

## THE EUROPEAN UNION'S QUEST FOR ENERGY POLICY: A GEO-ECONOMIC APPROACH

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**Abstract:** *The European Union's external energy policy architecture is very important for further energy security and economic development. European normative power on its neighbours represents the most efficient way of integrating neighbouring energy markets, with the EU's emerging internal market and, in perspective, through economic interdependence and complementarities, there are chances of creating an European geo-energy space. EU's tools for shaping the geo-energy space are becoming more effective in an extended European economic area that would allow it to act as the main actor in a multilateral interconnected system of energy producer and transit countries. The result of the paper is materialized in a new paradigm for EU's external energy policy, which can provide future security of supply through market institutions and an active economic diplomacy in the resource energy countries.*

**Keywords:** *European geo-energy space, energy markets, regulatory framework.*

**JEL:** *F15, F52, N74*

### 1. Introduction

During the last decade, energy policy and implicitly energy security have been on the European Union's (EU) top agenda, representing a topic that has often divided member states and has shown particular interests from within. The supply of natural gas and mostly the Union's relations with Russia are the issues to which is difficult to find a common approach. Shaping and (re)defining energy policy in the above mentioned context, which has traditionally been seen as a highly nationalized and politicized matter, represents a big test to the Union's future and might become the following next triumph or undesired failure.

It is in that context that the paper seeks to identify the characteristics of a potential new paradigm for the EU's energy policy, with respect to its main goal to provide security of energy supply (European Commission, 2001), through a common economic and geopolitical approach of the issue. In order to do so, we will make use of the term of *geo-energy space* (Mañé-Estrada, 2006), which is able to suggest not only the strategic importance of energy resources, but also their scarcity and the need of procuring them from other geographical spaces. Besides Mañé-Estrada (2006), the concept of a pan-European geo-energy space is not used by other authors in the literature, which makes our work more difficult.

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Nevertheless, the similar term of (pan)-*European Energy Community* (European Commission, 2006; Andoura et al., 2010) is mentioned in the documents of the Commission, as well as in a recent study of the think-tank Notre Europe, chaired by Jacques Delors, the former president of the European Commission. However, the concept that we are intending to make use of (*geo-energy space*), is defined as “a geographical area with a *governance structure* (emphasis original)” (Mañé-Estrada, 2006), which requests an institutionalised form of cooperation between the major partners that are engaged in such a space. The second term has two meanings, if the Commission defines it as a way of integrating EU’s energy markets with those of its neighbours into a common regulatory space (European Commission, 2006), the other meaning is that of an European energy regulatory space governed by credible institutions, capable of delivering effective solutions on the basis of “democratic legitimacy” and of “exporting European regulatory norms in a credible and convincing way to the Union’s partners on the international scene” (Andoura et al., 2010). The two meanings of the European Energy Community are not externally oriented, but rather internally, being ideally “placed under the present Union structure and rely on the institutional machinery of the Union” (Andoura et al., 2010).

In our opinion, the European geo-energy space should retain the institutionalised cooperation, but should use it into a broader framework in which the energy is only an element of the larger common economic space that is to be build around the European Union as the main actor of a certain form of economic integration on the European continent.

Our hypothesis is that a geo-energy space can become real only as a component of a broader economic space, a virtually Common European Economic Space (CEES).

Energy policy-making cannot be seen independently from what goes on in the international system. Energy relations in the world will take shape along the organization lines of the future international political and economic system. Therefore, we will examine the consequences of geopolitical developments in order to identify the best instruments that will allow us to draft the lines of a geo-economic energy policy for the EU, in the context of two contrasting storylines along which the world system develops. They are called *Markets and Institutions (M&I)* and *Regions and Empires (R&E)* respectively. Both approaches share the idea that the problem has its origin in the fact that the consumer countries are dependent on the producer countries’ offer. Nowadays, the EU is following the *M&I* approach, while other states as the US have already shifted their energy policy according to *R&E* approach (CIEP, 2004; Vasconcelos, 2010). However, the EU has several instruments that could allow acting according to *R&E* strategy, without the need of using hard power elements, and that’s why in our opinion *M&I* approach is the necessary step towards hard type energy policy. As we will show in the following chapters there are three political instruments which, integrated into a larger frame of a Common European Economic Space, could permit EU to act as an energy actor. The three instruments are the Energy Dialogue with Russia, the Strategic Partnership with Turkey and the European Neighbourhood Policy in relations with transit countries for energy resources from Russia and Caspian region.

Consequently, the European geo-energy space would represent a certain type of economic integration, whose foundation resides mainly in energy cooperation, without the goals of a common legislative acquis but rather legislative convergence and harmonization. The European geo-energy space should be the outcome of an active economic diplomacy and support for market institutions in partner countries and regions, in other words should be the result of a dual approach, *R&E* and *M&I*, which may be called *RMI* (Regions-Markets-Institutions).

## **2. Arguments for a EU geo-economic energy policy**

The main coordinates of energy policy nowadays are the security of supply, the competitiveness of energy industry and the environmental protection, based on the European Union energy objectives (Kagiannas et al., 2003). That is why a comprehensive and modern energy policy making, which can be characterised by clarity and transparency, is necessary.

As Doukas et al. (2008) noticed, each state or geopolitical region has various energy policy objectives and priorities, depending on the level of economical growth as well as on its status (importer, producer, exporter of energy or only energy transit country). Thus, a Common European Economic Space having energy as its central pillar can serve as a basis for an integrated energy policy of the EU and its energy partners, which could simultaneously achieve their energy objectives, in the context of their (theoretically) divergent status.

### *European Union's steps towards an internal common energy policy*

Traditionally, the EU's involvement in energy policy has been indirect through market integration and environmental policies (Finon and Locatelli, 2008). However, the situation has changed since the oil shocks of the 1970's with the European Community taking steps to increase its energy efficiency (Bahgat, 2006). Different institutional arrangements, such as the White and Green Papers, the Gas and Electricity Directives and the Energy Charter Treaty were launched by the European Commission in order to create a common energy policy to face the growing demand and security concerns (Belyi, 2003).

The internal dimension of the EU energy policy corresponds mainly to the creation of an internal/common energy market (Nowak, 2009, p.57), where secure and reliable energy supplies (mainly electricity and gas) at competitive prices can be safeguarded. It is believed that an internal gas and electricity market will reduce dependence on producer countries and some scholars even argue that, in the case of Russian gas problems, the most efficient solution lies not in the development of an external energy policy, but in further restructuring of the EU's internal gas market (Noel, 2008). However, even if the internal market is not a panacea for EU's energy issues, it is definitely the pillar of the so-desired "common voice" in such matters, which provides also risk sharing (Baumann, 2010). As it is said by the Commission, EU weight on the world arena can be more consistent if there are strategies to share and spread risk and if there are convergent national actions (European Commission, 2008a).

*Why is a geo-economic approach for the EU's external energy policy needed?*

The European Union is consuming an increasing amount of energy despite all measures of energy efficiency and thereby is becoming more external energy addicted. Internal energy production is insufficient for the Union's energy requirements. As it is stated in the Commission's Green Paper, the significant rise of oil prices as the main element for the price setting for gas and other energy products reveals the EU's structural weaknesses regarding energy supply, namely Europe's growing dependence on energy which can't be controlled without an *active energy policy* (European Commission, 2000).

