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Hungary – EU – Russia: Multilaterally versus bilaterally defined interests in Hungarian natural gas policy

Master thesis

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Abstract

The master thesis analyzes the natural gas policy of Hungary in light of the duality in its international context. Hungarian decisions regarding energy policy are directly influenced by the EU through the country's membership and subscription to the Union's multilateral framework, but are simultaneously affected by the bilateral relationship with the key supplier of natural gas, Russia. This duality is analyzed as embodied in two natural gas pipelines projects, Nabucco and South Steam, both including Hungary as a transit country, but serving different interests. The study finds that the multilaterally defined community interests – although of increasing importance – do not prevail over bilaterally articulated interests with Russia in the field of energy.

Abstrakt

Diplomová práce analyzuje v mezinárodním kontextu dualitu maďarské plynárenské politiky. Rozhodování v této oblasti energetické politiky je přímo ovlivněno maďarským členstvím a závazky v multilaterálním rámci EU, ale stejně tak na něj působí bilaterální vztahy, a to zejména v souvislosti s Ruskem jako hlavním dodavatelem zemního plynu. Tato dualita je analyzována na pozadí dvou plynovodních projektů Nabucco a South Stream, které sice na jedné straně zahrnují Maďarsko jako tranzitní zemi, ale na druhé straně slouží odlišným zájmům. Práce dospívá k závěru, že i když multilaterálně definované zájmy unie získávají na významu, v oblasti energetiky nejsou schopny převážit nad bilaterálně definovanými vztahy s Ruskem.

Keywords

Natural gas, Nabucco, South Stream, EU, Russia, asymmetric relationship, perception, Hungary

Klíčová slova

Zemní plyn, Nabucco, South Stream, EU, Rusko, asymetrický vztah, vnímání, Maďarsko

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Declaration of Authorship

1. The author hereby declares that he compiled this thesis independently, using only the listed resources and literature.

2. The author hereby declares that all the sources and literature used have been properly cited.

3. The author hereby declares that the thesis has not been used to obtain a different or the same degree.

Prague 17/05/2013 .....

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Master thesis proposal

The master thesis will analyze Hungarian natural gas policy in the international contexts framed by the European Union and the Russian Federation. The thesis intends to investigate how Hungary's relationships with the EU and Russia effect its energy policy with respect to natural gas. Part of the research will focus on the Hungarian standpoint regarding the two large projects crossing the territory of the Central and Eastern European state, the Nabucco and South Stream pipelines, which are initiated by the EU and Russia respectively representing somewhat different objectives. The analysis of the Hungarian position will ultimately reflect on the question whether multilaterally defined interests prevail over bilaterally defined interests in the field of energy in Hungary.

The research will use both quantitative (for example, frequency analysis) and qualitative analyses (qualitative concept analysis) relying on secondary and primary resources (legal and other official documents, interviews) to answer the following questions:

- How does Russia affect European community interest formation regarding energy (natural gas)?
- How is Hungarian natural gas policy affected by the EU and Russian contexts?
- What has the Hungarian position on Nabucco and South Stream been?
- Do multilaterally defined European interests prevail over Member States' bilaterally articulated interests with third countries in the sector of energy?

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List of Abbreviations

Bcm	billion cubic meters
BP	British Petroleum Plc.
CEE	Central and Eastern Europe
CEO	Chief Executive Officer
CIS	Commonwealth of Independent States
ECT	Energy Charter Treaty
EU	European Union
FGSZ	FGSZ Natural Gas Transmission Closed Company Limited by Shares
Fidesz	Fidesz-Hungarian Civic Union; (Alliance of Young Democrats)
FKGP	Independent Smallholders, Agrarian Workers and Civic Party
FSU	Former Soviet Union
GET	Hungarian Gas Supply Act (Act XL of 2008)
IgA	Intergovernmental Agreement
IEA	International Energy Agency
LNG	Liquefied Natural Gas
LTSC	Long-Term Supply Contract
MFB	Hungarian Development Bank
MOL	Hungarian Oil and Gas Public Limited Company
MS	Member State of the European Union
MSZP	Hungarian Socialist Party
MVM	Hungarian Electricity Ltd.
NIC	Nabucco Gas Pipeline International GmbH
OMV	Österreichischen Mineralölverwaltung
SZDSZ	Alliance of Free Democrats
TFEU	Treaty on the Functioning of the European Union
TSO	Transmission System Operator

Chapter 1. Introduction

1.1 Background of the research

Conventional energy resources have been subjects to multidisciplinary national and international debates and the question of stable energy supply is on the top of political agenda of countries across the world. Hungary is a resource-scarce, import-dependent country in Central and Eastern Europe (CEE), with a substantial portion of its energy supply composed of natural gas. The Hungarian gas market went through radical changes after 1989, but the legacy of the previous regime was not left behind completely. The liberalization of the domestic market removed boundaries to international trade and also brought along an elevated influence of international developments on national policy-making. As a member of the European Union, Hungary is strongly influenced by the EU itself through market mechanisms and Union-level legislations, but the importance of the energy relationship with Russia does not seem to diminish.

