European provisions to decrease energy consumption in case of energy supply problems.²³ Furthermore, the EU has faced many **challenges to secure its energy supply**. The problems are based on the EU's high energy consumption, the lack of domestic energy resources and the resulting import dependency, uncertainty regarding the supplier states both economically and politically, the threat of cutting off oil and gas, volatile prices of energy imports etc. Adding to the high dependency on foreign suppliers, the problems of transportation from states in inner conflicts, the EU's unstable and high energy prices and a lack of supply diversification are forming security challenges for the EU's energy supply.²⁴

Energy issues have significant economic impact. They are part of a state's fundamental choices and thus affect its sovereignty. Therefore, the EU has difficulties with a **common energy policy**, as there are different preferences among sovereign member states. However, a long-term vision for a common energy policy in the EU, covering national plans, member states' and general EU interest, is rather necessary so as to guarantee a secure energy supply for the union as a whole. As will be pointed out later in this thesis, it is not easy to find a solution for this challenge.

Today, the most important problems for the EU concerning energy are the **security of energy supply** and creating diversification. The largest oil and natural gas reserves of the EU exist in the North Sea. These reserves meet 4.4% of the world energy production, however, in

²¹ Scola, J. (2012). Investing in Europe's Future. *International Sustainable Energy Review*. 6 (3) 2012. p. 43. Accessible Online via: http://www.ewea.org/fileadmin/files/press-room/external-articles/Scola_ISER_3.pdf. Access Time: 01.12.2013.

²² International Energy Agency. Dependency on Imported Gas. 2006.

²³ Bjørnebye, H. (2010). Investing in EU Energy Security: Exploring the Regulatory Approach to Tomorrow's Electricity Production *Kluwer International*. Netherlands. p. 29ff.

²⁴ Ibid. p. 29.

the next 25 years the North Sea's energy will run out. It is estimated that in 2030, the EU's natural gas import dependency will increase to 84% and oil import dependency will increase to 93%.²⁵

Nowadays, the main energy problems of the EU can be characterized in two ways, first internally and second externally. **Internal problems** include increasing energy prices, decreasing energy production in the EU, and a fragmented internal energy market. **External issues** include general security dangers, security of supply dangers, increasing world energy demand and therefore rising prices, and Russia's will to utilize energy as a tool of political interest. Furthermore, growing energy demand, internal energy consumption and unity issues, political problems on common energy policy, ecological considerations and high prices are among the most challenging problems for the EU.²⁶

The most important component for the EU's energy policy, however, is **energy security**. The EU pursues to strengthen its energy security, not least due to fact that it is one of the most powerful economies in the world and energy security is of vital importance for the economy. The European Commission indicates that energy dependency, geographical diversification of energy imports and sources, and security of supply in the energy combination are all crucial to assess the weakness of a country.²⁷

Marat Terterov, the Executive Director and co-founder of the Brussels Energy Club, explained the EU's energy characteristics in a similar manner in the personal **interview**²⁸ and specified that there are some problems concerning security of supply in the EU. According to Terterov, one of the main challenges today is the fact that the EU is an intergovernmental body of 28 member states that lacks indigenous energy sources of supply. Principally, both in terms of gas and oil, the EU is heavily dependent. The second challenge that Terterov identified is that natural gas is an energy commodity which is very politicized and a strategic issue for countries like Russia. This made it more difficult for the EU to secure energy supply. He stressed that, although Norway is a friendly country to the EU, Norway also disrupted the gas supply to German companies for over 10 days in the 1980s. Algeria, in principle, would

²⁵ Kısacık. S. (2012). Uluslararası Politika Akademisi. 21yy'da Avrupa Birliği'nin Enerji Temin Güvenliği Bağlamında Fırsatlar ve Karşılaşılan Riskler. Accessible online via: <http://politikaakademisi.org/21-yuzyilda-avrupa-birliginin-enerji-temin-guvenligi-baglaminda-firsatlar-ve-karsilasilan-riskler/>. Access Time: 03.10.2013.

²⁶ Bireysselioğlu. M. E. (2011). *European Energy Security: Turkey's Future Role and Impact*. Palgrave. p.39.

²⁷ European Commission. (April 2013). Member States' Energy Dependence: An Indicator-Based Assessment. Occasional Paper 145. p. 11.

²⁸ See Annex for the complete transcript of the interview.

secure the EU's supply but the political environment in Algeria is difficult because of terrorist attacks, hostages etc.

Another main point, according to Terterov, is that energy is very expensive in the EU. European companies pay high prices for energy and energy efficiency strategies are not effectively working. Europeans pay lot for their energy and thus it leads to lack of competitiveness from an industry perspective, because European companies are less competitive due to the high energy prices compared to other parts of the world, notably the United States. Finally, Terterov claimed that the sources of the Caspian region are also not an easy issue. In his view, the EU has to deal with “friends of Turks” who have their own energy security agenda and they wanted to secure their own energy supply before giving any to the EU.²⁹

On the other hand, it is not impossible to find **solutions** to these challenges. In order to reduce import dependency, the EU requires a diversification of its energy alternatives. Bahgat supposes that diversification includes varying supplier states and imported supplies as well as the combination of primary energy sources. In his view, diversification would serve as a long-term strategy to meet energy security aims.³⁰ Therefore, apart from searching alternative supply resources and different transit routes, most imported energy-dependent countries form a stable energy combination in their general demand by using more domestic energy resources and renewables. It is estimated that in 2020 about 35-40% of general electricity consumption in the EU will be produced from renewable resources.³¹ Renewable energy will be a crucial part but it takes time to build up the facilities and renewables can hardly satisfy all energy demand. Thus, diversification in the supply of conventional energy remains an important aim.

In conclusion, this section has presented and analyzed the EU's characteristics in the field of energy in a way that the most important issues have been pointed out. While it is not possible to cover all important aspects of EU energy policy, it has been shown that the EU, as the largest market for energy in the world, faces enormous challenges to secure its energy supply, most notably due to its high import-dependency on a number of politically instable regions. Therefore, the need for common policies and strategies to address these problems has become apparent. Before a closer look can be taken on the EU's energy policies and strategies

²⁹ Ibid.

³⁰ Bahgat, G. (2006). Europe's Energy Security: Challenges and Opportunities. *International Affairs*. 82(5). p. 975.

³¹ Bireysselioğlu, p. 57.

in section 2 C, the theoretical concept of energy security and its strategic implications for the EU will be investigated in section 2 B.

CHAPTER 2

ENERGY SECURITY: THEORETICAL CONCEPT and STRATEGIC IMPLICATIONS FOR THE EU

This section first establishes a theoretical framework for the issue of energy security and subsequently discusses the resulting strategic implications for the EU.

Security is a nominative and developing notion. Of course, there are also different security thoughts and definitions. According to Bary Buzan, there are “normative, moral and ideological” characteristics of security. They also make it difficult to achieve a definition of security by consensus.³² When applying the concept of security to the field of energy policy, it is useful to make use of the **Regional Security Complex Theory** (RSCT). Barry Buzan and Ole Wæver explain the main idea of the RSCT as follows:

“Since the most threats travel more easily over short distances than long ones, security interdependencies are normally patterned into regionally based clusters: security complexes. (...) Processes of securitization and thus the degree of security interdependence are more intense between the actors inside such complexes than they are between (...) those outside of it.”³³

One could argue that energy security, although it certainly has a global dimension, is largely a regional concern, not least due to important constraints on the transportability of major energy resources. When **applying the RSC-Theory** to the main topic of this thesis, one could imagine the EU to be a security complex. While this would make sense in many cases, in the field of energy security it is more difficult. On the one hand, the EU has a common interest in developing an energy strategy and in increasing the security of energy supply of the union as a whole, so that the “security complex EU” is a logic construct. On the other hand, the EU has large security interdependencies with actors outside of this “security complex”. To say it in the words of Buzan and Wæver, the “degree of security interdependence” is not only high within the EU, but rather between the EU and its neighboring countries which are often energy transit states. It seems thus sensible that, in the field of energy security, the “security complex EU” includes at least the neighboring transit states, which also includes Turkey.

³² Buzan, B. (1991). *People, States and Fear: An Agenda for International Security Studies in the Post-Cold War Era*. Hemel Hempstead: Harvester Wheatsheaf. p.4

³³ Buzan, B. & Wæver O. et al. (2003). *Regions and Powers: The Structure of International Security*. Cambridge University Press. Cambridge. p. 4.

Hence, Turkey could be understood as being part of a wider security complex of European energy policy. On the basis of this theory it would be possible to argue that a European strategy of energy security should be developed in close cooperation with those countries which are part of the overall energy security complex, i.e. above all the neighboring transit states.

Moreover, there is a direct **connection** between **national security** and **energy security** in general. This is because the different priorities of energy policies, such as non-disrupted energy provision at reasonable prices, have a vital importance for the national security of nearly all countries.³⁴ Naturally, energy is less of an issue for energy supplier states and all the more important for import-dependent countries. However, most supplier states also heavily depend on the regional or global energy demand. Energy security is defined differently for import and export countries, but it matters for both in terms of national security.

According to Bahgat, the issue of security of energy supply was started to be discussed at least a century ago. However, the term energy security was not introduced and its effects not examined before the first oil crisis of 1973. Many different **definitions** and interpretations **of energy security** have been developed since then.³⁵

According to the **UNDP**, energy security is defined as “*The continuous availability of energy in varied forms, in sufficient quantities, and at reasonable prices.*”³⁶ The UNDP specifies that energy security implies a limitation of vulnerability to disruptions of energy import supplies. Moreover, domestic and external sources of energy have to meet growing energy demand, also in the long run, without deterioration of prices. Finally, the UNDP states that energy security is affected by many diverse factors, such as market forces, deregulation and liberalization, and environmental matters.³⁷

The definitions of energy security generally put emphasis on the necessity to guard sufficient supply and reasonable prices for energy. Moreover, according to Marin-Quemada, energy security is composed of a complex set of factors such as external relations, internal energy structure, and geography.³⁸ According to Kalicki et al, energy security, as suggested

³⁴ Yüce. Ç. K. (2008). Hazar Enerji Kaynaklarının Türk Cumhuriyetleri için Önemi ve Bölgedeki Yeni Büyük Oyun. *Stratejik Araştırmalar Dergisi*(1). Beykent Üniversitesi. s. 162.

³⁵ Bahgat. G. p.965.

³⁶ UNDP. (2001). World Energy Assessment: Energy and Challenges of Sustainability. p.112.

³⁷ Ibid.

³⁸ Marin-Quemada. et al. p. 213.

by the **IEA**, can be reduced to “*the availability of a regular supply of energy at an affordable price*”.³⁹

Security of supply is defined, according to Chevalier, as “*a flow of energy supply to meet demand in a manner and at a price level that does not disrupt the course of the economy in an environmental sustainable manner*”.⁴⁰ Thus, security of supply basically means that there has to be sufficient supply to meet demand, at a price which does not have a significant negative impact on the economy. This is very close to the definitions of energy security in general, which illustrates that security of supply is the most essential part of overall energy security. Furthermore, Chevalier adds the dimension of environmental sustainability, but this important aspect will be ignored for the purpose of the thesis.

The Regional Security Complex Theory, applied to energy security, would imply that the **regional energy security** in a certain geographical area is created by energy-related interactions between several states. This element of energy security is especially relevant in the EU case, given the substantial ratio of energy dependency and the interaction between the member states.

According to **Barton**, energy security refers to a state “*in which a nation and all, or most of its citizens and businesses have access to sufficient energy resources at reasonable prices for the foreseeable future free from serious risk of major disruption of service*”.⁴¹ Moreover, energy security can be divided into a number of central aspects, i.e. the security of demand, the security of supply, the credibility of energy supply and the physical security of energy installations. It is very important to differentiate between the security of demand and security of supply. While security of demand concerns the stability of market prices, security of supply is strongly related with the availability of energy itself.⁴²

On the other hand, it is also important to define what **energy insecurity** means. Energy insecurity can be interpreted as a situation of vulnerability to severe supply disruptions and price peaks.⁴³ Moreover, energy insecurity can also be characterized by a difficulty faced by

³⁹ Kalicki, J.H. et al. Goldwyn (Eds).2005. *Energy & Security*. Washington: Woodrow Wilson International Center Press. p.17.

⁴⁰ Chevalier. J. M. (2006). *Security of Energy Supply for the EU. European Review of Energy Markets*. Vol 1. Issue 3. p. 2.

⁴¹ Barton et al. 2005. *Energy Security: Managing Risk in a Dynamic Legal and regulatory Environment*. Oxford: OUP. p. 5

⁴² Bireysselioğlu. p. 24ff.

⁴³ Bartis. J. T. (2005). In Search of Energy Security: Will New Sources and Technologies Reduce Our Vulnerability to Major Distruptions?. *RAND Review*. Accessible online via: <http://rand.org/publications/randreview/issues/fall2005/energy.html>

consumers to protect themselves from instabilities, endangered supply of energy as a result of terror attacks or natural disasters, and deficient organization of the energy markets.⁴⁴

All these definitions share main aspects and thus the main concept of **energy security could be summarized**, in a few words, **as consistent supply with limited fragility at reasonable prices**. It can therefore be concluded that the concept of energy security is not extremely complex or difficult to grasp, but can indeed be focused on these core elements. Hence, in order to analyze the EU's energy security, one would principally look at these three aspects: sufficiency and consistency of supply, robustness of supply as well as the price development.

Taking into account the observations of the previous empirical analysis of European energy supply, it can be assumed that the EU's energy supply is rather secure, given that there has been sufficient and consistent supply in the past, that it does not seem to be fragile and that prices have not exploded in the past. However, there are significant risks for the EU's security of energy supply, the most important being its large and rising import dependence. While sufficiency of supply should not be a major source of concern, the issue of potential supply disruptions is apparent, especially given the difficult political relations of the Eastern European Member States with Russia. Finally, the major threat for the EU's energy security are most probably ever rising prices for energy imports together with increasing import-dependency.

The **political aspects of energy security**, being on the top of the European energy agenda, have especially been evaluated after the price dispute between Ukraine and Russia. The gas conflict affected Russian gas transportations to various member countries and raised concerns on the growing dependency of Europe on imports and on the liability of major supplier states.⁴⁵ As Marat Terterov has pointed out, energy security is a highly politicized topic,⁴⁶ so that political considerations need to be taken into account also from a theoretical point of view.

It is important to note that the **perception of supplier states** creates a different notion of energy security. From the producer states' perspective, energy security first of all means security of demand. Specifically, energy supplier states aim to protect stability of demand for their supply. Moreover, the supplier states want to ensure affordable prices for consumer

⁴⁴ Milov. V. (2005). Global Energy Agenda. *Russia in Global Affairs*. Vol. 3. No.4. p.60.

⁴⁵ European Commission. SEC (2009) 977 final. The January 2009 Gas Supply Disruption to the EU: An Assessment.