As a leading gas consumer on the European continent, the Union is in a need of diversifying its supplies, which will allow it to secure further economic development. It is already certain that the EU has not only to avoid situations of political crisis (such as the Russian-Ukrainian conflicts from the last decade) that could have negative impact on supply continuity, but also to deal with an increasing competition for access to gas resources. If now developed countries are dealing with increasing gas consumption, because of its environmental friendly properties for power generation, developing countries (mainly those of East Asia) are facing a growth in oil consumption as a result of fast economic development and transport needs. However, world proved gas reserves and their irregular distribution across regions determines the beginning of a future potential resource competition between new world powers. Proven reserves make difficult for the supply to become diversified, as it is the ideal request for energy security (Bielecki, 2002; Dimoser, 2007), because it demands high investments in transport infrastructure

and exploitation technologies for those reserves. According to BP, in 2009 Russia, Caspian Sea and Middle East account for about two-thirds of world gas reserves. As a result, the world largest consumers, the EU, US and South-East Asia are/will become import dependent and therefore will compete for oil and gas reserves mainly from Russia, the Middle East and Caspian Sea.

We are estimating that even if the energy competition among world different regions will become more visible during the next decades, the European Union has the advantage of geography and a common history with most of the rich in gas reserves regions. Major gas reserves are located mainly in areas around Europe (Russia – Siberian fields, Caspian Region, Middle East and North Africa), which is not the case for Eastern Asia powers, mainly China and India. Europe has been in contact throughout trade and wars with the Russian Empire and afterwards with the USSR and democratic Russia, as it is the case for Europe's relations with the Turkish provinces of the Middle East and North Africa along history. As historians could probably notice, the European geo-energy space would be a new kind of Concert of Europe, gathering this time the European Union as the successor of the continental powers of 19<sup>th</sup> century, Russia and Turkey (and its former Ottoman provinces).

The geo-economy in the EU's external policy should also be perceived as the Union's legislative concentric circles (Morozov, 2008), that are meant to bring neighbouring countries and regions closer. In this context, when the European Union is not ready to grant those countries full membership, it can offer them a functionalist type of integration, cooperating economically in the field of energy.

### 3. The EU's multiple energy aspects. Solutions for the energy dilemma

The EU's energy policy paradox is that it has energy as the main source for common economic development and peace factor at its very core. However, energy policy resides at a national level, being considered too much strategic. The consequence of this situation was a very unclear and general character of founding treaties regarding energy (Bodio, 2009, p.163), living room for interpretation. Unfortunately, the most fragile line between the modern and the post-modern character of the Union is manifested in the field of energy, which has always been perceived as strategic and therefore strictly connected to national security.

#### 3.1 The EU's internal energy dialogue

##### *The EU and its 27 energy interests*

Particular and changing interests of the EU member states forced Brussels to acknowledge an impasse in formulating a coherent European energy policy, situation that had also negative impact on the EU's relations with Russia but also on the EU's priorities agenda concerning infrastructural projects that would provide energy diversification (the Nabucco project has been postponed several times already and other substitute projects are being proposed, e.g. AGRI) (Socor, 2010).

The "lack of common voice" in forging an external energy policy is mainly the result of the unequal bargaining power of different member states. The gas markets in Eastern EU member states are generally small but highly dependent on Russia,

while the bigger western markets benefit from greater supply diversity and from LNG.

Crisis situations always proved to be good in the EU history, revealing the weaknesses and forcing institutional and market reforms. Several events have increased the EU's focus on energy during the last decade: the EU's last expansions increased its energy dependency on Russia, an unstable and unpredictable evolution of world energy prices, energy conflicts in the Union's neighbourhood. In such a situation, the EU's access to stable, diversified and predictable supplies of gas is highly conditioned by an efficient energy dialogue with energy exporters but also with transit countries. The Union is becoming aware that a "secure energy supply requires a combination of internal and external policies" (European Commission, 2006). An efficient energy dialogue has to impede supply disruptions or animosities between the Union (or its member states) and its energy partners. The efficiency of the EU's energy dialogue with energy suppliers would be under the major influence of long-term mutual investments in existing and new production installations and transport infrastructures which strengthen the energy partnership<sup>1</sup>. Such investments will have a positive impact on creating and maintaining mutual trust.

##### *Common objectives*

While most European energy experts view the overall European energy security beyond 2030 as more optimistic (Umbach, 2010) due to the expansion of renewable energy sources, new innovative

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<sup>1</sup> As it was stated in the 10th Progress Report of the Energy Dialogue EU-Russia, presented by Andris Prieбалgs, the EU Commissioner on Energy Issues and Sergey Shmatko, Russian Minister of Energy, in November 2009 in Moscow

technologies that are to be discovered, energy efficiency improvements and a wider available global energy mix of resources, the mid-term challenges are considered much more uncertain. In 2006, the European Commission offered a list of ten objectives that could improve medium and long-term energy security (European Commission, 2006): a) promoting transparency and a better governance in the energy sector, through energy partnerships with third countries; b) improving production and export capacities in producer countries and modernising energy transport infrastructure in producer and transit partner countries; c) improving the climate for European companies' investments in third countries and availability of production and export energy resources to the EU industry; d) improving conditions for trade in energy through non-discriminatory transit and third party access to export pipeline infrastructure; e) strengthening physical and environmental security as well as the energy infrastructure safety; f) stimulating energy efficiency; g) implementing the Kyoto Protocol provisions; h) diversifying energy imports by product and country; i) building an international system to deal with the enriched uranium; j) promoting strategic reserve stocks and encouraging joint stock holding with partner countries.

### **3.2 Achievements regarding an external energy policy**

*Current state of things and steps forward*

The European Commission's "2nd Strategic Energy Review" and its new "EU Energy Security and Solidarity Action Plan" (European Commission, 2008) identifies the main weaknesses and problems that need to be overcome on the way to a real

common energy (foreign) policy and by enhancing the energy supply security of its 27 member states. It proposes five key areas for joint cooperation and projects in the forthcoming years: a) infrastructure needs and diversification of energy supplies; b) external energy relations; c) oil and gas stocks and crisis response mechanisms; d) energy efficiency and e) the best use of EU's internal energy resources.

All these objectives must be seen in a more complex framework, in which the Union is making steps towards an integrated internal and external energy policy, by spreading the internal European market rules southwards and eastwards (Youngs, 2007). Moreover, the 2nd Strategic Energy Review represents the first EU elaborated action plan on energy security that may "intensify its efforts in developing an external energy policy" (European Council, 2003), that would enhance international partnerships through "shared rules or principles derived from EU [internal] energy policy" (European Commission, 2007). This is the outcome of the Green Paper statement that energy security can be achieved through a "pan-European energy community", a "common regulatory space" around Europe, that aims to expand "its own energy market to include its neighbours within a common regulatory area with shared trade, transit and environmental rules". Moreover, through the unbundling proposal of 2007 the importance of internal market rules facilitating rules based influence over third country producers is reiterated, which could be called market-governance nexus (Youngs, 2007), a combination of market and governance principles.

The New Lisbon Treaty is expected to enhance EU's capacity for action in energy matters, by increasing the efficiency and

effectiveness of institutions and decision-making mechanisms through the new voting procedure, the qualified majority. It is also very important that the Treaty has created the post of High Representative of the Union for Foreign Affairs and Security Policy<sup>2</sup>. According to article 46a of the Treaty, the EU can now enter into contracts, sign international agreements and become member of international organizations, having the possibility to defend its values and interests as a distinct juridical person of international law (Morgado dos Santos, 2010). But probably the most important aspect is the first-ever reference to the European Neighbourhood Policy, stressing the importance that the Union should offer to its neighbouring countries.

