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STVM23
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European Energy Security

Prospects of the Caspian basin

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Abstract

Depletion of the indigenous energy resources of the EU, growing dependence on the external energy supplies, volatile prices of the global energy resources, increasing global rivalry for hydrocarbon reserves and recent Russian-Ukrainian disputes over natural gas prices which as a consequence has resulted in gas supply disruptions to several EU member states escalated the significance of the European energy security in the EU's political agenda. Bearing in mind the aforesaid factors, the main argument of this thesis is to emphasize that diversification of energy supply and routes and the establishment of common external energy policy are substantial steps towards the maintenance of the European energy security.

During the course of the study, the author intends to reveal factors which hinder the establishment of a common external energy policy of the EU. Furthermore, thesis aims to discuss alternatives for the diversification of the EU's energy supply and routes. Theoretical framework of the research includes theories such as Realism, Liberalism and Regional Security Complex Theory. In order to demonstrate Caspian basin countries' hydrocarbon potential, energy infrastructure and their political willingness to cooperate with the EU in the energy field author utilizes descriptive case study.

Key words: Energy security, EU common external energy policy, diversification of energy supply and routes, Caspian basin, regional security complex theory.

Words: 18480

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List of Abbreviations

AGRI – Azerbaijan-Georgia-Romania Interconnector

BCM – billion cubic meters

BTC – Baku-Tbilisi-Ceyhan oil pipeline

BTE – Baku-Tbilisi-Erzurum gas pipeline

CIS – Commonwealth of Independent States

COMECON – The Council for Mutual Economic Assistance

CPC – Caspian Pipeline Consortium

EC – European Community

ECSC – The European Coal and Steel Community

ECT – Energy Charter Treaty

EEA – European Economic Area

EEZ – Exclusive Economic Zone

ENPI – European Neighbourhood and Partnership Instrument

EU – The European Union

GCC – Gulf Cooperation Council

IEA – International Energy Agency

IEM – Internal Energy Market

INOGATE – Interstate Oil and Gas Transport to Europe

ITGI – Interconnector Turkey-Greece-Italy

LNG – Liquefied Natural Gas

PCA – Partnership and Cooperation Agreement

RES – Renewable Energy Sources

RSCT – Regional Security Complex Theory

SCP – South Caucasus Pipeline

SEA – Single European Act

SEEP – South-East Europe Pipeline

TANAP – Trans-Anatolia Gas Pipeline

TAP – Trans-Adriatic Pipeline

TAPI – Turkmenistan-Afghanistan-Pakistan-India gas pipeline

TCM – trillion cubic meters

TFEU – Treaty on the Functioning of the European Union

UNCLOS – United Nations Convention on the Law of the Sea

1 Introduction

1.1 Research background

Declining tendency in the production of the European hydrocarbon resources, the EU's growing dependence on the external energy supplies, unstable prices of the global energy resources, and the matter of fragmented internal energy market in the European continent – all these factors escalated the significance of the European energy security in the EU's political agenda. Apart from that, tough competition for energy resources which tightened by emerging economies like Brazil, China and India plus Russia's discernible aspirations in the utilization of "energy diplomacy" affect European energy security to considerable extent (Belkin 2008 p.1).

The gas crisis between Russia and Ukraine in January 2006 indicated to what extent it could be risky the matter of the EU's single source dependency (Bahgat 2006 p.961). Recurrence of the same kind of events with similar scenarios, namely the disruption of the both gas and oil flow from Russia to Belarus, Georgia and Ukraine triggered intense debates in European political circles regarding Russia's reliability as an energy partner. In relation to the above-mentioned events Goldthau argues that "the world's largest gas producer has become all but reluctant to enforce its political interests by playing the energy card" (Goldthau 2007 p.686).

Russian-Ukrainian gas dispute reminded to the EU the matter of diversifying its energy sources and transportation routes. That is why it is noteworthy to illustrate diversification alternatives of the EU. These alternatives consists of the Middle East, special attention should be given to Qatar, North Africa (Algeria, Egypt and Libya) and Caspian basin (Kazakhstan, Turkmenistan and Azerbaijan) (Locatelli 2010 p.963).

It is worth mentioning that Russia's intentions towards "energy diplomacy" are implicitly stated in the Energy Strategy of the Russian Federation for the Period until 2020 (adopted in 2003): "Russia's energy resources are an instrument of domestic and foreign policies. The country's role on the world energy markets largely determines its geopolitical influence" (Feklyunina 2008 p.134).

Furthermore, I would like to draw attention to the distinctive perception of the energy security. EU perspective on energy security is reflected in the establishment of secure energy supply and diversification of the energy sources and routes. When it comes to Russia, its idea of energy security is closely related to the phenomenon of 'security of demand' (Kirchner and Berk 2010 p.864).

Kirchner and Berk highlight in their article that "while being and important regional actor, EU crucially lacks a common energy policy to include EU regulatory aspects on competition, standards, and imports and exports of energy" (Kirchner and Berk 2010 p.860).

The main weaknesses and problems that need to be dealt with on the way to common external energy policy are clearly identified in the "EU Energy Security and Solidarity Action Plan: Second Strategic Energy Review" which was presented by the European Commission in 2008. Moreover, the authors of the aforementioned document suggest five substantial areas for joint cooperation and projects in the forthcoming years:

- Infrastructure needs and diversification of energy supplies
- External energy relations
- Oil and gas stocks and crisis response mechanisms
- Energy efficiency
- The best use of EU's internal energy resources (Codoban 2011 p.43)

In order to maintain the energy security of the European continent as a first step EU intends to realize its long-standing objective of the creation of a fully integrated and competitive internal market. The second step on the EU's energy strategy which is of paramount importance is the diversification of its sources of supply by obtaining access to the abundant gas reserves of the Caspian basin and

Central Asia and the construction of the fourth energy corridor of the EU – the Southern corridor that bypasses Russia (Padgett 2011 p.1065-66).

The EU's interest in the hydrocarbon potential of the Caspian basin was portrayed in the European Commission's Green Paper on the Security of Energy Supplies (2000) (Kalyuzhnova 2005 p.64). This factor is largely justified by the considerable volume of gas and oil reserves in this region. Estimates of the Caspian Sea region's proven oil reserves vary widely by source. The United States Department of Energy estimates that the region holds between 17 and 44 billion barrels. The British Petroleum's estimates are 47.1 billion barrels (Bahgat 2007 p.159). The Caspian Sea region's natural gas reserves are estimated at 232 trillion cubic feet (Belkin 2008 p.17).

Geographical proximity of the Caspian basin to the European continent, eagerness of the region countries in intensified energy cooperation with EU substantiates why EU views this region as a priority diversification alternative (Kalyuzhnova 2005 p.64).

The other factor which encourages EU to consider Caspian basin as diversification possibility is the existence of energy infrastructure in the region, namely The Baku-Tbilisi-Ceyhan (BTC) oil pipeline, which connects Azerbaijan's offshore oil fields to the Turkish Mediterranean port of Ceyhan via Georgia and The Baku-Tbilisi-Erzurum (BTE) which is also known as The South Caucasus Gas Pipeline (SCGP). Both of the pipelines were completed in 2006 (Belkin 2008 p.15).

EU intends to establish the fourth gas corridor – Southern corridor in order to deliver gas reserves of the Caspian basin to Europe. Currently, three primary corridors are used to transmit gas to Europe from Russia, North Africa (mainly Algeria) and the North Sea (Norway and the UK) (Locatelli 2010 p.964).

After the collapse of Soviet Union EU's first successful step towards energy cooperation with the Caspian and Central Asian states was the establishment of the programme which is known as INOGATE (Interstate Oil and Gas Transport to Europe). While analyzing the essence of the programme we could observe that it is quite identical to the EU-Russia energy dialogue. Rationale behind above-

mentioned initiative is the promotion of European investment in Caspian Sea/Central Asian states in return for their cooperation in supplying energy to the EU Member States (Bahgat 2006 p.971).

1.2 Energy security phenomenon

We can encounter different interpretations of energy security in academic literature. Mikko Palonkorpi argues that "energy security is an attempt by energy customers to protect themselves from interruptions that could endanger supply of energy as a result of an accident, terrorism, insufficient investment in energy infrastructure or insufficient organization of the energy" (Palonkorpi 2008 p.1).

In general, majority of scholars define energy security from consumer countries' perspectives which mainly concentrates on the idea of supply security. But while discussing the issue of energy security in a global framework we should take into account the views of producer and transit countries as well. Energy producer countries view energy security as security of demand, sufficient access to consumer markets (Doukas, Flamos and Psarras 2008 p.15).

Furthermore, Daniel Yergin illustrates the perceptions of energy security in various country profiles (both consumer and producer) in the following manner:

> "For Russia, the aim is to reassert state control over "strategic resources" and gain primacy over the main pipelines and market channels through which it ships its hydrocarbons to international markets. The concern for developing countries is how changes in energy prices affect their balance of payments. For China and India, energy security now lies in their ability to rapidly adjust to their new dependence on global markets, which represents a major shift away from their former commitments to self-sufficiency. For Japan, it means offsetting its stark scarcity of domestic resources through diversification, trade, and investment. In Europe, the major debate centers on how to manage dependence on imported natural gas — and in most countries, aside from France and Finland, whether to build new nuclear power plants and perhaps to return to (clean) coal. And the United States

must face the uncomfortable fact that its goal of "energy independence" is increasingly at odds with reality" (Yergin 2006 p.71).

Group of scholars from the Asia Pacific Energy Research Centre give preference to conventional definition of energy security: "Energy security consists of securing adequate energy supplies at reasonable and stable prices in order to sustain economic performance and growth" (Eng et al. 2003 p.4).

1.3 Aim and research questions

In this thesis, I am going to discuss two primary aspects of the European energy security, namely diversification of energy supply and routes and common external energy policy. I will illustrate the EU's all possible diversification alternatives of the energy supply and routes. Subsequently, I intend to portray how attitudes of the EU member states diverge regarding diversification of energy supply and routes. Furthermore, I am going to elaborate on the factors which hamper the emergence of a common external energy policy of the EU. With the help of descriptive case study I will demonstrate to what extent energy-rich countries of the Caspian basin could contribute to the energy security of the EU. In addition, I am going to take closer look at the hydrocarbon potential of the Caspian basin countries and their willingness to cooperate with the EU in the energy sphere. The main argument of this thesis is to emphasize that diversification of energy supply and routes and the establishment of the common external energy policy are substantial steps towards the maintenance of the European energy security. In order to encompass all above-mentioned points I decided to pose the following research questions:

- Which factors hinder the establishment of a common external energy policy of the EU?
- What are alternatives to diversification of the EU's energy supply and routes?
- How could Caspian basin contribute to the energy security of the EU?

1.4 Material

Taking into account that thesis aims to discuss issues such as diversification of energy supply and routes, common external energy policy of the EU and Caspian basin as energy diversification alternative, it is of great importance to utilize primary sources, namely, documents issued by the EU institutions which cover energy field. Especially, it is worth to mention Green Papers issued by the European Commission. When it comes to secondary sources, I am going to use books, journal articles and reports by different scholars of the energy field.

1.5 Thesis outline

In the first chapter of the study I present research background. Chapter two and three respectively represents theoretical and methodological frameworks of the thesis. Chapter four introduces historical background of the European energy policy and current energy situation in the EU. Chapters from five to seven are dedicated to the empirical findings of the thesis. Finally, in the last chapter I present concluding remarks of the study.

2 Theoretical framework

In order to describe energy relations among consumer (in this category I am going to concentrate on EU member states), producer and transit countries I would like to use Regional Security Complex Theory. Through the use of the above-mentioned theory I will try to discuss to what extent common external energy policy is important for EU to maintain its energy security. Furthermore, the utilization of aforesaid theory gives me an indispensable opportunity to assess energy relations both within the EU and between the EU and major producer nations.

It is quite interesting to analyze the behavior of the EU member states in the energy field through theoretical lenses of realism. Furthermore, the core ideas of the Realpolitik could shed light on the understanding of the behavior of energy supplier countries such as Russia towards energy consumer countries. In addition, realism lays comprehensive basis in order to perceive the matter that national interests of the EU member states outweigh EU interests in the energy sphere.

The theoretical lenses of liberalism provide broad insight to observe to what extent EU dedicated to its founding principles and major values (democracy, human rights, rule of law) in its relations with energy supplier countries. I would like to draw attention to the fact that almost all energy suppliers of the EU (except Norway) have significant shortcomings in the maintenance of the above-mentioned European values. As a consequence, EU faces substantial trade-off between energy security of the Union and its commitment towards major European values.

2.1 The concept of security

According to the Copenhagen School of security studies, security is not a direct consequent of threat, but is rather the result of the political interpretation of the

threat. The representatives of the Copenhagen School put forward 'the idea to construct a conceptualization of security which implies something much more specific than just any threat or problem' (Buzan, De Wilde and Waever 1998 p.7). Stemming from the Realist perspective the Copenhagen School illustrates anarchy as the main determinant of the international structure which as a subsequence substantiates states' perceptions of security. Moreover, one of the main contributors to the security studies, representative of the Copenhagen School, Barry Buzan argues that in the globalizing world security has five different perceptions: political, military, societal, economic and environmental. Political security is about the internal and external stability of states. Military security concerns states' defensive and offensive capabilities. Societal security represents the stability of cultural, national and religious identities. Economic security includes the access to resources and markets. Environmental security relates to the preservation of ecological biosphere (Buzan 1991 p.19).

