Energy politics, pipelines and the Black Sea basin:

On the route to diversification of EU energy sources

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EUCERS is determined to contribute to these questions and to point out possible solutions to a core problem of modern economies, societies and international relations by offering research and a platform for discussion. Our activities include our EUCERS Strategy Paper series on topics of energy and resource security, a monthly newsletter with two expert pieces and analysis of developments in energy and resource security in every edition and regular held events at King’s College London, which offer a platform for policy makers, experts, the general public and media to meet and exchange thoughts, views, and criticism.

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Keywords
Black Sea region, energy transit, oil & gas pipelines, EU energy security

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Foreword / Preface

The study „Energy politics, pipelines and the Black Sea basin: On the route to diversification of EU energy sources” investigates the current status quo of the grand pipeline game and energy transport corridors in the Black Sea region. Most importantly, the study acknowledges that the Black Sea region is ideally positioned to transit oil and gas from Eurasia and the Caspian region into Europe and thus plays a crucial role in European energy security. However, European energy policy interests clash with those of producing countries and national interests in this region. This makes it an excellent research subject.

This publication is the first of our new format which gives young researchers and academics a platform to publish their excellent work at a well-known and prestigious institution. Further, the authors provide a comprehensive overview of current and planned energy infrastructure projects that are aimed at enhancing European energy security and thus underscore the importance of the Black Sea region. Against this backdrop, the study outlines the Black Sea region’s significant potential to remain a key transit region for oil and become a strategic transit hub for natural gas if common ground can be found between often conflicting political, economic and geopolitical interests. The study concludes that the key to the success or failure of the EU’s energy initiatives in the region lies in a strategic cooperation and energy partnership with Turkey. In the race between competing interests for the future energy landscape of the Black Sea region, only those that co-opt Turkey as a strategic partner will succeed.

We would like to take the opportunity to thank the authors of this study—Mrs. Maria Kottari, Mr. Vlad Popovici, and Mr. Jaroslaw Wisniewski for their fruitful cooperation which has resulted in an insightful study that will prove to be of interest to academics and policy-makers alike. Moreover, we especially would like to thank King’s College London for supporting our work as well as the entire staff at EUCERS without which this study would not have been possible.

Dr. phil. Friedbert Pflüger
Professor and Director of the European Centre for Energy and Resource Security (EUCERS) at the Department of War Studies, King’s College London.
Executive Summary

“The EU Energy Policy: Engaging with Partners beyond our Borders” is the title of the last European Commission’s (EC) Communication on security of energy supply and international cooperation. This Communication aims at the articulation of a comprehensive strategy regarding the European Union’s (EU) external energy relations than would create a new cooperation framework among the EU member states and their energy partners.

The countries of the Black Sea region have traditionally represented a key energy partner of the EU for several reasons. The geographic proximity, the region’s hydrocarbons reserves potential, and most importantly, the fact that the region sits on the main transit route from hydrocarbons exporting regions, such as Russia, the Caspian Sea region and potentially the Middle East, have enhanced the importance of the region from the EU’s perspective.

The challenges associated to a common EU external strategy are numerous; the Commission’s call for “a common voice”, in terms of decisions and actions, regarding the EU external energy strategy cannot be easily accomplished. The energy relations amongst the EU member states and their energy partners have been, so far, based primarily on bilateral agreements while the existing multilateral cooperation frameworks have not been proved highly successful. This Strategy Paper provides a review of the energy relations between Black Sea states and the EU that confirms these challenges.

The aim of this Strategy Paper is, therefore, to assess the importance of the Black Sea region as energy transit route and- potentially- as a hydrocarbons hub production regions for the EU markets. More explicitly, the Strategy Paper analyses the increasing interest of the EU in the Black Sea region through the assessment of the existing institutional initiatives in the energy sector. An institutionalization approach has been the preferred approach of the EU in trying to improve the energy relations with the Black Sea countries, based on the promotion of common, reciprocal advantages. However, the existing competing interests of the region’s

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1 This Communication has been adopted on 7 September 2011. The text is available online at: http://ec.europa.eu/energy/international/security_of_supply/doc/com_2011_0539.pdf
countries, such as those of the most influential Black Sea riparian countries namely Russia & Turkey, do not facilitate the EU's institutional approach which itself lacks coherence and therefore efficiency.

The above assumptions are interpreted in the light of the cooperation for future oil and gas transit and for oil and gas exploration in the Black Sea region.

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Jaroslaw is a PhD candidate at the Department of European and International Studies, King’s College London. He has previously studied at the University of Wroclaw (MA degree), University of Plymouth and School of Slavonic and East European Studies, University College London (MA degree). His dissertation focuses on energy discourses in the European Union member states. His research interests include energy policy, energy security, as well as area studies of the former Yugoslavia and the former Soviet Union. Jaroslaw is also working as a consultant in the third sector, and has previously worked for the British Council, Council of Europe and the European Commission as an expert, advisor and trainer.
1. Energy Security Challenges in the Black Sea Region and EU Interests

The Black Sea region is a geographical area that is critical to global trade, but faces the challenge of sometimes conflicting geopolitical interests. This inland sea, with various straits, is considered to be simultaneously a border and a bridge. It features clashing interests of various engaged actors, within its numerous regional and sub-regional structures. The wider Black Sea region is an area of conflicting interests—most of its western shores are currently borders of the European Union, the northern and northeastern shore are dominated by Russian and Ukrainian interests, eastern coast belongs to Georgia while the southern shore draws up the boundary of Turkey and Europe as a continent. At the same time, the Black Sea region is providing a field for diverse cooperative initiatives, particularly regarding energy transit routes. The Black Sea is region in which the new dimensions of Europe’s energy security are evolving out, a theatre in which transit countries and producing countries are leading stakeholders. More specifically, the Black Sea consists one of the main energy transit routes from Caspian Sea and Russia to the EU markets. Despite this apparent interdependence, harmonious cooperation should not be taken for granted. “Energy has become more of a controversial issue rather than a uniting one. Whether they like it or not, all countries in the region are involved in energy politics.” Oil and gas production and transportation, within the wider Black Sea area, are subjected to regional and international geopolitical developments, while having a direct impact in shaping regional energy alliances.

The Black Sea area has been attracting a lot of interest in the post- cold war era, with the majority of institutional arrangements in the region being promoted by the European Union. These institutionalization and regionalism trends led to the creation

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of the Organization of the Black Sea Economic Cooperation (BSEC) in 1992, to which the European Commission (EC) has been an observer since 2007, as an initiative to facilitate the move of the region’s counties towards democratization, market economy and containment of conflicts. However, this cooperation initiative does not solve the main security challenge of the region. On one hand, the region is a top priority for the Euro-Atlantic security system. The North Atlantic Treaty Organization (NATO) has been actively involved in the Balkans and the wider Black Sea region since the ’90s due to the disintegration of Yugoslavia and to the Kosovo war. The terrorist attacks of 11 September 2001 in the USA, have also contributed to NATO’s increased involvement in the region. After 2001, where unipolarity has steadily been giving way to an emerging new world order with power being diffused, the emergence of the Black Sea as a region and as a geopolitical hub is undeniable.

This increased involvement in the Black Sea region has been followed by, and thus closely connected to the NATO enlargement process to the East started at Prague Summit 2002 and ended with the accession of Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia as NATO members in 2004. Moreover, the EU neighborhood policy has been launched, in 2004 through the adjustment of the EU Eastern Partnership project and the “Black Sea Synergy”. With the accession of Bulgaria and Romania to the EU in 2007, the EU acquired a de facto geographic access to the Black Sea. By establishing a geographical border on the Black Sea shores, the EU has gained legitimacy to proceed with policy initiatives in order to address regional security threats of cross border nature, such as illegal migration, drugs and people trafficking and the security of energy supplies. The EU has tried to promote its energy related interests through various institutionalized initiatives that will be analyzed below.

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4 Member states are Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Serbia, Turkey and Ukraine. The littoral states of the Black Sea are only six: Russia, Georgia, Turkey, Bulgaria, Romania and Ukraine. BSEC presents an institutional body supposed to express the common interests of its members. Commenting on the functioning and success of BSEC is not the purpose of this article.

5 In 1999 NATO has bombed Yugoslavia aimed to force Milosevic to withdraw his forces from Kosovo.


7 A brief history of NATO enlargement periods available at NATO’s on-line library: http://www.nato.int/docu/enlargement/html_en/enlargement02.html

8 Official website: http://ec.europa.eu/world/enp/welcome_en.htm
The Black Sea Synergy is the first key EU initiative for the Black Sea basin. Launched in Kiev in 2008, it is aimed, in a broad sense, at facilitating the cooperation between EU and the basin’s countries that undertake democratic and economic reforms. Energy is one of the main driving forces of the initiative and therefore one of the key cooperation areas. The related EC Communication highlights the role of the Black Sea region in the energy supply and transit to the EU markets. Black Sea, therefore, represents a main component of the EU external energy strategy aimed primarily at the diversification of supply. As far as the required energy transportation infrastructure is concerned, EU has committed to the upgrading of the existing and the construction of new energy transportation infrastructure, facilitating the necessary investments. The Communication also proposes the development of a new Trans-Caspian Trans-Black Sea energy corridor. Specifically, this corridor would serve to the development of sustainable and ecological oil transportation and to the increase of the EU gas imports from the Central Asia via the Black Sea. According to the Communication, the cooperation should be based on a common legal and regulatory framework, aligned to the *acquis communautaire* and the provisions of the Baku Initiative and the Energy Community Treaty. However in the report that summarizes the first year of the existence of the Black Sea Synergy not much is said about energy, other than general statements about the willingness of its members to join the Energy Community Treaty and about a feasibility study of the Trans-Caspian-Black Sea Gas Corridor.