#### *Internal market and existing regulatory framework*

The general regulatory regime that aimed at the liberalization and harmonization of the electricity and gas markets was laid down by the first (1996-1998), second (2003) and third set of electricity and gas directives (2009). The third energy package is being already implemented from March 2011 and creates a climate of transparency in the market, enhancing regional cooperation and cross border network interconnection across the EU. With respect to the gas market, there is a strong support for “operational arrangements in order to enable an optimal management of the network, promote joint gas exchanges and

the allocation of cross-border capacity”<sup>3</sup> that would enhance competition and will improve security. The 2008 Green Paper is important for the future development of international energy networks with third countries, whose agreement is needed. These countries should be politically reassured that the Union is “prepared to enter into a long term energy relationship” and through international agreements to make their legislation more compatible with the EU’s internal market rules. An improved economic and legal framework for the EU’s relations with producers and transit countries would favour investment climate, especially for infrastructure (European Commission, 2008b).

#### *Multilateralist approach*

Institutionally, the EU contrasts with its energy partners at several levels in the energy and gas field (Alhajji, 2007; Dirmoser, 2007; Finon and Locatelli, 2008), where resource poverty motivates effective integration in extended regional energy markets. First, it contrasts in the variety and complexity of relationships between the energy companies and the state implication at dual levels of EU and member states. After the Single European Act establishing the single market, the Commission blocked any creation of national champions in the energy or industry sector. As in the past, each country developed its own gas and electricity market, relying on a national monopoly or a market leader to develop infrastructures and take charge

<sup>2</sup> This new post merges the offices of High Representative of the Union for Foreign Affairs and Common Foreign and Security Policy (CFSP) and the European Commissioner for External Relations. The new High Representative will become the Commission’s Vice-President and will also report to the Council. Among his main tasks will be to chair the Council of Foreign Affairs, to bring together all of the EU Foreign Ministers and to represent the EU abroad.

<sup>3</sup> Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, art. 42, 2<sup>nd</sup> paragraph.

of negotiating big import contracts, being responsible even today for the EU's energy imports (Sander, 2007), despite the Commission's criticism. Nevertheless, the new member states have weak energy companies that are not able to challenge contract violation by monopolies such as Gazprom (Smith, 2008). Secondly, the EU contrasts with its energy partners in the lack of classical attributes of a State and the means of geopolitical power (Cooper, 2003), which explains its multilateral conception of international relations. The interests and views of member states are often divergent and the last enlargements even deepened the gap between the New and Old Europe.

Today, one can notice a certain division in EU, across the former Iron Curtain, in energy matters; it seems that Western EU is providing its own interests with the Union's main supplier, while Eastern EU, and mainly Poland and Romania are leading (separately) the regional incentives for the Union's energy diversification. On the one hand Poland is advocating for a more pan-European energy solidarity and is providing an active Eastern Policy, being together with Sweden the initiator of the Eastern Partnership of the EU. The aim is to stabilize and to bring Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine, which are important producer and transit countries, closer to the EU while militating for a greater infrastructural interconnection (Bocian, 2010). On the other hand, Romania seems to be very active with different energy initiatives in the Black Sea region, until now being the only EU member state that offered its constant support for the Nabucco project. Simultaneously, Romania is acting as energy agent in the Black Sea region and Balkans, having an adequate infrastructure to act so (Pasturia,

2010; Moise, 2010), signing agreements with countries from Caspian Region, as in the case of AGRI project (Azerbaijan-Georgia-Romania Interconnection Project) that will bring LNG gas from Caspian to Central Europe (European Commission, 2010).

It will be also interesting to see to which extent the EU will be able to use the potential shale gas discovered in several member states – mainly in Poland – to improve its own external energy actions.

#### **4. The desirable architecture of the European geo-economic space**

##### **4.1 Preliminary aspects**

Across this chapter we will try to analyse the Union's possibilities to act as an active energy actor, in order to create a *geo-energy space* or a *pan-European geo-energy space* (Mañé-Estrada, 2006) at European level that could represent the best response for its security of supply concerns. For this purpose we will make use of two international relations theories, the neo-liberal and the neo-realist paradigms, also known as the *Markets and Institutions* (M&I) and *Regions and Empires* (R&E) storylines (Mañé-Estrada, 2006; Correljé & van der Linde, 2006). These two theories are predicting the evolution of international order in opposite directions and reflect the position of an energy consumer in a very complex system of producer and consumer countries that are competing for resources. If the M&I tends to economically and politically integrate multilateral institutions and markets, the R&E proposes a world that is divided in rival political and economic blocks, competing for resources and markets through the use of political, economic and military power. In the context of resource



depletion process and growing demand for energy mainly from the emergent countries, there is a strong support for the *R&E* strategy that has been less used by the European policymakers after the end of Cold War. This retrieved approach of foreign strategic affairs considers that the EU has little chance to successfully integrate energy markets around it, only through market incentives and multilateral international relations with its neighbours.

Most scholars (Correljé & van der Linde, 2006; Dirmoser, 2007; Mañé-Estrada, 2006, Finon & Locatelli, 2008) are doing different scenarios following the two storylines, trying to see which of them characterizes EU's foreign energy policy today. Even if the *M&I* outcome of their analysis does not satisfy them, we consider that, given the Union's current organisational and functional logic, it is the Union's only way of stabilizing markets and partners and only after making use of other hard power instruments, that are characterising the *R&E* approach, on the basis of its normative power and strong trade arguments (Wood, 2009; Morgado dos Santos, 2010). In our opinion, an integrated *M&I* and *R&E* approach [a possible future RMI (Regions-Markets and Institutions)] should avoid a new division of the European continent and should make possible the creation of a new geo-economic organisation through a form of economic integration that does not require an accession process to the European Union of its main energy partner, but just a growing interaction and interdependence between all these actors, bringing all their parts closer to each other, gradually leading to common institutions.

For our analysis, we consider the EU's ability to shift from soft to hard power in energy security matters, that would allow to revisit the current external energy

policy, from an economic driven to a geo-economic one. The EU is acting in a world order still characterised by a geopolitical balance of powers based on military and diplomatic force and, according to Finon (2009), is trying to be a *de facto* super-state with the traditional attributes of power, despite the fact that it lacks the means to enforce its own sovereignty. The EU resorts to soft power, conceptualizing its dependence in term of interdependence (European Commission, 2008a), when dealing with world traditional powers (Finon, 2009). However, the EU is trying to cope with world powers by setting different internal rules and norms that are to integrate the European periphery within the Union, according to the principle of concentric circles (Morozov, 2008). That is why the EU represents now a normative power with claims of geopolitical importance. Even if lacking the attributes of a traditional state, and without possessing any coercive instruments to meet its foreign policy goals, the EU is able to impose conditionalities to its trade partners through a large and very attractive market, as well as through European firms investments force. In the case of EU's relation with producer countries, there is a large support for "energy interdependence" provisions in its "broad-based agreements" (European Commission, 2008a) and by spreading the EU's principles beyond its borders (European Commission, 2004a), being the only possibility to educate the partners and not to constrain them. The best example is the 3<sup>rd</sup> Internal Energy Market Package, mentioned in the 10<sup>th</sup> Progress Report on the EU-Russia Energy Dialogue. If in Russia's opinion it significantly limits the activities of Russian energy companies in the EU market, the EU's position is that the package is in fully compliance "with the

Community's bilateral and international legal commitments to provide an attractive and stable regulatory framework also for Russian investments into the EU electricity and gas sector" (Energy Dialogue Report, 2009).