⁴⁶ See Transcript of the interview in the Annex.

states in order to keep reliable export markets, however “affordable” from the supplier perspective refers to prices that enable them to invest and to make profit.⁴⁷

At this point it seems sensible to put these concepts into the EU context and to discuss the **strategic implications for the EU**. Energy security, sustainable energy and competitive energy markets, which cannot be separated from each other, are the vital aims for European energy policy. Energy dependency poses a real issue for the EU’s security of energy supply. The EU presently has to import more than half of its required energy and the ratio is estimated to rise in the future, especially for natural gas and oil. In this regard, an EU energy security strategy should have the following aims: diversifying sources and routes of energy supply, decreasing demand, increasing the use of competitive internal and renewable energy, encouraging investments into new technologies and into existing networks, finding better solutions to deal with crises, developing the possibilities for European firms and citizens to reach worldwide resources.⁴⁸

When discussing the political and strategic implications of energy security, it is also important to look at the nature of energy security as a public or private good. As it will be argued below, **energy security** can be considered as a **public good**. At the same time, however, Europe’s governments are not willing to give up their sovereignty on this important issue and therefore produce sub-optimal outcomes in terms of energy security. If one wants to characterize energy security as a public good, one first needs to define public goods and subsequently global public goods. The usual definition of public goods is for example used by the World Health Organization (WHO) which states that public goods are defined as goods and services that are “non-rival” and “non-excludable”. In other words, no one can be excluded from their benefits and their consumption by one person does not diminish the consumption by another.⁴⁹

Collignon points to the importance of external effects that all public goods carry in one or the other form. These externalities occur as public goods tend to provide benefits, or to produce costs, on the general public and not only to those who took part in the decision-making for the creation of the public goods.⁵⁰ This is especially an issue in the European

⁴⁷Winrow. M. G. (2007). Geopolitics and Energy Security in the Wider Black Sea Region. *Southeast European and Black Sea Studies* 7(2). p. 219.

⁴⁸ Marin-Quemada. et al. a p. 199.

⁴⁹ World Health Organization. Global Public Goods. Available online via: <http://www.who.int/trade/glossary/story041/en/index.html> (Access Time: 01.12.2013).

⁵⁰ Collignon. S. (2003). The European Republic. Reflections on the Political Economy of a Future Constitution. p. 92ff.

context, where public goods more and more transcend national borders and also affect the citizens of neighbor states who have not voted for and no influence on the respective authorities providing the public goods.

Applied to the field of energy policy the concept of public goods is not evident. As energy is clearly rival and excludable, it can be considered as a private good. Energy security, however, is a more abstract, overall concept which could be considered to be a public good. Energy security cannot be achieved by markets alone, political cooperation and negotiations among different countries is also vital and therefore gives a public dimension to energy security. Once it is achieved, at least in theory, it is hard to exclude individuals from energy security and the rivalry of energy security also seems difficult to grasp.

Energy security as an ideally achieved state can therefore be characterized as a public good and given the strong interdependence and similar problems in the EU it can be regarded as a **European public good**. Until this ideal of European energy security is achieved, it is however very well imaginable that energy security remains rival among member states, i.e. that some member states seek to secure their energy security at the expense of others. It is also very possible that one member state achieves agreements with energy supplier states which exclude other EU member states. The North Stream pipeline, running from Russia through the Baltic Sea directly to Germany, and thereby circumventing Baltic countries and Poland, is a good example for this.

As a conclusion, one can say that energy security remains a rival concept in contemporary Europe and that there is still a long way to go for the ideal of a common concept of European energy security as a European public good.

When it comes to the concept of energy security, both **physical and geopolitical elements of energy security** can be distinguished. The physical element concentrates on the foreign corridors towards the importing state and the system of delivery structures. On the other hand, the geopolitical element refers to the geopolitical framework of the exporting and transit states which together establish the energy corridors. Dependence, vulnerability and connectivity estimates can assess the physical element, while geopolitical risk indices can analyze the geopolitical element. Concerning the physical element of the EU's energy policy, the EU may increase its energy security in three ways. Firstly, energy dependency could be diminished; however the level of energy dependency is difficult to decrease because of the lack of internal energy sources. Secondly, vulnerability correlated with energy imports could

be decreased, e.g. by diversifying sources of supply, so as to guarantee an appropriate level of energy security. Thirdly, for an improvement of the connectivity advanced structure flexibility is necessary, e.g. by establishing more trans-European energy networks. This would also help to improve the reaction to any supply disorders.⁵¹

Since the challenges of energy security were already identified, it will now be looked at **possible solutions** for them. In order to solve these challenges of energy security, the EU should take precautions to raise its energy efficiency and decrease its import dependency. In this regard, the EU certainly needs to focus on fostering renewable energy. However, these objectives are difficult to achieve in the short to medium term and the EU is projected to be considerably import-dependent also in the future. This is why, as long as energy imports are needed on a large scale, the **diversification of supply** sources should be a main priority. The Greater Caspian region could be one potentially good option in this regard. Strengthening imports from the Caspian region could help to reduce import dependency on Russia and other instable sources as well as to safeguard energy supply.⁵²

The EU should also concentrate on energy matters in its foreign relations in order to accomplish the goals of the energy policy. Moreover, **solidarity** between member states in their external relations is also very important according to the European Commission. In this context, the European Commission has put forward an “Energy Security and Solidarity Action Plan”.⁵³ This plan especially stresses the importance of improving the relations with third countries in the energy cooperation.⁵⁴ However, the concept of solidarity in this plan remains extremely vague, despite its prominent position in the title. In fact, the word “solidarity” is mentioned more often in the headlines than in the text itself. The main meaning of solidarity for the European Commission, according to this document, is that member states should cooperate, as national solutions are often inefficient, and that energy security is thus a matter of common concern in the EU.⁵⁵ The discussion above about energy security as a European public good has shown, however, that this understanding of solidarity and common concern is not evident among EU member states.

In conclusion, this section has looked at the theoretical framework of energy security and has reduced the many existing definitions to the statement that energy security is a state of “consistent supply with limited fragility at reasonable prices”. Moreover, it has been found

⁵¹ Marin-Quemada. et al. p. 243.

⁵² Bireysselioglu. p. 86.

⁵³ European Commission COM (2008) 781. Energy Security and Solidarity Action Plan.

⁵⁴ Misiagiewicz. p. 108ff.

⁵⁵ European Commission COM (2008) 781. Energy Security and Solidarity Action Plan. p.3.

that European energy security is best defined not on the national, but on a regional level, including neighboring energy transit countries. When it comes to the strategic implications for the EU, the reliability of accessible sources and supply diversification should be key elements of a long-term European energy strategy. In this regard, the EU should apply discourse and strategic partnership with supplier states. Moreover, the EU should promote strategic infrastructure for pipeline projects via transit states.⁵⁶

Part 3 of this thesis elaborates on Turkey's role in this regard and points to some important pipeline projects. Before that, section 2C gives an overview of the most important EU energy policies and strategies and investigates to what extent these respond to the challenges identified so far.

2.1 EU Energy Policies and Strategies: Past, Present and Future Development

Energy issues in Europe have always been very important in the development on the way to an ever-closer union among nations. The first Community, the European Coal and Steel Community (ECSC) was established in 1951.⁵⁷ Subsequently, in 1958, the European Atomic Energy Community (EURATOM) was established. The founders of the EU had already understood the strategic meaning of the security of energy supply in those days. The original idea of **European integration** was the promotion of peace through the integration of these key industries.⁵⁸ As a next step, the European countries created two main strategies for further integration. Firstly, the aim was to enlarge the ECSC to more industries, such as conventional and atomic energy. Secondly, it was about overall economic integration. Since the second was more successful, the first was probably left apart and energy issues were therefore not prominently included in common European policies in the on-going integration process.

Beginning with the 1973 oil shock, to the recurrent problems arising from the Middle East, until the Russian-Ukrainian gas dispute of 2009, **energy security** has emerged as a fundamental interest in both global and European politics. The Russian-Ukrainian gas dispute seriously started in 2008 and escalated on 1 January 2009, when Russia cut off Ukrainian gas supply for four consecutive days. Due to all of these events, member states have gained experience with the endangering of energy supply or short-term supply disruptions. Historically, Western Europe did not experience that energy imports can constitute a major

⁵⁶ Bireysselioğlu. p. 39.

⁵⁷ Since the ECSC treaty was signed for a period of 50 years, the community was resolved in 2002.

⁵⁸ Official website of the European Union. The History of the EU. Accessible Online via: <http://europa.eu/about-eu/eu-history/>. Access Time: 06.10.2013.

problem before the 1973 oil crisis and the price disruptions of 1979, which affected their economies negatively. These crises led to two fundamental thoughts for the European states. First of all, they saw that they need more collaboration and understood that more cooperation would be crucial to overcome supply challenges. Secondly, there was the conviction already at that time, that the EU needed common policies so as to become independent from supplier states.⁵⁹ Hence, energy policy in general became a matter of common concern for EU member states and energy security in particular became one of top priorities of European energy policies.

According to the European Commission, neither the Union as a whole nor each member state individually can solve the security of energy supply and climate change problems. Both the EU and the member states have to follow these aims collectively and need to form an efficient and better external policy concerning energy issues.⁶⁰ In this regard, the European Commission invented some procedures such as the **European 2020 strategy** and the EU's strategy for economic growth in order to cope with energy issues until 2020. The EU 2020 strategy created five goals concerning employment, education, innovation, social inclusion (so as to attain advanced levels of employment), productivity and social cohesion.⁶¹ The 2020 strategy also sets important targets for the EU's energy policy. For example, the EU will be required to report every year on the progress of the capability of renewables developed during the last 10 years in order to attain the 20-20-20 initiative. Its aim is to form a long term political agenda until 2020, consisting of an increase of its energy efficiency by 20%, increase of the share of its renewable energy resources by 20% and a decrease by 20% of its greenhouse gas emissions. This strategy was therefore labeled "the EU 20-20-20-initiative". Furthermore, a five issue Action Plan for Energy Security and Solidarity which concentrates on diversification of energy supplies and foreign energy relations was launched in 2008. It includes crisis response measures, oil and gas resources, energy efficiency, and best usage of local energy resources in the EU.⁶²

Green Papers prepared by the **European Commission** are an important instrument to initiate legislative developments. Since 1994, the European Commission produced six Green Papers concerning energy matters which paved the way for further reports and strategies

⁵⁹ Morelli, Vince L. (2008). *The European Union's Energy Security Challenges*. Report for Congress. Congressional Research Service. P. 7.

⁶⁰ European Commission COM (2007) 1 Final. An Energy Policy for Europe p. 17ff.

⁶¹ European Commission (2013). Europe 2020- Priorities. http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/priorities/index_en.htm. Access Time: 10.01.2014.

⁶² European Commission (2008). Energy Security and Solidarity Action Plan. Accessible online via: http://europa.eu/legislation_summaries/energy/european_energy_policy/en0003_en.htm. Access Time: 08.01.2014.

related to European energy security. In chronological order, these were the “Green Paper for a European Energy Policy” (1994), the Green Paper “Energy for the Future” (1996), “Towards a European Strategy for the Security of Energy Supply” (2000), “Energy Efficiency” (2005), the Green Paper for a “European Strategy for Sustainable, Competitive, and Secure Energy” (2006) and the “2030 Framework for Climate and Energy Policies” (2013). These publications help to understand the European perception on energy matters and European energy security policies and strategies. Therefore, the most important aspects of these documents will be summarized in the following.

The **1994 Green Paper** defined energy security as a policy “*needed to manage policies to ensure the satisfaction of all users’ needs at the least cost while meeting the requirements of security of supply and environmental protection*”⁶³. As the importance of Europe’s energy dependence and the international energy consumption increased already at that time, the paper concentrated on the significance of security of supply and proposed policies to safeguard and increase it. Energy dependence was anticipated to rise from 50% to 70% until 2020, while energy consumption of the EU was projected to increase only gradually. The Commission defined security of supply as protection of vital energy requirements in the future which had to be achieved by the “*sharing of internal energy resources and strategic reserves under acceptable economic conditions and by making use of diversified and stable externally accessible sources*”⁶⁴.

The **1996 Green Paper** gave priority to the reduction of energy dependency and the acknowledgement of ecological concerns, promotion of renewable energy as well as to increase competitiveness and employment in the field of energy. Its main aim was to promote a Community strategy for renewable sources of energy and it warned against the failure of increasing the share of renewables and the ecological, economic and social consequences. Not only the 1994 Green Paper, but also the 1996 documents on energy indicated the EU’s high energy dependency and this led to increase the emphasis on energy security.⁶⁵

The **2000 Green Paper** focuses on the energy security in the EU and the policies required to strengthen it. The EC specifies that the EU’s aim should be to guarantee the safety of its citizens, a stable economy, suitability of energy sources in a permanent way at reasonable prices and attention for sustainable development. The Commission suggests three

⁶³ European Commission. COM (1994). 659. For a European Union Energy Policy. p. 5.

⁶⁴ Ibid. p. 22.

⁶⁵ European Commission COM (1996) 576. Energy for the Future. Renewable Sources of Energy, Green Paper for a Community Strategy.

fundamental methods to decrease dependency. Firstly, it concentrates on increasing internal supplies. Secondly, it focuses on fostering competition. Lastly, its aim is to protect and to diversify external supplies.⁶⁶ This paper additionally put emphasis on vulnerability and energy dependence, and on the relation of renewable energy sources and markets concerning security of energy supply, at a point when enlargement was about to change the EU's energy security.⁶⁷

More specifically, the 2000 Green Paper stated that:

*“The European Union’s long-term strategy for energy supply security must be geared to ensuring, for the well-being of its citizens and the proper functioning of the economy, the uninterrupted physical availability of energy products on the market, at a price which is affordable for all consumers, while respecting environmental concerns and looking towards sustainable development (...).”*⁶⁸

This statement essentially builds on the definitions as presented in section 2B, but it adds the element of environmental sustainability which goes beyond traditional definitions of energy security.

The most important Green Paper for the topic of this thesis was published in 2006. The **2006 Green Paper** begins by explaining the energy security issues in the Union. It stresses the big importance of an internal market for energy which ensures the security of energy supply and also entails solidarity between the member states. With regard to this priority field, the Green Paper sets out two principal aims. The first aim is to increase security of supply in the internal market and the second is to consider an EU initiative to urgently build up oil and natural gas stocks suitable to stop disturbances.⁶⁹

Moreover, the 2006 Green Paper defines that the fundamental aims of the EU in the field of energy policy are sustainability, competitiveness, and the security of energy supply. In order to fulfill these objectives, there are a number of proposals. For example, the need of a completion of the internal market for gas and electricity of the EU, ensuring a strong solidarity between member states, creating a strategic energy and technology plan, and creating a common energy policy.

The Green Paper claims that the EU energy community and shared regulatory space can attain energy security. It declared that Turkey is a crucial strategic component of the external energy policy. The Commission encouraged the Union to promote Turkey's attempts

⁶⁶ European Commission COM(2000). 769. Towards a European Strategy for the Security. p. 72ff.

⁶⁷ Marin-Quemada. et al. p.197ff.

⁶⁸ European Commission COM (2000). 769. Towards a European Strategy for the Security. p.2

⁶⁹ European Commission. COM (2006). 105. A European Strategy for Sustainable, Competitive, and Secure Energy. p.8

to become an energy hub. Finally, the 2006 Green Paper also clarifies that a consistent foreign energy policy is important to guarantee energy security. The European Council approved the Commission's views and suggested that a coherent external EU energy policy would increase the collective foreign energy security of the EU. Compared with its 1994 and 2000 papers, the 2006 Green Paper concentrates on more largely on increasing energy security. Therefore, the 2006 Green Paper is a more inclusive road map for the energy policy to access increased energy security.⁷⁰

Finally, in 2013, a new Green Paper on “a 2030 framework for climate and energy policies” was published. The **2013 Green Paper** essentially builds on the Europe 2020 targets, but seeks to set a new framework for energy policy beyond 2020 until 2030. Rather than defining new targets, it addresses important questions such as how can new targets be set, how to ensure the coherence of policy instruments, how to improve security of supply, competitiveness of the European economy and how to deal with challenges such as the ongoing economic crisis and reduced budgets for investments in member states. The 2013 Green Paper also acknowledges the fact that member states have different capacities to act in terms of achieving the common European energy targets, not least due to differing wealth, industrial infrastructure, energy choices, capacities for renewable energy etc. However, it does not provide answers to these questions but rather launches a consultation process for a 2030 energy and climate policy strategy.⁷¹

In general, all Green Papers presented by the Commission concerning energy have continuously developed the concept of European energy security. While the first Green Papers had to set the basis for a European energy policy and a common understanding of energy security, the Green Papers of the 2000s have further deepened the discussion on security of supply, including all the important aspects such as reducing import-dependency, increasing energy efficiency, diversifying sources of supply, fostering renewable energy, limiting carbon emissions and so forth. As all central challenges have been identified and corresponding strategies been formulated, the main challenge remains the implementation of these strategies. In this regard, the EU should implement a common vision and speak with one voice on the world scene so as to attain the goals set out in all the Green Papers.