The stability of natural gas supplies is seen to be ensured by diversification with the recent discourse centralized around two, initially rival projects: the Nabucco[1] and South Stream pipelines supported by the European Union and the Russian Federation respectively. Hungary is a transit country of both projects and the evolution of the political position on the two pipelines is reflective of Hungary's dilemma between EU community interests and national interests framed in a bilateral relationship with Russia in the field of energy.

1.2 Research questions

The research addresses a number of questions related to Hungary's energy policy with respect to natural gas. First, the geographical scope remains wider in examining the energy relationship of Russia and the EU and seeking the answer to how Russia affects European community interest formation regarding energy (natural gas). Focusing on a single Member State and the international context that shapes its decisions, the author strives to answer the following questions:

[1] Nabucco originally stands for the 'Classic' version of the project that would have run from the Caspian via Turkey, Bulgaria, Romania and Hungary arriving to Austrian Baumgarten. Nabucco West is the current, shorter version of the project channeling gas from only the southern border of Bulgaria on otherwise the same route (Nabucco Pipeline official website). 'Nabucco' refers to Nabucco 'Classic' throughout the document unless indicated otherwise.

i) How does the European Union influence Hungarian energy policy with respect to natural gas? More specifically, how did the Hungarian natural gas market structure change as a result of privatization and liberalization (that is, the prerequisites and requirements of EU accession), and how has EU energy legislation impacted the CEE state?; and

ii) How has Russia maintained its influence in the Hungarian energy sector?

Taking the cases of Nabucco and South Stream as representative of the country's natural gas policy, the study investigates what the Hungarian position on the two pipelines was in the period 2002-2013. The answers to these questions also address a final, wider question: Do multilaterally defined European interests under the principle of solidarity prevail over Member States' bilaterally articulated interests with third countries in the sector of energy?

Chapter 2. Theory and methods

2.1 Theoretical background

The international trade of energy resources, particularly that of natural gas has created strong linkages between supplier, transit and purchaser countries. The growing awareness of the limited availability of resources and the enormous benefits that could be derived from their trade led to the use of terms, such as 'energy war', 'the New Great Game' – referring to the competition for oil and gas resources in the Caspian –, the 'energy weapon', and so on. Energy has become a security issue, but its conceptualisation is far from complete. There is no single definition of 'energy security', instead there are numerous definitions that focus on different aspects of energy: the type of resource, the sector of activity and the type of actor. Such categorization is referred to by Ciută as the 'segregation and specialization of energy security policies' (Ciută 2010: 132). Indeed, a student of 'energy security' may find a range of altering definitions in documents of the European Union or those of the Russian Federation (Yafimava 2011: 12-16). In the European Union 'energy security' refers to 'the availability of a regular supply of energy at an affordable price' (IEA 2001: 76). The absence of homogenous securitization of energy also stems from the 'multiplication of actors' (Ciută 2010: 132), failing to identify analogous securitizing actors, threats or sources of threats and referent objects. For instance, Union-level institutions of the EU define different referent objects according to the different roles these institutions play and they also use diverging

discourse on threat identification. The European Commission (EC) took an economic stance on the establishment of referent objects. The European Parliament (EP) focused on the social dimension of energy. EU Member States (MS) and the European Council securitize energy on the national level with a focus on 'state energy independence and economic and political autonomy' (Natorski et al. 2008: 81). The identification of *threats* has led to more similar outcomes. For example, the EC claims that threats are dysfunctions of the global energy market (referring to dependence, concentration of energy resources, and so on), the EP takes a more explicit stance with regards to the direct source of threat and 'urged the Commission and Member States to take very seriously the real danger of deficit in gas supplies from Russia after 2010' (Ibid: 78, referring to European Parliament 2006). In essence, these referent objects are very similar, as Russia does qualify as the supplier, where natural gas is concentrated, and which was closely linked to supply disruptions to Europe. The difference is that even though several Member States do indirectly refer to Russia in their discourse of threats to security, many of them do not explicitly state that Russia would be a threat. On the contrary, 'despite claims of European solidarity and common goals' (Butler 2011: 3) Member States, such as Germany or Hungary, have negotiated natural gas pipeline projects (Nord Stream and South Stream respectively) motivated dominantly by self-interest and *not* by EU solidarity, as these projects had been considered 'rivals' to the EU-backed Nabucco pipeline (Ibid.).

It is beyond the scope of this research to attempt to define 'energy security', instead, it relies on the assumption that energy *is* securitized in Hungary, observable through the 'speech act' (Buzan et al. 1998: 26) of the state on 'energy security'. The 'speech act of the state' is analyzed through Parliamentary plenary sessions – which, although held by individuals, are assumed to be reflective of the overall standpoint of the state –, because the government is delegated the right to speak on behalf of the state, thus '*The government **is** the state in this respect.*' (Ibid: 41). The state-level approach of the research is justified by observations such as 'Security is an arena [...] in which the state is still generally privileged as the actor historically endowed with security tasks and most adequately structured for the purpose.' (Ibid: 39); and 'States remain key actors even when not directly involved in securitization, especially through their regulative initiatives' (Ciută 2010: 132).