The Baku Initiative, launched in 2004, is a policy dialogue aimed at enhancing the cooperation in the areas of energy and transport among the EU, the Black Sea and Caspian Sea riparian countries and their neighbors. The initiative is part of the INOGATE energy program and of the TRACECA transport program. The INOGATE program supports energy cooperation among EU members and their INOGATE partners with main areas of cooperation being the security of energy supplies, through enhanced access to the energy resources and networks, and the

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13 Acronym: Interstate Oil and Gas Transportation to Europe
14 Acronym: Transport Corridor Europe-Caucasus-Asia
15 Namely: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.
development of regional energy markets with gradual convergence towards the EU internal energy market principles and integration to the EU internal energy market in the long term. The various projects undertaken by INOGATE are coordinated by the Ministerial Conferences and the Working Groups Meetings. TRACECA consists of an Intergovernmental Commission supporting traffic flows and aiming at the development of reliable Euro- Caucasus- Asia transport interconnections. The reliable transport interconnections would be achieved via sustainable transportation infrastructure and multi-modal transportation modes. The Baku Initiative’s main objective is to facilitate the integration of the energy markets (electricity and hydrocarbons), to address safety and security of energy production, transportation and supply, to pursue sustainable development (energy efficiency, renewable energy etc.) and to facilitate the energy investments in projects of common interest. “But the EU’s engagement remained too hesitant and ambivalent towards Central Asia and the Caspian Region (CACR) until 2007. Its policies have been criticized as being too fragmented, project-driven, focusing mostly on technical assistance and being moralistic instead of seeking a more strategic and long-term perspective of cooperation with the CACR and Black Sea regional states”.

The Energy Community Treaty entered into force in 2006 and provides the legal framework for the creation of an integrated energy market (electricity and gas) between the European Community and the contracting countries: Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and the Kosovo. Moldova and Ukraine entered the Energy Community in 2009, expanding its geographical area of activities to the Black Sea in addition to the Western Balkans on which the Community was initially focused. The Energy Community works today as a promoter of the EU energy policy in the non-

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16 In the aftermath of the signature of the Basic Multilateral Agreement on International Transport for Development of the Europe - the Caucasus - Asia Corridor in 1998 between: Azerbaijan, Armenia, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Romania, Tajikistan, Turkey, Ukraine, Uzbekistan.


18 The legal framework available at: http://www.energy-community.org/pls/portal/docs/808177.PDF

EU countries that wish to become EU members in the future or to have stronger relationships with the EU. The Energy Community has pursued a significant number of legislative actions (directives, regulatory forums etc.) in addition to the existing dispute settlement mechanism. It should be noted that among the Black Sea riparian countries, Ukraine, Romania and Bulgaria are contracting parties of the Energy Community Treaty, Turkey and Georgia are observers, while Russia is not officially involved yet in the Treaty.

The EU Eastern Partnership\textsuperscript{20}, launched in Prague in May 2009, is the eastern dimension of the European Neighborhood Policy (ENP) and presents an institutional forum for the cooperation between the EU and Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. It was created with the ambition of leading to a free-trade zone and other strategic partnership agreements between the EU and the above mentioned countries. Although energy security and energy interdependence appear high on the agenda of this initiative\textsuperscript{21}, a relatively limited funding budget (approximately 600 million EUR for the period of 2010-2013\textsuperscript{22}) has been attributed for the realization of these goals, raising doubts about the Partnership's reach and effectiveness.

The most recent developments in the EU energy policy, upgrade the importance of the Black Sea region. Energy routes diversification and the need of the infrastructures and networks expansion is underlined in a concrete way by the EC Communication of November 2010 entitled “\textit{Europe 2020 initiative- Energy infrastructure priorities for 2020 and beyond. A Blueprint for an integrated European network}”\textsuperscript{23}. The European gas markets are expected to grow further mainly due to the growing potential of natural gas in electricity generation as an alternative to more polluting generation fuels. However, the majority of the EU member countries

\textsuperscript{20} The Joint Declaration text available at:  

\textsuperscript{21} Provisions for the energy cooperation, as stated in the Joint Declaration, cited above: \textit{The Eastern Partnership aims to strengthen energy security through cooperation with regard to long-term stable and secure energy supply and transit, including through better regulation, energy efficiency and more use of renewable energy sources. Provisions on energy interdependence could be included in the new Association Agreements or other bilateral arrangements between the EU and the partner countries. Energy cooperation should take into account the EU’s Second Strategic Energy Review and each partner country’s energy policy.}

\textsuperscript{22} Vademecum on financing in the frame of the Eastern Partnership,  

\textsuperscript{23} Text available online at: httEUp://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SPLIT_COM:2010:0677%20129:FIN:EN:PDF & at:  
are already dependent on natural gas imports and the level of import dependence is expected to grow in the future.\textsuperscript{24} This will consequently lead to developments in related sectors. Firstly, the liquefied natural gas (LNG) and potentially compressed natural gas (CNG) sectors might expand as they represent more flexible supply modes. Secondly, the EU and its partners should adopt more effective regulatory measures in order to develop a functioning natural gas transit system as well as a more balanced transit fee policy. Last but not least, the need of supply routes diversification is as crucial as the sources diversification itself. Ensuring the adequate gas supplies require a flexible and well-designed EU gas policy with concrete goals.

The Southern Gas corridor is one of the priority corridors aiming at ensuring the EU gas supply and, additionally, at \textit{emancipating itself from energy dependence on Russia}\textsuperscript{25}. More specifically, \textit{“The strategic objective of the Southern corridor is to establish a new supply source to the Caspian and the Middle East basin as the largest gas deposit in the world with a capacity of 10-20 per cent of EU gas demand by 2020, equivalent to 45-90 bcm of annual EU gas imports”}\textsuperscript{26}. The Black Sea riparian countries emerge in this context as the key players of the so-called \textit{“pipeline politics”} to be discussed later in this Strategy Paper.

After the above review of the EU initiatives in the energy domain involving Black Sea countries, we note the institution-driven approach of the European Union. All of the above mentioned initiatives have been promoted (directly or indirectly) by the EU, leading to the creation of numerous discussion forums and cooperation forums, some of them sharing similar goals and ambitions. Both Black Sea Synergy and the Eastern Partnership seek to facilitate energy security, with limited results until now. An open question remains whether the economic funds dedicated to these initiatives will not be spent on the same, rather than different, projects and whether the funds are enough to support the significant required investments in infrastructure projects. The existence of a number of various initiatives mentioned in the paper so far (Black

\textsuperscript{24} Ibid. According to the PRIMES scenario, the dependency of the EU gas imports will reach about 73-79\% of consumption by 2020 and 81-89\% by 2030.

\textsuperscript{25} Marco Siddi, EU energy security. The Russia factor and future prospects for the Southern Corridor, \textit{TEPSA Brief} (http://www.tepsa.be/index.asp?ID=0), May 2011, pp.3

Sea Synergy, Eastern Partnership, etc.), aimed at similar regions (primarily at countries of the Black Sea Basin), all of them having similar objectives (e.g. energy cooperation), and launched at approximately the same time, raises serious doubts over the coherence and vision for the future. These initiatives may also lead to unnecessary tensions within the European Union, in particular in terms of conflicts over funds between promoters of these projects. For example, the Eastern Partnership is a favorite project of Poland and Sweden; limited involvement of France and the United Kingdom in the Eastern Partnership Summit hosted by the Polish Presidency in September 2011 may suggest their limited interest in the initiative. Instead of providing a stable framework for the EU energy security, most of these initiatives seem to promote just short-term palliative measures towards that direction.

As Frank Umbach states “... the Black Sea region and Central Asia and the Caspian region (CACR) themselves have become increasingly fractured because the regional states have developed their national energy, economic and foreign policies in very different directions- often with contrasting as well as competing perspectives. The CACR in particular has become increasingly just a geographic, but an ever less coherent political- economic entity and common or united political- economic actor”²⁷. Although EU's initiatives have led to the creation of several institutional frameworks, countries around the Black Sea region, as Umbach observed, still pursue their individual, often competing, initiatives. This neofunctionalist- driven approach of supranationality and management of common interests through international regimes (e.g. Black Sea Synergy), copying the process of integration in Western Europe, was a noticeable phenomenon in the Black Sea basin in the post Cold War era.

Whereas the EU's vision for the region has been dominated by an institutionalist approach, the arguably most influential country in the region, the Russian Federation, seems to be following a geopolitically motivated logic of energy security by seeking the most effective ways of finding new recipients for its energy resources, on one hand, and securing its military dominance and political influence in the basin on the other. The Russian vision for the Black Sea region is based on securing bilateral agreements with Russia-friendly governments in the region.

²⁷ ibid, pp.58
Origins of this approach can be traced back to the 19th century Crimean war fought between the Russian, French British and Ottoman Empires, which arguably defined the Russian approach to the Black Sea basin for the centuries to come. During the 12-month blockade of Sevastopol (a Russian fortress on the Crimean peninsula) in 1854-55 by the British and French, Russia reached two conclusions. Firstly, that Turkey’s role could be decisive for the safety of Russia’s Black Sea fleet, and secondly that without the Black Sea fleet, Russia’s access to the Mediterranean would not be possible. The peace Treaty of the Congress of Paris in 1856 and the Black Sea clauses represented a tremendous drawback to Russia—so much that, within the year the tsar of Russia, together with Germany’s Otto von Bismarck, denounced the accord and proceeded with re-establishing a Russian fleet in the Black Sea. Ever since, Russian domination in the Black Sea basin was defined by its maritime military presence in the region.

Contemporary Russian-Ukrainian relations are a good example of this geopolitically motivated approach. The inauguration of a new stage in the Russo-Ukrainian relationship, under the presidency of Victor Yanukovitch, implies a significant geopolitical development for the Black Sea region and a significant development for the EU energy policy. Whereas arguably the energy crises between Russia and Ukraine in the winter of 2005/2006 and 2008/2009 had their political context, originating in the Orange Revolution and Yuschenko’s presidency, the election of Victor Yanukovitch, representing more pro-Russian interests, significantly affected the dynamics in the Russia-Ukraine-EU triangle. The agreement reach in Kharkov on April 21 2010 illustrates the spectacular reinforcement of bilateral ties. Two of the main sources of dispute between the two countries—the Black Sea fleet and gas—has been resolved. Russia has been granted an extension until 2042 of its authorization to station its Black Sea fleet in Sebastopol, whereas, under the terms of the bilateral treaty of 1997, it was due to withdraw in 2017. In return, Russia has given Ukraine an immediate applicable 30% reduction in the price of gas sold by Gazprom to Naftogaz Ukrainy over the next 10 years. A similar approach of supporting the Russia-friendly regimes was visible during the 2008 conflict in Georgia, when Russia used the opportunity of

29 ibid.pp.6
conflict in South Ossetia to consolidate its influence in the other Georgian breakaway region on the shores of the Black Sea, Abkhazia.