Another outstanding representative of the Copenhagen School, Ole Waever maintains that security has two meanings. First one is the understanding of security as avoidance of threat in daily life and second perception of security is about survival efforts of state which is utilized in security studies. The author also mentions that the terms like 'individual security' and 'global security' caught substantial attention in the contemporary debate regarding conceptualization of security (Waever 1995 p.48). Furthermore, Waever mainly concentrates on a re-conceptualization of the security in state and societal structures. In this context survival is the main aim of both state and society. The difference is that for the state the survival is matter of sovereignty, while for the society it is matter of identity. Subsequently, Waever points out that as a result of dispersion of political power states fail to protect the interests of their citizens which as a consequence bring about societal insecurity (Waever 1995 p.67).

The concept of security can be interpreted both from defensive and offensive perspectives. Kenneth Waltz presents security in the defensive framework which is directly interconnected with the existence of anarchy. In the absence of international government (anarchy) states as individual actors need to maintain their national securities (Waltz 1979 pp.109-111).

Mohammed Ayoob contends that in order to maintain its national security state should possess not only “security hardware” (control of coercive force) but also “security software” (legitimacy and integration). Subsequently, Ayoob define security as, “Security or insecurity is defined in relation to vulnerabilities, both internal and external, that threaten to, or have the potential to, bring down or significantly weaken state structures, both territorial and institutional, and regimes*”* (Ayoob 1997 p.130).

Klare and Thomas argue that the concept of security needs to be interpreted from a broader perspective. They substantiate their statement by emphasizing a declining significance of geographical boundaries in a globalizing world. Furthermore, scholars shed light on the fact that it is an actual challenge for states to tackle global concerns such as environmental degradation and financial crisis (Klare and Thomas 1994 p.3). Klare and Thomas assert that, “World security distinguished by the belief that security involves more than protection against military attack. Ecological, economic and demographic trends pose serious challenges to developed countries. And even in the less-developed "South," where the threat of armed attack remains constant, nonmilitary trends pose equal or greater threats to people's security” (Klare and Thomas 1994 p.4).

2.2 Regional Security Complex Theory

In order to convey the essence of the theory and to gain clear insight about security complexes it is worth to present interpretation put forward by Buzan and Waever:

> “The central idea in Regional Security Complex Theory (RSCT) is that, since most threats travel more easily over short distances than long ones, security interdependence is normally into regionally based clusters - security complexes. Process of securitization and thus the degree of security interdependence are more intense between actors inside such complexes than they are between actors inside the complex and outside of it” (Buzan and Waever 2003 p.4).

Buzan and Waever portray a regional security complex as ‘a set of units whose major processes of securitization, de-securitization, or both are so interlinked that their security problems cannot be reasonably analyzed or resolved apart from one another’ (Buzan and Waever 2003 p.44).

In his conference paper Waever highlights the idea that RSCT “suggests an analytical scheme for structuring analysis of how security concerns tie together in a regional formation” where geographical proximity is the substantial factor (Waever 2004 p.18).

In order to illustrate the character of relations among different states in specific geographical area Buzan and Waever utilize two fundamental components of RSCT: amity and enmity (Frazier and Stewart-Ingersoll 2010 p.734). Buzan interprets the pattern of amity and enmity among states, and explained that, “By amity I mean relationships ranging from genuine friendship to expectations of protection or support. By enmity I mean relationships set by suspicion and fear*”* (Buzan 1991 pp.189-90).

In their book Buzan and Waever point out that the structure of regional security complex is defined by four variables: its boundary, anarchic structure, polarity and social construction (Buzan and Waever 2003 p.53).

In the process of determining the interaction of RSCT with neorealism and constructivism it is interesting to get acquainted with Basrur’s attitude: “RSCT narrow the gap between neorealism and constructivism by allowing both structure and securitization to determine the content of regional security” (Basrur 2010 p.420).

Kahrs expresses his view regarding above-mentioned issue in the following way: “RSCT does not contradict the salience of realism, but offers a more nuanced approach that also accommodates constructivist concerns” (Kahrs 2004 p.65).

2.2.1 The energy security complex

Stemming from the core ideas of the regional security complex Mikko Palonkorpi defines energy security complex as the following:

> "The regional energy security complexes are formed by energy related interaction between two or more states in a limited geographical area, which includes an energy dependency relationship between the states involved and perception of this dependency as a threat (securitization). The energy interaction includes transactions such as production (export), purchasing (import) and transit of energy" (Palonkorpi 2008 p.3).

In order to assess the level of energy dependencies of the states concentrated in the same energy security complex we need to consider factors such as an energy trade balance, level of indigenous energy resources and alternatives for energy diversification. While evaluating relative energy dependencies of the states in the framework of the energy security complex we should balance dependency statistics with energy mix of the individual states. For instance, Finland's dependency rate of natural gas imports from Russia is 100 per cent which could seem as a substantial dependency sample. We can observe almost identical gas dependency on Russia in former CIS states – in Georgia and Armenia. Nevertheless, the crucial difference is that the share of natural gas in Finland's primary energy consumption is just approximately 11 per cent (Palonkorpi 2008 p.3).

Palonkorpi argues that the matter of amity and enmity among the states have a substantial impact on the perception of the energy dependency. According to Palonkorpi, energy dependency can be considered as a 'mutual beneficial interdependency' (positive dependency) or as an 'unequal and threatening dependency' (negative dependency). Furthermore, Palonkorpi points out that the amity and enmity pattern can be viewed as factors which clarify why energy dependencies of certain states are politicized and securitized (Palonkorpi 2008 p.5). Palonkorpi illustrates in the following example how the character of relations between energy suppliers and consumers defines the status of the energy dependency:

> "State with cordial bilateral relations to another state might not consider 30% energy dependency from neighbouring state as a serious security threat, whereas two states with antagonistic relations might perceive even

> 10% dependency as a serious threat to national security" (Palonkorpi 2008 p.5).

Taking into consideration Norway's reliability as an energy supplier plus Norway's presence in European Economic Area we can regard EU's energy relations with Norway as a positive interdependency. We can consider Georgia's 100 per cent dependency on natural gas imports from Russia as a clear pattern of negative energy interdependency. Referring to Russia's repeated natural gas disruptions to Georgia, President Mikheil Saakashvili expressed his point of view concerning this issue in the following way:

> "Manipulation of energy prices and supplies is a critical tool of those in Russia who believe that hydrocarbons are the best means of political influence … Russia's arbitrary cut-off sent a clear message to the European Union: There can be no energy security when an undependable neighbour is willing and able to use its energy resources as a weapon in political influence" (Saakashvili 2006 p.A19.).

According to Howard Chase, the lack of self-sufficiency in the energy sector does not a problem for states, because states benefit from energy trade in order to meet increasing energy demands of their industries. It is worth to mention that the concentration of considerable hydrocarbon reserves in the territories of several states with unpredictable political stability conditions put emphasis on the phenomenon of enmity or negative energy dependency.

Subsequently, Palonkorpi presents new definition of energy security complex where he argues that, "Energy security complex could be defined as a geographical area where negative energy dependencies are concentrated and for positive energy interdependencies a more appropriate term would be an energy security community" (Palonkorpi 2008 p.7).

2.3 Realist approach

Political realism, Realpolitik, 'power politics' is one of the widespread and crucial theories of international relations. As core ideas of realism, realists put emphasis

on the issue that existence of human selfishness (egoism) and the absence of international government (anarchy) have a considerable impact on politics which as a consequence necessitates 'the primacy of power and security in all political life' (Gilpin 1986 p.305)

Different realist authors contend that egoistic nature of behavior brings about the phenomenon of immortality in politics. As Machiavelli puts it, in politics "it must needs be taken for granted that all men are wicked and that they will always give vent to the malignity that is in their minds when opportunity offers" (Machiavelli 1970 Book I, Ch.3). Moreover, realists concentrate on the ramifications of the absence of international government in the politics. Butterfield argues that, "The difference between civilization and barbarism is a revelation of what is essentially the same human nature when it works under different conditions" (Butterfield 1949 p.31). Political hierarchy constrains the expression of egoistic nature between main political actors. Nevertheless, the existence of anarchy creates suitable environment or even spurs the expression of the egoistic aspects of human nature in international relations. Regarding this above-mentioned issue Butterfield put forward, "that same human nature which in happy conditions is frail seems to me to be in other conditions capable of becoming hideous" (Butterfield 1949 p.44).

Kenneth Waltz discerns hierarchy and anarchy as two primary political ordering principles of international relations. Furthermore, he elaborates that units (states) either subordinate to each other (hierarchy) or they do not (anarchy). At the same time, Waltz claims that essential qualitative differences exist 'between politics conducted in a condition of settled rules and politics conducted in a condition of anarchy' (Waltz 1979 p.61). Waltz draws attention to the fact that states differ in terms of capability, not function (Waltz 1979 p.96). Waltz highlights the differences of national and international politics in terms of the activities of units (states) by saying, "National politics consists of differentiated units performing specified functions. International politics consists of like units duplicating one another's activities" (Waltz 1979 p.97).

In his famous book "Politics among Nations" Hans Morgenthau conveys extremely pessimistic point of view regarding the probability of peaceful cooperation among the superpowers:

> "Total war waged by total populations for total stakes under the conditions of the contemporary balance of power may end in world dominion or in world destruction or both… the revolutions of our age have this in common. They support and strengthen each other and move in the same direction — that of global conflagration. Such are the prospects that overshadow world politics in the second half of the twentieth century" (Morgenthau 1978 pp.386-387).

Morgenthau put forward that, "the relations between nations are not essentially different from the relations between individuals; they are only relations between individuals on a wider scale" (Morgenthau 1946 p.43). Accordingly, in order to reveal the rationale behind the behavior of states it is necessary to analyze individual behaviour (Griffiths 1992 p.37). Furthermore, Morgenthau defines the role of power in politics as, "Politics is a struggle for power over men, and whatever its ultimate aim may be, power is its immediate goal and the modes of acquiring, maintaining, and demonstrating it determine the techniques of political action*"* (Morgenthau 1946 p.195).

Taking into consideration the fact that, scarce energy resources is one of the challenges of the European Energy security I would like to present Hans Morgenthau's discussion regarding competition for scarce goods and a struggle for power:

> "When there is competition for scarce goods and no one to serve as arbiter, a struggle for power will ensue among the competitors and that consequently the struggle for power can be explained without reference to the evil born in men. The struggle for power arises simply because men want things, not because of the evil in their desires". (Waltz 2008 p.57).

Morgenthau maintains that approximately all foreign policies intend to carry out one of three following alternatives: 'defending the status quo and maintaining an overall distribution of power; imperialism and trying to change the status quo; or

prestige, which involves impressing other nations with the extent of one's power' (Morgenthau 1978 p.42).

In case of direct threat to their national securities states either 'balance' or 'bandwagon'. In entities with a tradition of political hierarchy, political actors prefer to 'jump on the bandwagon' of the stronger side. The rationale behind bandwagoners' choice of joining to the leading actor is to increase their gains (or reduce their losses) (Waltz 1979 p.126).

John Mearsheimer conveys how realists define the role of states in the international relations in the following manner:

> "First, Realists, like liberals, treat states as the principal actors in world politics . . . Second, Realists believe that the behavior of great powers is influenced mainly by their external environment, not by their internal characteristics. The structure of the international system, which all states must deal with, largely shapes their foreign policies. . . . Third, Realists hold that calculations about power dominate states' thinking and that states compete for power among themselves" (Mearsheimer 2001 pp.17-18).

2.4 Liberal approach

Liberalism is one of the dominant theories of international relations. As a first step in order to broaden our perception of liberalism I would like to present quote by John Gray:

> "Liberalism is individualist, in that it asserts the moral primacy of the person against the claims of any other social collectivity; egalitarian inasmuch as it confers on all humans the same moral status and denies the relevance to legal or political order of differences in moral worth among human beings; universalist, affirming the moral unity of the human species and according secondary importance to specific historical associations and cultural forms; and meliorist in its affirmation of the corrigibility and improvability of all social institutions and political arrangements" (Gray 1986 p.10).

One of the central beliefs of liberals is that individuals should be free from arbitrary state power, persecution and superstition. Furthermore, liberals shed light on the issues like political freedom, democracy, constitutionally guaranteed rights, the liberty of the individual and equality before the law (Burchill 2005 p.55).

Andrew Moravcsik portrays how liberals define the role of states in international relations by comparing with realist perspectives:

> "Where realists view states as 'opaque single units', liberals begin with individuals and groups operating in both domestic and transnational civil society. These are the primary actors in the international system. State behavior is in turn determined not by the international balance of power, whether or not mediated by institutions, but by the relationship between these social actors and the governments representing their interests, in varying degrees of completeness. State preferences are derivative of individual and groups preferences, but depend crucially on which individuals and groups are represented. Finally, the outcome of state interactions is a function, at least in the first instance, not of relative power capabilities, but of the configuration and intensity of state preferences" (Slaughter 1995 p.728).