The analytical and strategic considerations of these Green Papers concerning energy security resulted in the **2011 communication on security of supply and international**

⁷⁰ Ibid. p.2.

⁷¹ European Commission COM (2013) 169. Green Paper. A 2030 Framework for Climate and Energy Policies.

cooperation “The EU Energy Policy: Engaging with Partners beyond Our Borders”.⁷² According to Philip Lowe, Director General of the Commission’s Energy DG, this communication sets out a comprehensive strategy for the EU's external relations in energy. It is principally concerned with how the EU could best organize itself internally regarding international energy matters and which priorities the EU should make in the variety of its partners. The key approach of the Communication is to have better coordination among Member States in identifying and implementing clear priorities in the EU's external energy policy. According to Philip Lowe, this can be achieved by achieving more transparency among EU Member States concerning energy agreements with third countries, improving coordination in the relations with partner countries, when taking position in international organizations, and when developing energy projects with key partner countries.⁷³

While this 2011 communication certainly sets out the right policy priorities, it remains difficult for the EU to speak with one voice in energy issues. The biggest challenge to create a common energy policy is the **fact that EU member states have different preferences**. Every member state has its own individual structure of energy resources and needs. Moreover, there are increasing desires, particularly among smaller member states, to use the EU’s common foreign and security policy in order to defend energy interests, because energy issues are of crucial importance in the external relations to third countries.⁷⁴

According to some, the most important reason why the EU cannot create a common energy policy is **Russia**. Jose Manuel Barroso, the president of the European Commission, claimed that the EU is not only dependent on Russia but that Russia also has a huge interest in a stable relationship with its most important customer and this relationship ensures mutual benefit to both sides.⁷⁵ On the other hand, in 2009, there was a clash between Ukraine and Russia about energy transit issues and Russia subsequently cut off gas supply to Ukraine and thereby to the EU as whole. Due to the absence of a common energy policy, the situation made it difficult for the EU in terms of credibility as well as to find a way out of the crisis. Moreover, if EU policies are not able to prevent member states from becoming active and

⁷² European Commission COM (2011) 539. Communication on Security of Energy Supply and International Cooperation. The EU Energy Policy – Engaging with Partners beyond Our Borders.

⁷³ See written interview with Philip Lowe in the Annex, p. 83.

⁷⁴ Grevi. p. 7.

⁷⁵ Dempsay. J. (2006). EU Urges an Energy Pact with Russians- But Poland Objects and Offers Plan that Excludes Moscow. *International Herald Tribune*.

making bilateral agreements with exporting states this will continuously damage the EU's power in the field of energy policy.⁷⁶

According to Marin-Quemada, even if a **common energy policy** was applied by the EU, its dependency would not disappear.⁷⁷ The Secretary General of the International Energy Forum Arne Walther (2003-07) claims that it is an economically difficult issue to make the essential investments for the security of energy supply on the European level, especially to sufficiently allocate funding. From a political point of view, the challenge is how to ensure cooperation rather than competition among energy-dependent countries. Bireysellioglu argues that this is one of the major challenges for the EU in its aim to create a common energy policy.⁷⁸

Another challenge for the EU is that its bargaining power with third countries is reduced by the bilateral energy agreements among the supplier or transit states and individual EU countries. Moreover, what was often stated is the EU's **inability to speak with one voice** concerning energy issues. In fact, every member state seeks to use its sovereignty over energy matters to compete with other member states so as to pursue its own energy security.⁷⁹ Furthermore, the lack of Europeanization of energy policies is another challenge. As Bireysellioglu points out, energy policy inevitably has a European dimension in the view of globalization and growing interdependencies.⁸⁰

The **need for a coordinated European energy policy** became obvious in 2005, when Germany signed a bilateral agreement with Russia and thereby apparently ignored the (energy) security needs of Poland and the Baltic states. This experience, as well as the energy disputes of the Ukraine with Russia, made it clear that long-term security of energy supply is not guaranteed and the EU therefore urgently needs to diversify its energy supply and to develop a common strategic framework for energy policy.

While the Green Papers are no binding legislation and are only meant as preparatory work towards legislation, the **European Energy Charter** was certainly one of the most significant legal efforts for the EU's energy security. The breakup of the Soviet Union created a new world order and a new map of Eurasia leading to rising importance of the external

⁷⁶ Marin-Quemada. et al. (2011). *Energy Security for the EU in the 21st Century: Markets, Geopolitics and Corridors*. *Taylor&Francis*. p. 234.

⁷⁷ Ibid. p. 233ff.

⁷⁸ Bireysellioglu. p.24ff.

⁷⁹ Marin-Quemada et al. p. 234.

⁸⁰ Bireysellioglu. p.33.

component of European energy matters. The Energy Charter was signed by international organizations and further 40 states and its aims were very wide. One fundamental objective of the Union is to extend the doctrines of the 1994 Energy Charter Treaty consecutively to the non EU countries, such as Russia, Ukraine, Central Asia, and the Balkans into the southern Mediterranean. For example, increasing the security of energy supply and enforcing the commitment of member countries to abstain from discrimination in the reach to energy sources are very important. Moreover, the facilitation of free energy trade, promoting and guarding investments in the energy sector, sharing energy tools and services, and triggering technology partnership were also set as important aims. The attempts to sign or ratify the Energy Charter showed its limitations because of the denial of most energy supplier states.

The Energy Charter revealed Russian preferences and Russia's refusal to ratify represented the most important failure of the Charter. On the other hand, there are still plenty of associations to the Energy Charter, and most of its objectives were received as an instance for next proposals. The Charter also points to the direct link between the security of supply and an efficient energy market.⁸¹

In the interview with Marat Terterov,⁸² he stressed the fact that freedom of transit is laid down in Article 7 of the Energy Charter Treaty which means that no country can act as a gate but it has to open the door to transit, and Turkey is a signatory of this treaty. Terterov pointed out that, according to Article 7, countries like Turkey are obliged to allow the free flow of energy goods and services through their territory. No country can block or cut transit. Thus, the EU pushes Turkey to respect the Energy Charter and to follow these principles. At the same time, the EU also blocks the energy chapter in the Turkish accession negotiations. In this respect, the relationship between the EU and Turkey can be described as difficult. Whether Turkey acts a "gatekeeper" does not only depend on Turkey but also depend on a lot of factors such as the EU's behavior, Russia's behavior, what Russia offers Turkey, Azerbaijan, and, not least, pressure from the US, as Turkey is also a NATO partner. These are all important aspects of Turkey's role in terms of energy security.

The major problem of implementing the priorities set out in the energy Green Papers certainly was that there was no legal basis for common European energy policies. With the Lisbon Treaty, however, a new chapter on energy was introduced (Chapter XXI). Article 194 (1) TFEU emphasizes the significance of the EU's energy policy. Its aim is to support energy

⁸¹ Ibid.

⁸² See Annex for the complete transcript of the interview.

efficiency and interconnection of energy networks, as well as to guarantee security of supply and the accurate functioning of the energy market. However, Article 194(2) TFEU stipulates that actions taken by the EU shall not influence a member state's right "*to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply*". According to Article 192(2) (c), EU policies affecting member states' structure of energy supply have to be decided unanimously and within a special legislative procedure. This legal context shows that there are significant legal barriers for a common European policy on the security of energy supply. In fact, the most vital issues, i.e. the conditions under which member states can exploit energy resources and the structure of the energy mix cannot be decided at European level, as the Treaties exclude this explicitly.

Moreover, Article 194 calls for "*a spirit of solidarity between member states*", which sometimes has been referred to as 'solidarity clause'. Some scholars expect that the Commission, which may create a solidarity system, will build upon the 'solidarity clause'. Kaysı argued that security of gas supply in the EU has been attempted to be dealt with by market-oriented measures and liberalization, but also by using a solidarity strategy.⁸³

In spite of all these efforts, solidarity is not an easy achievement to be accomplished in today's EU. The main concern of governments is national security of energy supply, although national sources and policies alone may not always be appropriate and will generally yield suboptimal results for the EU as a whole. On the other hand, it is still not clear whether solidarity can bring advantage to the EU's energy policy in the future or not. However, Kaysı argues that there has been no political determination between member states to strengthen the energy market within Europe as well as no political will for solidarity in energy policy.⁸⁴ Moreover, the implementation of solidarity in the EU faces considerable challenges. As discussed in section 2B, energy security can be regarded as a European public good because it can be achieved most efficiently at the European, not the national level. However, as with all public goods there are considerable collective action problems, especially in a European Union of 28 sovereign member states.

A final aspect of EU energy policy that shall be introduced is the creation of European-wide networks of energy. The EU traditionally aims at finding agreement among consumer, producer and transit countries. In this respect, the Commission has often stressed

⁸³ Kaysı, H. (2011). Energy Security of the EU and Turkey's Role. *Avrupa Çalışmaları Dergisi*. Ankara. Cilt. 10. Sayı. 2. p. 63.

⁸⁴ *Ibid.* p.67.

the importance of EU-wide networks for energy transport. Therefore, that **Trans-European Energy Networks (TEN-E)** were introduced in the EU with the Maastricht Treaty. This project aims at the harmonization of the entire European electricity and gas system, in order to create an efficient energy market and to guarantee security of energy supply in the future.⁸⁵

According to the TEN-E procedures, the EU's basic lines of action, aims, and priorities are about the identification of plans and the creation of an efficient framework for the improvement of energy networks. Trans-European projects, i.e. projects across borders inside the EU and even with third countries, have an important effect on trans-border capability and have top priority for financing from the TEN-E budget. The goals of the TEN-E policy are to promote the fulfillment of the EU internal energy market, to decrease the separation of less-favored areas, to protect and diversify the EU's supplies as a means of cooperation with other countries, and to make a contribution to sustainable development and maintenance of ecology.⁸⁶ A number of energy network issues generally appear to be connected with projects crossing borders and particularly those that gather numerous energy networks.⁸⁷

When it comes to cooperation with **third countries**, the European Commission stressed the importance of TEN-E as an instrument to increase diversification and security of energy supply. The Commission stated that:

“Interoperability with the energy networks of third countries (accession and candidate countries and other countries in Europe, in the Mediterranean, Black Sea and Caspian Sea basins, and in the Middle East and Gulf regions) is essential.”⁸⁸

This section has presented the development of European energy policies and shown that common concerns regarding energy security have developed historically among European states only since the oil crises of the 1970s. However, ever since then, the problem of security of energy supply has evolved as a matter of common concern and the EU has therefore put in place energy policies and strategies to deal with these problems. These ideas and strategies were essentially put forward by the European Commission in six Green Papers on energy from 1994 to 2013 and covered all important issues, starting from the creation of a common European energy policy, to the formulation of a strategy for security of energy

⁸⁵ Cf. European Commission Website. Trans-European Energy Networks. Accessible Online via: http://ec.europa.eu/energy/infrastructure/tent_e/ten_e_en.htm. Access Time: 13.12.2013.

⁸⁶ Ibid.

⁸⁷ Marin-Quemada. et al. p. 198ff.

⁸⁸ European Commission. (2007). Trans-European Energy Networks. Accessible Online via: http://europa.eu/legislation_summaries/energy/internal_energy_market/127066_en.htm. Access Time: 10.12.2013.

supply, until energy efficiency, sustainability and climate change issues. While all important problems have been correctly addressed and corresponding strategies suggested, the **implementation** of such common policies has proven much more difficult to achieve. In this regard, it has been shown that common policies are extremely difficult to achieve in a field which is closely related with national security and sovereignty and in which many member states have different preferences.

Hence, it seems that the EU will in the short to medium term not be able to solve the challenge of energy security internally, but it will continue to be dependent its external partners. In this respect, the second part of this thesis looks at Turkey's current and potential future role for the EU's energy security as well as on EU-Turkey relations and the accession process.

2.2 Turkey's Role for the EU's Energy Security and the effects on the EU Accession Process

So far, the thesis has concentrated on the EU as well as on the theoretical and strategic concept of energy security. It has become clear that there are major challenges for the EU's security of energy supply and that the EU has formulated a number of policies and strategies to meet these challenges. As outlined in the previous part, one of the major aims in this regard, directly linked to energy security, is to achieve more diversification of energy supply. As the EU is still dependent on a number of countries to a large extent, and knowing that it will be import-dependent also in the future, it seeks to diversify its imports to more countries and regions. Energy transit countries play a very important role in this process and Turkey is one of them. This is why Turkey's current and potential future role for the EU's energy security as well as the possible implications for the EU accession process are further analyzed in the following part of the thesis.

Firstly, the geostrategic location of Turkey, its energy policy characteristics and its potential role as an energy hub for the EU are emphasized in section 3A. Secondly, the current and potential future elements of EU-Turkey energy cooperation, notably in the form of energy transit and pipeline projects, are presented and discussed in 3B. Finally, section 3C discusses all the main results of the previous sections in the broader context of the Turkish EU accession process and contains an attempted assessment of the role of energy cooperation for Turkey's future prospects to become EU member.

2.3 Turkey's Geopolitical Significance: Potential Energy Hub for Europe

Turkey disposes of a **unique geographical position**. Turkey is located in between the European and the Asian continent, which naturally leads it to play an important role as a transit state for the energy sources from Central Asia, the Caucasus, the Caspian region and the Middle East to Europe. In this respect, Turkey is a very crucial economic partner for producing countries as well as for those which require such resources.⁸⁹ If one considers all its neighbor countries, Turkey is located in a region which disposes of more than 70% of the world's oil and natural gas reserves, especially those of Russia, the Caspian region and the Middle East.⁹⁰ Thanks to its geographical advantages, Turkey has the chance to play a strong role in the transit of energy sources and has the potential chance to become an energy market. Although Turkey has very few energy resources on its own, its neighbors are globally the richest energy producing countries. Due to its strategic position, Turkey acts as a type of bridge among Middle Eastern and Caspian energy producers and European consumers.⁹¹

On the other hand, Turkey also faces **great challenges** in terms of **energy security**. Due to the quickly growing economy, Turkey is today one of the fastest growing energy markets in world. Combined with very limited domestic energy resources this high demand for energy implies that the country can only meet one quarter of its total energy demand by domestic supply.⁹² As a consequence, Turkey is import-dependent for about three quarters of its total energy supply, making its dependency ratio even higher than that of the EU.