The 2008 crisis is also a vivid example of the Russian-Turkish relations in the Black Sea basin. Turkish reaction to the Russian-Georgian conflict was very subdued, and despite hosting the second biggest army in NATO and witnessing a conflict in its neighborhood, Turkey refrained from taking any sides. On one hand Turkey is a big trading partner for Russia (annual bilateral trade volume is approximately 40 billion USD) and Russia is a big supplier of gas to Turkey (covering approximately 70% of Turkish gas consumption). On the other hand, Turkey is on an important route of oil and gas diversification through the existing Baku-Tbilissi-Ceyhan pipeline (BTC) and Baku-Tbilisi-Erzurum (BTE) pipelines as well as the planned Nabucco. The political, economic and security variables suggest that Turkey is in a position to take sides between EU's and Russian ambitions. The Turkish ambition is to be a subject, not an object of Black Sea basin politics, and in particular of any energy related initiatives in the region.

Turkey is arguably the second most influential Black Sea country, due to its significant energy transit potential. Apart from the country’s oil transit potential, Turkey would constitute an important gas transit route to Europe due to its ability to carry gas from a variety of current or prospective suppliers, including Azerbaijan, Turkmenistan, Iran, Iraq, other parts of the Middle East and Egypt, to markets in Europe by means of pipelines across its territory, in addition to South Stream, due to carry Russian gas to the Balkan peninsula.

The Black Sea region is an area of three competing visions. The European Union is extending its influence through an institutionalism approach-creation or promotion of various frames, more or less institutionalized, focusing on cooperation and coordination of common policies, with some dedicated European funds and a vague promise of bigger political and economic cooperation with the EU. Russia on the other hand, promotes a purely neorealist, interest-based set of policies, focusing on bilateral agreements with key geopolitical actors in the Black Sea basin to further its two main goals, the military presence (Black Sea fleet in Crimea) and economic gains (new markets for its resources). Finally, Turkey aims to become a key player in the Black Sea geopolitical game.

Combining geography facts with post-Cold War political developments, the energy sector is the most fitting gauge for assessing the dual role of the Black Sea region – as a transit and potential hydrocarbon production hub – in terms of creating interdependence among regional stakeholders with conflicting interests. According to Ian O. Lesser (…) The contribution of Caspian and Russian oil and gas to global, and particularly European, energy supply has made the question of energy shipments through and around the Black Sea a matter of high strategic interest for extra-regional actors, and an important source of reward and some risk for regional states.

The following analysis of the transit capacities and of the production and exploration potentials in the Black Sea region confirms the above statements.

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2. Energy Transit and Pipeline Politics in the Black Sea Region

As previously stated, a major concern for the EU is the diversification of its energy portfolio to include different sources and transportation routes. The Black Sea region, along with the Caspian, is a strategic area for satisfying the significant European demand for hydrocarbons.

*Figure 1. The EU energy consumption by type of fuel (2030 vs. 2008)*

![EU Gross inland consumption 2008](image1)

<table>
<thead>
<tr>
<th>Energy Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Gas</td>
<td>28%</td>
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<tr>
<td>Oil</td>
<td>42%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>9%</td>
</tr>
<tr>
<td>Solid fuels</td>
<td>20%</td>
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<tr>
<td>Other</td>
<td>1%</td>
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</tbody>
</table>

![EU Gross inland consumption 2030](image2)

<table>
<thead>
<tr>
<th>Energy Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td>24%</td>
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<tr>
<td>Oil</td>
<td>32%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>15%</td>
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<tr>
<td>Solid fuels</td>
<td>14%</td>
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<tr>
<td>Renewable</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Eurostat

There is a lot of controversy around the Russian management of sources and transit infrastructure for EU oil and gas imports and the prospect of a non-Russian Black Sea energy transit corridor. The map below illustrates the region’s significance from the diversification of routes perspective. At the same time, it shows the interdependence among suppliers, transit and consumer countries as they are all engaged in the same energy “game”: controlling the energy transit of sources flow is as significant as controlling the energy sources themselves.
2.1 Oil Transit in the Black Sea Region

2.1.1 Current Pipeline and Tanker Transit
Most of the oil coming from the Caspian basin reaches the Black Sea offshore terminals in order to be carried to Western markets by tankers via the Bosporus and the Dardanelles straits. The growing amounts of oil carried by tankers via the Turkish straits create security, environmental, flow congestion and disruption concerns. An estimated 2.9 million barrels per day (bbl/d) transited through the Turkish straits in 2009, of which over 2.5 million bbl/d was crude oil. It is estimated that 5,500 oil tankers pass through the straits annually. Most of the oil transit projects in the Black Sea region have therefore two main objectives: bypassing the Turkish straits and bypassing Russian territory to establish alternative hydrocarbons import routes to EU markets. On the other hand, Russia has also focused recently on bypassing Ukraine for its oil exports, as Ukraine is a critical

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32 This part of analysis, dealing with oil pipelines, has been also included in the article: Maria Kottari, Black Sea energy security: cooperation and conflict, Strategic Insights, no.32, p.12, May 2011. Strategic Insights is a series of maritime security analysis reports by Risk Intelligence (http://www.riskintelligence.eu/). Risk Intelligence is based in Denmark and it provides consulting services to private and governmental clients on security threats and risks.

33 An overall analysis on the issue of reducing energy transit in Turkish Straits has been made by Vlad Popovici at Balkanalysis.com, an independent news and analysis group. Article available online at: http://www.balkanalysis.com/energy-sector/2011/11/15/reducing-energy-transit-through-the-turkish-straits-solutions-postponed/
transit country, with Russian oil being exported through the Druzhba pipeline system and through the Ukrainian Black Sea ports.

The Baku- Tbilisi- Ceyhan pipeline (BTC pipeline) was the first pipeline that bypassed both Russian territory and the Turkish straits. The main argument in favor of the pipeline was to relieve traffic congestion in the Bosporus and Dardanelles Straits. The first oil was loaded at the Ceyhan marine Terminal (Haydar Aliyev Terminal) onto the tanker British Hawthorn in May 2006. The project was backed politically and financially by the (US and the EU) even though it was longer and more expensive that other options. The geopolitical significance of the route has overshadowed the obstacles of construction as well as its commercial competitiveness. This route provided a compromise between the West and Azerbaijan/ Turkey. Another alternative route through Armenia was politically impossible due to the unsolved Nagorno- Karabakh conflict between Armenia and Azerbaijan.

After the collapse of the Soviet Union, the first oil export projects in the Caspian and the Black Sea region were focused on Azeri oil reserves. An existing pipeline from Baku to Russia’s Black Sea oil terminal in Novorossiysk was activated in 1997 - see map below- and another one running from Baku to the Georgian Black Sea port of Supsa was upgraded and became operational in 1999.

*Figure 3. The pipeline connections between the Caspian Sea and Black Sea regions*

After the construction of the Caspian Pipeline Consortium (CPC), Kazakh crude oil has also been transported from Tengiz in Kazakhstan to Novorossiysk in the Russian Federation for further export through the Turkish Straits—see map below. The consortium partners have decided in 2011 to expand the capacity of the pipeline.

*Figure 4. The CPC oil pipeline*

Russia has also built the Baltic Pipeline System I (BPS I) to redirect some of the oil transiting through Ukraine to Baltic Sea ports and is in process of finalizing the Baltic Pipeline System II (BPS II), which will take even more oil away from the Druzhba pipeline system and the Ukrainian Black Sea ports. On the other hand, Ukraine is trying—without success until now—to create another outlet for Caspian oil: a pipeline was built from the Odessa port at the Black Sea to Brody (at the Polish border), with the idea of exporting Caspian oil from the Black Sea to Poland and bypassing Russia.

An important recent development with potential impact on oil transit in the Black Sea region is the announcement of the construction of a canal connecting the Black Sea with the Sea of Marmara. Turkish Prime Minister Recep Tayyip Erdogan has announced, in 2011, an ambitious plan for the construction of a new canal to bypass the Bosporus, to be named “Canal Istanbul” in order to diminish the tankers traffic and therefore the environmental risks. Pre-feasibility studies for the project will be finalized within two years. The canal would be in service in 2023, for the occasion of the centennial of the modern Turkish Republic. The project would have geopolitical implications as it raises international law issues such as the legal jurisdiction of
Turkey to bypass the Montreux Convention for the regime of Turkish Straits. According to the Turkish newspaper Today’s Zaman\textsuperscript{34}, Turkey intends to re-open the debate regarding the Convention’s provisions. Montreux Convention gives the right to Turkey to control the passage of commercial vessels and warships in the Dardanelles and Bosporus Straights. Turkey cannot close the traffic for tankers (innocent passage) through the Straits but it can negotiate an international accord so as to be designated to regulate the secure passage through the new canal, possibly levying transit fees. Even if the issue of revising the Convention will not arise directly, Turkey could still claim that the tankers and the new Canal are excluded from the Convention’s provisions but they are covered by the Turkish legislation and thus, control indirectly the passage of the commercial ships, therefore the tankers, through the Canal.

\textsuperscript{34} Article available at: http://www.todayszaman.com/news-223806-istanbul-canal-project-to-open-debate-on-montreux-convention.html
2.1.2 Proposed Regional Oil Transit Pipelines

Figure 5. Oil pipelines proposed to bypass the Turkish Straits

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Countries crossed</th>
<th>Length (km)</th>
<th>Diameter (mm)</th>
<th>Cost ($mn)</th>
<th>Capacity (bpd)</th>
<th>Capacity (mn T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burgas</td>
<td>Vioné</td>
<td>Bulgaria - F.Y.R.O.M. - Albania</td>
<td>913</td>
<td>916</td>
<td>1,130</td>
<td>750,000</td>
<td>37.5</td>
</tr>
<tr>
<td>Burgas</td>
<td>Alexandroupolis</td>
<td>Bulgaria - Greece</td>
<td>256</td>
<td>916</td>
<td>700</td>
<td>700,000</td>
<td>35.0</td>
</tr>
<tr>
<td>Samsun</td>
<td>Yumurtalık</td>
<td>Turkey</td>
<td>510</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Kyzköy</td>
<td>İlihaka</td>
<td>Turkey</td>
<td>193</td>
<td>n.a.</td>
<td>913</td>
<td>1,200,000</td>
<td>60.0</td>
</tr>
</tbody>
</table>

Source:
The Burgas–Alexandroupolis pipeline project

The Burgas–Alexandroupolis oil pipeline was destined to transport Russian and Caspian oil west: first transferred by tankers from the Russian port of Novorossiysk to the Bulgarian Black Sea port of Burgas and then through a new pipeline to the Greek Aegean port of Alexandroupolis. Proposed in 1994 by Greek and Russian companies, an inter-governmental agreement for the construction of the pipeline was signed between the three countries in Athens in 2007. The project was presenting an alternative route for Russian oil to bypass the Bosporus and the Dardanelles. This pipeline would create for both Greece and Bulgaria a great opportunity to become energy transit links towards Europe. However, the realization of the project faced numerous challenges along the way; the current Bulgarian government, under the leadership of Boyko Borisov, expressed its serious doubts about the expediency, the profitability and foremost about the environmental impacts of the pipeline, resulting in serious Bulgarian procrastination over the project since last year\(^{35}\). Environmental concerns as the real reason behind the Bulgarian government’s opposition to the project is debatable, as Burgas hosts also the country’s largest oil refinery, owned by Russian company LUKoil and tankers of 300,000 tones call the port regularly in order to unload oil. Faced with opposition from the Bulgarian government, the Russian side seems to have lost interest in the project\(^{36}\).