Zacher and Matthew point out that "liberals have faith in the power of human reason and human action so to change the world that the inner potential of all human beings can be more fully realized" (Van de Haar 2009 p.141).

According to the liberalism, peace is the normal state of affairs. Unlike realists, liberals dismiss the war as a way of obtaining the wealth. Moreover, liberals assert that the war phenomenon could be eliminated with the help of democracy and free trade. As Burchill puts it, "Democratic processes and institutions would break the power of the ruling elites and curb their propensity for violence. Free trade and commerce would overcome the artificial barriers between individuals and unite them everywhere into one community" (Burchill 2005 p.59).

Immanuel Kant also claims that free trade paves the way for peaceful coexistence of nations in the world:

> "Trade … would increase the wealth and power of the peace loving, productive sections of the population at the expense of the war-orientated aristocracy, and … would bring men of different nations into constant contact with one another; contact which would make clear to all of them their fundamental community of interests" (Howard 1978 p.20).

While discussing the importance of free trade it is worth to note that unhindered commerce is one of the vital principles of modern interdependency theory.

Doyle contends that liberals emphasize the attainment of global peace by acknowledging international organizations and international law as crucial means to eliminate the impact of war and diplomacy. Furthermore, he argues that in order to achieve global peace the values of liberal society must be spread around the world (Van de Haar 2009 p.141).

Dunne illustrates the core ideas of liberalism in international relations in the following manner:

> "Peace between democratic states, the positive relation between free trade and peace, the existence of a harmony of interests between people, the importance of creating international institutions and for some (idealist) liberals even world government, the peaceful effects of international integration and interdependence, or the interconnectedness between states and other international actors" (Van de Haar 2009 p.142).

There is common tendency in liberalism to generalize the social conditions which could bring about cooperation or conflict among self-interested actors. Accordingly, the emergence of conflict is triggered by the following factors: divergent fundamental beliefs, conflict over scarce material goods, and inequalities in political power (Moravcsik 1997 p.517).

In order to capture major divergent points of liberalism and realism it is worth to mention that while realists seek for concentrations of state power, liberals highlight that the maintenance of interdependence enables individuals and groups to exert substantial pressure on national governments. The other difference is that realists emphasize that national decision makers should be autonomous, while

liberals view the ‘nature of domestic representation as the decisive link between societal demands and state policy’ (Slaughter 1995 p.728).

Liberal institutionalists agree with neo-realists on the importance of the state and the anarchical condition of the international system. Nevertheless, liberal institutionalists contend that even in an anarchical world there are prospects for cooperation. Furthermore, liberal institutionalists suggest that cooperation among states should be established in the framework of institutions (Burchill 2005 p.64).

Neo-realists and neo-liberals view the issue of state gains from different angles. Burchill elaborates on this above-mentioned case in the following manner:

> “Whereas neo-realists, such as Waltz, argue that states are concerned with ‘relative gains’ – meaning gains assessed in comparative terms (who will gain more?), neo-liberals claim that states are concerned with maximizing their ‘absolute gains’ – an assessment of their own welfare independent of their rivals (what will gain me the most?)” (Burchill 2005 p.65)

2.5 Operationalization of theoretical framework

The choice of above-listed theories provides me with rich analytical tools to discuss empirical findings of the thesis. Taking into account that my study is about European energy security, it is of great importance to conduct research in the light of core ideas of RSCT, realism and liberalism. In my following points I am going to touch upon how aforesaid theories contribute to the empirical analysis of my research.

Bearing in mind major principles of RSCT, we can conclude that EU has all traits of the regional energy security complex. This factor implies that policy decisions regarding export, import and transit of energy in the EU member states should correspond to the common energy interests of the EU. As a union of 27 member states EU is supposed to tackle challenges imposed by energy security within efforts of all EU member states. Furthermore, stemming from the main characteristics of the RSCT, we can discern that

realization of diversification of energy supplies and routes changes balance of energy interdependency to the favor of energy consumers. According to the RSCT, the existence of amity and enmity relations between energy supplier and consumer countries creates terms such as positive and negative energy interdependency.

Taking into consideration that energy resources are of strategic importance and energy field is closely related to the national security issues of states, EU member states are reluctant to cede their competences in the energy sphere to the EU. In my opinion, it is appropriate to discuss diverse energy policies of the EU member states in the context of realist approach. We can discern tough competition among principal actors of international relations (states) for scarce energy resources. As Morgenthau argues, "When there is competition for scarce goods and no one to serve as arbiter, a struggle for power will ensue among the competitors" (Waltz 2008 p.57). I should also note that national security matters, geostrategic struggle for hydrocarbon reserves necessitates utilization of crucial analytical tools of realism in order to analyze behavior of EU member states in the energy domain. Moreover, from my point of view realism is a suitable concept in order to discuss some energy producer nations' utilization of vast energy resources as a political leverage.

Liberalism is one of the valuable theoretical concepts to discuss EU's interaction with its energy suppliers. Liberal approach sheds light on the matter to what extent EU's 'energy thirst' complements or contradicts EU's commitment towards major European values. In this context, I would like to mention that rationale behind EU's ENP initiative was to address diffusion of European norms and principles (democracy, human rights, rule of law, good governance) and energy cooperation with producer and transit countries in the EU's eastern and southern neighbourhood. In general, I do not concentrate on ENP in my research but nevertheless, it is worth to note that ENP is a unique platform where the EU combines diffusion of European norms and principles with energy cooperation.

To sum it all up, all theoretical concepts which I utilize in thesis pave the way for thorough analysis of the empirical material of the research. To exemplify this, it is just enough to mention how aforesaid theories provide diverse insights regarding major aspects of European energy security. For instance, from realist perspective EU member states are prone to act in the framework of national energy policies because of national security concerns. On the other hand, one can argue from theoretical lenses of RSCT that as countries belonging to the same regional energy security complex, EU member states inclined to act in the framework of common external energy policy. While elaborating on diversification alternatives of the EU's energy supplies from realist stance, we can easily discern that old EU member states prefer to communicate with main energy suppliers on bilateral level rather than multilateral. According to central ideas of RSCT, EU should speak with 'a single voice' concerning energy projects of the European continent. Finally, stemming from liberal approach we can argue that EU should maintain harmony between diffusion of European norms and principles and energy collaboration with energy-rich nations.

3 Methodological framework

I am going to use qualitative research method namely, case study as a central methodological tool of my thesis. I reckon that the utilization of the descriptive case study could give me an indispensable opportunity to demonstrate Caspian basin countries' hydrocarbon potential, energy infrastructure and their political willingness towards energy cooperation with the EU. Moreover, with help of case study I want to analyze the prospects of Caspian basin as an alternative energy supply source for EU. Simultaneously, I want to find out to what extent hydrocarbon resources of the Caspian basin could contribute to the European energy security. I would like to draw attention to the fact that while referring to Caspian basin I am considering hydrocarbon reserves of only three littoral states: Kazakhstan, Turkmenistan and Azerbaijan. Taking into consideration the fact that several EU Member States are heavily dependent on Russian energy supplies, I intend to neglect Russian hydrocarbon reserves as a diversification alternative. Nevertheless, we should bear in our mind that Russia will remain the main energy supplier of the European continent within foreseeable future. Diversification of the energy supplies and routes is the vital element of the European energy security which enables the EU to avoid gas and oil disruptions from the third energy supplier and transit countries.

3.1 Qualitative research design

One of the main concerns of the qualitative research is the development of explanations of social phenomena. In other words, qualitative research intends to assist people to understand the world in which they live and to perceive everyday realities of human society. Furthermore, qualitative research interested to gain broad insight about the social aspects of the world. In order to obtain subjective data qualitative researchers analyze the opinions, experiences and feelings of individuals under study. Qualitative researchers mainly utilize data collection

methods such as, individual interviews, focus groups and observation. It should be noted that these above-mentioned data collection methods are quite time consuming (Hancock 1998 p.2)

As Flick puts forward, "qualitative research uses text as empirical material (instead of numbers), starts from the notion of the social construction of realities under study, is interested in the perspectives of participants, in everyday practices and everyday knowledge referring to the issue under study" (Flick 2007 p.2).

Kleining argues that qualitative researchers can conduct research without the use of quantitative methods, whereas quantitative researchers need qualitative methods to interpret the relations they find (Flick 2009 p.25).

Creswell asserts that qualitative research, "[…] begins with assumptions, a worldview, the possible use of a theoretical lens, the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem" (Creswell 2007 p.37).

Finally as implied above, the essence of qualitative research provides instant tools for social science and as in the words of Denzin and Lincoln, "It consists of a set of interpretive, material practices that make the world the visible" (Denzin and Lincoln 2005 p.3). Hancock distinguishes four major types of the qualitative research design: phenomenology, ethnography, grounded theory and case study (Hancock 1998 p.4).

3.2 Qualitative case study

The utilization of the case study as a research method could broaden our knowledge of individual, group, organizational, social, political, and related phenomena. Furthermore, we can discern that the case study has been a common research strategy in diverse fields such as, psychology, sociology, political science, social work, business and community planning. All afore-said fields benefit from the case study method in terms of understanding complex social phenomena. As Yin puts it, "the case study method allows investigators to retain the holistic and meaningful characteristics of real life events – such as individual

life cycles, organizational and managerial processes, neighbourhood change, international relations, and maturation of industries" (Yin 2003 pp.1-2).

Creswell argues that "case study is a qualitative approach in which investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports case descriptions and case-based themes" (Creswell 2007 p.73).

From Flick's point of view the main aim of case studies is the precise description or reconstruction of a case. The scholar points out broader perception of the term 'case' Accordingly, Flick maintains that researcher can take persons, social communities, (e.g., families), organizations and institutions (e.g., nursing home) as the subject of case analysis. Furthermore, Flick illustrates that researcher's subsequent problem will be 'to identify a case that would be significant for researcher's research question and to clarify what else belongs to the case and what methodological approaches its reconstruction requires' (Flick 2009 p.134).

George and Bennett put forward that "a case is an instance of a class of events. The term 'class of events' refers here to a phenomenon of scientific interest, such as revolutions types of governmental regimes, kinds of economic systems, or personality types that the investigator chooses to study with the aim of developing theory (or "generic knowledge") regarding the causes of similarities or differences among instances (cases) of that class of events. A case study is thus a well-defined aspect of a historical episode that the investigator selects for analysis, rather than a historical event itself" (George and Bennett 2005 pp.17-18).

In his book, "Case study research" Yin asserts that "a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin 2003 p.13). Furthermore, Yin conveys that "the case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points; …relies on multiple sources of evidence, with data needing to converge in a triangulating fashion; and … benefits from the

prior development of theoretical propositions to guide data collection and analysis" (Yin 2003 pp.13-14).

Creswell classifies case studies according to the variation in the intent of the case analysis. Subsequently, the scholar distinguishes the following types of case studies: the single instrumental case study, the collective or multiple case study, and the intrinsic case study. According to Creswell, "in a single instrumental case study the researcher focuses on an issue or concern, and then selects one bounded case to illustrate this issue. In a collective case study (or multiple case study), the one issue or concern is again selected, but the inquirer selects multiple case studies to illustrate the issue. Finally, in an intrinsic case study in which the focus is on the case itself (e.g., evaluating a program, studying a student having difficulty) because the case presents an unusual or unique situation" (Creswell 2007 p.74).

Hancock asserts that "as a research design, the case study claims to offer a richness and depth of information not usually offered by other methods. By attempting to capture as many variables as possible, case studies can identify how a complex set of circumstances come together to produce a particular manifestation. It is a highly versatile research method and employs any and all methods of data collection from testing to interviewing" (Hancock 1998 pp.6-7).

It is necessary to point out conceptual validity as one of the influential advantages of the case study method. As George and Bennett put it, "case studies allow a researcher to achieve high levels of conceptual validity, or to identify and measure the indicators that best represent the theoretical concepts the researcher intends to measure" (George and Bennett 2005 p.19). Moreover, George and Bennett shed light to the fact that "case studies have ability to accommodate complex causal relations such as equifinality, complex interactions effects, and path dependency" (George and Bennett 2005 p.22).

When it comes to the limitations of the case studies, Hamel argues that "the case study has basically been faulted for its lack of representativeness...and its lack of rigor in the collection, construction, and analysis of the empirical materials that give rise to this study. This lack of rigor is linked to the problem of

bias...introduced by the subjectivity of the researcher and others involved in the case" (Hamel 1993 p.23).

Yin articulates limitations of the case studies in the following manner: "Too many times, the case study investigator has been sloppy, and has allowed equivocal evidence or biased views to influence the direction of the findings and conclusions" (Yin 1984 p.21).