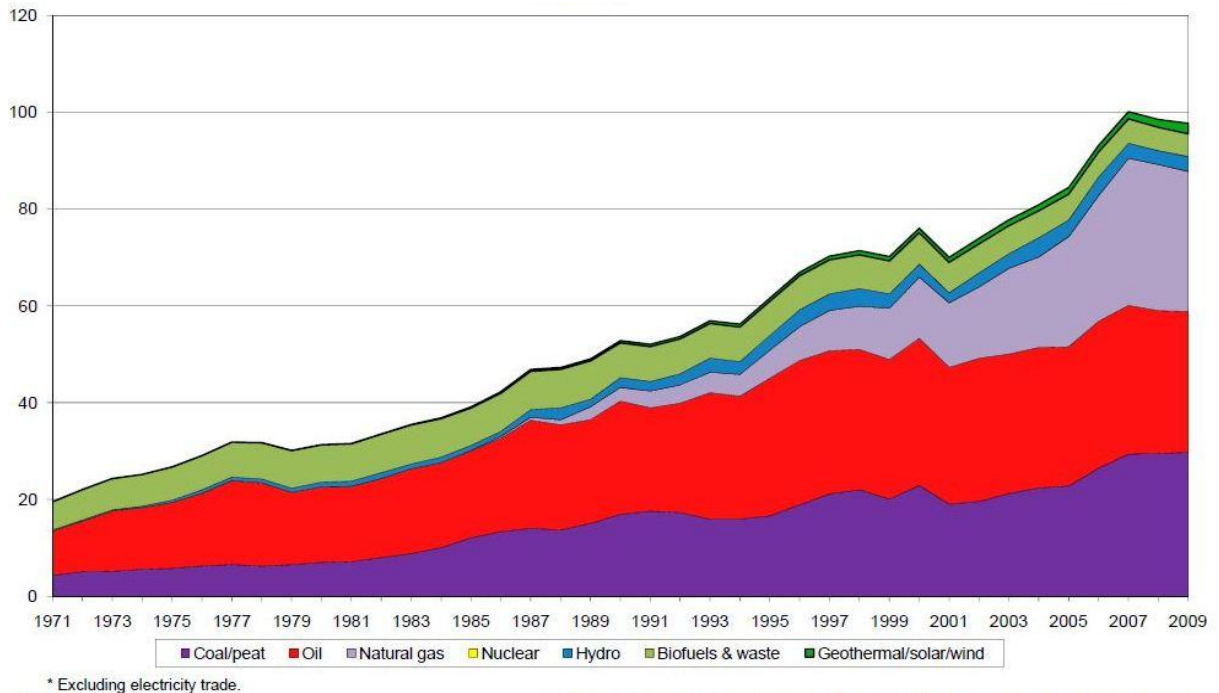
⁸⁹ Misiagiewicz p. 107ff.

⁹⁰ Turkish Ministry of Foreign Affairs. (2011). Turkey's Energy Strategy.

⁹¹ Tekin. A. Walterova. I. (2007). Turkey's Geopolitical Role: The Energy Angle. *Middle East Policy*, 14 (1). p. 84.

⁹² Turkish Ministry of Foreign Affairs. (2011). Turkey's Energy Strategy.

Figure 2.1 Total Primary Energy Supply of Turkey, 1971-2009, in mtoe



Source: International Energy Agency (2011). Accessible Online via:

http://www.iea.org/stats/pdf_graphs/TRTPES.pdf. Access Time: 10.12.2013.

Figure 2.1 shows that **total energy supply** has enormously increased over the last decades, from only 20 mtoe (million tonnes of oil equivalent) in 1971 to 100 mtoe recently, implying a five-fold increase of total energy supply in 35 years. While energy was mainly supplied in the form of oil and coal until the 1990s, natural gas has emerged as one of Turkey's main energy sources over the last decade. Table 2.1 indicates that the share of natural gas in primary energy supply increased from only 5% in 1990 to 30% in 2008, partially replacing oil which declined from 44% of total energy supply in 1990 to 30% in 2008. Furthermore, the overwhelming majority (90%) of Turkey's total energy supply was met by fossil fuels (gas, oil, coal) in recent 2008 and it is expected that this share will still be at 90% in 2020. While this might raise environmental concerns, it makes sense from an energy security perspective, especially given the extremely **high import dependency** for oil and gas.

Table 2.1 Turkey's Total Energy Supply and Shares of Main Sources, 1990-2020

| SUPPLY | 1990 | 2000 | 2008 | 2020 |
|----------------------------|--------------|--------------|--------------|---------------|
| Total Supply (mtoe) | 52.76 | 76.35 | 98.55 | 217.75 |
| Coal | 16.91 | 22.91 | 29.46 | 80.60 |
| Oil | 23.40 | 30.40 | 29.55 | 56.25 |
| Gas | 2.86 | 12.63 | 30.18 | 51.54 |
| Shares (%) | | | | |
| Coal | 32.0 | 30.0 | 29.9 | 37.0 |
| Oil | 44.4 | 39.8 | 30.0 | 25.8 |
| Gas | 5.4 | 16.5 | 30.6 | 23.7 |

Source: IEA Energy Statistics, 2009 data.

Looking at Table 2.2, it becomes clear that the very limited and declining domestic oil production has never achieved to meet the high demand. On the contrary, the oil import-dependency rose from 85% in 1990 to 93% in 2012. This development is even more dramatic for natural gas, where there is no significant domestic production and import-dependency of the rapidly growing demand is close to 100%.

Table 2.2 Turkey - Oil and Natural Gas Key Data, 1990-2012

| Oil | 1990 | 1995 | 2000 | 2005 | 2010 | 2012 |
|--------------------------|-------|-------|-------|-------|-------|-------|
| (kb/d)* | | | | | | |
| Production | 72.5 | 67.7 | 52.8 | 43.5 | 48.3 | 44.9 |
| Demand | 477.0 | 608.3 | 662.8 | 647.5 | 649.8 | 670.3 |
| Net Imports | 404.5 | 540.6 | 610.0 | 604.0 | 601.5 | 625.4 |
| Import Dependency | 84.8% | 88.9% | 92.0% | 93.3% | 92.6% | 93.3% |
| Natural Gas | | | | | | |
| (mcm/y)** | | | | | | |
| Production | 212 | 182 | 639 | 897 | 682 | 632 |
| Demand | 3468 | 7029 | 14835 | 27375 | 38127 | 45254 |
| Net Imports | 3256 | 6847 | 14196 | 26478 | 37445 | 43925 |
| Import Dependency | 93.9% | 97.4% | 95.7% | 96.7% | 98.2% | 98.6% |

Source: IEA. (2013). Oil & Gas Security. Turkey. p. 2. ;

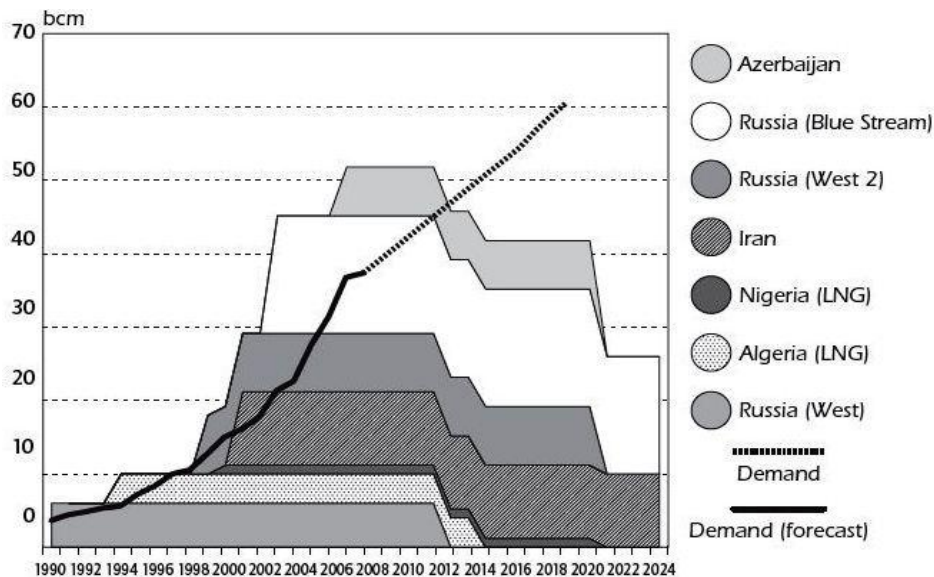
*thousand of barrels per day ; **million cubic meters per year

Taking into account these strong limitations of Turkish energy production and the severe challenges to meet the fast growing demand, it is hardly imaginable that Turkey could play a significant role as an energy hub able to support European energy security. However, as the International Energy Agency (IEA) points out, Turkey made use of its geographic location and successfully engaged in “**energy diplomacy**”, thus creating sufficient energy supplies and pipelines from its neighboring countries to domestic territory. In fact, Turkey has managed to agree on the transport of energy with Russia, Iran, Iraq, Egypt, the Caspian Region (Azerbaijan) and Central Asia (Turkmenistan).⁹³ According to the IEA:

These agreements and the related projects also strengthen Turkey’s role as a transit country, an energy corridor between its neighbouring supplier regions and the European and other international markets. (...) Turkey’s proactive stance benefits both the country itself and the wider international community. The IEA acknowledges the responsibility Turkey has shown in improving global energy security.”⁹⁴

Figure 2.2 shows the results of Turkey’s increasing energy diplomacy for natural gas supply contracts with neighboring countries.

Figure 2.2 Turkey’s Gas Supply Contracts versus Demand, 1990-2024



Source: IEA (2009). Energy Policies of IEA Countries. Turkey 2009 Review. p. 69.

While there were only two **gas supply contracts**, with Russia and Algeria, until the late 1990s, Turkey has enormously increased the number of gas pipeline projects and supply contracts in the 2000s. Although Russia is still by far the single largest supplier, Turkey now has achieved three different major gas pipelines from Russia (West 1 +2 and Blue Stream)

⁹³ IEA. (2009). Energy Policies of IEA Countries. Turkey 2009 Review. p. 8.

⁹⁴ Ibid.

and also concluded such agreements with Azerbaijan, Iran and Nigeria (LNG). While the cumulated volume of these supply contracts was higher than demand in the 2000s, Figure 2.2 indicates that demand is about to outperform supply in the coming years. Hence, Turkey still faces considerable challenges to meet its growing energy demand in the short to medium term.

Turkey's existing or probable **role in gas transit** is more crucial than its current or potential role in oil transport. Turkey can and will probably play an important role for oil pipelines in the regional energy market. However, its role in this regard should be described as significant rather than very important or vital. Because of oil's fungibility, its transport is more flexible than that of gas, especially via sea. Gas, on the other hand, is much more difficult to transport and is therefore more traded and transported on a regional basis. Moreover, as gas is mainly transported via pipelines, it requires a direct physical connection between the supplier and the recipient country, which gives an additional geopolitical dimension to gas transport. Hence, for the supply of gas to the EU Turkey's potential role is much more prominent. In fact, Turkey's aim is to become Europe's fourth main artery of gas supply (after Russia, Norway and Algeria) and Turkey seeks to become an energy focal point in the near future.⁹⁵

Turkey is an energy importer and a big market for regional producers so that its importance is based on its capacity and willingness to improve main transit structures for gas and oil. Thus, it seeks to guarantee hydrocarbon resources to reach European markets via pipelines from the Gulf, Central Asia, and the Caspian region.⁹⁶ Moreover, according to Emre Engür, the deputy head of the firm department of BOTAS⁹⁷, 15% of the gas imports in the EU will be carried through Turkey by 2020.⁹⁸ Thus, the fundamental goal of Turkey is to be a **corridor for the energy imports** of the EU. Finally, from a trans-Atlantic security perspective, Misiagiewicz claims that Turkey continues to be the most suitable preference for an energy transit state towards Europe in proving record as a powerful and trustworthy partner.⁹⁹

On the other hand, recent statistics show that Turkey cannot be an independent country in terms of gas and oil resources. It is essential for Turkey to import from other producing

⁹⁵ Roberts. (2004). p.23.

⁹⁶ Ibid. p. 2

⁹⁷ BOTAS is a state-owned petroleum and natural gas trading company, which had a monopoly on natural gas imports until some years ago.

⁹⁸ Misiagiewicz. p.111.

⁹⁹ Ibid.

states to meet its own increasing energy demand. Therefore, energy security is also a huge issue in Turkey's energy policies. In this respect, **Turkey's problems seem similar to those of the EU**. It is highly dependent on imports, as it has no sufficient energy resources itself. However, it is clear to see that the country's geographic location gives it a position which is very different from that of the EU.

The **European Commissioner for Energy Oettinger** recently pointed out that Turkey is an essential partner for the EU in the field of energy. He also stressed the fact that Turkey is strategically well-positioned between big oil and gas producers. Moreover, it is an important partner in the transportation of energy sources to the EU, according to Oettinger. In his opinion, the EU needs to closely cooperate with energy partner countries offering to create a 'united Europe'.¹⁰⁰

Turkey is seen as a key actor in terms of energy security. According to Olli Rehn who was the Commissioner for Enlargement from 2004-2010,

*"The EU and Turkey share essential strategic interests in security, economy and dialogue of civilizations. That is one of the reasons why the EU decided to open negotiations for membership with Turkey. Energy strategy is an area where both the EU and Turkey can gain from deeper cooperation."*¹⁰¹

Andris Piebalgs who was Energy Commissioner between 2004 and 2009 added that

*"Turkey and the EU both have much to gain from closer energy co-operation. Turkey can help the EU secure its energy supply, while integration into the EU's internal energy market will enable Turkey to build the domestic energy market and infrastructure needed for its rapid economic growth."*¹⁰²

However, the EU struggled with giving a clear message concerning the perspective and the time horizon of the **accession negotiations**. Andris Piebalgs who was Energy Commissioner between 2004 and 2009 showed this clearly in a speech. Referring to the EU's invitation for Turkey to join the European Energy Community, Piebalgs declared that

¹⁰⁰European Commission. (2012). Enhanced EU-Turkey Energy Cooperation. Accessible Online via: http://europa.eu/rapid/press-release_MEMO-12-434_en.htm. Access Time: 01.12.2013.

¹⁰¹Quote from a Press Conference on Turkey-EU Energy Cooperation on 1 June 2007. Accessible Online via: http://europa.eu/rapid/press-release_IP-07-748_en.htm. Access Time: 12.11. 2013.

¹⁰²European Commission. (2007). Press Release. p.4. Accessible Online via: http://europa.eu/rapid/press-release_SPEECH-07-368_en.htm. Access Time: 04.12.2013

“(...) this is a process that of course has nothing to do with the EU accession- the one does not prejudge the other or vice versa – (...) They both stem from the understanding that further cooperation is needed between EU and Turkey in a number of fields.”¹⁰³

Hence, Piebalgs clearly rejected the implicit expectations held by some that closer cooperation in energy policy, possibly followed by an accession of Turkey to the European Energy Community, would also accelerate the EU accession process.

Energy policy puts emphasis on the access to many sources of supply, not least through favorable supply geography. In this context, Turkey can take advantage from its geography. **Turkey’s geopolitical role** naturally increases the importance of gas and oil pipelines through the country. These pipelines generally run along transit routes to Europe, but there are also some other strategic pipelines in north-south direction. In this context, Turkey is advised to strengthen these two axis.¹⁰⁴

Moreover, Turkey signed some important bilateral agreements towards a functional energy strategy and has managed to associate itself to the key energy markets, including the European energy market. The country can improve its economic situation via **energy cooperation** which might lead to a rise in political power in the Greater Caspian Sea (GCS) region. Hence, Turkey can benefit from its geopolitical position not only in trade but also in external policy relations, provided that it can meet the demands and interests of its many partners with a share in its energy transport structure. Hence, Turkey could attain new sources of income as well as regional and even worldwide effect as a key actor in terms of transit supply and the delivery of energy.¹⁰⁵

According to some beliefs, **Turkey could increase EU energy security** if it manages to ensure the effective transit of energy at reasonable prices from the East to Europe via its territory. Although Turkey is not a worldwide vital oil corridor for the EU, it hosts the Baku-Tbilisi-Ceyhan (BTC) crude oil pipeline and this also helps both stabilizing oil prices and enabling Caspian crude oil especially to compete with Russian oil in Europe. However, Turkey’s role is more important when it comes to the supply of gas. The gas of Iran, the

¹⁰³ Ibid.