On December 7\(^{th}\) 2011, the Bulgarian government announced its definitive decision to withdraw from the pipeline project. The Bulgarian government called Greece and Russia for to voluntary abandon the project in case of the other parties’ refusal to abandon the project Bulgaria would unilaterally abandon the project\(^{37}\). The main reasons for Bulgaria’s decision were stated to be environmental risks, financial concerns and mismatch with the country’s national interest\(^{38}\).

\(^{35}\) For a more detailed analysis on the issue see also: Theodore Tsakiris, Burgas–Alexandroupolis—death of a great pipeline project?, European Energy Review, 17 February 2011, available at: http://www.europeanenergyreview.eu/site/pagina.php?id_mailing=153&toegang=b3e3e393c77e35a4a3f3cb1429b9dc&id=2739

\(^{36}\) http://ecfr.eu/blog/entry/sofia_view_oil_pipeline_cancellation_questions

\(^{37}\) It should be noticed that such term was not included in the trilateral agreement of 2007. See also Chryssa Liagiou, Sofia deals killer blow to Burgas-Alexandroupolis project, ekathimerini english version, http://www.ekathimerini.com/4Dcgi/4dcgi/_w_articles_wsite2_7_15/12/2011_418669

\(^{38}\) A relevant press article from Reuters, Bulgaria to abandon trans-Balkan oil pipeline available at:http://af.reuters.com/article/energyOilNews/idAFL5E7N71XD20111207?pageNumber=2&virtualBrandChannel=0
The Greek government, via its Deputy Energy Minister Yiannis Maniatis, declared that it is still waiting for Bulgaria’s official explanation. Admittedly, the Burgas-Alexandroupolis pipeline has been seen as a cornerstone for the Greek strategic objective of becoming a key transit country for hydrocarbon flows from Caspian and Black Sea towards European markets. The cancellation of this project, given the serious economic crisis in Greece, is affecting negatively the country’s short and long term energy and economic strategic plans.

Officials at Trans- Balkan Pipeline, the company in charge of the project, insist the project is necessary. “It is the only plan which offers an economic outlet for the Caspian Sea oil deposits, bypassing the Bosporus. The alternative [route offered by the] Samsun- Ceyhan pipeline is far more expensive and does not serve Russia’s intentions of reducing dependence on Turkey,” sources inside the company said.

The Samsun- Ceyhan pipeline project
The proposed Samsun- Ceyhan oil pipeline would carry 1.5 million barrels/day of Russian oil from the Black Sea Turkish port of Samsun to the Mediterranean port of Ceyhan. It would be operated by the Trans- Anatolian Pipeline Company, a joint venture of Italian ENI and Turkish Calik Enerji. The pipeline is promoted as an alternative to the oil exports by tanker through the Turkish straits, but there has been no progress on this project during 2011-2012.

The Pan- European Oil Pipeline (or PEOP or Contanta- Trieste)
The Pan- European Oil Pipeline (or Constanta- Trieste Pipeline) is a pipeline project aiming at the transportation of crude Caspian oil (Kazakhstan and Azerbaijan) to the central European markets linking the Romanian Black Sea port in Constanta with the Italian Trieste port terminal via Serbia (with a branch to the Pancevo refinery), Croatia (with a branch to the Rijeka refinery) and Slovenia. In Trieste the pipeline is planned to be connected with the Trans-Alpine Oil Pipeline running to Austria and Germany. The 1.320km long pipeline would cost up to 3.5 billion € with an estimated capacity of 40 MTA of crude oil. The pipeline, first proposed in 2002, was expected to be commissioned in 2013. In March 2004, the Romanian government has received a 2, 1 million € grant from the EU Phare Programme in order to elaborate the

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39 According to the article’s analysis offered by Ghryssa Lagiou: Sofia deals killer blow to Burgas- Alexandroupolis project, ekathimerini english version, http://www.ekathimerini.com/4Dcgi/4d cgi/_w_articles_wsite2_7_15/12/2011_418669
technical and economic feasibility study\textsuperscript{40} which was completed in 2005. A memorandum of understanding on the construction of the pipeline was signed in 2007 by officials from Croatia, Italy, Romania, Serbia, and Slovenia during an energy forum in Zagreb and in 2008 Romanian, Serbian and Croatian oil transportation and terminal companies have signed a Shareholders’ Agreement establishing the Pan-European Oil Pipeline Project Development Company (PEOP PDC) with open access to Italian and Slovenian companies.

The EU favors the construction of the PEOP Pipeline and it included the project in the European Community support program “INO Gate”\textsuperscript{41}. The main rationale of the project is bypassing the Turkish Straits and, thus, reducing the risk of pollution of Black Sea, Mediterranean and Adriatic Sea\textsuperscript{42}. In addition to being a Bosporus-bypass project, the PEOP pipeline is seen, by some analysts, as a Russia-bypass project serving the larger purpose of having direct link between the Kazakh oil resources and European markets along the shortest route: South Caucasus- Black Sea- Constanta- Trieste.

The project seems to have come to a dead end after the Croatian JANAF has declared its withdrawal from the project in 2010. The response of the Romanian and Serbian companies was favorable to the construction of a shorter pipeline from Black Sea to the Serbian refinery in Pancevo but there has been no progress on the project lately during 2012.

\textbf{The AMBO (or Burgas- Vlore) pipeline project}

The Burgas- Vlore project, linking the Bulgarian Black Sea port of Burgas with the port of Vlore in Albania via FYROM, is another Bosporus bypass proposed route for the transportation of Russian and Caspian oil reserves to the Western markets. It has been proposed since 1993 but only in 2004 representatives of Albania, FYROM and Bulgaria have signed a memorandum of understanding for the AMBO project

\textsuperscript{40} Presentation Sheet of the Investment Project Pan –European Oil Pipeline, Romania Ministry of Economy, available at: \url{http://www.minind.ro/invest/new/Oil_and_Gas_Sector/CONPET/OG.C.1.09_peop_Engl.pdf}


\textsuperscript{42} PanEuropean Oil Pipeline commercial & technical issues, Transnafta, September 2009, available at: \url{http://www.energy-community.org/pls/portal/docs/414188.PDF}
and in 2007 the three countries have signed a trilateral convention on its construction.

The AMBO project is backed by the USA who financed the feasibility study of the project\(^\textsuperscript{43}\). The 912 km long crude oil pipeline, with an estimated capacity of 37.5 MTA, was planned to be commissioned in 2011, by the US-registered AMBO Oil Corporation but the construction has not started yet, as the project company has to identify companies willing to ship oil through the pipeline and to arrange the project financing. AMBO is supposed, besides bypassing the Turkish straits, to strengthen both FYROM’s and Albania’s energy infrastructure, enabling them to join the European oil and gas energy infrastructure network\(^\textsuperscript{44}\).

\section*{2.2 Gas Transit in the Black Sea Region}

The question of gas transit through the Black Sea basin started to get political importance for the EU states as a consequence of two events: the 2004 EU enlargement and the 2005/2006 and 2008/2009 gas transit conflicts between Russia and Ukraine.

The first factor was underlined by the new Member State’s dependence on gas imports from Russia. According to an analysis of Central Europe Energy Partners, 10 new EU Member States (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia) the average share of Russian gas imports in total imports is at 83\% (compared to 32\% for the whole EU)\(^\textsuperscript{45}\), hence the ambitions to diversify both their energy mix, as well as sources of energy supply. The significance of this dependence was seen in the 2005/2006 and then in the 2008/2009 energy conflicts between Russia and Ukraine. January 2006 marked the first time that Russian Gazprom decided to completely cut the flow of gas through the pipeline crossing the territory of Ukraine\(^\textsuperscript{46}\), leading to significant drops in gas volumes available to Austria, France, Germany, Hungary, Italy, Poland and Slovenia.

\begin{itemize}
\item \(^{46}\) As a consequence of a dispute over the price of gas supplied by Russia to Ukraine
7 Member States of the European Union. Although the crisis was solved on 4th of January, with a new Russian-Ukrainian agreement, high EU officials have voiced concerns over the existing gas transit system through Ukraine. “Increasing dependence on imports from unstable regions and suppliers presents a serious risk. Some major producers and consumers have been using energy as a political lever” remarked Javier Solana, the High Representative (HR) for the EU’s Common Foreign and Security Policy in his paper addressed to the European Council. “A secure energy supply requires a combination of internal and external policies’, continued Solana, with the suggestion being that “the development of a coherent and focused external EU energy policy, drawing on the full range of EU internal and external policies, would enhance the collective external energy security of the Union. It would also help the EU face more effectively possible strategies by major external energy suppliers to adversely influence market fundamentals”. Among other suggestions, related mainly to the internal EU markets, Solana looked towards the East. One of Solana’s suggestions was to look for resources in Central Asia, especially around the Caspian Sea basin. For these resources to reach the EU, a pipeline system crossing the Black Sea region would have to be developed. This would serve as an alternative to what Solana explicitly labeled as “unstable regions and supplier”, which in the context of the 2005/2006 energy dispute was meant to designate Ukraine and Russia. The new EU Member States promoted this pursuit of alternative supply routes, as well as bigger involvement of the EU in the Black Sea basin (e.g. through the institutional arrangements presented earlier in this paper).