The study of 'energy security' has been closely linked with 'power', an equally contested concept with 'disagreement regarding both the role and nature of [it]' (Baldwin 2002: 177). The core of the traditional, realist approaches to power definition is 'hard power', relying on military and economic strength. The state-centric realist paradigm defines national interest in terms of

power and claims that power is an end in itself, possible to achieve by military means. Building on the fundamental assumptions of realism and applying it to the field of energy, Klaus Knorr referred to 'economic penetration' as an instrument to exert influence on foreign states, by means of, for example, technical assistance or foreign business investment (Knorr 1975: 16). However, as examined by Orbán, the realist school does not explain Russian energy companies' expansion in CEE countries after 1991, partially because there was no military power involved as realist assumptions would otherwise suggest. Instead, she used neoclassical realism to prove that the expansion in the field of energy was a function of the 'Russian foreign policy leadership's prevailing perception about the country's states in the balance of power and the resources available for the Russian state'[2] (Orbán 2008:23). Neoclassical realism and its application in CEE – Russian energy relations had considerable explanatory power in analyzing the moves of Russia, but dedicated less attention to the countries being influenced. While the perception of Russia of its own influence was treated as an independent variable impacting economic intervention abroad, the perception of 'abroad' about itself and Russia was neglected.

Joseph Nye developed the concept of 'soft power' (1990), defined as 'the ability to affect others through co-optive means of framing the agenda, persuading and eliciting positive attraction to obtain preferred outcomes' (Nye 2011: 20-21). Such conceptualisation of power incorporates those parties that are under impact, as their reaction is a necessary condition of successful power exertion: '*soft power is a dance that requires partners*' (Ibid: 84). The neoliberalist understanding of soft power, rooted in communication (Mattern 2005: 589) has been developed further by constructivists, who gave an elevated role to perception in approaches to politics, security and power. As explained by Wendt, '*The distribution of power may always affect states' calculations, but how it does so depends on the intersubjective understandings and expectations, on the "distribution of knowledge", that constitute their conceptions of self and other*' (Wendt 1992: 397). Applying these observations to the field of energy and energy-relations with the main supplier: CEE countries' perception of Russia, as an international actor and their assessment of the Russian government's intentions of using energy as means to achieve political objectives are crucial factors in shaping individual states' energy policies on natural gas (Schmidt-Felzmann 2011: 593). Part of

[2] Note the difference between 'Russian energy companies' (the actors responsible for investment) and 'Russian foreign policy leadership' (the decisive role of their perception). Russian energy companies have very strong links with the government: for example, the largest natural gas company, Gazprom is 50% owned by the Russian state (OAO Gazprom official website), therefore the difference between the two is very obscure.

this study will analyze the multilateral energy relationship of Hungary and the EU that had been focusing its 'energy security' rhetoric on increased independence from the key supplier; and will analyze the bilateral energy relationship of Hungary and Russia, also elaborating on the perception of the supplier in Hungary. The negative perception of Russia would imply that the new MS would be more likely to act in compliance with European priorities and preferences, seeing them as more effective instruments for the realisation of its interests (Schmidt-Felzmann 2008: 172). In contrast, the absence of a negative assessment of Russia and the energy relationship between the two countries would lead to the verification of Schmidt-Felzmann's observation used as a hypothesis in this research: '*All Member States maintain bilateral relations with those third countries that are of political, economic and strategic importance to them, and there is no reason to believe that the importance of those bilateral ties diminishes as a consequence of EU membership*' (Ibid: 171).

2.2 Methods

Energy resources (including natural gas), as widely traded commodities generating significant national income to suppliers and transit countries, and contributing to a sizeable share of global trade, are important subjects of economics and as such, wide-ranging numeric statistical data analyze them along different aspects. However, energy and the focal point of this research, natural gas trade, have become highly politicized issues, analyzed here by using secondary and primary research combining quantitative and qualitative analyses.

2.2.1 Secondary research

The paper conducts secondary quantitative research on two main statistical data sources: British Petroleum Plc. (BP) and International Energy Agency (IEA) annual statistics or reports, to explain the importance of energy, particularly natural gas, for the economy. Both BP and IEA are widely used as reliable sources of reference in explaining energy relations and trends. The two do not contain identical values for all statistical variables, but if compared, they present very similar patterns. This research prefers IEA statistics published in the annual Natural Gas Information reports, for their more detailed analysis of natural gas. When IEA data are not available, information is provided based on findings of the BP Statistical Review.

Secondary qualitative studies provide justification for analyzing energy as a political issue. The widespread debate about energy as a security matter is also tackled upon by relying on secondary

literature, but the research does not attempt to provide a definition of 'energy security'. Instead, it utilizes the notion of 'energy security' as a tool to conduct primary research (to be discussed below) to indicate the growing importance of energy in general and natural gas in particular in Hungary.

The analysis of international factors impacting Hungarian energy decisions demands a brief introduction to the domestic natural gas market, particularly regarding the process of privatisation and liberalisation, which were necessary processes in Hungary's accession to the EU. Privatisation and liberalization caused major changes in the ownership structure of the gas market, which is analyzed in more detail as a primary study (discussed below). The European impact on Hungary's policy concerning natural gas supply is explained in a qualitative assessment of Union-level natural gas legislation based on secondary studies and a few additional primary research observations derived from a comparison of selected EU and Hungarian documents[3].