¹⁰⁴ Kaysı p. 71.

¹⁰⁵ Ozdemir, V. Turkey’s Role in European Energy Security. p.99ff. In: Cornell, S. Nilsson, N. (2008). Europe’s Energy Security: Gazprom’s Dominance and Caspian Supply Alternatives. Central Asia- *Caucasus Institute & Silk Road Studies Program*.

Caspian region, and Central Asia are potentially sufficient to supply Europe via Turkey at acceptable prices.¹⁰⁶

Turkey also plays an important role to transport energy sources from the Russia to the EU via the INOGATE project¹⁰⁷ which supports energy policy collaboration between the EU and its partner states. However, Turkey's most important potential role is to be a **gateway for the EU to diversify its energy supply** by imports from the Caucasus and Caspian Sea region as an alternative to Russian energy resources. Consequently, Turkey is the most suitable transportation road for these resources to the European energy markets.¹⁰⁸ Turkey is has emerged as a main player and a partner of both the US and the EU in the Caspian region. In this regard, Turkey could potentially be a very important partner for the EU in terms of security of energy supply.¹⁰⁹

In conclusion, this section has presented Turkey's potential role as an energy hub for the EU due to its extraordinary geostrategic position. At the same time, the severe challenges that Turkey faces in ensuring its own energy security have been pointed out. Therefore, the question of whether and how exactly Turkey can benefit the EU's energy security remains open. Therefore, more emphasis will be put on how the EU could benefit from Turkey and on important pipeline projects in the following section.

2.4 EU-Turkey Energy Cooperation: Current Tools and Future Prospects

When it comes to **cooperation in the field of energy**, the EU's aim is to increase its relations with Turkey. There was an agreement on bundled measures which promote long term energy cooperation and the requirement to support sustainable energy technologies. Both sides are crucially import-dependent actors which share common strategic problems and goals. There is abundant opportunity for collaboration on matters which are in the interest of both Turkey and the EU.¹¹⁰ According to a joint statement of the EU and Turkey, energy

¹⁰⁶ Tekin. A. Williams. P. (2009). EU-Russian Relations and Turkey's Role as an Energy Corridor. *Routledge European Asia Studies*. 61. p. 349

¹⁰⁷ Veysel. A. (2009). Avrupa'nın Enerji Arz Güvenliğinde Türkiye: Petrol, Doğal Gaz ve Entegrasyon. *Uluslararası İlişkiler*. Cilt 5, Sayı 20. s.163.

¹⁰⁸ The plural form is used intentionally to point out that there is, in fact, no common European energy market at the moment.

¹⁰⁹ Bireysselioğlu p.63.

¹¹⁰ EU-Turkey Sign Energy Agreement (June 2012). Accessible Online via: http://www.upi.com/Business_News/Energy-Resources/2012/06/15/EU-Turkey-sign-energy-agreements/UPI-86211339762286/. Access Time: 01.12.2013.

cooperation will enhance energy security both in the EU and Turkey and generate large economic and commercial opportunities.¹¹¹

In the following, the nature of EU-Turkey energy cooperation is analyzed, notably by presenting important pipeline projects, with a particular focus on natural gas pipelines.

According to Misiagiewicz, the EU should seek to include Turkey in the formation of its energy strategy, both in terms of energy diversification and external policy. The development and a potential reorientation of the EU's energy policy is a big chance for Turkey to ensure that its own energy security also promotes Europe's energy security.¹¹² The chance of Turkey to become the **EU's fourth "energy artery"** depends on the completion and practice of different projects planned to enhance Turkey's own capabilities and to transport gas via its own territory to the EU.¹¹³ With this potential energy supply network, as Europe's "fourth artery" with a reasonable and cost-effective energy transit route, Turkey's role as a geopolitical actor would increase considerably.¹¹⁴

According to Mehmet Efe, Turkey could even be a main transit route for North African and Middle Eastern energy resources. Geographically, Turkey is a **natural energy bridge** between the major oil and gas producing countries (Russia, Caspian Region, Middle East, and North Africa) and Europe. However, Turkey does not possess large energy resources of its own and therefore, its only potentially important role can be that of a major energy transit country. Energy supply security in the EU would certainly be contributed to by the main pipeline plans which are either realized or still under construction. These plans of course promote Turkey's role as a gateway state and energy hub in the region.¹¹⁵

Turkey is a signatory of the **Energy Charter Treaty** of 1994 which sets out a framework of common rules for energy trade and investment that all contracting parties have to adhere to. The main aim of the Energy Charter Treaty was to reduce risks concerning energy-related investments and trade.¹¹⁶ Moreover, Turkey is an observer country to the Treaty Establishing an Energy Community with South Eastern Europe and signatory of a Memorandum of Understanding preparing the Energy Community. In this regard, both

¹¹¹ Ibid.

¹¹² Misiagiewicz. p. 110.

¹¹³ Roberts. p. 20.

¹¹⁴ Ozdemir V. (2008). p.104.

¹¹⁵ Bireysellioglu. p. 82.

¹¹⁶ Cf. European Energy Charter: <http://www.encharter.org/index.php?id=7>. Access Time: 05.01.2014.

Turkey and the EU have an interest to develop energy relations towards an energy pact with the goal of closer integration of these areas.¹¹⁷

In the following, Turkey's **most important existing pipelines and pipeline projects** are presented. Figure 2.3 shows Turkey's natural gas pipeline system.

Figure 2.3 Natural Gas Pipeline System of Turkey



Source: IEA (2013). Oil & Gas Security – Emergency Response of IEA Countries. Turkey. p. 17.

The map illustrates the large pipeline system that Turkey has developed and also indicates the volume of the incoming gas pipelines in billion cubic meters (bcm). It shows that there are incoming gas pipelines via the Black Sea from Russia (16 bcm), via Bulgaria (14 bcm), via Georgia (6.6 bcm), and from Iran (10 bcm). Furthermore, there are two LNG import terminals which together provide additional 11 bcm of LNG. It is clearly visible on the map that the natural gas grid is widely spread across the country. Moreover, there is already one pipeline to Greece that connects Turkey to the EU. The main project under construction is the Nabucco pipeline running from the gas-rich Azerbaijan via Turkey to Europe. As it will be explained further below, the Nabucco project has failed meanwhile, but the pipeline bringing Azeri gas to Europe via Turkey will be built via a similar route under the name of Trans-Anatolian gas pipeline (TANAP).

¹¹⁷ Bireysellioglu. p. 82.

Transportation of gas is principally achieved by two ways, namely through pipelines or as liquefied natural gas (LNG). Pipelines are the more usual transportation system in the context of Turkey and the EU, as LNG is a technically much more demanding means of transport. However, this is clearly influenced by the capacity or willingness of the EU to enhance LNG imports. LNG represents a considerably competitive option especially over distances of 3000 km or more, as this is the distance at which LNG transport becomes usually cheaper than pipeline transport.¹¹⁸

The currently largest pipeline in terms of volume and a major source of gas for Turkey's own increasing energy demand is the **Blue Stream pipeline** project, transporting Russian gas via the Black Sea to Turkey. In terms of Turkey-EU relations, however, this pipeline has not been supportive, rather the opposite. In fact, experts have seen the conclusion of this pipeline as a major geopolitical success of Gazprom which at the time, in the late 1990s, was not such a big player as it is today. It was a great success for Gazprom because with the decision to build Blue-Stream in the Black Sea alternative projects, such as a Trans-Caspian gas pipeline bringing gas of Turkmenistan to Turkey and possibly to Europe, were crowded out.¹¹⁹

On the other hand, there are Turkish pipeline projects with its other neighboring countries, which are of major interest for the EU. For example, both the BTC (Baku-Tbilisi-Ceyhan) and BTE (Baku-Tbilisi-Erzurum) pipelines, which transport oil and gas from Azerbaijan, are of interest for the EU concerning alternative energy sources. Since the **Caucasus and Caspian region** are very important both for their energy sources and their strategic significance, **Turkey's role as a gateway** into the region for the EU is certainly important. Because of Turkey's ethnic, cultural and historical roots in the region, it could be considered as a gateway for the EU, as it would not only serve as a transit route but also be beneficial for the current geopolitical strategy in the region. In this regard, Turkey plays two roles in the region. Firstly, it could potentially balance European and Russian interests and, secondly, it might also make a large contribution to the Greater Caspian Sea (GCS) regional energy policy. As a transit country, Turkey already became an important actor in the GCS region. Given that the EU wants to diversify its energy resources, Turkey seeks to become

¹¹⁸ Roberts. p.5.

¹¹⁹ Socor.V. (2009). Gazprom, Turkey Revive and Reconfigure Blue Stream Two. *Eurasia Daily Monitor*. 6 (154).

part of an integral energy market, particularly with the eastern Mediterranean. In this regard, Turkey has the strategic role of controlling the energy transport routes.¹²⁰

The Baku-Tbilisi Ceyhan (**BTC**) **oil pipeline** was the first element of the East-West Energy Corridor, and Turkey's first step to become an energy hub in the region, which has been finalized in 2006. BTC has the maximum capacity of transporting 1 million barrels of oil per day, and is one of the longest of its type in the world (1760 km). Since its start in 2006 until October 2012, more than 1.5 billion barrels of Azeri oil were carried from Ceyhan and transferred to international markets.¹²¹ The second element of the East-West Energy Corridor is the **South Caucasus (BTE) natural gas pipeline**, running in parallel to the BTC oil pipeline. The BTE, which became operational in 2007, carries gas from the Shah Deniz via Georgia to Turkey and has the transport capacity of 6.6 bcm gas per year.

There are three reasons why the construction of the **BTC** and **BTE** pipelines were very important for Turkey. Firstly, the contribution to the transportation of the Caspian energy resources strengthens Turkey's role in the region both economically and politically. In fact, these pipeline projects have caused a major rise of the geostrategic importance of the former Soviet satellite states of the South Caucasus and the Caspian region.¹²² Secondly, Turkey would like to create better relations with Turkic countries so that joint pipelines are an effective method of ensuring stronger cooperation. Thirdly, the Turkish private and state industries are revived economically due to the pipeline projects and the Mediterranean port of Ceyhan becomes a strategically important energy hub in the region.¹²³

Moreover, the South Caucasus pipeline also contributes to **European energy security** and the dependency of the Caspian basin on Russia diminished. Furthermore, the extension of the South Caucasus pipeline project is planned enhance the current transport capacity to 25bcm until 2016. This project will most likely be the major transit for Caspian gas to Turkey and Georgia and via Turkey also to the European markets.¹²⁴

In this context, Turkey supports the planned **Southern Gas Corridor project**, meant to bring Caspian gas to Europe, passing Turkish territory.¹²⁵ The EU currently has three main

¹²⁰ Ibid. p.87ff.

¹²¹ Ministry of Foreign Affairs of Turkey. (2012). Turkey's Energy Strategy. Accessible Online via: <http://www.mfa.gov.tr/turkeys-energy-strategy.en.mfa>. Access Time: 04.12.2013.

¹²² Cornell.S.E. et. al. (2005). Geostrategic Implications of the Baku-Tbilisi-Ceyhan Pipeline. p. 17ff.

¹²³ Misiagiewicz p. 116.

¹²⁴ Kaysı p. 74.

¹²⁵ Jarchalova. N. (2013). Turkey's Energy Policy Towards Becoming an Energy Hub: Internal and External Challenges. *Research Turkey*. p.116.

natural gas “arteries”, namely Russia in the East, Norway in the North, and Algeria in the West. To complement and to diversify its supply, the EU plans the Southern Gas Corridor as the “fourth artery”. There are currently three pipeline projects which together will establish the main part of the Southern Gas Corridor. Firstly, starting from the Shah Deniz natural gas field in the Caspian Sea (Azerbaijan), the South Caucasus Pipeline (**SCP**) will be an extension of the already existing BTE pipeline (to Erzurum in Turkey), significantly increasing its transport capacity. Secondly, fed by the South Caucasus Pipeline, the Trans-Anatolian Pipeline (**TANAP**) is planned to cover all the way (2000km) from the Georgian-Turkish Border to the Turkish-Greek border. Here, thirdly, it would connect to the Trans-Adriatic Pipeline (**TAP**), which is planned to run across Greece and Albania, through the Adriatic Sea, to Italy. All in all, this Southern Gas Corridor project is estimated to cost around \$ 45 billion and it thereby is one of the largest energy projects globally. In January 2014, the different consortiums¹²⁶ financing these projects approved the overall investment plan, so that construction can proceed.¹²⁷

In this respect, the EU should put emphasis on these projects and understand them as EU key projects due to their high strategic and economic potential.

Compared to these future projects, the two most important pipeline projects of the last decade between the EU and Turkey were the **Nabucco** and **ITGI** (Interconnector Turkey-Greece-Italy) projects which were both considered as TEN-E (Trans-European Network) key projects. While the failure of the Nabucco project was acknowledged in 2013¹²⁸, ITGI was already partly completed in 2007. While the Turkey-Greece part of the pipeline is in operation since 2007, the Greece-Italy part is still a project and its destiny uncertain due to the success of the rival Trans-Adriatic pipeline.¹²⁹

The **Nabucco** pipeline project was meant to become a big step to reduce the EU’s energy dependency on Russia. The aim of Nabucco was to carry gas from the Central Asian and Caspian regions to Europe via Turkey, Bulgaria, Romania, Hungary and Austria. Nabucco was one of the most crucial projects with the potential to guarantee Turkey to become the major export route for gas to Europe. However, this project turned out to be

¹²⁶ Including the Azerbaijan State Oil Company (SOCAR), BP, Statoil (Norway), Total (France), Lukoil (Russia), National Iranian Oil Company, and Turkish Petroleum.

¹²⁷ Socor.V. (2014). SCP, TANAP, TAP: Segments of the Southern Gas Corridor to Europe. *Eurasia Daily Monitor*. 11 (8).

¹²⁸ Energy Post (27.06.2013). End of Nabucco – End of Southern Gas Corridor? Accessible Online via: <http://www.energypost.eu/end-of-nabucco-end-of-southern-gas-corridor/>. Access Time: 13.12.2013.

¹²⁹ Natural Gas Europe (20.02.2012). ITGI loses out to TAP in Shah Deniz Bid. Accessible Online via: <http://www.naturalgaseurope.com/itgi-dropped-from-southern-corridor-race>. Access Time: 15.12.2013.

unsuccessful in the end. On 28 June 2013, the Austrian shareholder in the Nabucco plan declared that Nabucco had collapsed. The BP-led Shah Deniz II consortium had decided to choose the competing **Trans-Adriatic Pipeline (TAP)** project which also seeks to transport Azeri gas to Europe. However, it will carry the gas only to Southern Europe and not directly run to Central Europe as Nabucco would have done.¹³⁰

Given the apparent failure of complete (Nabucco) or of parts of important pipeline projects (ITGI), these are clearly **challenges for Turkey to become an energy hub**. Of course, major pipelines such as the planned TANAP will run via Turkish territory, but the role of the Turkish side as a shareholder in these projects is minor. Moreover, not only the competition among various pipeline projects approved by Turkey, but also the political imbalances in the region and domestic instabilities can pose problems. The whole process can be withheld or delayed by these hindrances together with other geopolitical forces and the strategic interests of other regional players. Firstly, although the projects promoted by Turkey have the potential to improve European energy security, they are competing with each other. Secondly, it could be argued that Turkey cannot attain its objective of becoming an energy gateway without the successful completion of all or most of them. For example, the Southern Energy Corridor project can only succeed if all included pipelines are actually built.