In the same context, Van der Linde’s analysis of the Southern gas corridor points to both enlargement and deepening integration as two factors creating growing challenges between the EU and Russia in the gas sector. The existing cooperation is based on “long-term contracts with stable price and volume, sharing risks and benefits”, while of the EU-supported liberalization may lead to “increase of competition within the EU, gas supply sources diversification [and] fear for revision

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48 ibid
49 ibid
long-term contracts, unclear how risks and benefits will be distributed along the value chain." This is where the different strategic interests of key actors clash.

### 2.2.1 Current Gas Transit Pipelines

The vast majority of the existing natural gas transit pipelines in the Black Sea region are moving gas exports from the Russian Federation to either the European Union or its neighbors in the Black Sea regions, such as Ukraine and Turkey. About 80% of the Russian natural gas exports were transiting Ukraine or were consumed in this country before the first of the twin export pipelines from Russia to Germany under the Baltic Sea known as Nord Stream became operational in November 2011.

The largest of the existing Russian export pipelines in the Black Sea region is the Brotherhood pipeline system (also known as Urengoy-Pomary-Uzhgorod), that was inaugurated in 1967 and can carry more than 100 billion cubic meters per year. The Brotherhood pipeline splits in two branches in Slovakia, one of them continuing to the Czech Republic, Germany, France and Switzerland, and the other going south to Austria, Italy, Hungary and several countries of former Yugoslavia. The other main Russian gas export pipeline system transiting Ukraine is crossing Moldova and eastern Romania towards import markets in Bulgaria, Greece and Turkey. The three parallel export pipelines have become operational in stages, from 1974 to 2002, and have a total capacity of 28 billion cubic meters per year. Finally, Russia also exports natural gas directly to Turkey through the Blue Stream pipeline. The Blue Stream gas pipeline has a nominal capacity of 16 billion cubic meter per year, was commissioned in November 2005 and runs from the Izobilnoy gas plant in southern Russia across the Black Sea bed to the Turkish port of Samsun. Once in Turkey, the pipeline continues from Samsun to Ankara for about 501 kilometers.

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50 Coby van der Linde, Southern gas corridor: can it serve both security of supply and demand?, *The Hague*, February 2009, p. 3
51 Popovici, Vlad, Black Sea region stands at energy crossroads, *Oil and Gas Journal*, December 2009
exports of Russian natural gas through the above mentioned pipelines are controlled by the Russian natural gas major Gazprom and its subsidiaries. There are two other major gas export pipeline systems in the Black Sea region that are not controlled by Russian companies. One of them is the South Caucasus Pipeline (SCP) - also known as the BTE or Baku- Tbilisi- Erzurum pipeline- that exports since September 2006 Azeri natural gas from the first stage of development of the Shah Deniz field in the Caspian Sea to Turkey and closely follows the Baku- Tbilisi- Ceyhan (BTC) oil pipeline. The length of SCP is 691 km and the pipeline is capable of carrying up to seven billion cubic meters of gas per year. The SCP Co. shareholders are: BP (technical operator- 25.5%), Statoil (commercial operator- 25.5%), Azerbaijan SCP Ltd. (10%), LUKOIL (10%), NICO (10%), Total (10%), and TPAO (9%). The other one is the Tabriz- Ankara gas pipeline, a 1,491 km long pipeline commissioned in July 2001 to carry gas exports from the Iranian city of Tabriz to Turkey's capital Ankara. The pipeline’s capacity is 10 billion cubic meter per year. As this pipeline crosses the Kurdish-populated region in Iran and Turkey, it has been repeatedly attacked and damaged by Kurdish insurgents on both the Iranian and Turkish side.

2.2.2 Proposed Gas Transit Projects
EU’s and Russian different energy strategy visions are most visibly in the Black Sea basin. For the EU, the Black Sea region offers the only area through which a potential physical link with Central Asian and Middle East energy resources could be established. For Russia, the Black Sea basin is a traditional zone of influence, both as a gateway for its natural resources exports as well as a target for the country’s security policies. Any EU initiatives in the region are monitored under a magnifying glass in Moscow. Particular discontent is seen in the case of the Nabucco gas pipeline project, seen as a potential threat to Russia’s energy dominance in the

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56 BP website, South Caucasus Pipeline.Supplying gas to meet the needs of regional consumers, available at: http://www.bp.com/sectiongenericarticle.do?categoryId=9006670&contentId=7015095
Black Sea basin. The energy game in the Black Sea region is complicated by the diverging interests of the other countries in the region, some of them members of the EU—Romania and Bulgaria, others in various types of partnerships with the EU or EU accession negotiation stages. Finally, natural gas production and transit is highly politicized because most of the natural gas production and pipeline transit in the region is in the hands of state-controlled companies.

The 2007 European Energy Strategy agreed on, by the heads of the EU member states, on a European Council summit in 2007 identified a triangle of objectives: sustainability, security of supply and competitiveness\textsuperscript{60}, resulting in the promotion of the Southern Corridor, “to unlock Middle East resources and route diversification for Russian and Caspian gas”\textsuperscript{61}, through the Black Sea basin. As part of the Southern Corridor, there are several pipeline projects that have been proposed beside the Russian-backed South Stream gas pipeline for bringing additional gas supplies to Central and Southern Europe. This has created a real pipeline race, with various promoter groups courting the potential suppliers, especially in the Caspian Sea region and trying to push their project ahead of the competing projects. Countries in the Black Sea region are also looking at alternatives to pipelines for importing natural gas, such as liquefied natural gas (LNG) and compressed natural gas (CNG). All these pipeline, LNG and CNG plans are aimed at reducing the dependence of some European countries on Russian natural gas imports.

\textsuperscript{60} Oliver Geden, EU Energy Policy in Andris Spruds, Toms Rostoks (eds), Energy: Pulling the Baltic Sea Region together or apart?, Latvian Institute of International Affairs, 2009, p. 14

\textsuperscript{61} Coby van der Linde, Southern gas corridor: can it serve both security of supply and demand?, The Hague, February 2009, p. 13
Nabucco gas pipeline project

Nabucco dates back to the agreement signed in June 2002, when Austrian OMV, Hungarian MOL, Bulgarian Bulgargaz, Romanian Transgaz and Turkish Botas agreed to create a pipeline link stretching from Erzurum—where the South Caucasus Pipeline (SCP) ends in Turkey—to the regional gas hub in Baumgarten, Austria. The Nabucco consortium was formed three years later, in 2008 joined by German RWE. Originally, the pipeline was scheduled to be commissioned in 2014, with a capacity of 8 bcm/year and its final target capacity was 31 bcm/year. The pipeline would supply
gas initially from the Caspian Basin- from the second stage of the Shah Deniz field development- and on the longer run from Iraq.

From the beginning, Nabucco raised more questions than answers. The biggest question mark for Nabucco was the source of natural gas supply. In 2008 an agreement was signed with Azerbaijan, stating that it will supply a part of the gas for the pipeline from Shah Deniz. However, Shah Deniz available volumes would not be enough to fill in the 30 bcm/year Nabucco pipeline. The Shah Deniz consortium includes BP- 25.5% as an operator, as well as Statoil- 25.5%, SOCAR, Lukoil, Total and National Iranian Oil with 10% and Turkish TPAO with 9%. The Shah Deniz Stage 2 development project is expected to add a further 16 billion cubic meters per year of gas production\textsuperscript{62} to the approximately 9 bcm per year from Shah Deniz Stage 1, which supplies Azerbaijan, Georgia and Turkey through the SCP pipeline. According to a representative of SOCAR, the Azerbaijani national oil company and shareholder of Shah Deniz II, 10 bcm per year would be dedicated to Europe and 6 bcm per year to the Turkish market\textsuperscript{63}. Therefore, other complementary natural gas supply sources were assessed. One of them is Turkmenistan, country that has significant natural gas resources and is actively looking for new gas export markets.

\textsuperscript{62} BP’s website, Shaz Deniz: \texttt{http://www.bp.com/sectiongenericarticle.do?categoryId=9006668&contentId=7015092}

\textsuperscript{63} BP -Led Shaz Deniz II to make investment decision in 2013, article available at: \texttt{http://www.advfn.com/nyse/StockNews.asp?stocknews=TOT&article=49769861}
During an opening ceremony of the new East-West pipeline, allowing to transport gas from fields located close to the Turkmen-Afghani border to its Caspian Sea coast, Turkmenistan’s president remarked: "we have set high aims before ourselves and we firmly believe we will achieve them" (...) the new pipeline is a part of a strategy that is about significantly increasing natural gas exports to various states and regions of the world"64. He has not further specified whether he meant Nabucco or Russia, the two potential recipients of gas from Turkmenistan’s Caspian Sea coast. However, there is a missing link in any plans to export Turkmen gas to Europe and bypassing Russia while doing it; a pipeline would be needed to cross the Caspian Sea from Turkmenistan to Azerbaijan.

64 Watkins Eric, Turkmenistan’s lucky path, Oil and Gas Journal, July 2010.
Due to the unregulated status of the Caspian Sea, and with the opposition of Russia and Iran, building any trans-Caspian pipeline on the bottom of the sea remains illusory. The arguments against the trans-Caspian pipeline range from environmental (citing high seismic sensitivity of the region)\textsuperscript{65}, to legal (Russia demands any decision of a pipeline crossing the Caspian to be made in agreement between all five states around the sea)\textsuperscript{66}. Some experts claim that a bilateral agreement between Azerbaijan and Turkmenistan only would solve the problem\textsuperscript{67}, but with the continuous Russian opposition to any trans-Caspian pipeline project, this option does not seem feasible for now. Moreover, due to the current economic sanctions against Iran, caused by the country’s nuclear program, exporting Turkmen gas through Iran towards Europe is not feasible either. Even on the long run, it is not clear why Iran, with world’s second largest natural gas reserves, would encourage Turkmen gas exports. The only ways for Turkmen gas to reach Europe is

\textsuperscript{65} Ria Novosti, Russia says pipelines across Caspian sea floor unacceptable, last updated January 2007, available at: \url{http://en.rian.ru/russia/20070125/59687576.html}

\textsuperscript{66} Blagov, Sergei, Russia Tries to Scuttle Proposed Trans-Caspian Pipeline,\textit{2006 Eurasianet}, \url{http://www.eurasianet.org/Departments/Insight/articles/eav032806.shtml}

\textsuperscript{67} De Waal, Thomas, \textit{The Caucasus. An Introduction.}, Oxford University Press, 2010, p. 186
through Russia or by liquefying/compressing the gas in Turkmenistan, crossing the Caspian with LNG tankers and re-gasifying it in Azerbaijan, an option requiring significant investment. For the time being, Turkmenistan has opened a new gas export market in China through the Turkmenistan to China pipeline and continues to export gas to Russia.