The analysis of economic indicators demonstrates close (and in the form of pipelines, very tangible) linkages between Hungary and its key supplier, Russia. There is a wide spectrum of research analyzing the energy relationship of Russia with the former socialist countries both with respect to economic and political aspects. The study will rely on these analyses to explain Hungary's rather asymmetrical energy relationship with Russia and the international context within which energy decisions are made – including the standpoint on the Nabucco and South Stream natural gas pipeline projects.

The two 'megaprojects' (Baev et al. 2010: 1075), Nabucco and South Stream have, for long, been considered 'rivals'. While Nabucco is widely seen as representing multilateral EU interests, the South Stream pipeline plans emerged as results of numerous bilateral negotiations of Russia. The evolution of the Hungarian approach to them is illustrative of the dilemma regarding community versus national interest in the energy sector within the European Union. Secondary sources are utilized to understand the key characteristics, advantages and disadvantages of each pipeline. The Hungarian political standpoint is then analyzed as a primary research, as discussed below.

[3] In full awareness of the highly sophisticated legal studies-based professional demands of such a study, the author does not intend to conduct a complex legal comparative analysis on the content of all available EU and Hungarian regulations, directives, strategies, and so on. The analysis will only broadly examine whether concepts, objectives, measures tend to be in line with each other.

2.2.2 Primary research

Additional to the secondary studies that explain the structural changes of the Hungarian natural gas market, an ownership analysis of the sector is also conducted on a primary research basis, utilizing data available on corporate websites. Such an analysis intends to demonstrate the scale of foreign commercial influence in the sector, and seeks to find out whether the non-domestic shareholders natural gas companies operating in Hungary are dominantly of Western European or Russian origin.

The security dimension of energy is highly volatile, lacking clear conceptualization. Instead of engaging in a theoretical inspection of the concept, the author uses the notion of 'energy security' to screen Hungarian Parliamentary plenary sessions to test whether the widespread use of 'energy security' could be observed in the Hungarian political realm. Plenary sessions of the Hungarian Parliament are the highest political platform to address questions and make a variety of decisions including the passing regulations. The detailed documentation of these sessions is publicly available. Because this research focuses on the political aspect of energy, the documentation of such high-level political discussions provides a complete and reliable source of information. Even if the forums do not engage in technical, in-depth analysis of matters discussed, these are the platforms that represent the political viewpoints of all Members of the Parliament (MP). The author is particularly interested in examining whether the 2006 and 2009 gas disputes between Russia and Ukraine could be related to the increased use of the term. This quantitative concept analysis involves the use of keywords to filter official and public plenary session documents from the period 1998-2013 March. The reason for the start year of the analysis is rather technical – the documentation of plenary sessions provides full information 'only' from 1998. Such a limitation, however, does not deteriorate the quality of the research, because it still enables insight also into the pre-2004 period, when i) natural gas market restructuring hadn't been completed; and ii) Hungary was not yet part of the EU. The fifteen years contain four election cycles in Hungary: 1998-2002 (Fidesz-FKGP-MDF government), 2002-2006 and 2006-2010 (MSZP-SZDSZ government), 2010-present (FIDESZ government with two-thirds majority).[4]

The keyword analysis involves the single and combined use of identified elementary phrases that can be associated with 'energy security'. Then, since this study focuses on a particular energy resource, results are narrowed down to natural gas. There are numerous contexts in which

[4] The cycles elapse in the Parliamentary database as follows: 18 June 1998- 14 May 2002; 15 May 2002- 15 June 2006; 16 May 2006- 13 May 2010; 14 May 2010- 26 March 2013.

keywords, such as 'Russia' would appear, thus to eliminate irrelevant findings, the author controlled for more than one entries specifying the field of 'energy', or 'natural gas' or 'security' combined with different notions. (For the full list of keywords, see Appendix, Table 1.)

The very same keyword analysis also served as a basis for the examination of the Hungarian standpoint on the Nabucco and South Stream natural gas pipeline projects. Using the names of pipelines as keywords already filtered all speeches that unfolded the standpoints of both governing and opposition parties. These speeches are later qualitatively analyzed in depth to receive a full view on the politicians' approaches to the two 'megaprojects' representing the overall political view on them.

Attending presentations of highly respected professionals of the field and organizing non-interview discussions with researchers and Hungarian natural gas market experts were essential parts of the primary research. In order to gain better and holistic understanding of the Hungarian energy (natural gas) relations with the EU and Russia, and of the policies towards Nabucco and South Stream pipelines, there was a semi-structured and an in-depth interview[5] conducted. The author used open-ended questions in both interviews, with a checklist in the case of the semi-structured type. The preparation of interviews took into consideration the requirements of UCL Research Ethics Committee, which confirmed that this research does not necessitate an ethical approval. Taking into account the rights and preferences of interviewees, parties agreed that the author records the interview and takes full responsibility for the translation of the discussion. All interviewees were offered the opportunity of anonymity.