There are **more challenges for Turkey**. First of all, Turkey's changing policy and confusion among the shareholders contributed to the failure of the Nabucco project and it was replaced by TANAP (Trans-Anatolian Pipeline) and TAP (Trans-Adriatic Pipeline). One view is that Turkey is now far away from becoming an important energy gateway with the **failure of the Nabucco project**. As Okumuş argues, the fact that the failure of Nabucco and the new deal for TANAP and TAP was not decided by governments, but by the shareholders of these projects, i.e. the large energy groups, is a severe failure of Turkey and other transit countries to determine the rules of the game. This could also have negative consequences on Turkey's future role and its negotiating power as a transit country¹³¹

Secondly, there is still **political distress** in the South East of Turkey. In 1996, the militant PKK's leader, Abdullah Öcalan, declared aggressively that no pipeline from the Caspian through the Turkish South East region would be tolerated.¹³² The situation in the region is unclear after the current negotiation process in progress, however this region is

¹³⁰ Energy Post (27.06.2013).

¹³¹ Okumuş. O. (02.07.2013). What did Turkey lose when EU lost Nabucco? Al-Monitor.

¹³² Hill. F. (2004). *Caspian Conundrum: Pipelines and Energy Networks*. In: Martin, Lenore Gikeridis, Dimitris (eds.). *The Future of Turkish Foreign Policy*. Cambridge, MA. The MIT Press. p.232.

expected to remain instable. The outside factors such as the Caspian region and the Middle East are very unsteady as well so that the energy supply which Turkey relies on and would like to use for transit to European countries is potentially instable and volatile. Further problems arise from the ethnic disputes in the Caucasus region. The energy transfer via the extremely volatile regions such as the Caucasus remains an important security challenge.

Thirdly, **Russia and Iran** naturally have interest in the Caucasus and the Middle East as well. Russia has political force on Turkmenistan and Kazakhstan, since it endeavors to buy energy resources of these regions so as to stop the Caspian gas to be carried to European countries. Both Russia and Iran have not authorized the infrastructure of any seabed pipeline project in the Caspian region. Finally, the development of natural gas projects such as Egypt-Turkey and Iraq-Turkey is correlated with stability in the region. On the other hand, because of the insecure and **instable situation in the region**, projects are unprotected to physical intervention and the achievement of pipeline networks is therefore restricted. For example, Iraq is a good alternative for the diversification of European energy supply and, knowing this, Turkey started negotiations with the Iraqi government on a framework. However, although today Turkey expects to accelerate the project, it could not be initiated in the past because of the UN economic sanctions on Iraq.¹³³

Turkey's Prime Minister Erdogan once claimed that *"if we are faced with a situation where the energy chapter is blocked, we would of course review our position on Nabucco"*.¹³⁴ Hence, for Turkey there seems to be a **direct political connection between important pipeline projects and Turkey's external policy objective** of joining the EU. In this regard, Turkey expects that it could benefit from the transit of energy as a tool to obtain political power regarding its relations with the EU. These projects indicate that Turkey makes efforts to become an energy hub, meaning that the country turns into a strategic energy delivery center.¹³⁵ Both the expected and completed projects will increase Turkey's role for the delivery and transit of energy, but not essentially in the same way. In theory, Turkey gains a strategic importance through the problems of European energy supply security. However, although Turkey is currently seen as a potential main transit route for European energy demand, it is still not a real energy hub. As outlined above, there are still considerable problems which occur from both the suppliers and the EU on Turkey's way towards becoming an energy hub for the EU, let alone a possible membership.

¹³³ Winrow. p. 220ff.

¹³⁴ EU Observer. (2009). Turkey may Rethink Nabucco If EU Talks Stall. Accessible Online via: <http://euobserver.com/enlargement/27431>. Access Time: 01.12.2013.

¹³⁵ Jarchalova p.15ff.

Nonetheless, many energy pipeline projects, expected or completed, indicate that Turkey has a growing importance for European energy security. Given the problems discussed, it could be argued that Turkey is currently an **immature energy hub** and this situation might affect its accession relations with the EU in the future. It may be true that Turkey's geostrategic location gives it a significant benefit in its current effort for the EU membership; however, there are also many challenging conditions and everything depends on whether the EU gives the same importance to energy matters in the accession process or not.¹³⁶

On the other hand, there also other **factors negatively influencing the cooperation**. Turkey's strategic role depends on becoming an energy hub and therefore on the interests of the energy suppliers and importers. Another problem arising from the EU is that it has 28 different member states having individual opinions and approaches to collective action. Not every member state promotes the same policy instruments to handle the issue of energy security. Some states promote improving relations with Russia leading to a decrease in Turkey's significance, while many other countries promote reducing dependency on Russia and concentrating on energy differentiation. In fact, the way energy security is perceived can vary significantly from country to country and depends on geographical location as well as on the individual energy mix of member states.¹³⁷

According to the **EU Accession Partnership Documents** of 2001 and 2003, short and medium term goals were prepared to approve the energy acquis. Moreover, the last Partnership Document highlights the importance to complete the alignment of national legislation with the acquis and to support Turkey's fulfilment of common interest plans in the Trans-European Networks. In the 2004 Progress Report, energy security issues were discussed in detail for the first time. Accordingly, the Commission concluded that "*Turkey will play a pivotal role in diversifying resources and routes for oil and gas transit from neighboring countries to the EU*"¹³⁸.

After that, with the 2006 and 2007 Progress Reports the **Trans-European Networks** project became a central issue. It was also stated that the Nabucco project was among the key projects of the EU and Turkey should follow attempts to promote it. The report on TENs specified that:

¹³⁶ Bacık. G. (2006). *Turkey and Pipeline Politics*. Turkish Studies 7(2).

¹³⁷ Grevi. G. p. 2.

¹³⁸ European Commission. COM (2004). 1201. Regular Report on Turkey's Progress towards Accession. p. 117

*“TEN-E respond to the growing importance for securing and diversifying the Community’s energy supplies, incorporating the energy networks of the member states and candidate countries, and ensuring the coordinated operation of the energy networks in the Community and in neighboring countries.”*¹³⁹

The **Progress Report on Turkey** of 2004 included a detailed examination of energy matters. This report specified that Turkey reinforced its situation as an energy transit state for natural gas from Russia, the Middle East and the Caspian region, including the improvement of common interests’ plans. According to the 2006 Progress Report, the Nabucco project was amongst the essential projects of the EU-Turkey energy cooperation. In the 2007 Progress Report, Nabucco is seen as one of the TEN-Energy Projects of major European interests. The 2009 Progress Report, finally, argued that Turkey should sign the intergovernmental agreement on Nabucco.¹⁴⁰

From today’s perspective, the **2013 Progress Report** stated the importance of Turkey’s strategic location for energy security matters and that *“The ratification of an intergovernmental agreement on the Trans-Anatolian Pipeline Project (TANAP) between Turkey and Azerbaijan was an important contribution to the goal of promoting greater European energy security (...).”*¹⁴¹ In this respect, the report emphasizes the importance of ongoing EU-Turkey cooperation in the field of energy.¹⁴²

A final but crucial problem ahead of Turkey’s becoming an energy hub exists in the energy supply **contracts that forbid Turkey to re-export** gas to third states. This implies that Turkey can only be an important transit country, and even for this role major pipeline projects would have to be successfully completed, but not an active country in the export of energy itself.¹⁴³

This chapter has outlined the various elements of current and potential future EU-Turkey energy cooperation. It has been shown that the main instruments in this regard, next to important treaties and legal agreements that have been signed, are gas and oil pipeline projects. While some have been successfully completed and other promising projects, such as TANAP, are about to be constructed, other major projects like Nabucco have failed. In view

¹³⁹ European Commission. (2007). Screening Report Turkey. Trans-European Networks. p.2. Accessible Online via: http://ec.europa.eu/enlargement/pdf/turkey/screening_reports/screening_report_21_tr_internet_en.pdf. Access Time: 01.12.2013.

¹⁴⁰ Tekin. A. Walterova. I. (2007). p. 14

¹⁴¹ European Commission (2013). Turkey – 2013 Progress Report. p. 3.

¹⁴² Ibid. p. 5.

¹⁴³ Marin-Quemada. et al. p. 93.

of the many problems that Turkey still faces in this regard, it seems for the moment hardly possible for Turkey to become a veritable energy hub. It remains to be seen to what extent Turkey can take over such a role in the future.

The following and final chapter of this thesis investigates whether there is a relation between the vital aspect of energy security, notably EU-Turkey relations in this field, and the Turkish accession process in general.

2.5 The relation of Turkey's Potential EU Membership and EU Energy Security

Since the 1960s, Turkey and the former European Communities which subsequently became the EU have longstanding relations, ever since Turkey had initially applied for membership in 1959 and a first legal agreement was signed in 1963. From that time onwards, Turkey has been endeavoring to become a member of the European Community/Union and therefore to meet the European criteria. In 1999, Turkey finally became an official candidate for accession to the EU and opened accession negotiations with the EU in 2005.¹⁴⁴ Given **more than half a century of negotiations**, it seems that Turkey's way towards the EU membership is a long term process for which it is extremely difficult to estimate when it could come to an end.

Each candidate country has to meet the explicitly defined European criteria covered in the "acquis communautaire". However, it seems that for Turkey there are even supplementary, invisible and unofficial criteria. Despite the fact that the EU started to put more emphasis on diversifying energy transit routes, including Turkey, the EU has still not considered Turkey in terms of energy policy in the **official accession negotiations**, since the energy chapter has been blocked. Some argue that, if Turkey became a member of the EU, it could help to ensure the EU's energy diversification and security, and thereby potentially make Europe an economically much more credible actor. Turkey could be an important actor with regard to diversifying energy sources and transit routes from its neighbors to the EU. In this regard, both Turkey and the EU would benefit from closer cooperation in energy policy.¹⁴⁵

As explained in part 3B, Turkey's main transit potential to transport the energy resources of Russia, Iran and the Caspian region, gives it a geostrategic position towards the EU. In the past, this was also acknowledged by the European Institutions, notably by the

¹⁴⁴ Cini, Michelle. (2003). *European Union Politics*. New York: Oxford University Press. p. 415.

¹⁴⁵ European Commission. (2004). *2004 Regular Report on Turkey's Progress towards Accession*. p.116.

European Parliament.¹⁴⁶ According to Misiagiewicz, Turkey could offer an **opportunity regarding European energy security** via energy transit and thus Turkey could use this as a bargaining power with respect to the accession process. Both sides could take advantage of increasing energy cooperation. While the EU could obtain a reliable alternative supply transit, Turkey could get the political benefits for being a crucial transit country and other energy-connected profits. In this respect, Turkey would have a better chance to show that it has a lot to offer to the EU.¹⁴⁷

However, as Taner Yıldız points out, Turkey has not even started the official negotiations on the **energy chapter** with the EU, as this chapter is blocked because of the conflict with Cyprus. Turkey has made many efforts, e.g. it has signed important energy contracts which also benefit the EU. Thus, Turkey has more practically advanced in the energy cooperation even without official negotiations. Despite this fact, the energy chapter has not been opened until today.¹⁴⁸

Concerning **energy security** matters **within the Turkish accession procedure**, official EU documents use cautious language. However, the Commission prepared documents and reports from 2006 onwards which seem to give more importance to the significance of Turkey in terms of supporting EU energy policy goals. In 2007, a conference was organized in İstanbul which considered the joint challenges and opportunities for both the EU and Turkey concerning energy matters. The mutual declaration of Commission and Turkish leaders stressed the significance of strategic collaboration and taking advantage of Turkey's geostrategic position in improving the EU's energy security.¹⁴⁹

The aims of **Turkey's energy strategy** are multiple. Aside from generating incomes from carrying energy to Europe, Turkey would like to become more powerful in the region by using energy as a political tool and, at least in the past, one of its main aims was to speed up its EU accession process by opening the energy chapter in the accession talks. Because of its geostrategic position, Turkey has the potential to be an important factor for the European energy security. Using this chance, Turkey has a strong ambition of becoming an energy hub. However, Turkey's energy strategy can pose some significant internal and external challenges

¹⁴⁶ European Parliament. (2006). EU-Turkey relations in the field of energy. Policy Department Note. P.3. Accessible Online via: http://www.europarl.europa.eu/meetdocs/2004_2009/documents/fd/d-tr20060425_06/d-tr20060425_06en.pdf. Access Time: 26.11.2013.

¹⁴⁷ Misiagiewicz p.110ff.

¹⁴⁸ Kurtaran. G. (2012). Hurriyet Daily News. Turkey Vital for Energy, EU Commissioner Says. Accessible Online via: <http://www.hurriyetdailynews.com/turkey-vital-for-energy-eu-commissioner-says.aspx?pageID=238&nid=13451>. Access Time: 01.12.2013.

¹⁴⁹ Baran. Z. *Developing a Cohesive EU Approach to Energy Security*. (2008). p.166.

because it is not entirely consistent, as Turkey promotes challenging projects and faces quickly growing domestic energy demand at the same time.¹⁵⁰ In fact, Turkey does not dispose of sufficient energy reserves to meet its own demand and thus it seems difficult to imagine that Turkey could significantly improve the EU's energy supply security. It is predicted that Turkey's own energy dependency will reach 76% in 2020 and will thus be considerably higher than the EU's. On the other hand, it controls major energy transit corridors which could, under some circumstances, be nearly as vital as domination of energy supplies themselves. Hence, some argue that Turkey is potentially capable of being as essential as energy producing countries both politically and economically given its central location.¹⁵¹

Some **other factors** should also be taken into account. The European Parliament specified that Turkey's geostrategic importance matters for EU-Turkey relations in the field of energy and that it may have a significant impact on Turkey's possible EU membership and better relations in general. However, Turkey's importance could be reduced significantly if **Russia** gave its consent to the European Energy Charter as well and if **Middle Eastern** states started to export their gas by carrying it as LNG. Furthermore, it can also not be taken for granted that Turkey will become an energy hub in the short or medium term. However, this aim definitely led to a greater awareness of energy relations among Turkey and the EU that could benefit from a possible energy corridor which may help to reduce the energy dependency on Russia and the related transit states.¹⁵²

Another important part of EU-Turkey energy cooperation is that Turkey has observer status in the South-East Europe **Energy Community Treaty**,¹⁵³ which was signed in Athens in 2005 between the EU and nine South-East European countries. The treaty sets out the establishment of a legal framework for the creation of a united energy market and a common regulatory framework for energy trade. Turkey is not a signatory yet, but it has signed the Memorandum of understanding preparing the treaty in 2005 and participates in the regional energy market since then.¹⁵⁴ Thus, it could be argued that Turkey integrates and advances in terms of economic cooperation and could come closer to EU membership. However, as

¹⁵⁰ Jarchalova. p. 15ff.

¹⁵¹ Tekin A. et al. (2007). p.84.

¹⁵² European Parliament. (2006). EU-Turkey Relations in the Field of Energy. p.3ff.

¹⁵³ For an overview of the contracting parties see: http://www.energy-community.org/portal/page/portal/ENC_HOME/MEMBERS. Access Time: 10.01.2014.

¹⁵⁴ Deitz. L et. al. (2007). The Energy Community of South East Europe. Challenges of, and Obstacles to, Europeanisation. Center for Competition Policy Working Paper 08-4. p.3. Available Online via: http://www.uea.ac.uk/polopoly_fs/1.104657!ccp08-4.pdf. Access Time: 01.12.2013.