Other possible suppliers are Iran, but shareholders of Nabucco dismissed this idea since 2010 and this option seems even more remote today, taking into account the current economic sanctions against Iran. Iraq might be another source of gas for Nabucco, but the country is still lacking political and security stability and has proven unable to increase oil and gas production, not to mention the required natural gas export infrastructure.

Another question mark for Nabucco was the status of the Turkish segment of the pipeline. Turkey would have preferred to control the pipeline portion crossing its territory and decide over the distribution of gas flowing through it (becoming a subject in the energy policies in the region, rather than merely an object as a transit country), whereas the EU partners would have preferred a transparent pricing system. Finally, the financing of the project was a challenge as well. The European Investment Bank, the European Bank for Reconstruction and Development and the International Finance Corporation were mentioned as potential investors. In addition, the stakeholders of the Nabucco consortium would have been required to cover a part of the investment. However, the lack of signed agreements with suppliers and potential importers put in question Nabucco’s business plan and expected cost (estimated at over 10 billion USD) and deterred potential private and public investors, as they “need more security of demand for investments to materialize”.

The pipeline project enjoyed support both from Brussels as well as from Washington, although the sources of the Wall Street Journal in November 2011 claimed that the American support is becoming “softer”. The main reasons for the diminishing support of the project were limited commercial viability of the initiative.


69 Coby van der Linde, Southern gas corridor: can it serve both security of supply and demand?, The Hague, February 2009, p. 14

70 Champion Marc, Parkinson Joe, Prospects appear dim for EU-backed gas pipeline, Wall Street Journal, November 2011
as well as the unresolved question of gas supplies. In addition, Nabucco has been facing a growing number of competing Southern Corridor pipeline proposal in its quest for bringing Caspian natural gas to European markets.

Other Southern Corridor projects

The Trans Adriatic Pipeline (TAP) is a natural gas pipeline project that will transport gas from the Caspian region via Greece and Albania and across the Adriatic Sea to southern Italy and further into Western Europe. The project is aimed at enhancing security of supply as well as diversification of gas supplies for the European markets. The project is designed for an initial capacity of 10 bcm per year that could be expanded later to 20 bcm per year. TAP also envisages physical reverse flow of up to 80 per cent and the option to develop natural gas storage facilities in Albania in Dumre region, using underground salt domes that will be connected to the pipeline’s infrastructure, to further ensure security of supply during any operational interruption of gas deliveries. “This feature is expected to enhance the gas supply reliability for the EU energy markets and for South Eastern Europe in general and it is argued to be a key advantage of the TAP project”71. TAP’s shareholders are EGL of Switzerland (42.5%), Norway’s Statoil (42.5%) and E.ON Ruhrgas of Germany (15%)72. The main source of gas for the TAP project would be the same phase two of the Shah Deniz development project that Nabucco is targeting as a supply source, putting thus the two projects in direct competition.

72 TAP’s website: www.trans-adiatic-pipeline.com
The TAP project is focused on minimizing the new pipeline construction and reaching the highest number of markets possible, by linking to other planned regional pipelines projects, such as the Ionian-Adriatic Pipeline (IAP), the Western Balkans Ring and the Interconnector Greece- Bulgaria (IGB) - see the map below. The Ionian-Adriatic Pipeline is aimed at supplying gas to Albania, Montenegro, Bosnia and Herzegovina and Croatia. The Western Balkans Ring is a project that would interconnect the natural gas transmission systems of the Western Balkans countries. TAP has submitted a gas transportation proposal to the Shah Deniz consortium in October 2011\(^\text{73}\).

Other than Nabucco and TAP, a third proposal was submitted in 2011 for the transportation of the future gas volumes from Shah Deniz by the Interconnector Greece- Turkey- Italy (ITGI), promoted by the Italian company Edison and the Greek national gas company DEPA.

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The ITGI proposal was similar to the TAP proposal in that both were proposing the use of the existing Turkish gas transmission system to move the gas from the Turkish-Georgian border to Western Anatolia, followed by the Interconnector Turkey-Greece that was commissioned in 2007 and that ends in Greece at Komotini. The only new pipeline segment would have been IGI (Interconnector Greece-Italy), a pipeline with a transport capacity of about 9 billion cubic meters a year—see map. The IGI pipeline included: IGI Onshore: 600 km onshore pipeline in the Greek territory (to be developed by DESFA, the Greek Transmission System Operator); and IGI Poseidon: 200 km of offshore pipeline across the Ionian Sea (under development by IGI Poseidon SA, a joint venture between Edison and the Greek company DEPA). ITGI project also included the IGB (Interconnector Greece-Bulgaria) with a transport capacity of 3 to 5 billion cubic meters per year. The pipeline would connect Komotini in Greece to Stara Zagora in Bulgaria and would be about 170 km long.

Shortly before the October 1, 2011 deadline for submitting transportation proposals for exporting the Shah Deniz II gas to Europe, an unexpected announcement totally changed the calculations of all the players involved in the Southern Corridor pipeline race. On September 27, 2011, BP, the Shah Deniz II operator, proposed an alternative project to export the gas to Europe called the South East Europe
Pipeline (SEEP). BP proposed a pipeline that would follow the same route as Nabucco, but only from Western Turkey to Baumgarten in Austria, reducing the total length of the pipeline to be built from 3,900 km for Nabucco to 1,300 km. Moreover, SEEP’s capacity would be only 10 bcm per year - in line with the volume of gas available for Europe from Shah Deniz II- versus the 31 bcm per year proposed by the Nabucco promoters. Although only a concept when announced, BP’s proposal was included by the Shah Deniz II consortium in the list of potential transportation options beside Nabucco, TAP and ITGI.

In another unexpected development, in mid-November 2011, SOCAR, the Azerbaijani national oil company and Shah Deniz shareholder, announced that it will build, together with the Turkish national oil company TPAO and the Turkish gas transmission company BOTAS a new pipeline called the Trans-Anatolia Gas Pipeline (TANAP) that will carry 16 bcm of gas per year from the expanded South Caucasus Pipeline (SCP) end in Eastern Turkey to Western Turkey. SOCAR will be the majority shareholder in the new pipeline project company, with 80%, while TPAO and BOTAS have the remaining 20%. SOCAR also invited BP to become a shareholder by acquiring some of the SOCAR’s project share; BP supports the project and seems interested to become a shareholder in the USD 7 billion project. The EU Energy Commissioner also welcomed the signature of the TANAP inter-government agreement between Azerbaijan and Turkey on June 27, 2012, declaring its support for the project that should be finalized by no later than 2018.

The Shah Deniz consortium has assessed the four projects proposed to them: Nabucco, TAP, ITGI and SEEP at the end of 2011. TAP was the first project to get good news in February 2012, when it announced in a press release that it was selected by the consortium as the preferred pipeline route to Italy. This unfortunately meant bad news for the ITGI project, which is thus no longer under

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75 Trans-Anatolian Will Put Greater Emphasis on Other Pipelines, Natural Gas Europe, November 2011, at http://www.naturalgaseurope.com/trans-anatolian-will-put-greater-emphasis-on-other-pipelines-3590
consideration for bringing the gas to Europe. Mr. Sachinis, CEO of DEPA has stated in an interview for the portal EurActiv, in February 2012 that this is only a provisional decision of the Shaz Deniz II Consortium. He also stated that at the moment, when the Consortium will make its final decisions, ITGI will be in full operation, while TAP will still lack the necessary licenses and approvals. TAP has since advanced the negotiations with the Shah Deniz consortium and has even secured in August 2012 funding from some consortium members - BP, SOCAR and Total - for continuing the preparatory work for the project, the funding agreement also opening the door to the three consortium members for becoming shareholders of the TAP project.

Faced with competing projects that were proposing transport capacities more in line with the Shah Deniz consortium needs, with rumors that some of the Nabucco shareholders want to withdraw from the project (RWE and MOL), and with the lack of reliable complementary sources of gas supply to fill in its proposed 31 bcm per year pipeline, the Nabucco project company started in the beginning of 2012 to look at various scaled-down scenarios for the pipeline. On May 16, 2012, Nabucco officially submitted a new proposal called Nabucco West to the consortium. Nabucco West - see map - is basically a proposal very similar to BP’s SEEP: a 1,300 km pipeline that would carry 10 bcm per year (with potential to increase capacity to 23 bcm per year) from the Turkish-Bulgarian border to Baumgarten in Austria through Bulgaria, Romania and Hungary.

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Finally, on June 28, 2012, BP, the Shah Deniz operator, announced that Nabucco West has been selected as the single pipeline option for the potential export of Shah Deniz II gas to Central Europe. At the same time, BP announced that it was withdrawing its competing SEEP proposal.

The Shah Deniz consortium will continue to work with the promoters of the two selected pipeline projects, Nabucco West and TAP, and should make a final decision between these projects, supported by a long-term gas sale agreement, ahead of the Shah Deniz final investment decision planned for mid-2013. At this point, the European Union supports both the Nabucco West and TAP projects and includes them on the proposed list of critical energy infrastructure projects.

We cannot conclude the discussion of the proposed Southern Corridor projects without a short note on another project that was proposed several years ago as an alternative to bring Caspian region gas to Europe - the White Stream pipeline (see map for one of the proposed routes).

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86 Shah Deniz selects a second export route option to Europe, BP’s website, available at: [http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7075514](http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7075514)

According to the project company, which is a private initiative, the White Stream pipeline will transport gas from Azerbaijan and other countries in the Caspian Region via Georgia directly to South and East Europe (Romania and Ukraine) and from there onwards to markets in Central and Eastern Europe. The project would be developed in stages with the first pipeline (due for completion in 2018) to cross the Black Sea from Supsa in Georgia to Constanta in Romania in water depths in excess of 2,000 meters and transporting 8 or 16 bcm/y of natural gas depending on final selection of pipeline diameter. In a later stage, a branch could then be built from the main pipeline to Ukraine. Although supported and partly financed by the European Union at feasibility study stage, White Stream’s chances of being built are directly dependent on the development of a trans-Caspian gas export link, which, as discussed above, faces huge challenges. The project is still on EU’s most recent proposed list of critical gas infrastructure projects.