The structure of the overall research is outlined as follows. First, Chapter 3 elaborates on the different dimensions of energy, including economic, political and security angles, already narrowing the scope of study to Hungary. Taken as a tool of analysis, 'energy security' and affiliated phrases are analyzed for their frequency in Hungarian parliamentary plenary sessions to prove or disprove the enhanced role of 'energy security' in the national political agenda. Secondly, before engaging in the examination of the international context of *Hungarian* energy decisions concerning natural gas, Chapter 4 investigates European community and national interest formation in the field of energy, with attention to the impact of Russia. The part elaborates on the energy-specific use of distinction between interconnectedness and interdependence, asymmetric relationships, the European divide and the role of perception in defining threats to energy

[5] There were two interviewees participating in the in-depth interview.

security. Fourth, Chapter 5 examines the international context of Hungarian decisions regarding natural gas, defined by the European Union and the Russian Federation. The effects of the EU are analyzed through the lenses of structural and legislative changes. The context defined by Russia is examined with respect to the legacy of the Soviet Union (natural gas supply, infrastructure, long-term contracts), prevailing bilateral relations and the more recent Hungarian foreign policy of 'Eastern opening'. Fifth, Chapter 6 narrows the focus to the two pipeline projects, Nabucco and South Stream. In the first part, a comparative analysis introduces the key features of the projects. In the second part, the Hungarian political approach, derived from a qualitative analysis of parliamentary plenary sessions, is analyzed to understand standpoints on the two 'megaprojects'. Chapter 7 presents the findings of the political view on Nabucco and South Stream, evaluating the results against the previously well-established international context. Conclusions are drawn regarding the ambiguous prevalence of multilateral EU interest over bilateral national interest in the field of energy in a Member State of the European Union.

Chapter 3. Three dimensions of energy

3.1 Energy, a commercial good

Energy resources have facilitated the development of economies, but are not evenly distributed across countries. Those nations endowed with conventional energy resources (such as coal, oil and gas) have earned high profits in international trade of energy or energy products – for example Gazprom's[6] share in Russian GDP was around 10% between 2004 and 2008 (OAO Gazprom 2009: 5).

Global aggregate figures of energy consumption have been on the rise for decades, but the rate of growth has been more moderate recently – it increased by 2.5 per cent in 2011 (BP 2012: 1). Approximately a quarter of European energy consumption is composed of natural gas, which has been following the pattern of aggregate energy demand. In 2008-2009 winter natural gas consumption in Europe dropped to 2003-2004 values – the decline unevenly distributed across MSs: Hungary, for instance, was among the members to experience the largest slump in gas

[6] OAO Gazprom is Russia's largest natural gas company and most profitable enterprise, owning the world's largest natural gas reserves and most expanded transmission network (OAO Gazprom official website). The company is 50 per cent state owned (Ibid.) and is known to have tight linkages with the Russian political elite.

consumption (Honoré 2011: 3) (See Appendix, Figure 1). The natural gas demand of the European Union cannot be met by domestic production, thus the EU relies on imports, the majority of which is supplied by Russia (circa 25 per cent of EU-27 natural gas supply), Norway and Algeria (Noël 2008: 4).

In 2011 natural gas contributed to approximately 24 per cent of the total primary energy supply (TPES) in OECD Europe. Hungary has had one of the largest shares of natural gas in TPES in the EU – it was estimated to be 37.3 per cent[7], making it a heavily natural gas-dependent country.

Examining European natural gas demand and supply data points at regional differences within Europe, which are due to different development paths – particularly those of 'Western Europe' and 'Eastern Europe'. Eastern European former satellite states of the Soviet Union operated according to the principles of planned economies for decades, often ignoring the capital endowment of states. Hungary, a country that initially had been more productive in agriculture and light industry, had to expand its energy-intensive heavy industrial production in order to meet state plans. The combination of moderate local availability of resources necessary for the industry and inflexible plans of the communist state resulted in far from optimal production and large-scale resource and capital exhaustion[8]. Natural gas took an increasing role in the structure of primary energy supply and Hungary became one of the most natural gas-dependent economies in Europe. The collapse of the Soviet regime resulted in a radical change in the composition of energy demand and led to a severe drop in industrial sector consumption, and growth in household consumption: by the end of the 1990s, 70 per cent of natural gas consumption was purchased by households (World Bank 1999: 44). The decrease in industrial natural gas demand and the parallel increase in household consumption gradually led to the elimination of cross-subsidies, whereby higher gas revenues derived from industrial consumers financed low household prices (IEA 1999:23).

The 'historical time series' natural gas production figures of Hungary serve as good reflections of the political and economic context of the country. Having limited reserves, Hungarian production peaked in 1986 and has been declining ever since (Szörényi 2010: 113). Annual natural gas production was 2.8 billion cubic meters (bcm) in 2011, 24 per cent of the 11.6 bcm per annum

[7] This ratio is only higher in the Netherlands (44.1 per cent) and in Italy (38.6 per cent) (IEA 2012: III.6). The key difference between Hungary and the other two countries is that whereas the Netherlands have extensive natural gas reserves and production (BP 2012:20) and both the Netherlands and Italy have diversified gas supply, Hungary is largely dependent on imports that are linked to a single source of supply.