Barysch pointed out, in reality this has not significantly changed the ongoing negotiations on Turkey's EU accession.¹⁵⁵

On the other hand, there are some **arguments which may support Turkish EU membership**. Firstly, Turkey is geographically more and more perceived as a main transit country and co-supplier for the expected key increases in the EU energy demand. Secondly, a number of gas firms in Southern, Central and South Eastern Europe are working on routes to carry gas from the Middle East and the Caspian Region to European markets via profitable pipeline systems passing through the Balkans and Turkey. Thirdly, the emergence of Turkey as a gateway can support European energy security while diversifying supply routes at the same time.¹⁵⁶

Turkey approved many pipelines with which it could potentially also improve the EU's energy security. The Turkish Ministry of Foreign Affairs specified that "*Turkey's objective is to become Europe's fourth main artery of energy supply following Norway, Russia and Algeria*", which "*will open a new avenue for cooperation between Turkey and the EU*".¹⁵⁷ At that time, the government believed that these projects through its territory would put it in a good position concerning its relations with the EU, not least to argue for other issues in its favor. A further consideration was that an opening of the energy chapter would imply a breakthrough in the dialogues with the EU on Turkey's accession to the Energy Community. For example, during the Nabucco negotiations, Turkey clearly stated that it had joined the project with the perspective to achieve progress on the energy chapter and in the accession negotiations overall.¹⁵⁸

In order to **critically evaluate** the progress of Turkey's ambition to become an energy hub it is necessary to define **the concept of energy hub**. The argumentation so far may have seemed contradictory, sometimes arguing in favor, sometimes against Turkey being or becoming an energy hub. However, as Roberts points out, there are many arguments speaking in favor of Turkey becoming one of the world's most significant energy hubs, but at the same time, Turkey might completely fail to do so because of its attitude towards the concept of energy hub.¹⁵⁹ According to Roberts, there are different understandings of what an energy hub

¹⁵⁵ Barysch, K. (2007a). Turkey's Role in European Energy Security. Centre for European Reform. UK. p. 1ff.

¹⁵⁶ Roberts. p.24.

¹⁵⁷ Turkish Ministry of Foreign Affairs (2009). Turkey's Energy Strategy. p.6. Available online via: <http://www.mfa.gov.tr/data/DISPOLITIKA/EnerjiPolitikasi/Turkey%27s%20Energy%20Strategy%20%28Ocak%202009%29.pdf>. Access Time: 28.11.2013.

¹⁵⁸ Jarchalova. p.15ff.

¹⁵⁹ Roberts, J. (2010). Turkey as a Regional Energy Hub. *Insight Turkey*. 12 (3), p. 39.

actually is. For example, if the concept of energy hub simply refers to a transportation hub, i.e. a crossroad of many different energy transit routes, then Turkey definitely is a major energy hub already now and it has enormous potential, with major gas and oil reserves in all its neighboring countries, to become an even more important hub. However, Roberts argues that the simple transit of energy does not make an energy hub, because that way many countries that serve as energy transit routes would fall into this category, including Greece, Bulgaria and Italy. A real energy hub, according to Roberts, is not only a transit place but rather a trading place, where energy is bought and sold. As Roberts puts it: “*A true hub is indeed a trading hub; an arena in which, ideally, multiple suppliers meet multiple customers in an open, transparent marketplace*”.¹⁶⁰

In this regard, Roberts states that Turkey would be in need of a major market liberalization in order to allow transparency and free trading and pricing of energy, but that Turkey is still far away from achieving that. This is problematic because producer countries somewhat mistrust Turkey in the sense that they do not accept the Turkish desire to act as a politically controlled energy hub which buys and resells energy at fixed prices with a fixed profit margin. Instead of facilitating energy trade, Turkey rather seeks to control it. If Turkey does not change this attitude towards a more transparent, market-based approach, Roberts believes that it cannot become a true energy-trading hub.¹⁶¹

When it comes to the **influence of the state in energy relations**, there seem to be opposing views. Comparing Roberts’ plead for less state control and more market freedom to Okumuş’ concerns about Turkey losing control over energy transit decisions, these are clearly conflicting positions. As discussed above, Okumuş argued that the failure of Nabucco, decided by the energy companies who were the major stakeholders of the project, represented a missed chance for Turkey to define the rules of the energy transit game. Roberts, in contrast, argues that Turkey should cease to seek control over these issues. However, there might be a way forward to reconcile these opposing views. If Turkey considerably liberalized the energy market, like Roberts demanded, and this really turned Turkey into a major energy-trading hub as a consequence, then Turkey could once again play a major role in defining the rules of the game. Of course, in that case it would not be by direct state control anymore, but rather indirectly by letting market forces work. However, this reasoning is built upon many assumptions, not least on the belief that market liberalization brings the desired benefits.

¹⁶⁰ Ibid. p. 43.

¹⁶¹ Ibid. p. 47f.

There are certainly counterexamples which raise doubts about the efficiency of market liberalization, but such a discussion would go far beyond the topic of this thesis.

As it is known **from today's perspective**, many hopes and ambitions of the Turkish side did not materialize. As of 2014, roughly 15 years after Turkey became an official candidate for accession, the energy chapter as well as many other chapters are still blocked and there seems to be little momentum for a potential breakthrough in accession negotiations. Moreover, the Turkish ambition of becoming an energy hub for the EU was only partially achieved until today, not least due to the failure of the Nabucco Project in 2013. Moreover, it is well known from the public discourse that some member states, notably Germany and France, had changed their position on a potential Turkish membership with the change to conservative governments in the mid-2000s. Given that the European Council needs to decide about enlargement issues unanimously, the fact that the two largest EU member states officially express their opposition to Turkish membership, at least in the short to medium term, does not much leave hope for the Turkish side at the moment. In this respect, the EU has certainly lost much of its appeal for the Turkish side, so that the EU's leverage for demanding reforms in Turkey is also significantly declining.

Since it is difficult to obtain an objective perspective from either the EU or the Turkish side, an **analytical outside view on the Turkish accession process** is very helpful in order to make a critical assessment. In August 2013, an investigative report on the current status of Turkish accession negotiations was prepared for the US Congress. The report notes that from 2012 to 2013, the accession negotiations had nearly come to a standstill and that no progress was achieved on any of the open accession chapters. Despite considerable reforms and progress on the Turkish side in the beginning of the accession process, the latter was not advancing significantly, then was nearly brought to a hold with the conflict over Cyprus and remains very slowly moving until today.¹⁶² When it comes to cooperation in the field of energy security, according to the US Congress assessment,

“Turkey’s role as an important energy hub and transit region for European energy supply diversification continues to grow as was recently seen with the decision to construct the Trans-Adriatic Pipeline (TAP) (...).”¹⁶³

The report further states that

“Clearly, the EU can benefit from Turkey’s position as an economic partner and as a key regional actor with respect to the greater Middle East, and that Turkey will continue to play a growing

¹⁶² Morelli, V. L. (2013). European Union Enlargement: A Status Report on Turkey's Accession Negotiations. CRS Report for Congress. Congressional Research Service. p. 13ff.

¹⁶³ Ibid. p. 14.

*energy role for Europe as a gateway to the Caspian and Central Asian oil and gas supply system.*¹⁶⁴

However, despite this acknowledgement of Turkey's importance the report also stresses the fact that energy and foreign policy issues cover only three of the 35 chapters that Turkey has to negotiate with the EU, so that the influence on the accession process is very limited.¹⁶⁵

In conclusion, it can be said that, regardless of whether Turkey already is a real or still an immature energy hub, Turkey's importance for the EU in terms of energy security is clearly visible and set to grow in the future. However, the relevance of these strategically very important issues for the EU accession process seems very limited. After all, taking into account all the problems and issues discussed above, it seems extremely unlikely today that Turkey can join the EU any time soon. What these results mean in terms of evaluation for this thesis is discussed in the Conclusion.

¹⁶⁴ Ibid. p. 16.

¹⁶⁵ Ibid.

CONCLUSION

As of today, there is only little momentum between Turkey and the EU concerning the negotiations of Turkey's accession. Although the opening of the chapter on regional policy in June 2013, after 3 years of standstill in the accession talks, might revive the stagnant accession process, there seems not much progress to be expected overall. When it comes to energy security and EU-Turkey relations in this field, the results of this thesis concerning the accession process are rather on the negative side. The following section provides a summary of the results found in this thesis as well as a critical assessment of the hypothesis and the assumptions behind, so as to be able to make a final concluding statement.

The first part of this thesis has clearly pointed to the structural weaknesses that the EU faces in the field of energy supply (2A). Domestic energy sources are very limited, so that the EU's import-dependency is set to increase despite any efforts to foster renewable energy in the long run. Hence, the security of energy supply is one of the most important issues on the EU's agenda. Consequently, there is no doubt that the EU is in need of more diversification in its energy supply. In this regard, Turkey is and will continue to be a very important strategic partner for the EU.

Considering the definition of energy security (2B) as "consistent supply of energy with limited fragility at reasonable prices", it has been assessed that the EU's energy supply is only partially secure. While there is sufficient, consistent and more or less robust supply of energy to the EU, the price development can certainly be regarded as problematic. The main risk for the EU's energy security, however, is its high and still increasing energy-dependency on politically and economically instable regions. Combined with ever rising prices for energy, this situation calls for major efforts to secure European energy supply for the future. Moreover, another result of the theoretical part is that energy security is not only determined on a national, but on a regional basis, given the strong interactions and interdependencies among member as well as among energy-producing and consuming countries. Finally, it has been argued that European energy security can be regarded as a European public good. Consequently, there is a need for a common European energy policy and strategy.

These problems and challenges have also been identified and addressed in the EU's official publications, strategies and policies in the field of energy (2C). The European Commission has put forward a considerable amount documents concerning European energy

security. Starting with six influential Green Papers from 1994 to 2013, over official communications, reports and strategies up to legislation in the field, energy security certainly has a prominent role on the EU's agenda and will probably continue to do so. When compared with the challenges identified in this thesis, it can be said that the EU has officially addressed all of them in its policies and strategies. However, the implementation of these strategies is largely hampered due to problems of collective action among sovereign member states which have different needs and ambitions for their energy policies. Moreover, just as the EU is import-dependent in general, it is also dependent on the supplier and energy transit countries when it comes to a potential diversification of its energy supply. Hence, there are clear limits to what the EU can achieve alone.

When it comes to Turkey's role for the EU's energy security, section 3A has pointed out Turkey's very important geostrategic location, as it is surrounded by countries which together combine more than two thirds of the world's proven oil and gas reserves. Most interesting for the diversification of European energy supply is certainly the Greater Caspian Sea region. Turkey generally disposes of good relations with these countries not only geographically, but also culturally and politically, so that it can be a very important partner for the EU. Turkey is naturally involved in all energy transit projects from the Caspian region to Europe. However, Turkey also faces enormous challenges in its domestic energy policies. With very limited domestic energy sources, but globally the highest projected growth of energy demand after China, Turkey faces an even higher import-dependency than the EU. As a result, the primary aim of Turkey's energy diplomacy is to secure its own energy security. Nonetheless, the country tries to emerge as an energy hub, a transit and trading state for oil and gas from all its energy-rich neighboring countries to international markets.

In legal terms, the EU and Turkey have signed a number of important agreements (3B), e.g. Turkey is a signatory of the European Energy Charter Treaty and an observer country to the Energy Community Treaty. However, the most relevant current and potential tools of energy cooperation are major pipeline and further energy transit projects. While the failure of the promising Nabucco project in June 2013 meant a serious setback, the recently agreed Trans-Anatolian and Trans-Adriatic Pipelines, transporting Azeri gas to Southern Europe, is a new promising project. Turkey plays an important role as a main transit country in all of these pipeline projects. However, Turkey's role for the EU largely depends on the success of these pipeline projects. Moreover, considerable political and economic internal problems and challenges, as well as the current prohibition for Turkey to re-export gas to third

countries, make it unlikely that Turkey can become a veritable energy trading hub any time soon.

Finally, the last section (3C) of this thesis has pointed to Turkey's long and stony way towards the European Union. Half a century after the initial Ankara agreement of 1963, the hopes and ambitions from Turkish side have not materialized. As of 2014, roughly 15 years after Turkey became an official candidate for accession, the energy chapter as well as many other chapters are still blocked and there seems to be little momentum for a potential breakthrough in accession negotiations. Moreover, the Turkish ambition of becoming an energy hub for the EU was only partially achieved until today, not least due to Turkey's attitude of seeking to control energy trade rather than facilitating it. While energy is without any doubt a strategically very important matter of common concern for the EU and Turkey, its relevance for the EU accession process seems very limited. After all, taking into account all the problems and issues discussed above, it seems very unlikely today that Turkey can join the EU any time soon.

At this point, the hypothesis and the assumptions behind shall be recalled and critically evaluated. The hypothesis was that Turkey would be able to make use of its geostrategic position so as to improve the EU's security of energy supply and thereby positively influence the accession process. It has become clear in the previous discussion, notably in section 3C, that this hypothesis seemed to be overly optimistic. In order to make a more differentiated judgment, the five assumptions made in the beginning need to be checked.

1) *Turkey has a favorable geostrategic position relevant for the field of energy security.*

This assumption has proved correct, as the second part of the thesis and notably section 3A have shown.

2) *The EU has deficiencies in the field of energy security.*

This basic assumption has also been supported with a lot empirical evidence in section 2A.

3) *Turkey has the potential ability to improve the EU's position.*

This assumption is already more difficult, as it implies a link between Turkey's and the EU's energy policies which is not evident. In short, it is not possible to prove this correct, but the evidence and many arguments put forward in the second part of the thesis speak in favor of the belief that Turkey has the *potential* to benefit the EU's energy security. With progress on the major pipeline projects under construction, this will become clearer.

4) *Energy security matters in the accession process.*

While many have claimed that Turkey's role for the EU's energy security might influence the accession negotiations, not many have asked the crucial question of whether energy security *actually matters* for the overall accession process. It is not possible at this stage to prove or fully reject this assumption, but the analysis has not found convincing evidence for it. Although there are many facts why the EU should have a special interest in Turkey as an energy partner, these reasons do not automatically allow arguing that this is directly relevant for the accession process. From a pragmatic point of view, with the energy chapter and many other chapters still blocked despite all cooperation and signing of treaties in the field of energy, it seems that the strategic issue of energy security has not significantly affected the overall accession process so far.

5) *Turkey's role in the field of energy security can have a positive effect for its accession to the EU.*

This last assumption heavily depends on the previous one. While it also depends on the first three basic assumptions that seemed to be appropriate, this assumption cannot hold without assuming that energy security is relevant for the accession process in general. As discussed, this cannot be assumed and therefore, this final assumption needs to be rejected. Although this thesis has found that Turkey has a very important role as a potential regional energy hub, it has not been possible to find evidence for a link between this strategic role of Turkey and its progress in the accession process.

In light of these results, **the initial hypothesis has to be rejected.**

Taking into account all these factors it can be concluded that, despite its geostrategic position and its potential role as an energy hub for the EU, Turkey has so far neither been able to significantly improve the EU's energy security nor to positively influence its accession process. It has been shown in the analysis that Turkey has not yet been able to fully develop as an energy hub for international markets. When it comes to energy security, Turkey's first priority will be to secure supply for its own rapidly increasing energy demand. Nonetheless, there are important pipeline projects under construction and it is very probable that Turkey will play the role of an important energy hub sooner or later. Therefore, its geostrategic importance for the EU is not disputable. However, there does not seem to be any robust link between these facts on the one hand and progress in the accession process on the other hand, so that it can be concluded that Turkey's role for the EU's energy security is not significantly relevant for the overall accession process.