If the EU was conceived as being the first truly post-modern international political form (Anderson & Goodman, 1995; Cooper, 2003, p. 26), then it should act as a multilateral organism whose main characteristic should be economic (first of all), solidarity, but also collective decision making process. Even if *M&I* is said not to be relevant in today's world, for the EU it represents the first step towards a more hard power energy policy, because it can impose constraints and influence decisions made by its partners through markets.

Unfortunately, the EU has not so much room for manoeuvre when building a possible European geo-energy space, because of the land infrastructure that the gas is requiring. Its actions must be directed towards the creation of a regional gas market, using a pipeline infrastructure that has to connect Russia, Caspian Sea countries, Middle East and Northern Africa to the Union's internal market.

#### **4.2. Economic multilateralism and geopolitics**

In our opinion, the EU should find its place in the middle of a very complex system of production-transit-consumption energy relations, taking into consideration its status as the biggest energy consumer in Eurasia, and also the main economic pole of the region. This complex system can be associated to an extended Common European Economic Space (CEES), which will overlap an European geo-energy space that is to be the core of

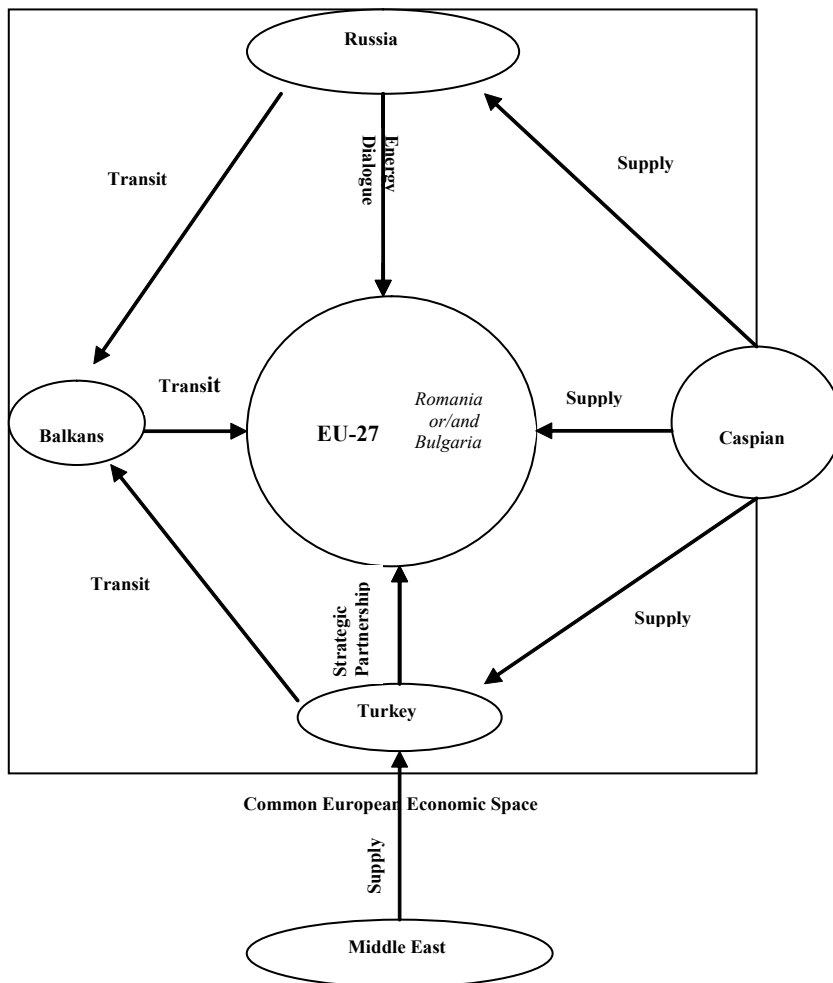
an area of multilateral relations between member states, having the EU as the system coordinator (see Figure 1), through variations of consumption, as well as through standards in matters of trade and others top issues, such as environment protection or common regional projects.

Such an approach should fit the EU's strategy aimed at deepening its partnerships with key energy suppliers, transit countries and consumers, and create international frameworks capable of sustaining the major investments and innovations needed in the coming years (European Commission, 2008a). In the Second Energy Review, there are mentions of European Economic Area and Norway's role for EU's energy security as well as of the Energy Community, which is building an integrated energy market in South-East Europe anchored to the EU. The above mentioned integrative forms are providing good legal frameworks for "a mutually beneficial enlarged energy market based on common rules" (European Commission, 2008a).

The regional approach of the gas policy, as imagined by Mañé-Estrada (2006), has to lay on a three level structure, such as geographical proximity, economic complementarity and interdependence between the economies of the region and a monetary pole represented by a group of states around which is expected such a geo-energy space to be built.

A compulsory factor in creating a regional gas market is geographical proximity that favours the creation of an integrated transport infrastructure between producer and consumer countries. Besides old Soviet gas pipelines (Yamal Europe, Brotherhood and Southern Line) that connect the EU to the Russian gas fields, there are three other pipelines that bring gas from Northern Africa (E.Mattei,

Figure 1. European geo-energy space



Source: Author's illustration

Sicily-Western Libya to Italy and P.Duran Farell to Iberian Peninsula) and the began project of the North Stream that would bring gas from Russia to Germany under the Baltic Sea and the concurrent projects of Nabucco and South Stream, that are to bring gas from Caspian region or from Russian gas fields. Transport infrastructure

creates interdependences between exporter and consumer countries, each of the partners being captive in the logic of the pipeline.

Related to the previous level, economic complementarity and interdependence are important to forge a geo-energy space in Europe, with the European Union as the

main actor. Russia and Turkey are very important elements of a European geo-energy space, because they are producer and transit countries for gas resources that could be obtained from different regions, Russia's Far East as well as Caspian region and Middle East and Northern Africa countries. These particular two countries are important because of their (economic and cultural) relations with Caspian countries.

Economic complementarity and interdependence in EU's relations with Russia are proven by statistical figures provided by Eurostat and gathered by DG Trade<sup>4</sup>. In 2007, 2008 and 2009, the EU share of total Russian imports represented 43,9%, 44% and 46,8% while its share of Russian exports in these years was 56,1%, 57,5% and 48%. While in 2009 Russia represented 7,9% of the EU's total external trade, being its third trade partner, EU27 is Russia's first trading partner, with 47,6% of its foreign trade. What regards complementarity, in last years EU's imports from Russia were mainly composed of primary products, with fuel and mining products with more than 74% (in 2009, EU's primary product imports were 79,2%), while its exports were capital intensive. In 2009, machineries and transport equipment accounted for 42,9% of the EU's exports to Russia, chemical products for 16,7% of total exports to this trading partner.

In Turkey's case, the situation does not look so dramatic<sup>5</sup>. Turkey is the EU's 7<sup>th</sup> trading partner, representing in 2009

only 3,5% of the total EU foreign trade. However, the Union is Turkey's main trading partner, with 42,9% of its foreign trade. The EU is the source of 40,5% of Turkey's imports and represents the final destination for 46,2% of the Turkish exports. Also in this case one can notice a growing complementarity between the EU and Turkey: if Turkey exports mainly textiles to the Union, the latter exports to the Turkish market machineries and transport equipment. The customs union and also granting the status of candidate country in 1999 had a very positive impact on the EU-Turkey trade relations (Kutlay, 2009), even if there are fears that the continuous postponing of the Turkish membership to the EU would change the country's European orientation (Barysch, 2010; Matthews, 2010).