[8] Socialist economic principles detached consumption from production and resource availability, therefore the system operated unaware and ignorant of resource exploitation (Ürge-Vorsatz 2005: 2283).

consumption figure (IEA 2012: V.3-9). The often sizeable difference between consumption and production has been met by imports and storage capacities, which were extended after the 2006 Russian-Ukrainian gas dispute[9]. The ratio of natural gas imports to Hungary in national consumption had for long been around 80-85 per cent. (See Appendix, Figure 2 for Hungarian natural gas import-consumption ratio.) Around 80 per cent of imports are still reliant on Russian sources, which, in 1967-1996 were transported exclusively via Ukraine through the Brotherhood (Urengoy-Pomary-Uzhgorod or Bratstvo) pipeline from the Russian Federation (REKK 2011: 7). In 1996 the Hungarian Austrian Gas pipeline (HAG) was inaugurated running from Baumgarten, Austria transporting gas at an annual capacity of 4.4 bcm. (IEA 1999: 59) The HAG created access to Western markets, but it has been noted that gas travelling through Ukraine and Baumgarten are both of Russian origin (Orbán 2008: 45; The Financial Times, 2010), explaining figures of 86 per cent of imports directly or indirectly received from the Russian Federation (Szolnoki et al. 2011: 50).

Natural gas is of special character among conventional energy resources, because its trade is heavily dependent on infrastructure. Unless liquefied (liquefied natural gas, LNG), natural gas is transported offshore or onshore via pipelines, which have fixed routes from well-heads to customers and cannot be easily adapted to different demands. These pipelines '*are subject to economies of scale, long lifecycles, large upfront investment, inflexibility, natural gas monopolies and the tyranny of distance*' (Stulberg 2012:810). The construction of pipelines is a highly capital-intensive (requiring high upfront investments) and time consuming project overarching numerous national borders and legislations. In order to reduce such expenses, utilization of existing capacities is often the most economic (and convenient) way of gas transit – particularly during the transition era in Eastern Europe, when the economies were lacking capital, technology, know-how and sufficient domestic energy sources to serve as an engine for development and transformation to market economy. Pipelines remained the only forms of natural gas transit to Hungary, as 100 per cent of import is channelled via pipelines (IEA 2012: IV.208).

[9] After the 2006 Russian-Ukrainian gas dispute Hungary increased its storage capacity and built an underground facility by 2010 with a strategic gas storage capacity of 1.2 bcm at Szőreg (IEA 2011:21).

3.2 Energy as a political issue

The construction of such infrastructure transcending national borders requires a multitude of legal considerations and bi- or multilateral agreements. Gazprom, the owner of the world's largest transmission network had the opportunity to reach markets without having to engage in legal negotiations, since the geographic regions involved were under Soviet rule (Former Soviet Union, FSU). However, the collapse of the Soviet Union had brought new players with new national borders, and although the infrastructure prevailed, the legal and political environment of transit countries the pipelines crossed were no longer the same, which Yafimava referred to – using Yeung's theory – as a change in 'relational geometry' '*constituted by relationality and power*' (Yeung 2005: 38) (Yafimava 2011:32). These changes automatically implied the rise of political factors in energy relations (Yafimava 2011: 32). As Martin observed, due to the inflexibility of pipelines, 'the supply of natural gas is determined by strategic interaction among buyers and sellers, rather than by the functioning of a normal market' (Martin 1992: 228). This 'strategic interaction' is not based on pure economic considerations, but on highly politicized aspects through the presence of state actors in energy decisions. In several countries the state owns a significant proportion of shares in large natural gas companies, examples including Gazprom (Russian state 50 per cent), GdF (French state 36 per cent), OMV (Austrian state 32 per cent), and so on (OAO Gazprom, GDF Suez, OMV official websites). The political character of natural gas trade is well summarized by Yafimava: 'The importance of good and stable *political*[10] relations between seller, buyer, and a transit party in the pipelines gas trade characterized by stranded assets of transit infrastructure, and the crucial role played by the states in the establishment of such relations, suggest that gas trade is not only commercial, but also necessarily political' (Yafimava 2011: 26).

3.3 Energy as a security issue

The importance of the security dimension of energy has been famously noted by Henry Kissinger: '*aside from military defence, there is no project of more central importance to national security and indeed independence as a sovereign nation, than energy security*' (Stulberg 2007: 3, referring to Ebinger, C.K. 1982). As Buzan observed, '*presenting a public issue as a serious security concern elevates the matter to an absolute priority*' (Natorski et al. 2008: 74), that is, securitization