3.3 Operationalization

The main methodological tool of the research is the case study. Taking into account that I am focusing on one of the energy supply diversification alternatives of the EU, it is more appropriate to utilize single case study. The choice of descriptive case study enables me to trace briefly how Caspian basin became one of the centers of global energy competition. Subsequently, I demonstrate hydrocarbon potential, current energy trends and participation of foreign energy companies in the energy sectors of Kazakhstan, Turkmenistan and Azerbaijan in the framework of descriptive case study. I would like to state that I do not intend to compare energy potential or infrastructure of above-mentioned countries, my research relies on descriptive rather than comparative case study. Throughout the case study my aim is to discuss to what extent Caspian basin's energy resources are substantial for European energy security. The last part of case study illustrates visions of all littoral states of the Caspian basin regarding the legal status of the Caspian. It is necessary to point out that I answer my third research question with discussions covered in case study part of my thesis.

In a nutshell, I would like to convey that utilization of case study as primary methodological tool of the thesis gives me indispensable opportunity to elaborate on the prospects of the Caspian basin as a diversification alternative for the EU's energy supplies. The descriptive character of case study allows me to touch upon all major points which signifies Caspian basin as a substantial diversification alternative. All in all, the use of case study contributed to the empirical analysis of the paper to considerable extent.

4 European energy policy

In this chapter as a first step I illustrate brief history of European energy policy. Subsequently, I touch upon three vital aspects of the European energy decision making. Finally, in the end I shed light on the current energy situation in the EU.

4.1 Historical glance on European energy policy

The energy phenomenon played a substantial role in the establishment of the European Community (EC). More precisely, founding treaties of the EC, the European Coal and Steel Community (ECSC) of 1951 and the European Atomic Energy Community (EURATOM) of 1957 were about Europe's two primary energy sources at that time. It is worth to note that in the beginning of 1950s coal accounted for more than 80 percent of the total energy consumption of the original six member states of the EC. The oil's share in the energy consumption was just 10 percent. Nevertheless, by 1970 coal's share in Europe's fuel mix decreased considerably to 25 percent, while with oil accounting 60 percent of primary energy consumption. Subsequently, after the Three Mile Island accident in US (1979) and Chernobyl disaster in Soviet Union (1986) member states of the EC became more hesitant regarding the utilization of nuclear energy (Baumann 2010 p.81).

After the oil shock of 1970s the European countries started to pay more attention to the security and diversification of the energy supplies, energy efficiency and to the significant need for coordination and collaboration in the energy policies. The creation of the International Energy Agency (IEA) was Europe's institutional response to the embargo imposed by Arab countries. Since then, Europe has been using this Paris-based institution for monitoring and analyzing world energy markets and as a solid buffer against price hikes (Belkin 2008 p.3).

Adoption of the Single European Act (SEA) in 1986 and the subsequent Single Market initiative triggered an EU-wide process of liberalization which paved the way for today's Internal Energy Market (IEM). But as a matter of fact, energy was not included in the White Paper on the Internal Market. After two years decision makers came to conclusion that the internal market would not be complete without a freer energy market. Consequently, after acknowledgement of the economic significance of energy within European integration process energy was incorporated into internal market concept (Matlary 1997 p.20).

During the period of 1990s some scholars entitled energy policy as one of the "weakest" policy areas of the EC/EU. Related to the aforementioned issue, Padgett argues that "the strategic economic importance of the energy sector meant that policy autonomy was guarded jealously by national governments" (Matlary 1997 p.13).

One of the principal achievements of the EU in the energy infrastructure during the period of 1990s was conclusion of the Energy Charter Treaty (ECT). The idea of establishment of a European Energy Community was proposed by Dutch Prime Minister Ruud Lubbers at the Dublin European Council in June 1990. Political declaration on the Energy Charter was signed in The Hague in December 1991. Subsequently, legally-binding ECT was signed together with the Protocol on Energy Efficiency and Related Environmental Aspects in Lisbon in December 1994 (Tekin and Williams 2011 p.21). The main objective of the ECT is to promote foreign energy investments; free trade in energy materials, products and equipment; freedom of energy transit through pipelines and grids; energy efficiency and to provide mechanisms for addressing disputes. Until now, fifty one European and Asian countries acceded to the ECT (Belkin 2008 p.3). The rationale behind EU's ECT initiative was to gain access to the vast energy resources of the former USSR (Sodupe and Benito 2001 p.169). It is worth to mention that majority of the suppliers to Europe hold observer status (like Algeria, Egypt, Iran, Nigeria, Qatar, Saudi Arabia, and UAE) or have not ratified (like Norway and Russia) the Charter (Andoura, Hancher and Woude 2010 p.56).

In the 1990s, before the accession of Central and Eastern European countries, the EU embarked upon the process of liberalizing its gas and electricity markets as a

first stage of IEM which was part of the Maastricht Treaty agenda to establish an Economic and Monetary Union prior to the enlargement (De Jong and Van Der Linde 2008 p.4). In general, the governments of the EU member states supported the idea of an IEM, but nevertheless they were concerned about the parts of it that influenced their domestic energy sectors to considerable extent (Matlary 1997 p.21).

4.2 The Triangle of European energy decision making

First of all, I would like to shed light on the energy policy objectives which are of paramount importance in the European energy debate: to reduce greenhouse gas emissions; to limit subsidies; to decrease import dependence; to phase out nuclear power; to augment the use of renewable energies; to liberalize energy markets; to increase economic competitiveness. Referring to the Green Paper on "a European Strategy for Sustainable, Competitive and Secure Energy" Keppler pictures security of supply, sustainability and competitiveness as the triangle of European energy decision making (Keppler 2007 p.33).

Furthermore, as it is outlined in the European Commission's Communication "secure, sustainable and competitive energy is of fundamental importance to the EU's economy, industry and citizens and a core goal of EU policy. To achieve this goal, the EU needs adequate instruments to act within the EU and to promote its interests in relation to third countries. Past experience proved that bilateral energy relations between individual Member States and third supplier or transit countries can result in a fragmentation of the internal market rather than a strengthening of the EU's energy supply" (Commission 2011 p.2)

Sustainability – With the adoption of "Energy Policy for Europe" in 2007 EU set quite ambitious targets towards the realization of sustainability in the energy field. This aforementioned step could be regarded as a milestone in the environmental dimension of the European energy policy. The goals outlined in the "Energy Policy for Europe" also known as the "20-20-20 targets" are the following:

- ❖ Reduction of energy consumption by 20 %, to be calculated on 2020 baseline projects with a deadline of 2020;
- ❖ The promotion of Renewable Energy Sources (RES) with the aim that their consumption share will amount to 20 % by 2020;
- ❖ A similar promotion of biofuels to increase their road transport final consumption share to 10 % by 2020;
- ❖ Reduction of greenhouse gas emissions by 20 % on a unilateral commitment by 2020, compared to their base-year levels (1990). This objective may be increased to 30 % in a globally cooperative framework; (Doukas, Flamos and Psarras 2008 p.46)

In order to achieve ambitious goals outlined in "An Energy Policy for Europe" EU adopted a Climate and Energy Package with the following proposals:

- ➢ separate production and supply from transmission networks
- ➢ facilitate cross-border trade in energy
- ➢ establish more effective national regulators
- ➢ promote cross-border collaboration and investment
- ➢ achieve greater market transparency on network operation and supply
- ➢ increased solidarity among the EU countries (Barroso 2008 pp.2-3)

Competitiveness – We can discern frequent price fluctuations in the international energy markets during last two decades. This above-mentioned factor urges European decision makers to create fully-integrated IEM. The authors of the "Energy Policy for Europe" portray the advantages of IEM in the following way: "The IEM could stimulate fair and competitive energy prices and energy savings, as well as higher investment. However, all the conditions to achieve this do not yet exist. This prevents EU citizens and the EU economy from receiving the full benefits of energy liberalization. A longer time horizon in the area of carbon constraints is required in order to promote the necessary investments in the electricity sector" (Commission 2007 p.4).

The rationale behind EU's efforts towards increasing competitiveness in the European energy sector consists of establishing a common European energy market favoring principles of competition, transparency and openness (IEA 2008 p.31).

Stacy Closson puts forward the idea that "a competitive European market will foster network connectivity and energy interdependence. Moreover, it will provide the kinds of incentives and opportunities that are necessary for network operators and generators to make the huge investments that are required to bolster energy infrastructure, supplies, and technology innovation in Europe" (Closson 2008 p.1). Subsequently, Closson emphasizes that besides protecting consumers from excessive prices and fostering the competitiveness of European industries, the establishment of an efficient European gas and electricity market is an essential element of Europe's energy security (Closson 2008 p.1).

Furthermore, we should bear in our mind that price volatilities of the hydrocarbon resources entail a heavy economic burden on EU citizens. 'If, for example, the oil price rose to 100$/barrel in 2030, the EU-27 energy total import bill would increase by around € 170 billion, an annual increase of € 350 for every EU citizen' (Commission 2007 p.4)

Taking into consideration the amount of consumers (almost 500 million) the EU has the potential to become the world's largest single electricity and gas market. In order to realize this potential on empirical basis EU should meet the following requirements:

- Effective unbundling of national energy champions, separating the operation of gas and electricity transmission networks from supply and generation activities
- Non-EU companies working in EU markets must apply the same rules as EU companies
- Free movement of gas and electricity across the borders of the EU member states
- Development and effective application of renewable energy sources
- Maintenance of greater solidarity among EU member states in internal market (IEA 2008 p.31)

Former energy commissioner Andris Piebalgs articulated in his speech regarding challenges and perspectives of the EU energy policy to what extent competitiveness could contribute to the consolidation of the European energy sector:

> "The completion of competitive, fully integrated IEM is of key importance in the current European energy policy. We need an open and competitive energy market, with competition between companies looking to become European-wide competitors rather than dominant national players. If Europe is to respond successfully to the many challenges and to invest properly for the future, consolidation of the energy sector should be market driven" (Piebalgs 2006 p.3).

Security of supply – In comparison with sustainability and competitiveness security of supply dominates in European energy debate. Depletion of indigenous hydrocarbon resources, EU's heavy dependence on energy imports and recent gas disruptions (as a consequence of the gas price dispute between Russia and Ukraine) raised actuality of the security of supply in European energy agenda (Belkin 2008 p.1).

European decision makers started to pay more attention to the matter of security of supply with issuing Green Paper on security of supply in 2000. The idea of security of supply was illustrated in the Green Paper in the following manner:

> "The EU'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 interrupted physical availability of energy products on the market at a price which is affordable for all consumers (private and industrial) while respecting environmental concerns and looking towards sustainable development. Security of supply does not seek to maximize energy self-sufficiency or to minimize dependence but aims to reduce the risks linked to such dependence" (Commission 2000 p.2).

4.3 Current European energy trends

EU's heavy dependency on external energy supplies was articulated in the European Security Strategy as one of the global challenges which EU faces in twenty first century: "As a union of 25 member states with over 450 million people EU is one of the world's largest importers of oil and gas. Imports account

for about 50 % of energy consumption today. This will rise to 70% in 2030" (European Council 2003 p.3).

During the period of 1999-2009 EU-27 dependency on imported energy increased up to 53.9 % in 2009 which represents a surge of 9 percent since 1999. Throughout this period Poland demonstrated the highest increase of 22 % with its dependency, while Estonia decreased its dependency approximately by 13 % (Eurostat 2011 p.25).

An indicator of the EU-27 import dependency on oil was 83.5 % in 2009 with an increase of 11 percent since 1999. Denmark was the only net oil exporter among the EU member states in 2009. The United Kingdom used to be net oil exporter until 2005. Because of the production decline in the North Sea oil fields United Kingdom become net oil importer (Eurostat 2011 p.29).

Gas dependency rate of the EU member states reached 64.2 % in 2009 with a substantial increase of 16 percent. Romania was only member state which illustrated considerable plunge in its dependency (from 28.4 % to 15.1 %) during 2009. The only gas exporting countries among EU-27 were Denmark and the Netherlands by 2009 (Eurostat 2011 p.31).

According to the Energy Policies Review by IEA, the share of domestic resources in general natural gas consumption of the EU was 43 % in 2005. Russia, Norway and Algeria, together provides 84 % of gas imports into EU member states. As an essential supplier Russia accounts for 42 % of EU-27 gas imports. Mediterranean countries of the EU (Spain, Italy, France and Greece) imports Algerian gas in the form of pipeline gas and LNG (liquefied natural gas). Russia and Norway deliver gas to customers in Central Europe, United Kingdom and in Benelux countries exclusively through pipelines. LNG imports consist approximately 13 % of total gas imports of EU, with the main suppliers being Algeria, Libya, Qatar and Nigeria (IEA 2008 p.62)

When it comes to the oil, EU covered only 14 % of its oil consumption by local production in 2005. EU's two primary oil suppliers – Russia and Norway, together account for 44 % of EU oil imports. Russia's and Norway's dominance in the EU's supply mix is substantiated by their geographical proximity and, in the

case of Russia, by existence of pipeline infrastructure since COMECON (The Council for Mutual Economic Assistance) era (IEA 2008 p.63).

Predictions of the future consumption show that reliance on imports of gas and oil – already 57 per cent and 82 per cent in 2007, respectively – is expected to rise to 84 per cent and 93 per cent in 2030 (Commission 2007 p.3).