Source: GUEU- White Stream Pipeline Company Ltd

88 White Stream Pipeline website: http://www.white-stream.com/#clients/cta4e
South Stream gas pipeline project

South Stream is an initiative announced in 2007, through an agreement signed by Gazprom and an Italian company ENI. The South Stream natural gas pipeline would cross the Black Sea, from Russia to Bulgaria, and then further to Greece and Italy in the south and Austria in the north. On its route to Austria the pipeline would cross Serbia and Hungary- see map.

Figure 13. The proposed South Stream pipeline project

With Gazprom already in control of the Serbian oil sector, after its purchase of NIS (Naftna Industrija Srbije)\(^90\), and plans to extend South Stream to FYROM\(^91\), Croatia and Slovenia\(^92\), through South Stream Gazprom would *de facto* become the most important energy player in the Balkans, from Athens up to Budapest. Whereas the Russian fear of unreliable transit countries was the main factor behind Nord Stream, South Stream seems to be conceived as a competing project to the Nabucco project (and now the TAP project as well) supported by the European Union. Deals to start the process of building of South Stream were signed by Russia with Italy, Bulgaria, Greece and Serbia in Sochi, a Russian resort at the Black Sea


and the site of the 2014 Winter Olympic Games. Turkey is allowing the new pipeline to cross its territorial waters and, according to media sources, supported the agreement. The whole project is due to be completed by 2015, two years earlier than Nabucco. South Stream, according to estimates, will be able to take up to 63 bcm of gas per year, and is estimated to cost 20 billion USD.

South Stream, as Nabucco, raises a number of questions. First of all there is the issue of costs, which do not seem to be taken into consideration, as indicated by the South Stream’s project leader Marcel Kramer in 2010, when he “conceded that he was unaware whether the cost of carrying the gas under the water would be higher than shipping it overland through Ukraine, which has invited Russian and European Union investment in expanding its transit network.” In addition, Gazprom itself lowered its own estimates of projected European gas demand by 2020-2030, as noticed by Mikhail Korchemkin, “The reduction of the future European demand”, as he argues, “accompanied by the growing "gas independence" of the US leads to an increasing competition between pipeline gas and LNG in the European markets.” Hence LNG imported from Qatar may be significantly cheaper than gas imported from Russia, especially considering the fact that exploration of the largest gas fields- Stokhman and Yamal- would require considerable financial investments. Still, as already mentioned, the German moratorium on nuclear energy should lead to a growing interest in Russian gas. These observations could point to several conclusions. South Stream would contribute to:

- limiting reliance on transit countries, thereby avoiding repetition of 2006/2009 gas disputes
- establishing a clear link between Gazprom’s investments in South East Europe and resources in Russia

98 ibid
99 ibid
maintaining dominance as a supplier to the EU (if South Stream was interpreted as a rival to Nabucco)

South Stream, apart from creating an alternative route for Russian gas plays an important geopolitical role. By blocking Nabucco, Russia would also maintain its dominance in Central Asia. ‘Russia has exploited the situation with gas over much of the past 20 years by using Central Asian gas as backfill for its domestic needs. It has bought this gas at a very substantial discount on its own export prices for Europe’. With Russia already present in the Balkan and Turkish gas sector (Trans-Balkan and Blue Stream pipelines), a pipeline crossing the Black Sea would strengthen Russian position in the whole basin.

In September 2011 French EDF and German Wintershall officially joined the South Stream project (taking a 15% stake each), while ENI saw its share reduced to 20%, with Gazprom keeping his 50% share in the project. In the light of growing disillusionment among Nabucco’s supporters, the perspectives for a second direct route between Russian gas supplier and European recipients seemed to increasingly materialize. However, the recent developments in the Southern Corridor discussed above have increased the chances that at least one pipeline could transport the Shah Deniz 2 gas towards Europe, while the South Stream promoters, faced with slow European demand, might have to scale down their project.

Russia has also discussed with Turkey the idea of building the Blue Stream 2 project that would install in the Black Sea a parallel pipeline to the existing Blue Stream pipeline. Blue Stream 2 was first announced in 2002. In August 2005, Russia and Turkey officially proposed Blue Stream 2 but in 2007 Blue Stream 2 was shelved when the South Stream project was announced. However, in 2009, Russia reopened the Blue Stream 2 discussion, which has not advanced significantly since. As even the existing Blue Stream pipeline is rarely used at its full capacity and with Russia focused on finding enough natural gas supplies for the massive South Stream project, the realization of the Blue Stream 2 project seem improbable.

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100 Lough, ibid., p. 8
Other gas transit concepts

Pipelines do not offer a lot of flexibility in terms of switching suppliers or customers. Moreover, gas moved through pipelines is subject to long-term contracts that generally use various indexation formulas that link the gas price to the oil price and cannot be easily renegotiated if the price changes dramatically. Therefore, other gas transit concepts have been assessed by the Black Sea riparian countries during the last several years, such as liquefied natural gas (LNG) and compressed natural gas (CNG), in order to diversify their gas import sources and increase the flexibility of the gas contracts, allowing these countries to access the global gas spot markets when price levels are more interesting than long-term contract prices.

Figure 14. Gas export scenarios comparison

As can be seen from the chart, other gas transportation concepts can be economic, depending on the gas field’s production and its distance to the market. For example, pipelines generally become uneconomic, even for large gas fields, for distances larger than 2,000 km. Liquefied Natural Gas (LNG) can be used for transporting large volumes of gas over very long distances and Compressed Natural Gas (CNG) can be used for specific combinations of gas volume and distance. In the LNG process, natural gas is cooled to approx. -162° C, reducing its volume to 1/600th of the original and becoming liquid at close to atmospheric pressure. The liquefaction compresses the natural gas several hundred times,
allowing the transportation of much more natural gas than in gaseous form. The LNG is then transported by specially designed LNG tankers that keep the gas under the liquefaction temperature during transportation. LNG is unloaded in special terminals called re-gasification terminals, where it is decompressed and brought back to gaseous form. The gas can then be pumped in gas transmission and/or distribution pipelines towards the end users. LNG is more flexible than pipelines, as the LNG tankers that are not linked to a long term delivery contract can be re-directed to various customers around the world with the gas being sold on the spot market. The global LNG trade has grown dramatically and has reached almost 331 bcm in 2011 or 32.3% of the total gas traded in the world.102

There are several LNG projects in the Black Sea region. The Interconnector Azerbaijan- Georgia- Romania- Hungary (AGRI) is a project that was initiated in 2010 and is designed as an integral part of the Southern Corridor. AGRI LNG shareholders are the Romanian Romgaz, Azeri SOCAR, Georgian GOGC and the Hungarian MVM. AGRI is expected to transport liquefied Azeri gas from the Kulevi port in Georgia, across the Black Sea, to a LNG terminal to be built on the Romanian Black Sea coast in Constanta. From that point, the gas will be pumped through the Romanian natural gas transmission system to Hungary, through the Interconnector between Romania and Hungary to be transported further to the European market.103 The contract for a feasibility study has been awarded by the project company AGRI LNG in June 2012 and should propose options for the 2-8 bcm/year transportation system that could cost up to 4.5 billion €.104 AGRI shareholders are trying to attract other countries in the region to join the project (Serbia has expressed interest in November 2011105) and to get support from the European Union by having the project on the list of critical energy infrastructure projects. AGRI LNG has not submitted a proposal to transport the Shah Deniz future gas exports to Europe in October 2011 as Nabucco, TAP, ITGI, and SEEP have done. Therefore, it is difficult to see how the project will secure a significant gas supply source from Azerbaijan if the Shah Deniz consortium has not even taken AGRI into

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102 Natural Gas trade movements, BP’s website: http://www.bp.com/extendedsectiongenericarticle.do?categoryId=9041232&contentId=7075237
103 AGRI’s website: http://www.agrilng.com/
105 Serbia seeks to join AGRI, Natural Gas Europe, November 2011: http://www.naturalgaseurope.com/serbia-seeks-to-join-agri-3311
account as a potential route to Europe and its choice seems to be narrowed down to Nabucco or TAP. On the other hand, several countries in the Black Sea region are planning LNG import terminals that would allow them into the growing global LNG exports from sources such as Algeria or Qatar. Romania is planning a regasification terminal in Constanta, Ukraine a 10 bcm/year terminal in Yuzhnyi to be commissioned in 2016,\textsuperscript{106} while Bulgaria has been assessing similar plans for a Black Sea import terminal\textsuperscript{107}.

In compressed natural gas (CNG) transportation systems natural gas is only compressed in a compression terminal, then transported by a CNG tanker and decompressed at the destination terminal before being pumped into the gas transmission system. CNG has a lower cost of production and storage compared to LNG as it does not require an expensive cooling process and cryogenic tanks, but the volume of gas that can be transported is much lower as well. Bulgaria’s natural gas transmission company Bulgartransgaz is proposing a CNG import terminal- the Black Sea CNG- that was included in the EU proposed list of critical energy infrastructure projects\textsuperscript{108}. However, the source of gas for this project is not clear; Bulgaria has recently signed an agreement with Azerbaijan to import 1 bcm of gas per year, but through the future Southern Corridor pipelines\textsuperscript{109}.

\textsuperscript{106} Ukraine LNG terminal, \textit{A Barrel Full}, at: \url{http://abarrelfull.wikidot.com/ukraine-lng-terminal}
\textsuperscript{108} \url{http://ec.europa.eu/energy/infrastructure/consultations/20120620_infrastructure_plan_en.htm}
\textsuperscript{109} SOCAR and Bulgarian energy holding sign MoU on gas cooperation, \textit{Natural Gas Europe}, April 2012, available at: \url{http://www.naturalgaseurope.com/socar-beh-sign-gas-mou-6117}
3. Black Sea as an Oil and Gas Production Region

Limiting the energy dynamics in the Black Sea basin to an energy transit rivalry between EU and Russia is an oversimplification. Russia is nowadays one of the main EU oil and gas suppliers; however, the Black Sea region has been historically the cradle of European oil production. Romania was the largest oil producer in Europe before the rise of the North Sea and its oil extraction industry was developed primarily by German, United States, British, and Dutch companies. According to the IEA Black Sea Energy Survey (2000), Romania has over 140 years of oil history. It was the first significant producer of oil in Europe with the first well drilled at a depth of 150 metres in 1861. From its inception to the end of 1997 the industry has extracted 780 million m³ of oil and 1,170 bcm of gas. The peak oil production was reached in 1976 and has since declined gradually, as shown in the chart below.