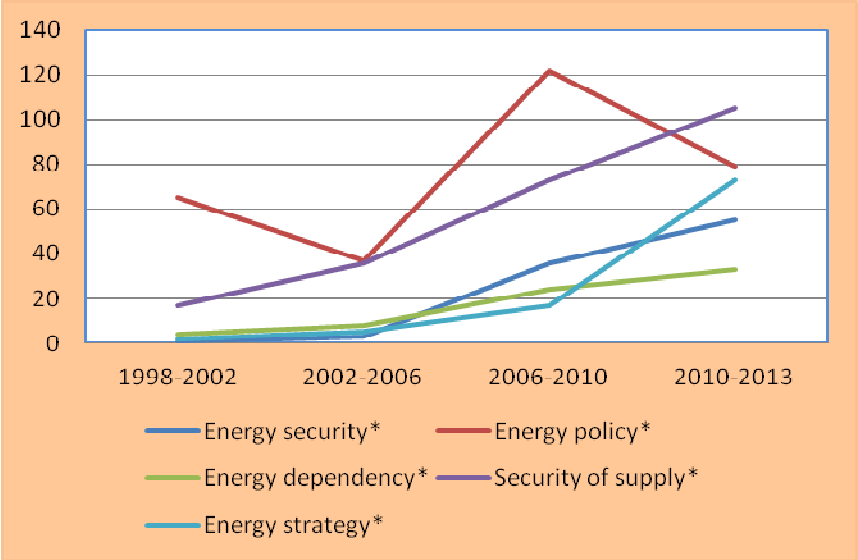
[10] (Emphasis added in original text.)

of an issue can be used to justify exceptional measures, that is, to '*legitimize the way for the state to mobilize, or to take special power to handle existential threats*' (Buzan 1998:21).

'Energy security' is taken as an existing concept in European and Hungarian political discourse to illustrate the expanding role of energy, particularly after the Russian-Ukrainian gas disputes in 2006 and 2009. A quantitative content analysis relies on securitization as a speech-act (Buzan 1998: 26) and observes the occurrence of 'energy security' and associated terms in Hungarian political discourse, illustrating a broad picture about the role of energy in the country in the analyzed period 1998-2013 March. (See Appendix, Table 1 for screening results.)

The use of termini, such as 'energy security', 'energy dependency', 'security of supply', 'energy strategy' and 'energy policy', has shown a very visible, increasing trend since 1998[11] (illustrated below).

Graph 1*:* The frequency of chosen keywords in Hungarian Parliamentary plenary sessions 1998-2013



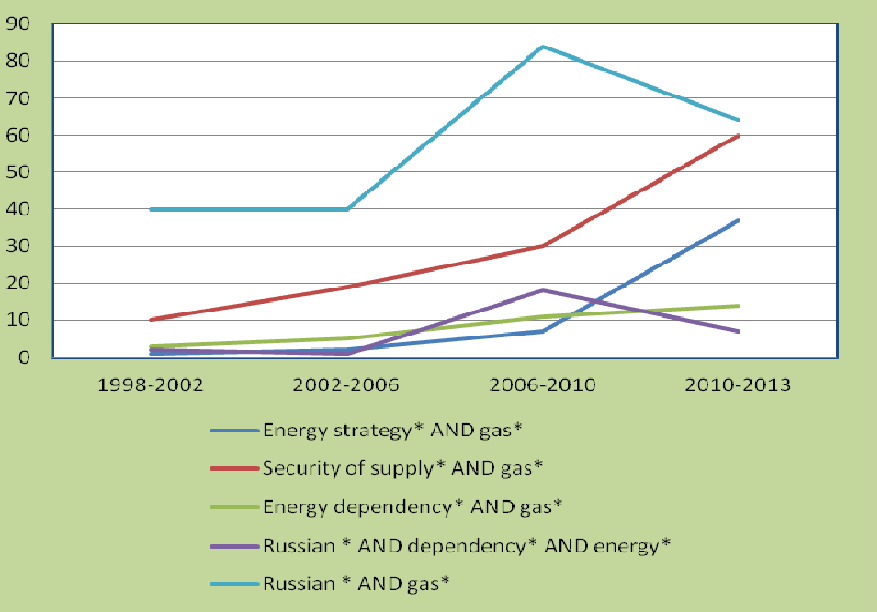
The pattern proves that energy has gained a more elevated role in the Hungarian political agenda throughout the observed period 1998-2013. The rate of growth in the use of such energy- and security-related terms increased in plenary sessions after 2006, which unfolds a potential correlation with the Russian-Ukrainian gas disputes. A clear and exclusive causal relationship with the disputes would depict sudden surges in the use of phrases in 2006 and 2009. On a more detailed, annual frequency analysis the results show that 'energy security'-related discussions

[11] 'Energy policy' is somewhat divergent from the rest, because its use first dropped in 2002-2006 and increased at a remarkably high pace from 2007, while the growth in case of the other keywords was more gradual throughout the whole period.

were the highest in years 2007 and 2008. In the absence of data fluctuation, the analysis only demonstrates the increasing role of 'energy security' in the political sphere since 2006, whereby the timing of the most intensive use of such terms may also be due to different causal factors, such as the development of Hungarian Energy Policy 2007-2020 concept note, the signing of a Memorandum of Understanding between Gazprom and Eni (Italy) about the 'Nabucco-rival' South Stream project that Hungary also entered in early 2008 via an (bilateral) Intergovernmental Agreement with Russia (OAO Gazprom official website).

The above-mentioned keywords relevant to 'energy' were not of special reference to natural gas. Similar to the previous test, a different frequency analysis controlling for gas-relevance demonstrates increases in the term's use, as demonstrated on the graph below.