The EU's final argument for a geo-economic approach of its energy policy is the monetary pole, represented by the Euro, the single currency for the majority of EU-27 and probably the single currency of the entire Community in future. Euro could become in the expected future the reference currency for gas transactions<sup>6</sup>.

#### **4.3 Producer and transit countries in the European geo-energy space. What about other consumers?**

In this section we will analyse the partners' willingness to join such a geo-energy space, whose main actor should be the European Union. It has to be mentioned that the idea of a Common

<sup>4</sup> DG Trade, Russia. EU bilateral trade and trade with the World, 15 September 2010.

<sup>5</sup> DG Trade, Turkey. EU Bilateral trade and trade with the world, 15 September 2010.

<sup>6</sup> There were debates about using Euro as the currency for oil transactions in Iran, and Russia had also several initiatives to use Euro as currency for gas transactions. Unfortunately, there are unreliable scientific works about the issue. However, a well-documented study in this field belongs to Zbigniew Polański and Adalbert Winkler, Russia, EU enlargement and the Euro, ECB Occasional Paper Series, no. 93, August 2008.

European Economic Space<sup>7</sup> (CEES) exists for a decade already and represents one of the four common spaces of cooperation between the EU and Russia. Even if the CEES has not yet been materialized under an institutional form, it could lay at the base of an extended cooperation that is to ensure energy security for the entire European continent (see Figure 1). According to official documents, the main pillar of the existing Common European Economic Space is represented by the EU-Russia Energy Dialogue (Bodio, 2009, p.46), which is the proof that, at European level, energy matters are becoming dominant, through attempts to “establish a strategic Energy Partnership”. Some provisions of the Energy Dialogue are similar to those of the Energy Community with Balkan’s countries, but the Dialogue is less about “common regulatory space”<sup>8</sup> and more about “convergence of EU and Russian strategies, policies and regulatory measures...”<sup>9</sup>. All these relations with producer and transit countries should be conducted in the framework of an active economic diplomacy of the Union, in order to offer them sticks and carrots (Wood, 2009), a principle that always proved to be efficient in EU’s external actions.

However, Russia is in a privileged position, being the EU’s largest gas supplier. Why would Russia become part in such a project? It must be said

that Russia is aware of the fact that, being a raw materials exporter, its status of superpower, even regional, will be lost and that is why Russia seeks for foreign investments in order to modernise its economy. In February 2010, the Russian Institute for Contemporary Development under the Dmitri Medvedev’s presidency issued the publication *Russia in XXI century: the image of a desired tomorrow*<sup>10</sup> (Россия XXI века: образ желаемого завтра), being the newest conception of the Russian state. It is stated that Russian economy should rely on knowledge, new ideas and useful technology for people. Several propositions that encourage an extended Common European Economic Space and its subsequent geo-energy space deserve attention: a) Russia should enter WTO, OECD and other world organisations; b) Russia should apply for NATO and EU membership; c) economic and political liberalisation; d) Russia should become strategic partner for EU and United States. However, Russia as an energy exporter is dependent on pipeline deliveries to Europe and, according to different studies, Russia is already under the resource curse (Durnev and Guriev, 2007), and has to diversify its economy and to start the process of modernisation.

In Russia’s energy strategy for the period up to 2030, the steady future decline of energy’s share in Russian economy as result of diversifying the national economy

<sup>7</sup> The Common European Economic Space is a concept first proposed by Russia during the EU-Russia Summit of Sankt Petersburg in 2001 and was aiming at increasing legislative convergence in order to facilitate economic cooperation. The road map for the proposed four common spaces of cooperation can be found at [http://ec.europa.eu/environment/enlarg/pdf/road\\_map\\_ces.pdf](http://ec.europa.eu/environment/enlarg/pdf/road_map_ces.pdf).

<sup>8</sup> See Title I, art. 2 of Energy Community Treaty: [http://www.energy-community.org/portal/page/portal/ENC\\_HOME/ENERGY\\_COMMUNITY/Legal/Treaty](http://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/Legal/Treaty).

<sup>9</sup> See Road Map for the Common Economic Space, chapter 4: Energy, [http://ec.europa.eu/environment/enlarg/pdf/road\\_map\\_ces.pdf](http://ec.europa.eu/environment/enlarg/pdf/road_map_ces.pdf).

<sup>10</sup> The text can be read at [http://www.riocenter.ru/files/Obraz\\_gel\\_zavtra.pdf](http://www.riocenter.ru/files/Obraz_gel_zavtra.pdf).

is mentioned. European energy markets in the total volume of Russian energy export will also steadily decline due to “export diversification to Eastern energy markets (China, Japan, Republic of Korea, other countries of the Asia-Pacific region)” (Ministry of Energy, 2010). Because one of the problems identified is the Russian dependence on transit countries, Russia will take part in international energy negotiations between importers, exporters and transit countries, it will develop energy cooperation with the countries of the CIS, Eurasian Economic Union, North-Eastern Asia, Shanghai Cooperation Organization and European Union, coordination of activity on oil and gas markets with other producers, *assistance in united European-Russian-Asian energy area*, support for Russian energy companies and active engagement in building new infrastructure (Ministry of Energy, 2010). The strategy mentions also an active energy dialogue with the largest countries, consumers and producers of energy resources.

From the above mentioned document one could understand that Russia is open for cooperation with all kind of countries and organisations and even in projects of energy areas. However, there are little chances that Russia will create an Asian geo-energy space, and that is because mutual mistrust exists between Russia and China (Kramer, 2010). This is the result of Russia's own weakness in addressing its vast, yet economically underdeveloped and scarcely populated eastern regions. Russia is trying nowadays a controlled rapprochement with Asia (and not exclusively with China) and also a political and social rapprochement with the European Union, with whom is hoping to create a new European security system that would emerge into a Union of Europe, which will gather EU and

Russia following the logic of common humanitarian, energy and economic spaces (Karaganov, 2010).

But in the EU-Russia relation is important to mention that modernization is the key for the EU policy towards Russia, whose energy sector without capital inflow will not be able to cope with the European and world demand. The EU can provide new technology for modernizing the energy sector as a whole, including addressing efficiency needs, being estimated that up to 2020 there will be a need of 560-650 billion Euros to be invested in order to meet the predicted demand. Already EU accounts for more than 70% of Foreign Direct Investments (FDI) in Russia. In 2008, Russia was the main destination of EU-27 FDI outflows to Brazil, Russia, India and China (BRIC) and EU investment in Russia grew from 17,2 billion in 2007 to 25,6 billion Euros in 2008, and in 2009 it was expected to drop to around 24 billion Euros (Eurostat, 2010), probably the main cause being the economic crisis. These figures should be compared to those from the beginning of the decade in 2001 and 2002 EU's investments in Russia were accounting for about only 10 billion Euros (Eurostat, 2008).