It is of crucial importance to illustrate the energy mix of the EU member states. Development of the EU energy mix over the period of 1990-2004 was relatively stable. EU countries utilized considerably much more coal and lignite in 1990 (27 %) compared to the current consumption (17 %). The use of oil demonstrated stable tendency during that period of time. Because of the environmental concerns coal and lignite have been substituted mainly with natural gas (18 to 25 %), renewables (4 to 7 %) and nuclear (12 to 14 %). Currently, the major energy source used in EU member states is the oil which accounts for 36 % of total. The respective sources of the energy supply mix of EU occupied by natural gas (25 %), solid fuels (17 %), nuclear energy (14 %) and renewable energy (7 %) (IEA 2008 p.20).

5 Common external energy policy

There is no common external energy policy in the EU despite the fact that the basis for creation of the EU was energy. Throughout the history of Union we can discern the transfer of several national sovereignties (or competences) to EU institutions by member states in various spheres, including economic and trade policy. Nevertheless, until now energy policy remains primarily the responsibility of the member states. EU members have been developing their own energy policies, depending on geopolitical interests, their resources and production, their specific needs and diplomatic relations with suppliers and transit countries (Belkin 2008 p.1).

The rationale behind the absence of the common energy policy is the reluctance of some European countries to cede national sovereignty to the EU institutions in the field of energy.

The president of the European Commission Jose Manuel Barroso emphasized the importance of common external energy policy in the consolidation of the EU's role as a global player in international relations:

> "I have described energy policy as the next great European integration project. And it's not hard to see why. A safe, secure, sustainable and affordable energy supply is key to our economic and strategic interests as a global player" (Barroso 2011 p.2).

Different perspectives on energy security among the twenty seven EU Member States bring about divergent external energy policies In order to formulate common external energy policy EU has to come up with an effective mechanism which will coordinate twenty seven diverse policy objectives which include economic, energy and foreign policies (Belkin 2008 p.20).

Existence of considerable differences in the energy mix of the EU member states is an essential challenge on the way to establish common external energy policy. For instance, countries such as Germany and Poland benefit predominantly from

domestic coal in electricity generation, while countries such as France, Finland, Hungary, and Belgium utilize nuclear power in electricity generation. It is noteworthy to touch upon the issue of the endowment of member states with natural resources. Denmark, the Netherlands and the United Kingdom are the only producer countries among EU member states and the rest of the member states are dependent on energy imports to considerable extent. Especially, I would like to mention that the majority of new member states from Central and Eastern Europe (Bulgaria, Estonia, Czech Republic, Latvia, Lithuania, Romania and Slovakia) demonstrates a high level of dependence on imports from Russia. This dependence is substantiated by geographical and historical reasons. Western and Southern member states managed to diversify their energy supplies as a result of energy imports from North Africa and Middle East (Leimbach and Müller 2008 p.7-8).

Another factor which hinders formulation of the common external energy policy in the EU is the preference of some member states to deal with energy suppliers on bilateral level rather than EU level. Duffield and Birchfield argue that "bilateral agreements are distorting efficiency and leading the EU into the uncertainties of prisoner's dilemma diplomatic brinkmanship" (Duffield and Birchfield 2011 p.49). The conclusion of the agreement between Russia and Germany in order to construct a direct gas pipeline running under the Baltic Sea (Nord Stream) could serve as a brilliant example for above-mentioned factor.

Furthermore, Tekin and Williams also highlight national approaches regarding the energy policies in the EU in the following way:

> "National approaches to the energy issue, as well as unilateral energy policy decisions to meet the energy security challenges, automatically affect other EU members. Uncoordinated national decisions concerning energy policy seem to have aggravated the Union's overall vulnerability in energy. Yet, EU-level coordination and harmonization of energy policies merely represent initial steps towards greater energy security. Self-sufficiency in energy is not a feasible option for the EU given the limited availability of domestic energy resources to meet the demand of its highly industrialized economy at its current standard of living" (Tekin and Williams 2011 p.14).

Some member states, such as Germany, France, Italy – the largest importers of Russian gas – have been pursuing bilateral cooperation with Russia in the energy field which consequently will increase their dependence on Russia in the following years. Hereby, it is worth to mention that Russian gas giant Gazprom signed long-term agreements with Eni (Italy), Gasunie (Netherlands), BASF (Germany), E.ON Ruhrgas (Germany) and with Gas De France in the period of 2005-2007 (Baran 2007 p.133).

These above-mentioned cases of the individual member states giving preference to communicate with Russia on bilateral basis triggered strong criticism from the new member states such as Poland and Baltic states. They emphasize that bilateral energy contracts will give Russia considerable amount of political influence over European decision making. Subsequently, these states act as substantial proponents of the common external energy policy in the EU (Belkin 2008 p.12).

Conclusion of bilateral long-term deals with Gazprom demonstrates that some European countries prefer to act on national level rather than supranational level when it comes to energy issues. This factor is justified by the consideration of the energy field as too much strategic and direct connectedness to national security (Codoban 2011 p.42).

Paolo Scaroni, CEO of the Italian Eni, expressed his view regarding the issue of why EU should maintain good relations with Russia in the energy field in his speech in World Energy Congress in 2007:

> "Europe had 'sleepwalked' into being very reliant on a small number of gas suppliers, partly because Brussels concentrated all its efforts into fine-tuning the internal gas market, without grappling with the growing external threats. Under these circumstances of dependence, it makes sense for the EU to build and safeguard good and cooperative relationships with its main suppliers, and in particular with Russia, with which it has geographical, historical and cultural links deepened by decades of mutually profitable trading" (Buchan 2009 p.98).

The need for common external energy policy was acknowledged by the EU heads of states twice in previous years. First time, while agreeing to incorporate the idea

of common energy policy in the Constitutional treaty and the second time when EU officials made substantial move towards a common energy policy at the Hampton Court in 2005.

- The essence of the section (Article III-256) which was devoted to energy policy in the Treaty establishing a Constitution for Europe (TCE) was to respect the unanimity rule in the Council and national mix choices.
- The Hampton Court summit recognized that "the EU needs to diversify its sources of energy and approach its current major energy suppliers in a more coherent manner; but it also needs to pursue energy efficiency and clean technologies and develop a genuinely open energy market" (Geden, Marcelis and Maurer 2006 p.10)

The authors of the Treaty on the Functioning of the European Union (TFEU or 'Lisbon Treaty') portrayed the four main goals of the EU's energy policy in Art.194 (1) in the following manner:

- To ensure the functioning of the energy market
- To ensure the security of supply in the Union
- To promote energy efficiency and energy saving, develop new and renewable forms of energy
- To promote the interconnection of energy networks (Braun 2011 p.1).

It is clearly stated in the European Commission's communication "An Energy Policy for Europe" that only with "speaking with common voice" EU member states could tackle the energy security challenges:

> "The challenges of security of energy supply and climate change cannot be overcome by the EC or its Member States acting individually. It needs to work with both developed and developing countries, energy consumers and producers, to ensure competitive, sustainable and secure energy. The EU and Member States must pursue these goals with a common voice, forging effective partnerships to translate these into a meaningful external policy. Indeed, energy must become a central part of all external EU relations; it is crucial to geopolitical security, economic stability, social development and international efforts to combat climate change. The EU must therefore

develop effective energy relations with all its international partners, based on mutual trust, cooperation and interdependence" (Commission 2007 p.17).

Diverse market structures affect the establishment of the common external energy policy to considerable extent. For example, member states like United Kingdom and the Netherlands have liberalized their electricity markets with effective unbundling of network and distribution companies, while member states like Germany, France and Spain decided to create and support 'national champions' in the energy market which implies explicit tendency of 'economic patriotism'. We can deduce from the latter member states' preference that their national interests outweigh EU interests (Tekin and Williams 2011 pp.30-31).

The authors of Green Paper on "A European Strategy for Sustainable, Competitive and Secure Energy" put emphasis on the matter that by acting together in the framework of common external energy policy EU could easily overcome energy-related geopolitical and economic challenges:

> "The EU has the tools to help. It is the world's second largest energy market, with over 450 million consumers. Acting together, it has the weight to protect and assert its interests. The EU has not just the scale but also the policy range to tackle the new energy landscape. The EU leads the world in demand management, in promoting new and renewable forms of energy, and in the development of low carbon technologies. If the EU backs up a new common policy with a common voice on energy questions, Europe can lead the global search for energy solutions" (Commission 2006 p.4).

5.1 The EU's relations with major energy producers

Russia

Energy phenomenon plays substantial role in EU-Russia relations. Depletion of the domestic resources in EU member states and Russia's considerable hydrocarbon reserves bring about mutual interest in the maintenance of EU-

Russia energy collaboration. Despite this mutual interest the objectives of above-mentioned actors diverge to considerable extent. Duffield and Birchfield put it as, "the EU adheres to a "markets and institutions" approach envisaging strong and binding rules allowing markets to allocate value, Russia pursues a realist "regions and empires" strategy, focused on establishing the state as the prime decision maker, presiding over the economy" (Duffield and Birchfield 2011 p.62)

Russian Federation is one of the significant energy producers in the world. According to IEA report, Russia was the world's second major oil producer after Saudi Arabia, accounting for 12.3 per cent of world's total oil production. In terms of natural gas, Russia was on the first place with production of 657 billion cubic meters (bcm) per year and accounting for approximately 21 per cent of world's total output (IEA 2009 pp.11-13). Russia delivered 33.5 per cent of total oil imports and 42 per cent of total natural gas imports to the EU (Tekin and Williams 2011 p.54).

Paul Belkin put forward that "while Russia's resources and proximity to Europe make Euro-Russian collaboration a necessity, Russia's apparent willingness to use its energy wealth to achieve controversial foreign policy objectives has fueled debate within Europe on how best to manage energy relations with Russia" (Belkin 2008 p.10).

Legal grounds for the EU-Russia energy collaboration are the following institutional frameworks: Partnership and Cooperation Agreement (PCA), EU-Russia energy dialogue and Four Common Spaces (Tekin and Williams 2011 p.54). EU's first external initiative in order to institutionalize its energy relations with Russia was ECT. Nevertheless, after the complete failure of the ECT, the president of the European Commission, Romano Prodi, embarked upon the bilateral "Energy Dialogue" with Russia in 2000 'to at least communicate with Russia about planned steps in energy market liberalization and to promote energy market harmonization' (Duffield and Birchfield 2011 p.67). EU's primary intentions within the framework of this dialogue are "to convince Russia of the need for greater energy efficiency and conservation, greater energy-market openness, adoption of environmentally sustainable production technologies and

improvement of energy production, transportation and investment conditions in Russia" (Tekin and Williams 2011 p.56).

Buchan argues that EU member states could be classified into five groups according to their attitudes towards Russia. These groups are following: 'the Trojan horses' (Cyprus and Greece); 'the Strategic Partners' (France, Germany, Italy and Spain); 'the Friendly Pragmatists' (Austria, Belgium, Bulgaria, Finland, Hungary, Luxembourg, Malta, Portugal, Slovakia and Slovenia); 'the Frosty Pragmatists' (Czech Republic, Denmark, Estonia, Ireland, Latvia, the Netherlands, Romania, Sweden and the United Kingdom); and 'the New Cold Warriors' (Lithuania and Poland) (Buchan 2009 p.93).

EU's former Energy Commissioner, Andris Piebalgs asserts that "energy is sometimes being used as an excuse to hide political reasons for taking different approaches to Moscow" (Buchan 2009 p.93).

Norway

Norway plays an indispensable role in the energy security of the EU. It is noteworthy to illustrate that Norway is the second major natural gas and oil supplier to the EU. In a global framework Norway is the second largest exporter of natural gas and the sixth largest exporter of crude oil (IEA 2009 pp.11-13). Majority of Norway's hydrocarbon resources are concentrated in the North Sea, but experts contend that there are significant reserves in the Norwegian and Barents Seas as well. Unlike from the other main energy suppliers of the EU, Norway belongs to European Economic Area (EEA) which implies that legislation regarding IEM and related policy arrangements, such as completion law, environmental regulations, consumer rights and etc. are applicable in Norway as well (Tekin and Williams 2011 p.48).

Africa

African countries such as Algeria, Egypt, Libya and Nigeria are crucial energy suppliers of the EU after Russia and Norway, especially in the natural gas sector. The Trans-Sahara Gas Pipeline could be regarded as unique opportunity to diversify EU's energy sources and supply routes. As it is highlighted in the

Second Strategic Energy Review, "the Africa-EU Energy Partnership with the African Union together with the African Regional Economic Communities will be instrumental in developing a deeper energy dialogue and concrete initiatives" (Commission 2008 p.9). Taking into consideration potential of the African countries, as integral part of its external energy policy, the EU has approached Africa through bilateral cooperation, the European Neighbourhood and Partnership Instrument (ENPI) and the European Regional Development Fund (Tekin and Williams 2011 p.48).