Apart from energy cooperation, EU-Turkey relations have certainly been rather problematic over the last years. In addition, the EU seems to have lost its leverage on Turkish policies and reform progress. In this respect, the 2013 report on Turkey's accession for the US Congress cites a Turkish columnist who wrote that "*Europe is not on Turkey's agenda,*" and that "*for the first time (...) the influence of the EU over Turkish politics has reached almost zero*".¹⁶⁶

Turkey's options are certainly not limited to EU membership. Claude Fischer, President of the think tank "Confrontation Europe", believes that Turkey will seek closer relations with countries grouped in the Shanghai cooperation organization if EU accession talks remain blocked. This group includes Russia, China, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. According to Fischer, all these countries focus on Asia as the future market of energy and Turkey might do the same if the EU shows no interest in Turkish membership anymore.¹⁶⁷ After half a century of negotiations between the EU and Turkey, both sides will have to ask themselves what kind of relations they want and whether the question of membership is still there. Concerning energy security, the EU cannot afford to lose Turkey as a vital strategic partner.

¹⁶⁶ Morelli. V. L. (2013). p. 15.

¹⁶⁷ Buckens. M. (2013). Energy: Ankara Essential Hub between Europe and Asia. *Europolitics*. p. 31.

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APPENDIX

Interview with Philip Lowe, Director General of the European Commission DG Energy: answers of the written interview request:

Ayça Ayanlar (AA): What are the current and future challenges for the EU's security of energy supply?

Philip Lowe (PL): Energy security, sustainable energy and competitive energy markets are the key policy objectives, around which European energy policy is centered. These three objectives cannot be seen separate from each other and most of our policies in fact contribute to several or all of these objectives. Import dependence is an important characteristic of the EU's security of supply situation. The EU currently needs to import half of its energy consumption and this dependency is expected to increase even further within next decades, notably for oil and gas. International cooperation is therefore a key element of the EU's energy security, and the issue is increasingly addressed at the European level (as opposed to the bilateral level).

In September 2011 the European Commission published a Communication on security of supply and international cooperation. It outlines a comprehensive strategy for the EU's external relations in energy. The two main questions it addresses are: 1. How the EU should better organize itself internally when it comes to international energy issues? 2. What priorities should the EU pursue with the variety of its partners?

The key approach of the Communication is to achieve improved coordination among EU Member States in identifying and implementing clear priorities in the EU's external energy policy. This can be achieved by improving transparency among EU Member States on energy agreements with third countries, strengthening coordination when approaching partner countries, when taking position in international organizations, and when developing comprehensive energy partnerships with key partner countries. The strategy lists 43 concrete actions which are in different stages of implementation.

(AA): What is Turkey's role for the EU's energy supply?

(PL): Turkey is an important partner to the EU in the field of energy, as is underlined in the Communication and as has been stated on numerous occasions by Commissioner Oettinger. Its strategic location between large oil and gas producers and the EU makes it a key partner in the transportation of hydrocarbons. The Southern Gas Corridor will be a key element for diversification of supply for both Turkey and the EU. But as a large and developed energy market directly neighboring on the EU, there is also a clear potential for integration of our electricity and gas markets. The EU and Turkey furthermore share policy goals such as the promotion of renewable energy, energy efficiency, nuclear safety, clean energy technologies and, indeed, increased energy security and related

infrastructure development. The EU and Turkey therefore agreed in 2012 on the need for enhanced energy cooperation. This cooperation is part of the wider 'positive agenda' for EU-Turkey relations, and is currently under implementation. Strong EU-Turkey energy relations are in the direct interest of both sides, regardless of the discussion on Turkey's accession perspective.

(AA): Which could be the formula for EU-Turkey and EU-Russia relations in terms of energy security and especially in the view of a potential diversification in the EU's energy supply?

(PL): Russia is another strategic energy partner for the EU, and this will remain the case for years to come. The Southern Gas Corridor should not be seen as a competitor to Russian gas supplies, but rather as a supplement. To quote from the IEA World Economic Outlook 2013: "Natural gas is the only fossil fuel for which global demand grows in all scenarios, showing that it fares well under different policy conditions". Gas will continue to have an important share in Europe's energy mix, also during the transition to a low carbon economy (objective for 2050).

*No answers were given to the two last questions of the interview request (1. According to Turkish officials, Turkey provides energy security for the EU if the EU accepts Turkey's membership. What do you think about this claim? 2. Is Turkey a good partner for the EU but not important enough to become a member?).

Marat Terterov - Personal Interview – Transcript

Ayca Ayanlar (AA): "Mr. Terterov, in your opinion, what are the current and future challenges for the EU's security of energy supply?"

Marat Terterov (MT): "It's a general question. I think most experts will probably tell you this, but one of the main challenges or the main area of challenges today is the fact that the EU - as an intergovernmental body of now 28 countries - is the fact that the EU lacks indigenous energy sources of supply. Ok, so this is nothing new but the EU is quite like Turkey in fact dependent on imported sources of energy supply. So basically both in terms of gas and in terms of oil the EU is heavily dependent. Coal less than oil but certainly in terms of fossil fuels which is the largest source of energy, let's say usage, in the EU, particularly for the energy intensive industry, power sector, electricity generation, transport plus wherever it's dependent on fossil fuel. Other people tell this is nothing new but clearly this itself links into another couple of challenges.

One is the fact that energy is a relatively politicized topic. We can talk of energy in itself as a commodity; oil is a commodity, gas is a commodity, coal is a commodity, but all of these make up energy sources, so these commodities can be quite often deemed strategic commodities by the countries that own these resources - the countries around the EU like Norway, Algeria, of course Russia, which are the main gas suppliers of the EU. They treat their gas as a strategic commodity and therefore negotiations between the EU and these countries for the supply of gas can be quite difficult,

can be quite tough for the EU. In fact, the EU is reconcerned about security in its energy supply of Russia, particularly for gas, and there are many other interrelated issues in this discussion. It is heavily politicized because the EU is a part of the west and I mean it's a geopolitical entity, but Russia looks at the EU as part of the Euro-Atlantic block, it does not necessarily see the EU as just the EU. Therefore, when we have a discussion about EU Russia energy supplies, today we also have a discussion about Syria. You know this is a big political discussion between the EU and Russia and there are also other issues; visas, trade, a lot of technical issues, but energy is part of the big discussion.

The point is that why we have the first challenge EU being import dependent. The second challenge is that for countries like Russia natural gas as an energy commodity is much politicized, very strategic. This makes it more difficult for the EU to secure its supplies of a country like Russia, but even of a country like Norway which is of course a friendly country to EU. But very few people know that in the 1980s Norway disrupted the gas supply to German companies for over 10 days. I mean it's a very long disruption by Norwegians. Because they were negotiating on the price, but the Norwegians, during this price negotiation period, they actually cut off the gas supply. So we think that it's the Russians that cut gas to Ukraine, Putin is a KGB guy, and during all of these issues with Ukraine it was said that the European suffer Russian disruptions; but Norway also did this! Algeria, in principle, will secure our supply but it's also not an easy political environment. Algeria is not easy because of terrorist attacks and hostages have been killed, so the bigger point is that for the EU energy is located in challenging political environments. Securing energy sources from those political environments, this is not easy and it is probably not getting easier.

The other thing is that energy is very expensive so this is a bigger point. European companies pay high price for energy for oil, gas, and energy efficiencies are not really a strategy which works in a pure market context in an effective way, in a market context where renewable energy is heavily subsidized. Europeans either way pay a lot for their energy and therefore, from an industry perspective, this leads to a lack of competitiveness. It makes energy not very competitive for the European Union companies. Some companies here, particularly petro chemical industry, are relocating to the US. Usually, the US has a shale gas production, conventional gas sources and shale oil. So American industries of of sorts are more competitive vis-a-vis the European industry. So, for the EU, challenges are price, import dependence other challenges are the difficult political environment and there are no real alternatives for the EU. Azerbaijan ok, we can get some Caspian gas but this is also not easy. We have to deal with friends of Turks. Friends of Turks have also their own energy security agenda. Because Turks want to secure their energy before giving any to the EU. So that makes a difficult discussion (...) So this I think summarizes probably the key issues that we have to look at."

(AA): As you already mentioned Turkey, my next question would be: what is Turkey's role for the EU's energy supply?

(MT): "I think on Turkey's role there is really some doubt, but it was described nicely by John Roberts. He is a very famous energy commentator. John has written a lot about Turkey and the Caspian region. He once described Turkey as the gate keeper of European energy supplies. The gatekeeper, that means, if you look at this map, here is Turkey for example here is Europe here are the regions of energy sources. So here you can get gas by pipeline to Europe is through Turkey. You can do LNG and things like that. In terms of volumes and in terms of market efficiency pipeline gas is still cheaper. So if you shut the gate, then you cannot come in, if you open the gate, it does come in. So that's why John described it this way. Turkey as the gate keeper, and he is right, because Turkey can either play the role of what we called a honest broker or spoiler. The Energy Charter Treaty - and Turkey is a member - has Article 7 of the Treaty. Article 7 is called Freedom of Transit. So that means that no country can act as a gate, they have to have a open door to transit. According to Article 7, a country like Turkey would be obliged as a member of the Energy Charter Treaty to allow free transit of energy goods and services through its territory. It can collect royalties and taxes for the service of transit, so that's fine. But it cannot block or it cannot cut transit. You see, so the EU pushes Turkey to oblige to use the Energy Charter, to use these principles, but you know, the EU also blocks the Turkish energy chapter. So it becomes a very difficult relationship which you are familiar with. So that's Turkey's role you know it can be either a honest broker or it can be a spoiler as a gate keeper. And that does not only depend on Turkey but also depends on a lot of factors: the EU's behavior, Russia's behavior, what Russia offers Turkey, Azerbaijan, pressure from the Americans. Turkey is also NATO partner; these are the dynamics of Turkey's role."

(AA): Mr. Terterov, you have already talked about relations with Russia and the problems linked to that. In this respect, which could be the formula for EU-Turkey and EU-Russia relations in terms of energy security and especially in the view of a potential diversification in the EU's energy supply?

(MT): "I think we have already touched on that. I think from the EU's perspective the EU wants Turkey to be a good honest broker for the transit of energy supply from Azerbaijan and possibly in the future Turkmenistan, maybe Iraq as well, to the EU. And of course the EU recognizes that Turkey has an energy security agenda so that's also understandable. I think the EU over the last couple of years is a bit better, but I think the role of the EU is still a bit paternalistic towards Turkey, so it kind of treats Turkey as a little bit a marginal player in politics, it does not respond to aspirations of EU integration. A couple of years ago, France and Germany suggested that Turkey becomes what we called "privileged partner" of the EU as an accession path which is quite offensive to a lot of Turkish, intellectual secularist and islamist. I think Turkey is still itself seen as a little bit mistreated by the EU and Turkey would like to see itself more as a gas hub, which is a term studied a little bit, but essentially Turkey wants to bring gas into Turkey and kind of resell it and value and sell it as a new gas because it is a more profitable way in that respect, whereas the EU just wants Turkey as a honest broker, using the Energy Charter Treaty Article 7, Freedom of Transit. So we are trying to get a more balanced relationship and this is not going to be easy because Turkey is facing a lot of political issues,

even now, you know demonstrations in İstanbul, so basically in energy issues and other issues; human rights, journalist in jail. There is more issues to assert. It is quite difficult, for example the TANAP pipeline is not really something that the EU favors. The EU prefers to have a broker pipeline. The EU prefers Turkey to a kind of obey or be respecting the international rules, not Turkish kind of rules. And in terms of EU-Russia, energy is a kind of separate discussion. Russia treats Turkey as Europe in terms of gas pricing. Russia sells gas to Turkey at a very expensive rate, like it does in European countries. But I think EU-Russia is more about Ukraine transit at the moment, transit of gas to Ukraine. North Stream, South Stream, to reconcile the sort of projects and internal legislation.”

(AA): According to Turkish officials, Turkey provides energy security for the EU if the EU accepts Turkey’s membership. What do you think about this claim?

(MT): “I mean the issue here is Turkish membership in the EU, even though the prime minister and European Integration Minister Egemen Bağış are very much committed to this process, I think very few people see Turkish membership the EU as likely in the near future. Most people say that it is unlikely. Most people see Turkey having done very well under the AKP economically. So I think its more about having common energy legislation. The EU is about internal legislation and the EU is a common market, an internal economic space with internal rules. They are trying to have a common energy foreign policy but it's not even close to being yet. Brussels has taken more power on the member states and smaller member states like Lithuania, Estonia; they are ready to surrender sovereignty. But other member states, like Greece for example, they are not ready to surrender sovereignty. In fact, Greece's looking at selling gas industry to the Russians at the moment and link up to the south stream pipeline project is a big problem for the EU. The EU wants to have an internal unified market for electricity and gas and therefore would like to have Turkey as part of that internal legislation. But I don't think Turkey at the moment is planning to take the whole EU hostage saying 'yes we will help you, we will guarantee you to secure supplies of gas from Azerbaijan, but you give us a membership'. I don't think this is really what they are looking at that. Because the EU is simply not capable doing that. The EU is 28 countries and Turkey will have to accept and be accepted by all of those 28 countries. So it's not just the matter of where is that gas, it is about only 10 bcm and there is other sources of supply. Russia can give more supply, American shale gas.. So basically I do not think this type of the equation is going to work. I know that there were some Turkish circles with this kind of tit-for-tat attitude, meaning 'we will guarantee Azerbaijani gas, you give us EU membership'. I don't think Brussels have looked at it in a serious way.”

(AA): “Is Turkey a good partner for the EU but not important enough to be a member?”

(MT): “It's a little bit tricky. So Turkey is a great partner for the EU and I think there is a lot of insight in the EU, a lot of momentum, a lot of political capital and I think the people driving the political capital are in the European Parliament, less in the European Commission. The European Parliament has close contacts with many Turkish counterparts and they are understanding the value of Turkey as a kind of regional power and important country regarding all kinds of issues. There is a lot of people

inside the EU that would like to have Turkey more integrated and more aligning and involved within all EU external policies. 'But not enough to be a member?' - It comes back to the previous question. Of course, we have 28 countries and we know that some countries are against. In Austria there is a certain internal anti-Turkishness in a sense, even in Germany, it's a paradox because so many Turks living in Germany. But this is a certain anti-Turkishness, but I think that's because Europeans are a little bit orientalist. It's a certain cultural heaviness in the EU. Part of this is a religious culture...It's not about Turkey being important but it's about Turkey being a kind of slightly different. Not whether they are important, but important is to get through these kind of rules and legal procedures within that country. The other issue is do they really want an 80 million Muslim country? The EU is different from NATO. Because NATO, they basically do that purely on the value of the Turkish military and the Turkish strategic value which can be during the cold war so and back then no one told about islamist fundamentalists. So I would rephrase, I would give more emphasize to cultural hangovers. The Christian club term is something that I don't like but in some ways it's valid in this discussion.”

CURRICULUM VITAE

Name Surname : Ayça AYANLAR

Birth of Date and Place : 11.08.1986 - İzmir

Civil Status : Single

Education

High School Education : Akev College, 2004

Undergraduate Education : Izmir Economics University, International Relations and European Union, 2009

Graduate Education : Akdeniz & Hamburg Universities, European Studies, 2014

Master's Thesis : Akdeniz University & University of Hamburg

Title of the Master's Thesis : The EU's Energy Security and Turkey's Accession: Turkey's Role as a Potential Energy Hub for the EU

Foreign Languages : English, German

Certificate

Summer Political Science Exchange Program - The University of Texas Pan American
(06.2008 – 08.2008)

Working Experiences

MSCI Inc. Institutional Shareholder Services, Brussels, Belgium (Corporate Governance Analyst)

21st Century Turkey Institute, Ankara, Turkey, (EU Public Policy Analyst)

Internship : TUSIAD Brussels Representation Office, European Parliament

E-Mail : aycayanlar@gmail.com

DECLARATION OF AUTHORSHIP

I declare that this thesis and the work presented in it are my own and have been generated by me as the result of my original research.

None of the part of this thesis has previously been submitted for a degree of any other qualification at this University or any other institution

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Place

Antalya

Date

13.05.2014

Signature