The other major player in the European geo-energy space, Turkey, has a customs union agreement with the European Union and is pursuing accession negotiations with the Community, being currently its strategic partner (Lavenex, 2004; Balcer, 2009). Any trans-European energy network will be more difficult to extend to major producer Russia and transit countries Belarus and Ukraine than to Turkey, which offers the crucial advantage of diversifying suppliers and also demonstrates willingness to comply with EU regulations (World Bank, 2006, p. 70-

72). Through the customs union formula, Turkey is already under EU's legislative influence and is the Community's most reliable partner for a future energy policy in the Caspian and Middle East region (Balcer, 2009). Turkey's place is important also for Russia, which can use the BlueStream pipeline to increase gas supply to Europe, constraining Ukraine or Belarus in case of payments delays, but other EU member states as well (Belkin, 2007; Larsson, 2007). The pipeline politics in Caspian region request a consistent-holistic approach (Bilgin, 2003) in order to understand it and to make it effective and useful for the energy needs of Turkey, but also of the European Union.

Because of its geographical position, and due to current and future design of oil and gas pipeline's network and of the shipments routes for hydrocarbons from the Mediterranean, Persian Gulf and Russia to Europe, Turkey represents the key element of any EU attempt to forge a geopolitical energy policy. Through the already existing Baku-Ceylon oil pipeline and through Bosphorus strait, oil will flow from different countries of the region (and one should add the Baku-Erzurum gas pipeline), and this will transform Turkey into the main (re)exporter of crude oil and gas of the Caspian and Middle East. As considered by Mañé-Estrada (2006), there is little probability that Turkey could in future blackmail EU, because it does not possess energy resources, representing only the linking piece between Eastern Caspian producers, the South shore of the Mediterranean and the Union. Nevertheless, the Black Sea region, with Turkey and Russia as the greatest actors (Pamir, 2007; Glebov, 2009; Celikpala, 2010) is to become the turning point of the European geo-energy space, because it is now the scene of different energy

projects and the central supply route for the entire EU, which requires its further consistent engagement in the region, Black Sea Synergy not being enough in order to build a durable energy platform in the region.

The EU's attempts to diversify supply have brought the Caspian region closer to the Union's interests. The Caspian is becoming an important element in the Southern energy corridor of the European Union (European Commission, 2008) and will be connected to the consumer markets from the EU mainly through Turkey. In this framework, the Central Caucasus and Central Asia, the regions around the Caspian Sea are mutually complementary (Papava, 2009), which means that they can use their resources together, Central Caucasus serving as a bridge or energy corridor for Central Asian gas resources towards the EU. In Figure 1, the Caspian is represented as being at the limits of integration in the Common European Economic Space, and that's because of the complex situation in the region, with Georgia, Armenia and Azerbaijan providing a more European policy, because of the proximity to the Black Sea and Turkey, while Turkmenistan, Kazakhstan or Iran are rather oriented to a regional agenda or, in the case of the first two countries, a more Russian and Asian agenda.

The cooperation in the energy sector between the EU and the Caspian region is characterized by a "twin track" approach (MOE, 2010). Firstly, the EU set out a regional energy dialogue with these countries, on the basis of the Energy Road Map which establishes medium and long term objectives for enhanced energy cooperation between the EU and littoral states of the Black and Caspian Seas and their neighbouring countries. The Baku

Initiative brings together the EU and 12 partner countries within INOGATE (Interstate Oil and Gas Transportation to Europe), a cooperation programme with convergence of energy markets established as the first objective. Secondly, bilateral cooperation in the framework of Memoranda of Understanding (MoUs) on energy cooperation opens up the possibility for strategic energy partnerships with special focus on energy security and industrial cooperation, development of the energy sector and improvement of the investment climate.

In the context of getting Caspian region closer to the EU one should also mention the 2006 EU-Black Sea-Caspian Sea Common Energy House, a Commission's plan to move towards sub-regional energy markets in the Caspian Basin, Caucasus and Central Asia. Policy in this issue will be based on prompting and supporting the convergence of these energy markets with that of the EU (Youngs, 2007). This new energy frame is largely integrated in the EU's Black Sea Synergy initiative that stresses the Black Sea importance as energy corridor (European Commission, 2007b).

In order to complete the picture of the EU's geopolitical approach of energy policy, the Balkans have to be integrated in the European geo-energy space. The Balkan countries are important because of their geographical position as transit regions for pipelines that are for the southern markets of the European Union, such as Greece or Italy. The region is particularly interesting because the majority of states are willing to become EU members, as well as Turkey. The EU's relation with the West Balkans are regulated by *The Thessaloniki agenda for the Western Balkans: Moving towards European Integration*, and in the field

of energy an important step forward has already been made by creating in 2005 the Southern Europe Energy Community, which has as main goal the integration of the region in the internal energy market of the European Union, offering also regional approach in matters of energy security. The Energy Community has been often compared to the establishment of the Coal and Steel Community and the subsequent genesis of the European Union. By participating in the regional energy market, the countries will become *de facto* members of the European Union in the energy sector (Deitz et al., 2007) with the goal of eventual integration into wider European networks and EU membership (European Commission, 2003).

The last instrument that will allow the EU to combine economic and political incentives in order to ensure its security of supply is the European Neighbourhood Policy (ENP), that is said to have "strategic energy partnership with neighbouring countries" (European Commission, 2004b) as the major element. This includes security of energy supply and energy safety and security. Even if this instrument is covering several countries, for energy matters it could be best used for relations with countries that are located between Russia and EU and theoretically would be parts of the CEES. These countries, Belarus, Ukraine and, to a lesser extent, Moldova, are very important elements in the land infrastructure and are expected to be less problematic in the future if there will be a support from EU in restructuring their economy and efficiency standards. As said in Kasčiūnas and Vaičiūnas (2007), these countries could represent, together with South Caucasus, an "object of interaction" between the EU and the economic area represented by Russia and CIS. In this context, the Eastern Partnership



(EaP) launched in 2008 as a component of the ENP, is aimed at deepening bilateral cooperation and providing a greater degree of alignment with the EU (Celikpala, 2010).

Another element of the discussion should be the possible reaction to the European geo-energy space, from other large consumer countries, such as China and India. China's and India's economies are growing at an unprecedented pace. Due to high economic growth based on rapid industrialisation the energy consumption of both countries is rising fast. However, as different studies show, these economies are specially oil (as well as coal) addicted, not possessing high-technologies that are proven as energy efficient (Müller-Kraenner, 2008; OPEC, 2009). Moreover, these countries look with mistrust at Russia as a reliable supplier and are also trying to diversify their supplies (Müller-Kraenner, 2008), providing energy investments in South America, Africa and Middle East. These countries are engaged in a form of cooperation with Russia through the Shanghai Cooperation Organisation, India having only an observer status, and as the informal BRIC group, together with Brazil.

China's foreign energy policy considers special relations with Central Asia countries (Fairclough, 2006) and is disputing with Russia the influence in the region (Yin Li and Wang, 2009). Even if gas consumption in these countries is expected to rise (Müller-Kraenner, 2008), there will be no abrupt increase, even if air quality is an important element for such a future energy policy. In future, a competition on access and investment in Russia's energy resources is expected. If China, India, Russia and EU will not be able to find a cooperative manner to pool their interests, there is possibility for conflict (Müller-Kraenner, 2008).

## 5. Concluding remarks

To sum it all up, this article establishes that the *M&I* approach for building a European geo-energy space in the frame of an Common European Economic Space is the best strategy that the EU has at its disposal, allowing meanwhile to exercise a certain hard power in the logic of *R&E* approach, in order to constrain the participant countries and finally to ensure its own energy security. The *M&I* approach is the most efficient one for the Union as a result of its post-modern organisational logic, a hard line proving to be unnecessary (it wasn't a problem for the EU to block the access of Russian companies on the European downstream sector if they were not complying to the Community's rules).