Middle East

Despite the fact that the Middle East possesses the world's richest proven oil and natural gas reserves, we cannot acknowledge energy producers of this region as the EU's major oil and natural gas suppliers. There are three institutional frameworks through which EU cooperate with Middle Eastern countries in the energy sector: the Euro-Mediterranean Partnership, policy dialogues with Gulf Cooperation Council (GCC) and bilateral agreements with individual states. Mainly, EU communicates with Middle Eastern countries in the energy-related matters within the framework of Euromed Energy Partnership which was established in the conference of the Ministers of Foreign Affairs in Barcelona in 1995. Participants of the Euromed Energy Partnership are EU member states and their Mediterranean and Middle Eastern partners, namely Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestinian Authority, Syria, Tunisia and Turkey (Tekin and Williams 2011 p.50). Directorate General for Energy and Transport lists the priorities of the Euromed Energy Partnership as the following:

- Accelerate reform in the countries on the southern shore of the Mediterranean with a view to the gradual integration of the Euromed electricity and gas markets
- Increase security and safety of energy supplies, infrastructure and oil shipping
- Strengthen energy interconnections (both South-South and North-South) (Badr 2008 p.5)

6 Diversification alternatives of the EU's energy supplies

Diversification of the EU's energy supplies is one of the vital aspects of Europe's energy security. Russia's gas supply disruptions to Ukraine in 2006 and 2009 signaled to the EU member states that it is not reliable to depend on single energy supplier. While analyzing current situation of the energy supply diversification of the whole Union we can discern quite diverse images. Some member states, namely Spain, Italy and France attained diversification of the energy supplies at the expense of imports from North Africa, Middle East and Russia. On the other hand, the group of new member states from Central and Eastern Europe heavily depend on single energy supplier – Russia, especially in terms of natural gas. This dependence is a consequence of the historical heritage and geographical location of the above-mentioned member states (Belkin 2008 p.8)

Moreover, experts predict that natural gas will dominate in the energy mix of the EU member states in the upcoming years. The recent nuclear disaster in Fukushima in 2011 and subsequent reactions of the member states like Germany and Denmark with decision to phase out nuclear power could substantiate afore-said statement (Meister and Vietor 2011 pp.335-336)

Unlike the oil, there is no global market for natural gas. That is why natural gas is regarded as a regional commodity which implies that the transportation of natural gas depends mainly on fixed pipeline infrastructure (Sartori 2012 p.2).

Currently, EU receives 82 per cent of its total gas imports through three main energy corridors which are the following: Eastern Gas Corridor (gas supplies from Russia), Northern Gas Corridor (gas supplies from Norway) and Western Gas Corridor (gas supplies from North Africa) (Meister and Vietor 2011 pp.336).

As it is illustrated in the Second Strategic Energy Review, the European Commission launched a new initiative of the Southern Gas Corridor which

intends to deliver natural gas from Caspian Basin and Middle East to the European markets (Commission 2008 p.4).

Furthermore, Meister and Vietor claim that as the result of Russian-Ukrainian gas dispute of 2006 and Russian-Georgian war of 2008 the idea of Southern Gas Corridor and its flagship project, the Nabucco pipeline, caught widespread attention in European debate concerning the diversification of the energy supplies (Meister and Vietor 2011 pp.338).

6.1 The Southern Gas Corridor

There are several projects competing in order to get opportunity to deliver natural gas from Caspian Basin to the European markets in the framework of the Southern Gas Corridor. These projects are the following: the Interconnector Turkey-Greece-Italy (ITGI), the Trans-Adriatic Pipeline (TAP), the Interconnector Azerbaijan-Georgia-Romania (AGRI), Nabucco and White Stream (Meister and Vietor 2011 pp.338).

ITGI – The shareholders of the consortium which runs ITGI project are Franco-Italian energy firm Edison, the Greek state-owned company DEPA and its subsidiary DESFA, the Bulgarian energy company BEH and the Turkish state-owned energy company Botas. This project consists of already operational Interconnector Turkey-Greece (ITG) with 11.5 bcm transport capacity per year and the planned Interconnector Greece-Italy (800 km long) with transport capacity of approximately 10 bcm per year. Consortium reports that in case of the future supplies from Caspian Basin, the pipeline's capacity could be upgraded to 20 bcm. When it comes to the financial side of the project, experts estimate that construction costs could be between 1.5 and 2 billion dollars (Sartori 2012 p.3).

TAP – Norwegian energy giant Statoil, Swiss energy company EGL and German energy company E.ON Ruhrgas together lead TAP consortium. The proposed pipeline will cross the territories of Greece, Albania and Italy. The length of the onshore section of the pipeline is 680 km, while the length of the offshore part which will cross the Adriatic Sea is 105 km. According to the TAP consortium the

initial capacity of the pipeline is expected to be approximately 10 bcm per year, but it could be upgraded up to 20 bcm in the future. The construction costs of the TAP are estimated approximately 1.5 billion dollars (Sartori 2012 p.4).

While comparing ITGI and TAP we can draw conclusion that both of the projects intend to deliver 10 bcm of gas from Shah Deniz II which will come on-stream in 2017 to the Southern European markets, namely, to Greece, Albania and Italy. The other common characteristic of the above-mentioned pipelines is that they are not as expensive as Nabucco.

Nabucco – Taking into account both economic and geostrategic interests, Nabucco is regarded as flagship project of the Southern Gas Corridor. In terms of transportation route, capacity and construction costs Nabucco is completely different from both ITGI and TAP. Nabucco consortium includes the following national energy companies: Austrian OMV, Hungarian MOL, Romanian Transgas, Bulgarian Bulgargas and Turkish Botas. The only private energy company in the consortium is German RWE. Nabucco will pass through the territories of Turkey, Bulgaria, Romania, Hungary and Austria. The length of the pipeline is 3893 km. Nabucco's transport capacity is anticipated to reach 31 bcm per year by 2020. The initial construction cost of Nabucco was 10.9 billion dollars, but afterwards EU Energy Commissioner Günther Oettinger articulated that this figure could go up between the ranges of 13-18 billion dollars (Sartori 2012 p.4).

Russia's gas supply disruption to Ukraine in 2006 gave the EU "wake-up call" in terms of actively to embark upon the process of the diversification of the EU's energy supplies. Subsequently, the European Commission entitled the Nabucco as the EU priority project. A former Dutch foreign minister, Jozias van Aartsen was appointed as the EU coordinator of NG3 (or Natural Gas No.3) – the Caspian Sea-Middle East-European Union Gas Route in 2007 (Baran 2008 p.7). In order to provide additional natural gas supplies for Nabucco the European Commission signed a series of Memorandum of Understandings, first one with Kazakhstan in 2006, second one with gas-rich Turkmenistan in 2008 and with Uzbekistan in 2011. The another important step for the promotion of Nabucco was the conclusion of Joint Declaration on the Southern Gas Corridor with Azerbaijan in

2011, which the European Commission President Jose Manuel Barroso presented as major breakthrough for European energy security (Sartori 2012 p.7).

EU coordinator for the Caspian Sea-Middle East-European Union Gas Route, Jozias van Aartsen emphasized the Nabucco's strategic significance in the diversification of the EU's energy supplies by saying that, "Some infrastructure projects are of such great importance that we should realistically expect some form of public subsidy for their realization. I would put Nabucco, or an equivalent route, in that category" (Buchan 2009 p.107).

The main hurdle on the way to turn Nabucco into a reality is the lack of sufficient gas volumes. It is worth to mention that Azerbaijan is the only gas producer from Caspian Basin which fully committed to feed gas into Nabucco pipeline during the first stage of the project. The problem is that Azerbaijan's gas reserves will not be sufficient for the second stage of the Nabucco project. The Central Asian states of Kazakhstan, Turkmenistan and Uzbekistan are considered as the potential suppliers for the second stage of the Nabucco project. Nevertheless, as result of Russia's successful energy diplomacy, Russia managed to sign long-term gas agreements with the afore-said Central Asian states. This factor put question mark on the gas supplies from Central Asian states for the second stage of the Nabucco (Aliyeva 2009 pp.2-3).

As crucial means to diversify the gas supply of the member states EU gives its support to all projects that are part of the Southern Gas Corridor. The European Commission allocated 20 million euros for the different projects in the framework of Trans-European Energy Network (TEN-E) and other than that 200 and 145 million euros respectively for Nabucco and ITGI/IGB (Meister and Vietor 2011 pp.343).

As a matter of fact, EU member states support and promote energy projects in which their own national companies take part. Moreover, member states formulate their energy policies taking into consideration national interests rather that Union's interests. As a direct example, to this afore-said tendency we can bring up the matter that member states such as Bulgaria, Hungary and Austria participate both in EU priority project of Nabucco and in Nabucco's rival project South

Stream which is led by Russian gas giant Gazprom (Meister and Vietor 2011 pp.344).

6.2 Russian response to the EU's Southern Gas Corridor initiative

It is of great importance to touch upon how Russia views the efforts of the EU in the framework of the diversification of its energy sources and routes. As Feklyunina illustrates this matter in her article, "EU diversification projects are considered to be politically motivated, anti-Russian and not based on purely economic matters" (Feklyunina 2008 p.139).

In order to counter EU's endeavors towards breaking Russia's monopoly in gas exports to the EU, Russia launched its own energy projects in collaboration with the several EU member states. The first achievement of Russia's energy diplomacy in above-mentioned tendency was the construction of the Blue Stream in 2003 (Project partners: Gazprom and Eni) which as a consequence halted the realization of the Trans-Caspian pipeline at that time. Russia's another outstanding initiative was the South Stream project which was mainly created in order to undermine the plausibility of the EU's flagship project of Nabucco.

Gazprom's Vice-President Alexander Medvedev and Eni's CEO Paolo Scaroni signed a Memorandum of Understanding on the construction of the South Stream gas pipeline on June 23, 2007. Proposed pipeline would traverse the territories of Russia, Bulgaria, Serbia, Hungary, Austria, Greece and Italy. The length of the offshore part of the South Stream is 900 km (Baran 2008 p.1). Destination consumer markets will receive the first gas through the South Stream in 2015. During the first stage of the project the transport capacity of the pipeline will be 15.75 bcm per year. Afterwards, the South Stream will transmit gas with full capacity of 63 bcm per year by 2018/2019. Estimated construction costs are between 19-25 billion euros. The main stakeholders in the South Stream project are Gazprom and the Italian company Eni each with 50 per cent stakes. Nevertheless, Eni officials articulated their consent to reduce their stake in the

project in case if other energy companies will show interest to join the South Stream project. After the conclusion of Memorandum of Understandings with German Wintershall and French EDF, the number of energy companies in the South Stream project reached five in 2011. The above-mentioned companies will make a final investment decision in late 2012. Subsequently, the construction works are planned to start in 2013 (Sidar and Winrow 2011 p.55).

Taking into consideration the fact that both the Nabucco and the South Stream intend to deliver gas to the same consumer markets and both pipelines' transportation routes cross mostly the same transit countries, we can conclude that the construction one of the projects will decrease realization probability of the another project to considerable extent. While comparing the Nabucco and the South Stream, Loskot-Strachota claims that, "South Stream is significantly less advanced than Nabucco. Even though the project has been initiated by the world's largest gas producer (Russia), which guarantees a supply base, it is difficult at the moment to clearly determine the economic profitability or likelihood of its building. Moreover, it seems that – contrary to Moscow's efforts – Nabucco is still the most realistic project, and the EU (with US support) will continue its efforts to make its implementation successful" (Loskot-Strachota 2008 p.4).

I would like to draw attention to the fact that while Eni has purely commercial interest in the South Stream project, in Gazprom's case it is an indispensable opportunity to preclude Nabucco's realization which as a consequence will increase Gazprom's gas monopoly in Central and South-East Europe (Baran 2008 p.1)

As Sidar and Winrow put forward, "A major obstacle to South Stream has been the 2009 EU directive which would compel Gazprom to allow third party access to the pipeline network or face strict penalties" (Sidar and Winrow 2011 p.55). Despite the Russian authorities' substantial efforts in order to obtain exemption from the EU's third party access rule, the EU Energy Commissioner Günther Oettinger disappointed them by giving his support to the South Stream's main rival, the Nabucco project (Sidar and Winrow 2011 p.55).

6.3 TANAP – one step closer to the realization of the Southern Gas Corridor

Until December of 2011 the Nabucco was a project of paramount importance in terms of capacity, intercontinental scope and market impact with a subsequent intention to weaken Russia's monopoly of gas exports in Central and South-East Europe. Energy ministers of Azerbaijan and Turkey signed a Memorandum of Understanding in order to erect Trans-Anatolia gas pipeline (TANAP) on December 26, 2011. After six month of period, leaders of Azerbaijan and Turkey, President Ilham Aliyev and Prime Minister Recep Tayyip Erdogan signed the inter-governmental agreement on TANAP on June 26, 2012. Conclusion of this agreement brought the realization of the Southern Gas Corridor one step closer. According to this agreement, Azerbaijan's state-owned oil company – SOCAR will hold 80 per cent of shares, Turkish Petroleum (TPAO) and Turkey's state-owned pipeline operator Botas will hold 10 per cent each (Socor 2012 Vol.9 Issue 122).