Figure 15. Oil production and consumption in Romania

![Oil production and consumption in Romania for 1965-2008](image)


This decline is explained by the fact that many of the country's oil fields are close to depletion and discovery of new reserves has been slow. Currently, Romania is a net importer of both oil and gas, mainly from Russia. Depletion of fields is not the only driving reason behind the production’s decline. During the communist regime that ended in 1989 large amounts of hydrocarbons resources were squandered on
developing energy-intensive sectors such as fertilizers and petrochemical industries. Admittedly, the hydrocarbons sector is currently underdeveloped due to lack of investments in new exploration and production technologies. While the oil production sector has been privatized, the natural gas production is still mostly in the hand of the government. Further opening of the oil and gas exploration, as well as the privatization of the national gas company and of the oil and gas transportation companies would create interesting opportunities for industry development and foreign investment.

Recent reports testify that the Black Sea should not be seen only as a transport corridor but also as potential hydrocarbons source. The oil and gas potential of the Black Sea is still largely unknown and thus cannot be compared with that of the Caspian Sea. This is both important for the security of EU energy supply and diversification of supply sources to the countries of the Black Sea region. In terms of economic development and political stability the Black Sea region has, compared to the Caspian Sea region, more advantages. Another positive factor is that the Black Sea region is situated close to a significant hydrocarbons market - Europe.

Turkey is for now the most active riparian Black Sea country in terms of hydrocarbons exploration, mostly offshore. Turkey has opened the path via the partnership of its state oil company, TPAO, with major international oil companies for exploration in the deep waters of the Black Sea in 2005. The proposal of a new draft petroleum law for the improvement of regulation and fiscal regime for the attraction of foreign investments, the same year, proves the Turkish interest in hydrocarbons exploration.

In a recent successful offshore project in the Black Sea, TPAO and Petrol Ofisi have started producing natural gas in August 2020 from a platform installed in the Akçakoca field. A 7 km gathering pipeline was connected to the 14 km long main subsea pipeline which brings the gas to the shore. The project is already producing approximately 15% of Turkey's total gas output at 340,000 cm/d.

Bulgaria and Romania have also conducted licensing rounds or tenders that have seen interest from major oil and gas companies. Romania has been producing oil and gas offshore in the Black Sea for decades and Bulgaria has joined it recently.

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110 Turkey-Bulgaria-Georgia-Romania- Russia-Ukraine: The Black Sea’s Emergence as a potential new oil and gas province, HIS Global Insight Report, analysis by Andrew Neff.
112 Opportunities and challenges in the deepwater Black Sea, Upstream Insights, September 2010.
with its own offshore gas production, ExxonMobil and Petrom, two of the companies who are jointly exploring for oil and gas offshore Romania have just announced in the beginning of 2012 that they have made a significant gas discovery in the Black Sea. Ukraine’s new elected government has also expressed interest for offshore oil and gas exploration. The majority of preliminary surveys agree that the exploration activities should focus on the deep water sectors with the most of potential blocks to be situated within the Turkish Black Sea shelf. Deep-sea exploration drilling is very expensive and requires advanced technologies that the Black Sea countries do not have yet; therefore international energy companies are going to be invited to participate in joint ventures. In addition, deep-sea drilling entails environmental risks for the already vulnerable ecosystems of the Black Sea. As the pace of oil and gas exploration activities in the Black Sea region increases, it will be interesting to follow the results of these activities and re-assess the importance of any hydrocarbon commercial findings on the regional energy landscape in general and on the pipeline politics in particular.

**Concluding Remarks**

The Black Sea is an area where the conflicting of interests of various international players, including the EU, Russia and the other riparian countries, are creating a very dynamic geopolitical landscape. The region was, historically, at the crossroads of several significant trade routes linking Europe to Central Asia and Middle East and Russia to the rest of the world, and the fight for controlling this trade crossroads was centered on the Bosporus Straits and Dardanelles Straits - whoever controlled the Straits, controlled *de facto* the whole Black Sea basin- and the trade passing through it. The contemporary importance of the Black Sea region has an added energy, transit dimension that is underlined by two long-term trends: the increasing dependence of the EU countries on hydrocarbons imports from non-EU countries, and the growing oil and gas export capacity of the Russian Federation and Caspian countries on the supply side.

Achieving long-term energy security, in other words ensuring access to sustainable alternative sources of oil and natural gas and transit routes, entails a number of challenges for the EU. The EU should focus on a mutually profitable partnership with
Caspian suppliers, due to their significant hydrocarbons volumes available for export, and with the Black Sea countries, with their transit potential via pipelines and sea routes. Being also net importers of hydrocarbons, most Black Sea countries could support EU energy supply interests if adopting the same approach and priorities regarding the security of supply, paving the way for regional energy cooperation beyond hydrocarbons transit: offshore exploration for conventional oil and gas, onshore exploration for unconventional hydrocarbons such as Bulgaria’s apparent shale gas potential\(^{113}\) and renewable energy infrastructure.

The Black Sea region has gained recently a wider importance in terms of global energy security. Even China is looking for strategic partners\(^ {114}\) in the Black Sea region due to its growing energy demands. In this context, all the countries in the Black Sea region are trying to enhance their regional geopolitical status. Ukraine for example wishes to play a pivotal role in this dynamic energy scene. The President Yanukovych seeks to follow a “multi-vector foreign policy” by playing a balancing act of Ukraine between Russia and the EU and by using the differences as well as rivalries between them to strengthen its own positions and leverage\(^ {115}\). However, although, Ukraine has joined the Energy Community Treaty in November 2010, the progress in the implementation of the EU acquis has been very slow.

Another interesting example is Bulgaria. Although the country has been traditionally considered being friendly to Russia, recent decisions of the Bulgarian government involving partnerships with Russian companies such as withdrawing the license for import and storage of oil for Neftochim Burgas refinery and Rosenec terminal (both controlled by Russian LUKoil), the unilateral withdrawal from the Burgas-Alexandroupolis pipeline project and from the Belene nuclear power plant project may change this view\(^ {116}\).


The countries around the Black Sea have both competing interests and competing strategies for energy governance and energy supply. Russia sees the basin as an opportunity to pursue its economic and political goals based on exports of resources by establishing and controlling physical and direct links with recipients of energy exports, especially pipelines. Other countries, such as Georgia, Turkey and Ukraine, base their definitions of energy security on attracting a significant share of the energy transit to the European markets and controlling the transit infrastructures crossing their territories. Romania and Bulgaria seek new sources routes of energy imports, while trying to develop their domestic conventional and unconventional hydrocarbons resources. Finally, the European Union is also part of the regional energy game, combining political and energy security, interests. Turkey is arguably the most important actor in the regional energy landscape. While involved in various energy-related initiatives in the Black Sea basin, it is currently hedging its bets by not committing exclusively to specific gas transit project. In terms of energy, Turkey is primarily a net importer (Figure 16), hence its direct interest in all the regional energy initiatives. As the majority of the natural gas currently imported by Turkey comes from Russia (approximately 62%), the diversification of supply from new sources in Central Asia and potentially the Middle East is one of the strategic interests of Turkey.
This fact helps to explain the focus of the Turkish government on turning the country into a regional energy transit hub. This would allow Turkey to use some of the natural gas crossing its territory for the domestic market, while being able re-export the rest. Turkey’s geographical location at a significant crossroad between hydrocarbon exporters and importers gives the country a strategic advantage allows it to be an interesting partner not only for East-West energy projects, but also for South-North initiatives (e.g. further developing the Arab Gas Pipeline linking Egyptian resources with Jordan, Lebanon and Syria). Moreover, one of Turkey’s main interests is to reduce the oil tanker traffic through the Turkish straits. The volume of hydrocarbons being exported through the Black Sea is growing, while the number of tankers crossing the Bosphorus and Dardanelles will not be able to keep pace on the long run without significantly increasing the environmental risks, hence Turkey’s involvement in projects bypassing the Straits (e.g. Samsun-Ceyhan pipeline).

The geopolitical position of Turkey makes it the most important energy partner in the Black Sea region. Turkey role can advance or slow down EU’s energy plans in the region by cooperating with or blocking the EU’s energy cooperation initiatives and projects.
The EU needs to clarify the driving reasons of its supply diversification initiatives. If diversification is pursued in order to significantly reduce energy imports from Russia, then Turkey automatically becomes the key strategic partner. If, however, the aim of diversification is to simply secure more transit routes, then Russia’s clout as a strategic partner for the EU radically increases.

An additional variable for the EU is created by the energy partnership between Turkey and Russia. As mentioned earlier, most of the gas consumed in Turkey is imported from Russia. However, Turkey seems hesitant to further deepen its energy import cooperation with Russia, as proven by the stalling of the Samsun-Ceyhan oil pipeline or the Turkish interest in the Southern Corridor projects that would compete against the Russian-backed South Stream gas export project.

All this would point to one direction-the need for the European Union to establish a strategic energy partnership with Turkey. The European Union is already Turkey’s largest trading partner. Turkey is already a member of Western structures, such as NATO, as well as of the Energy Charter Treaty and an observer to the Energy Community Treaty. It is involved in the only existing pipelines linking Caspian oil and gas with the Western markets that bypass Russian pipeline systems (BTC and BTE). Turkey is linked with Greece via a gas interconnector from 2007, which can be further extended to Italy. And Turkey is also one of the key partners in Nabucco. At the same time, a number of challenging issues remain unsolved in the EU-Turkish relationship; all centered on the virtually stalled EU membership negotiations in general and on the Cypriot issue in particular. Turkish announcement that it will suspend any relations with the EU during the Cypriot Presidency in the second half of 2012 only added to the growing discontent between both parties.

The Black Sea region has a significant potential to remain a key transit region for oil and become a strategic transit hub for natural gas if common ground can be found between often conflicting interests of the riparian countries. The key to the success or the failure of EU’s energy initiatives in the region lies in a strategic cooperation and energy partnership with Turkey. In the race between two competing visions for the future energy landscape of the Black Sea region those of the EU and Russia, the vision that will succeed in co-opting Turkey as a partner will probably win.
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