The paper is mainly based on recent documents emitted by the European Union and very encouraging signs of an emerging common gas market within the EU can be found, which as it is indicated across the paper is expected to offer a *common voice* for EU energy matters. In other words, a common voice should be the result of greater energy interdependence between the EU member states and will provide more coherent external actions and implicitly a more active EU energy diplomacy towards partner countries which are to be engaged in the European geo-energy space project.

The partners of the European geo-energy space are already in a beneficial economic complementarity, with the exception of the Caspian countries, which are indirectly connected to the EU's trade through Russia or Turkey. Russia's possible suspicion of such a project can also be explained by the fact that Russia's modernisations strategies could

be undermined, Russia's role in the world economy becoming that of a raw materials supplier. However, Russia is looking for an integration form with the West, and especially with the EU countries, fearing of not lagging technologically and economically behind. The European geo-energy space should be designed in order to offer to the partners the possibility of keeping their sovereignty and to be equal partners in the project.

Other producer countries want to have access to the world's second largest gas consumer after the US and also (Caspian countries) to diversify energy routes in order to become independent from Russia's transport infrastructure. In order to achieve this purpose, for Caspian and EU countries is very important to benefit from stable and transparent transit countries. That's why Turkey's role will increase in the European geo-energy space, being necessary for the EU to really consider Turkish membership as the best way of strengthening its strategic

partnership. Potential competitors for the European geo-energy space may be China and India, but currently these countries are especially using oil and coal resources for their economies and are starting their commitment in the Caspian region, which is an important pillar for the EU's external energy policy.

The world current energy slogan nowadays is "diversification" and is perceived to best fit the logic of energy security. That is why the European geo-energy space represents a real chance for customer diversification for countries that are geographically located around the EU but isolated in terms of infrastructure. In this logic, the EU's active energy diplomacy has to focus mainly on infrastructure initiatives with producer countries and this will represent the first step towards the European geo-energy space, the next step being coordination and control mechanisms that are to provide certain degree of integration between the partners.

## References:

- o Anderson, J., Goodman, J., 1995. Regions, states and the European Union: Modernist Reaction or Postmodern Adaptation. *Review of International Political Economy*, 2/4, 600-631.
- o Andoura, S., Hancher, L., van der Woude, M., 2010. Towards a European Energy Community: A Policy Proposal, *Notre Europe*, April 2010.
- o Bahgat, G., 2006. Europe's energy security: challenges and opportunities. *International Affairs*, 82, no.5, 962-963.
- o Balcer, A., 2009. Heading for the Strategic Partnership EU-Turkey in the Foreign Policy. Warsaw: Demos Europa – Center for European Strategy.
- o Barysch, K., 2010. Can Turkey combine EU accession and regional leadership?. Centre for European Reform, Policy Brief, January 2010.
- o Baumann, F., 2010. Europe's Way to Energy Security. The Outer Dimension of Energy Security: From Power Politics to Energy Governance. *European Foreign Affairs Review*, 15: 77-95.
- o Belkin, P., 2007. The European Union's Energy Security Challenges. CRS Report for Congress, May 7 (Washington DC: Congressional Research Service).
- o Belyi, A., 2003. New dimensions of energy security of the enlarging EU and their impact on relations with Russia. *Journal of European Integration*, 1477-2280, Volume 25, Issue 4, 351 – 369.
- o Bielecki, J., 2000. Energy security: is the wolf at the door?. *The Quarterly Review of Economics and Finance*, 42, 235-250.
- o Bilgin, M., 2003. The Emerging Caspian Energy Regime and Turkey's New Role. *The Turkish Yearbook of International Relations*, 34, 1-22.
- o Bocian, M., 2010. Europa Środkowa i Bałkany koordynują politykę energetyczną? (eng. Are Central Europe and Balkans coordinating their energy policy?), *Central European Weekly*, 9/64, 4-7.
- o Bodio, M., 2009. Polityka energetyczna w stosunkach między Unią Europejską a Federacją Rosyjską w latach 2000-2008 (eng. Energy Policy in relations between European Union and Russian Federation in 2000-2008 years), Warsaw: Oficyna Wydawnicza ASPRA-JR.
- o BP, 2010. *Statistical Review of World Energy*.
- o Celikpala, M., 2010. Escalating rivalries and diverging interests: prospects for stability and security in the Black Sea region. *Southeast European and Black Sea Studies*, vol. 10, no. 3, September, 287-302.
- o CIEP – Clingendael Energy Programme, 2004. Study on Energy Supply Security and Geopolitics. Final Report prepared for DGTREN. TREN C1/06 2002. ETAP Programme.
- o Cooper, R., 2003. *The Breaking of Nations: Order and Chaos in the Twenty-first Century*, London: Atlantic Books.
- o Correljé, A., van der Linde, C., 2006. Energy supply security and geopolitics: A European perspective. *Energy Policy*, 34, 552-543.
- o Dimoser, D., 2007. Energy Security. New shortages, the Revival of Resource Nationalism and the Outlook for Multilateral Approaches. Berlin: Friedrich Ebert Stiftung.

- o Deitz, L., Stirton, L., Wright, K., 2007. The Energy Community of South East Europe: Challenges of, and Obstacles to, Europeanisation. CCP Working Paper 08-4.
- o Doukas, H., Patlitzianas, K., Kagiannas, A., Psarras J., 2006. Renewable energy sources and rationale use of energy development in the GCC region: Myth or reality?. *Renew. Energy* 31:755–770.
- o Doukas, H., Patlitzianas, K.D., Kagiannas, A. G., Psarras, J., 2008. Energy Policy Making: An Old Concept or a Modern Challenge?, *Energy Sources, Part B*, 3:362-371;
- o Durnev, A., Guriev, S., 2007. The Resource Curse: A Corporate Transparency Channel. Centre for Economic and Financial Research, Working Papers w0108.
- o European Commission, 2000. Green Paper. Towards a European Strategy for the Security of Energy Supply. COM 769 final, 2000.
- o European Commission, 2006. Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy. COM(2006) 105 final.
- o European Commission, 2001. Green Paper. Towards a European Strategy for the Security of Energy Supply. COM 769 final, 2001.
- o European Commission, 2003. Wider Europe— Neighbourhood: A New Framework for Relations with our Eastern and Southern Neighbours. Communication from the Commission to the Council and the European Parliament. COM(2003) 104 final.
- o European Commission, 2004a. *The Energy Dialogue between the European Union and the Russian Federation between 2000 and 2004*. Communication from the Commission to the Council and the European Parliament, COM(2004) 777 final, 13 December.
- o European Commission, 2004b. European Neighbourhood Policy. Strategy Paper. Communication from the Commission, COM(2004) 373 final.
- o European Commission, 2006. Green Paper: An External Policy to serve Europe's Energy Interests. Paper from Commission/SG/HR for the European Council, S160/06.
- o European Commission, 2007a. Green Paper: An Energy Policy for Europe. COM(2007).
- o European Commission, 2007b. Black Sea Synergy – A new Regional Cooperation Initiative. Communication from the Commission to the Council and the European Parliament. COM(2007) 160 final.
- o European Commission, 2008a. EU Energy Security and Solidarity Action Plan: 2nd Strategic Energy Review. MEMO/08/703.
- o European Commission, 2008b. Green Paper: Towards a secure, sustainable and competitive European energy network. COM(2008) 782 final.
- o European Commission, 2010. Progress Report Azerbaijan. Taking stock of the European Neighbourhood Policy (ENP). Commission Staff Working Document accompanying the Communication from the Commission to the European Parliament and the Council. SEC(2010) 519
- o European Council, 2003. A Secure Europe in a Better World. European Security Strategy. Brussels, 3.
- o Eurostat, 2008. EU-25 Foreign Direct Investments in Brazil, Russia, India and China. Statistics in Focus. Economy and Finance (111/2007).
- o Eurostat, 2010. EU-27 Foreign Direct Investment in BRIC countries. Data in Focus. Economy and Finance (29/2010).