The transport capacity of the TANAP project is 16 bcm per year during the first stage of the project. Turkish markets will receive 6 bcm of gas piped through TANAP pipeline and the rest 10 bcm is destined for the European markets. TANAP is designed with upward scalable capacity which means that during the second stage by 2023 pipeline will transmit 23 bcm per year and subsequently during the third stage by 2026 31bcm of gas will be delivered by pipeline. TANAP pipeline would run from the Georgia-Turkey border to the Turkey-Bulgaria border. As a continuation of the TANAP pipeline to deliver Caspian gas to the European markets there were three possible options: a shorter version of the Nabucco pipeline – Nabucco-West, BP's proposition of South-East Europe Pipeline (SEEP) and TAP (Umbach 2012 p.2). The Consortium of Shah Deniz gas producers (BP and Statoil with 25 per cent each; SOCAR, Total, Lukoil and NIOC with 10 per cent each; and TPAO with 9 per cent) has selected Nabucco-West as a continuation pipeline for Caspian gas into Central Europe. Vladimir Socor argues that, "The Shah Deniz producers' selection of Nabucco-West follows logically from Baku's and Ankara's decision to build the Trans-Anatolia pipeline with scalable capacity for potentially large volumes of Caspian gas.

Nabucco-West proposes to handle such volumes. By contrast, Nabucco's rival pipeline projects envisaged comparatively small volumes" (Socor 2012 Vol.9 Issue 124).

Modified version of the old Nabucco pipeline – Nabucco-West will begin at the Turkey-Bulgaria border and will end at the Central European Gas Hub at Baumgarten near Vienna. The length of the Nabucco-West is 1300 km instead of 3893 km. The analyst of the Jamestown Foundation, Vladimir Socor asserts that "Strategically, however, only Nabucco meets the EU's supply diversification goals. Italy's gas supplies are ample and highly diversified already, even if an Italian winter is dramatically portrayed as Arctic-like to justify TAP taking the 10 bcm of Shah Deniz Phase Two gas to Italy. Conversely, Nabucco-West is configured for strategic volumes to target the Nabucco participant countries" (Socor 2012 Vol.9 Issue 124). EU Energy Commissioner Günther Oettinger also conveyed the significance of the Nabucco-West by saying, "It is clear that Vienna (Baumgarten) is the European hub in the gas business. For this reason, we want the gas to come to Austria from the Caspian region through Bulgaria, Romania and Hungary" (Socor 2012 Vol.9 Issue 124).

7 Caspian basin as a diversification alternative for the EU's energy supply

The Caspian Sea is surrounded by Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan. Caspian basin's vast energy reserves always attracted the attention of the different states throughout history. After Russian Empire's consent on the issue of foreign investment in 1872, the Western coast of the Caspian Sea, namely, Baku became one of the main centers of oil production in the world at that time. In the end of 19th century the Nobel brothers, the Rothschilds, Royal Dutch Shell contributed to the development of oil industry in Baku to considerable extent. The Nobel brothers constructed the world's first pipelines, first modern refinery and first oil tanker in the Western coast of Caspian Sea, in Baku. The Rothschilds sponsored the construction of the Baku-Batumi railway line which as a consequence created unique opportunity for Azerbaijani crude oil to reach European markets via the Black Sea. It is worth to mention that Azerbaijani oil played key role in Soviet Empire's victory in the Second World War. The discovery of new oil reserves in the Volga-Ural region and in Western Siberia brought about considerable plunge in exploration and production in the Caspian basin in the second half of the 20th century (Biresselioglu 2011 pp.60-61).

After the demise of the Soviet Union in 1991, we can discern the revival of international attention towards rich oil and gas reserves of the Caspian basin. With the emergence of several independent states – mainly Turkic-speaking – in Central Asia and the South Caucasus, the Caspian region became the center of the Great Game in the 21st century. Global powers such as the United States, Russia, China and the EU, and regional powers like Turkey, Iran, Pakistan and India have deep interests in the hydrocarbon reserves of the Caspian basin. Above-mentioned states are competing for regional influence, access to energy and control of transit routes in the Caspian region. Taking into consideration the fact that the world's

hydrocarbon reserves shrink, there will be intense competition for Caspian energy reserves among afore-said actors (Biresselioglu 2011 p.62).

While taking a closer look at the activities and objectives of the above-mentioned states in the Caspian region we can see quite diverse images. The United States intend to promote democracy, regional cooperation, peace, energy diversification, and American business opportunities in the region. Turkey's strategic geopolitical location paves the way for Turkey to become major transit route for a shipment of Caspian hydrocarbon resources to the European markets. Furthermore, Turkey utilizes its historic, cultural and ethno-linguistic ties with states of the Caspian basin in order to expand its political influence in the region (Biresselioglu 2011 p.62). In order to emphasize the importance of the Caspian region in Russian foreign policy I would like to present President Vladimir Putin's speech which was made after the formal agreement on Baku-Tbilisi-Ceyhan (BTC) pipeline: "We must understand that the interest of our partners in other countries – Turkey, Great Britain, and the USA – toward the Caspian Sea is not accidental. This is because we are not active. We must not turn the Caspian Sea into yet another area of confrontation, no way. We just have to understand that nothing will fall into our lap out of the blue, like manna from heaven. This is a matter of competition and we must be competitive" (Biresselioglu 2011 p.63).

7.1 Kazakhstan

It is worth to note that Kazakhstan possesses the largest oil reserves of the Caspian basin. In terms of production, Kazakhstan produces almost two-thirds of the region's overall output. At the same time, the biggest known oil fields of the Caspian basin namely, Tengiz, Karachaganak, Kurmangazy, and Kashagan belong to Kazakhstan. After gaining independence in 1991, the national oil company of Kazakhstan, KazMunayGaz (formerly Kazakhoil) has concluded energy deals with several foreign energy companies in order to develop country's oil and gas fields (Bahgat 2007 p.159).

A consortium led by the United Kingdom's British Gas and Italy's Eni extracts gas in one of the world's largest gas-condensate field in Karachaganak. According

to the contracts signed with Kazakh government, an international consortium which includes Royal Dutch Shell, Eni, ExxonMobil and Conoco Philips has been developing Kashagan, the fifth largest oil field in the world (Bahgat 2007 p.159).

Unlike its neighbours (Turkmenistan and Uzbekistan) Kazakhstan pursues "multi-vector" policy in the energy field by taking into consideration regional geopolitical and energy interests. Kazakhstan is dependent on Russian transportation networks in order to transmit its crude oil to the European markets. Kazakhstan mainly uses export routes such as Atyrau-Samara pipeline, Caspian Pipeline Consortium (CPC) which delivers oil from Karachaganak and Tengiz field to the Russian port of Novorossiysk, and cross-Caspian shipping routes which take Kazakh oil to Baku and then by rail to the Georgian port of Batumi. Nevertheless, we can discern that Kazakhstan strives to diversify its export routes in cooperation with Chinese and Western partners. In this context we can point out the acquisition of Romania's Rompetrol by Kazakh national oil company, KazMunayGaz, which implies access to European markets through its ownership of several oil refineries in Romania. Moreover, Kazakhstan has also piped oil directly to European markets by delivering it to Novorossiysk through the CPC, to the Georgian port of Supsa and to the BTC pipeline. In order to decrease its dependence on Russian pipeline system Kazakhstan attempted to export oil to the Odessa-Brody pipeline in Ukraine, but consequently through its influence in Ukraine, Russia halted the realization of project (Luft and Korin 2009 p.111).

7.2 Turkmenistan

Referring to Jim Gillet, Gaffney, Cline and Associates business development manager, Reuters report that, "Turkmenistan's gas reserves are more than enough for any potential demand over the foreseeable future, whether it be from China, Russia, Iran or Europe" (The Telegraph 2011).

According to the World Energy Outlook 2009, Turkmenistan's proven natural gas reserve was about 7.94 trillion cubic meters (tcm) in 2008. One of the giant gas fields of Turkmenistan, Dauletabad-Donmer which almost possesses half of the country's natural gas reserves located in Amu Darya basin. It is necessary to note

that during the last decade 17 new natural gas deposits have been discovered in the following regions of Turkmenistan: Lebansky, Maryinsky and Deashoguzsky (Arinch and Elik 2010 p.171). Furthermore, the World Energy Outlook 2009 illustrates that the share of the four Caspian producers (Azerbaijan, Kazakhstan, Turkmenistan and Uzbekistan) in the world natural gas production will increase from 180 bcm in 2008 to approximately 220 bcm in 2015 and 310 bcm in 2030 (Arinch and Elik 2010 p.172).

Turkmenistan aspires to take part in different pipeline projects in order to decrease dependency on Russian transportation networks. The first priority project for Turkmenistan is direct gas pipeline to China which will deliver 30 bcm of Turkmen gas per year to the Chinese markets. Turkmen President Gurbanguly Berdimuhamedow also interested in the realization of the trans-Caspian gas pipeline. Moreover, in order to diversify its export routes Turkmenistan intends to construct pipeline via Northern Afghanistan, Pakistan and across India, the so-called TAPI (Turkmenistan, Afghanistan, Pakistan and India) pipeline (Luft and Korin 2009 pp.113-114).

7.3 Azerbaijan

Former EU commissioner Van Den Broek articulates the importance of the EU's relations with Azerbaijan in the following manner: "The EU's relations with Azerbaijan are more important than energy benefits and it plays a key role in our plans that reach up to Central Asia. Besides, it helps maintain stability in the Caucasian region of the European continent" (Biresselioglu 2011 p.80).

After dissolution of the Soviet Union Azerbaijan embarked upon formulation of independent energy policy. As a first step Azerbaijan signed a production sharing agreement on the joint development of Azeri, Chirag and Gunashli oil fields with a consortium of Western companies, namely, BP (United Kingdom), Amoco (United States), Lukoil (Russia), Pennzoil (United States), Statoil (Norway), McDermott (United States), Ramco (Scotland), TPAO (Turkey), Delta Nimir (Saudi Arabia) in 1994. Afterwards, these above-mentioned companies established consortium known as Azerbaijan International Operating Company

(AIOC). There were some changes in the structure of AIOC. While McDermott, Ramco and Lukoil sold their shares, new companies such as ExxonMobil (United States), ITOCHU (Japan) and INPEX (Japan) joined the consortium. Because of its historical, political and international importance this agreement was entitled as the "Contract of the Century" (Luft andKorin 2009 p.115).

Currently, Azerbaijan delivers the oil produced in the framework of the "Contract of the Century" via BTC pipeline to the Turkish Mediterranean port of Ceyhan. Elin Suleymanov, Azerbaijani ambassador to United States argues that, "frivolously described by some as a 'pipe-dream' in the 1990s, the BTC pipeline stands as a vital element of the regional infrastructure and a success of Western policy" (Suleymanov 2008 p.116). At the same time, Azerbaijan pipes it natural gas via the Baku-Tbilisi-Erzurum (BTE) pipeline which is also known as the South Caucasus Pipeline (SCP) to the Turkish markets. Subsequently, Turkey re-exports some part of this gas through Turkey-Greece interconnector to the Greek markets (Suleymanov 2008 p.116).

The Oil and Gas Journal illustrates that Azerbaijan's natural gas reserve is approximately 850 bcm according to the information available by January 2009. It is noteworthy to mention the fact that Azerbaijan was a net importer (mainly importing natural gas from Russia) until 2007. Nevertheless, since the start-up of Shah Deniz natural gas field Azerbaijan became a net exporter of natural gas in 2007 (Arinch and Elik 2010 p.185).

Azerbaijan can also serve as a transit country for a transportation of natural gas from Turkmenistan and Kazakhstan to the European markets. This idea was proposed by the United States in the late 1990s in the form of Trans-Caspian gas pipeline which will transmit natural gas from Turkmenistan and Kazakhstan through the Caspian Sea to Azerbaijan. Afterwards, it will be connected to the BTE pipeline which will transport gas to Turkey, by circumventing both Russian and Iranian territories. Subsequently, in May 1999 Turkey and Turkmenistan concluded agreement on the transportation of 30 bcm of Turkmen gas to the European markets, 16 bcm of which would be destined for Turkey. After six month in November 1999 Turkmenistan, Azerbaijan, Georgia and Turkey signed an intergovernmental declaration in order to provide legal framework for the

Trans-Caspian gas pipeline. Fierce Russian and Iranian opposition to a Trans-Caspian gas pipeline halted the realization of project. Russia and Iran have been utilizing environmental concerns plus the unresolved legal status of the Caspian Sea as effective instruments in order to prevent the realization of the Trans-Caspian gas pipeline (Tekin and Williams 2011 p.153).

In the context of Russia's strong opposition to the erection of Trans-Caspian gas pipeline, Great Britain's energy minister, Malcolm Wicks put forward that, "The right to decide on this matter is Turkmenistan's and Azerbaijan's and nobody else's. Oil and gas issues are not just energy issues; they are national security issues for many countries. The EU's cooperation with countries in the Caspian region should be seen through the prism of the energy security and national security of all states involved in these projects" (Luft and Korin 2009 p.116).

7.4 The legal status of the Caspian Sea

After the break-up of the Soviet Union a number of littoral states in the Caspian Sea reached five. This factor affected geopolitical situation of the Caspian basin to considerable extent. Until the collapse of the Soviet Union the legal status of the Caspian Sea was regulated on the basis of the Soviet-Iranian treaties which were concluded in the first half of the 20th century. According to the Friendship Agreement of 1921 and the Treaty of Commerce and Navigation of 1940 which were concluded between the Soviet Union and Iran, the Caspian Sea was solely open to their own vessels which as a subsequence precluded the entrance of vessels from the other countries. Moreover, contracting parties agreed to use a 12 mile zone of their respective coasts for exclusive fishing rights. Oddly enough, the Soviet Union and Iran did not mention anything regarding the delimitation of official sea borders between them and about the development of hydrocarbon resources under the seabed (Bahgat 2007 p.161).

A central point in the negotiations on the legal status of the Caspian is whether to consider Caspian as a sea or as a lake. According to the United Nations Convention on the Law of the Sea (UNCLOS), littoral states of the sea may have 12 miles from the coast as their territorial waters and further a 200 mile distance is

considered as an exclusive economic zone (EEZ) of the coastal states. In case of application of the Law of the Sea to the Caspian, water surface and seabed mineral resources of the Caspian will be divided into national sectors of the littoral states. In case of consideration the Caspian as a lake (condominium approach), water surface and seabed mineral resources of the Caspian will be utilized on a joint basis by all littoral states (Bahgat 2007 p.161-162).

Until now there is no formal agreement among the littoral states on the legal status of the Caspian, nevertheless countries of the Caspian basin managed to conclude bilateral agreements in order to delimit maritime boundaries between them. I would like to illustrate changing positions of the littoral states concerning the legal status of the Caspian.

Despite the fact that initially Russia was in favour of condominium approach, in 1996 Russia presented an idea of giving a 45 mile coastal zone to each littoral state where it can maintain exclusive rights over the development of undersea mineral resources. After Azerbaijan, Kazakhstan and Turkmenistan's negative feedback to the above-mentioned Russian proposal, Moscow decided to promote the principle of dividing seabed and its mineral resources among the coastal states of the Caspian. Accordingly, the division would be carried out on the basis of median line approach. Subsequently, in 1998 Russia and Kazakhstan concluded an agreement which divided the seabed of the Northern Caspian according to the principle of modified median line. Contracting parties decided to control surface waters and matters like shipping, fishing and environment under joint ownership. At the same time, Russia and Kazakhstan agreed on the joint development of any new oil and gas fields, if the delimitation line crosses rich hydrocarbon resource deposits. Following this, Azerbaijan and Russia signed an agreement in 2001 in order to divide maritime boundaries between them on the same principle of median line (Bahgat 2007 p.162).

The major breakthrough in the negotiations on the legal status of the Caspian was trilateral agreement of 2003, among Kazakhstan, Russia and Azerbaijan which divided the Northern seabed of the Caspian on median line principle giving 27, 19 and 18 per cent of the divided part to the above-mentioned states respectively. However, Turkmenistan and Iran announced the trilateral agreement among

Kazakhstan, Russia and Azerbaijan as invalid by substantiating their views that the Caspian needs an agreement of all littoral states (Ghafouri 2008 p.88).

Iran is the only littoral state which does not accept any bilateral agreement in order to divide the Caspian. Iranian officials contend that the mineral resources of the Caspian seabed should be developed on a collective basis by all coastal states. The rationale behind Iran's strong opposition to utilization of the median line principle of dividing the Caspian seabed into national sectors is that the Iranian coasts of the Caspian possess considerably less oil and natural gas reserves than the other littoral states' coasts of the Caspian (Bahgat 2007 p.163).

It is necessary to point out that during the last few years Iran expressed that it is ready to agree on division of the Caspian into national sectors but with condition that each littoral state should get 20 per cent of the seabed and water surface. Despite the fact that Iran has been completely against bilateral agreements to divide the Caspian, Iranian energy companies have took part in the development of hydrocarbon resources in the national sector of Azerbaijan. Moreover, Iran concluded agreements with international energy companies in order to embark upon exploration and development of natural gas and oil in the Iranian sector of the Caspian (Bahgat 2007 p.164).

8 Conclusion

This study has intended to shed light on the substantial aspects of the European energy security. The author has pointed out Russian-Ukrainian gas disputes of 2006 and 2009 as a turning point in the European energy security debate. Throughout the course of the study, the author put emphasis on the fact that common external energy policy is one of the prerequisites for the maintenance of the European energy security. Nevertheless, as a matter of fact there is no common external energy policy in the EU. That is why I addressed the following issue in one of my research questions: Which factors hinder the establishment of a common external energy policy of the EU? Accordingly, in the chapter which answers above-mentioned research question author draws attention to the bilateral relations of several EU member states (Germany, France and Italy) with energy supplier countries such as Russia which as consequence undermines the establishment of the common external energy policy of the EU. Furthermore, thesis has discussed issues like how diverse market structures of the EU member states influence the formulation of the common external energy policy of the EU. In order to grasp the role of energy factor in the EU foreign policy I touched upon the EU's relations with major energy producers. In addition, I illustrated legal frameworks through which EU regulates its relations with its main energy suppliers.

Another major argument of the thesis is that diversification of energy supply and routes is the second prerequisite for the maintenance of the European energy security. It is worth to note that above-mentioned Russia's gas disruptions to Ukraine in 2006 and 2009 triggered intense discussions around energy diversification alternatives of the EU. The author has shed light on the EU's a new initiative of the Southern Gas Corridor which in case of implementation will bring natural gas from the Caspian basin and Middle East to the European markets. Furthermore, I have pointed out that the realization of the Southern Gas Corridor will diversify the EU's energy supply and route and weaken the monopoly of the Russian gas giant, Gazprom in the European gas markets to considerable extent. Different pipeline projects which intend to bring natural gas from the Caspian basin to the European markets were portrayed in the chapter which dedicated to

diversification of energy supply and routes. I gave special attention to the EU's flagship project of Nabucco. Subsequently, I elaborated on the factors which halt the realization of the Nabucco.

During the course of the study, I acknowledged the fact that Russia is one of the substantial energy suppliers of the EU. At the same time, I underlined that Russia utilizes its rich hydrocarbon resources as a political leverage. In this context, it is enough just to mention cases when Russia cut off gas or oil supplies to the countries such as Belarus, Georgia, Lithuania and Ukraine. Moreover, I illustrated that Russia initiated its own pipeline projects in order to undermine the plausibility of the EU-endorsed projects. It is worth to mention that Russia managed to realize one of these pipeline projects, namely, Nord Stream which involves energy companies from Germany (E.ON, Wintershall), France (GDF Suez) and the Netherlands (Gasunie).

Finally, in the last chapter of the thesis I discussed the potential of the Caspian basin countries as an alternative for the diversification of the EU's energy supply. Different EU documents pointed out that Caspian basin countries are of great importance as an alternative energy supply sources. Nevertheless, I should also note that there are some challenges which hinder the transportation of vast hydrocarbon resources of the Caspian basin to the European markets. One of these challenges is the unresolved legal status of the Caspian which I discussed more detailed in the last chapter of the thesis.

9 Executive summary

During 1950s the energy phenomenon was influential impetus for the European integration. In this context we can point out that founding treaties of the European Community, the European Coal and Steel Community (ECSC) of 1951 and the European Atomic Energy Community (Euratom) of 1957 were about Europe's two primary energy sources at that time (Bauman 2010 p.81). Despite the fact that the basis for establishment of the EU was energy there is still no common external energy policy in the EU. Throughout the history of Union we can discern the transfer of several national sovereignties (or competences) to EU institutions by member states in various spheres, including economic and trade policy. Nevertheless, until now energy policy remains primarily the responsibility of the member states. EU members have been developing their own energy policies, depending on geopolitical interests, their resources and production, their specific needs and diplomatic relations with suppliers and transit countries (Belkin 2008 p.1).

It is worth to mention that the factors such as declining tendency in the production of the European hydrocarbon resources, the EU's growing dependence on the external energy supplies, unstable prices of the global energy resources, and the matter of fragmented internal energy market in the European continent escalated the significance of the European energy security in the EU's political agenda. Apart from that, tough competition for energy resources which tightened by emerging economies like Brazil, China and India plus Russia's discernible aspirations in the utilization of "energy diplomacy" affect European energy security to considerable extent (Belkin 2008 p.1).

I would like to draw attention to the fact that majority of scholars define energy security from consumer countries' perspectives which mainly concentrates on the idea of supply security. But while discussing the issue of energy security in a global framework we should take into account the views of producer and transit countries as well. Energy producer countries view energy security as security of

demand, sufficient access to consumer markets (Doukas, Flamos and Psarras 2008 p.15).

The main argument of this thesis is to emphasize that diversification of energy supply and routes and the establishment of common external energy policy are substantial steps towards the maintenance of the European energy security.

Theoretical framework of the thesis consists of theories such as Regional Security Complex Theory (RSCT), realism and liberalism. The utilization of RSCT gives me an indispensable opportunity to assess energy relations both within the EU and between the EU and major producer nations. Moreover, this aforesaid theory is crucial to discuss the attitudes of EU member states regarding common external energy policy of the EU. Through utilization of realism, especially Realpolitik approach it is possible to gain broad insight concerning the behavior of energy supplier countries such as Russia towards energy consumer countries. Theoretical lenses of liberalism are of great importance to observe to what extent EU dedicated to its founding principles and major values (democracy, human rights, rule of law) in its relations with energy supplier countries.

During the course of the study, I elaborated on the factors which hamper the establishment of common external energy policy of the EU. I am going to mention them briefly in my following statements.

Existence of considerable differences in the energy mix of the EU member states is an essential challenge on the way to establish common external energy policy. For instance, countries such as Germany and Poland benefit predominantly from domestic coal in electricity generation, while countries such as France, Finland, Hungary, and Belgium utilize nuclear power in electricity generation (Leimbach and Müller 2008 p.7-8).

Another factor which hinders formulation of the common external energy policy in the EU is the preference of some member states to deal with energy suppliers on bilateral level rather than EU level. Duffield and Birchfield argue that "bilateral agreements are distorting efficiency and leading the EU into the uncertainties of prisoner's dilemma diplomatic brinkmanship" (Duffield and Birchfield 2011 p.49). The conclusion of the agreement between Russia and

Germany in order to construct a direct gas pipeline running under the Baltic Sea (Nord Stream) could serve as a brilliant example for above-mentioned factor.

Conclusion of bilateral long-term deals with Gazprom demonstrates that some European countries prefer to act on national level rather than supranational level when it comes to energy issues. This factor is justified by the consideration of the energy field as too much strategic and direct connectedness to national security (Codoban 2011 p.42).

Diverse market structures affect the establishment of the common external energy policy to considerable extent. For example, member states like United Kingdom and the Netherlands have liberalized their electricity markets with effective unbundling of network and distribution companies, while member states like Germany, France and Spain decided to create and support 'national champions' in the energy market which implies explicit tendency of 'economic patriotism'. We can deduce from the latter member states' preference that their national interests outweigh EU interests (Tekin and Williams 2011 pp.30-31).

Diversification of the EU's energy supplies is one of the vital aspects of Europe's energy security. Russia's gas supply disruptions to Ukraine in 2006 and 2009 signaled to the EU member states that it is not reliable to depend on single energy supplier. While analyzing current situation of the energy supply diversification of the whole Union we can discern quite diverse images. Some member states, namely Spain, Italy and France attained diversification of the energy supplies at the expense of imports from North Africa, Middle East and Russia. On the other hand, the group of new member states from Central and Eastern Europe heavily depend on single energy supplier – Russia, especially in terms of natural gas. This dependence is a consequence of the historical heritage and geographical location of the above-mentioned member states (Belkin 2008 p.8).

Finally, in the last chapter of the thesis I used descriptive case study in order to discuss the potential of Caspian basin countries as alternative for the diversification of the EU's energy supply. In my opinion, utilization of the descriptive case study could give me an indispensable opportunity to demonstrate Caspian basin countries' hydrocarbon potential, energy infrastructure and their political willingness towards energy cooperation with the EU.

The EU's interest in the hydrocarbon potential of the Caspian basin was portrayed in the European Commission's Green Paper on the Security of Energy Supplies (2000) (Kalyuzhnova 2005 p.64). This factor is largely justified by the considerable volume of gas and oil reserves in this region. Estimates of the Caspian Sea region's proven oil reserves vary widely by source. The United States Department of Energy estimates that the region holds between 17 and 44 billion barrels. The British Petroleum's estimates are 47.1 billion barrels (Bahgat 2007 p.159). The Caspian Sea region's natural gas reserves are estimated at 232 trillion cubic feet (Belkin 2008 p.17).

Geographical proximity of the Caspian basin to the European continent, eagerness of the region countries in intensified energy cooperation with EU substantiates why EU views this region as a priority diversification alternative (Kalyuzhnova 2005 p.64).

The other factor which encourages EU to consider Caspian basin as diversification possibility is the existence of energy infrastructure in the region, namely The Baku-Tbilisi-Ceyhan (BTC) oil pipeline, which connects Azerbaijan's offshore oil fields to the Turkish Mediterranean port of Ceyhan via Georgia and The Baku-Tbilisi-Erzurum (BTE) which is also known as The South Caucasus Gas Pipeline (SCGP). Both of the pipelines were completed in 2006 (Belkin 2008 p.15).

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