- o Eurostat Yearbook 2010. *Europe in figures*.
- o Energy Dialogue EU-Russia, 2009. 10th Progress Report. Moscow, November.
- o Fairclough, G., 2006. Politics & Economics: Iran Lobbies China, Russia to Help Curb US. *The Wall Street Journal*, June 16.
- o Finon, D., 2009. The limits of the EU direct foreign gas policy. Autopsy of the stillborn Southern corridor project Nabucco. WP December 2009. Paris: CNRS-CIRED & GIS LARSEN.
- o Finon, D., Locatelli, C., 2008. Russian and European gas interdependence: Could contractual trade channel geopolitics?. *Energy Policy*, 36, 423-442.
- o Geman, H., 2005. Commodities and commodity derivatives: modelling and pricing for agriculturals, metals, and energy. Chichester, England: John Wiley & Sons Ltd.
- o Glebov, S., 2009. Black Sea Security as a regional concern for the Black Sea states and the global powers. *Southeast European and Black Sea Studies*, vol.9, no. 3, September, 351-365.
- o Kramer, A., 2010. China's Hunger Fuels Exports in Remote Russia. *New York Times*, June 19.
- o Kagiannas, A., Didis, T., Askounis, D., and Psarras, J., 2003. Strategic appraisal for Mozambique. *International Journal of Energy Research*, 27, 173-186;
- o Karaganov, S., 2010. **Союз Европы: последний шанс?** (eng. A Union of Europe: the last Chance?). *Rossiyskaia Gazeta*, July 9.
- o Kasčiūnas, L., & Vaičiūnas Ž., 2007. Russia's policy towards the EU: the search for the best model. *Lithuanian Foreign Policy Review*, Vilnius, nr. 19, 39-68.
- o Kavrakoglou, I., 1987. Energy models. *European Journal of Operational Research*, 28,121-131.
- o Kutlay, M., 2009. The Changing Policy of the European Union towards Free Trade Agreements and its Effects on Turkish Foreign Trade: A Political Economy Perspective. *USAK Yearbook of International Politics and Law*, 2, 117-132.
- o Larsson, R. L., 2007. Nord Stream, Sweden and Baltic Sea Security, Base Data Report March 2007 (Stockholm, FOI-Swedish Defence Research Agency).
- o Lavenex, S., 2004. *Journal of European Public Policy*, 1466-4429, Vol. 11, Issue 4, 680 – 700.
- o Mañé-Estrada, A. 2006. European Energy Security. Towards the creation of the geo-energy space. *Energy Policy*, 34/18, 3773-3786.
- o Matthews, O., 2010. Turcja między Zachodem a Wschodem (eng. Turkey between West and East). *Newsweek Poland*, July 31.
- o Ministry of Energy of the Russian Federation, 2010. Energy strategy of Russia for the period up to 2030.
- o MOE – Market Observatory for Energy, 2010. Country file. The Caspian Region and Central Asia.
- o Moise, L., 2010. Şah la Gazprom cu turnul azer. *Revista 22*, 21 September.
- o Monaghan, A., 2007. Russia's Energy Diplomacy: A political Idea Lacking a Strategy?. *Southeast European and Black Sea Studies*, vol.7, no.2, June, 275-288.
- o Morgado dos Santos, A. M., 2010. How to Rebalance the EU-Russia Relationship: Potential and Limits. *European Foreign Affairs Review*, 15: 307-324.

- o Morozov, V., 2008. Energy Dialogue and the Future of Russia: Politics and Economics in the Struggle for Europe. In P. Aalto (Ed.), *The EU-Russian Energy Dialogue. Europe's Future Energy Security* (pp.43-61), Wey Court East: Ashgate Publishing Company.
- o Müller-Kraenner, S. 2008, *China's and India's Emerging Energy Foreign Policy*. German Development Institute, Discussion Paper 15/2008;
- o Nowak, B., 2009. *Energy Policy of the European Union. Chosen legal and political aspects and their implications for Poland*. Warsaw: Wydawnictwa akademickie i profesjonalne.
- o OPEC, 2009. *World Oil Outlook*.
- o Pamir, N., 2007. *The Black Sea: A Gateway to Energy Security and Diversification*. *Southeast European and Black Sea Studies*, vol.7, no.3, June, 245-263.
- o Pandey, R., 2002. *Energy policy modelling: agenda for developing countries*. *Energy Policy*, vol. 30, issue 2, 97-106.
- o Papava, V., 2009. *Eurasia versus Central Caucaso-Asia: On the geopolitics of Central Caucaso-Asia*, Cicero Foundation Great Debate Paper, no. 09/8, December.
- o Park, Y. M., Park, J. B., Won, J. R., 1998. *A hybrid genetic algorithm/dynamic programming approach to optimal long-term generation expansion planning*. *International Journal of Electrical Power and Energy Systems*, 20, 295–303.
- o Pasturia, N., 2010. *Georgia Pumped Up About LNG Project with Azerbaijan, Romania*, *Eurasia Review*, May 5.
- o Patlitzianas, K. D., Doukas, H., Kagiannas, A., Askounis, D., 2006. *A reform strategy of the energy sector of the 12 countries of North Africa and Eastern Mediterranean. Energy conversion and management*. 47,1913–1926.
- o Smith, K.C., 2008. *Russia and European Energy Security, Divide and Dominate*. Washington: Center for Strategic and International Studies.
- o Socor, V., 2010. *Black Sea LNG Project: A Spoke in Nabucco's Wheels?*. *Eurasia Daily Monitor*, Vol. 7, Issue: 167, September 17.
- o Umbach, F., 2010. *Global Energy Security and the Implications for the EU*. *Energy Policy*, 38, 1229-1240.
- o US Department of Energy, Office of Fossil Energy, 2009., *Modern Shale Gas Development in the United States: A primer*, April.
- o (de) Vasconcelos, A., 2010. *A strategy for EU foreign policy*, European Union Institute for Security Studies, Report no. 7, June 2010.
- o World Bank, 2006. *Turkey Country Economic Memorandum: Promoting Sustained Growth and Convergence with the European Union*. Report No. 33549-TR, Vol. 1: Main Report, February 23.
- o Wood, S., 2009. *The European Union: A Normative Power or Normal Power?*. *European Foreign Affairs Review*, 14:113-128.
- o Youngs, R., 2007. *Europe's External Energy Policy: Between Geopolitics and the Market*. CEPS Working Document No. 278/November.
- o Yin Li, H., Wang Z., 2009. *Assessing China's influence in Central Asia: A dominant regional power?*, China Policy Institute, University of Nottingham, Briefing Series, Issue 53.