Graph 2: Frequency of chosen keywords in Hungarian Parliamentary plenary sessions 1998-2013 – controlling for 'natural gas' and 'Russia'



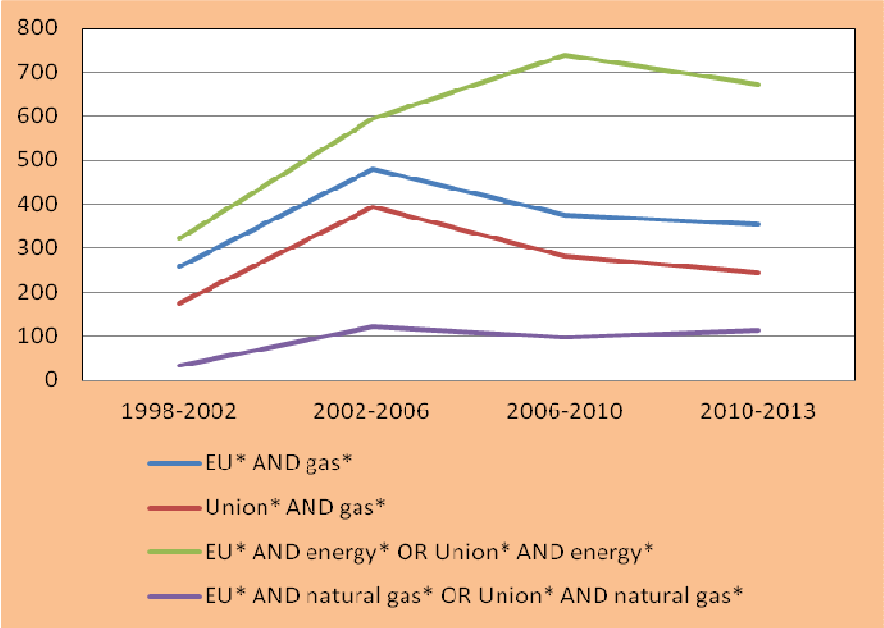
During the last cycle there is a visible difference between the curves and those including 'Russian' depict a downward sloping tendency.[12] The rapid increases of natural gas-related 'energy strategy' and 'security of supply' in the last term contrast with Russian-related energy discourse.[13] The high frequency in the use of terms combining other phrases with Russia (not illustrated above) during the 2006-2010 period anticipates that beyond the increase of 'energy security' discourse,

[12] Note that at the time of writing the current government is the government elected in 2010 and the following elections will be held in 2014, therefore the research findings of the last election cycle cannot demonstrate keyword frequencies for the full four-year period of the last cycle.
[13] The finding can also be proven by examining the other 'Russian' and 'energy' filtration results.

the importance of Russia concerning natural gas exceeded non-specific topics discussing energy after Hungary's accession to the EU.[14]

It is similarly useful to control for EU-related keywords: 'EU AND gas': such curve peaks in 2002-2006, which is rather unsurprising given that Hungary gained accession to the EU during this period.

Graph 3: Frequency of chosen keywords in Hungarian Parliamentary plenary sessions 1998-2013 – controlling for 'natural gas' and the 'European Union'



After 2006 there is a downward trend in the combined use of natural gas and the European Union, and the absolute frequency of the 'EU' outpaced that of 'Russian' in all keyword categories. Despite the Nabucco Gas Pipeline International GmbH (NIC, the company responsible for the development, construction and operation of the Nabucco pipeline) was established in 2004, there is only minimal frequency in the use of Nabucco during the second cycle. The intensified discussion on Nabucco began in the third cycle, which can owe to the fact that 2008 and 2009 were the years when Nabucco was no longer 'only' a consortium, but countries signed Intergovernmental Agreements (IgA) to ensure their full support for the project; and Budapest also held an international Nabucco conference.

The explanatory power of such a quantitative method is rather limited and cannot elaborate on the context the keywords were used in – more detailed and more valuable information regarding

[14] Only a qualitative analysis of speeches could elaborate on the specific context that frames the use of the 'Russian' keyword – the quantitative method cannot account for a quality of judgement of Russian relations.

the approach to both pipelines can be derived from a qualitative content analysis, to be conducted later.

The quantitative content analysis of Hungarian parliamentary plenary sessions demonstrated that 'energy security', 'security of supply' and related terms have taken an elevated position in the political agenda of the Hungarian state since 2002. The observation verified the statements of energy policy experts of the CEE region and mirrors what was stated in Hungarian Foreign Policy documents: [it is] 'necessary for Hungarian foreign policy to place great emphasis on questions of energy security and energy diplomacy' (Ministry of Foreign Affairs of Hungary 2011: 12). The increasing use of the afore-mentioned terms was also apparent in the tests focusing on natural gas, indicating a potential significant contribution of discussions about the conventional energy resource to the discourse on 'energy security' in general, also causing occasional overlap of findings.[15]

The analysis also revealed that high-level political discussion of the European Union in relation to natural gas occurs more often than that of Russia. The Nabucco pipeline appeared about two times more often than South Stream, which was mainly due to intensive discussion of the former in the period 2006-2010 (with the most immense difference in 2007). Why, then, study Russian-Hungarian energy relations and why compare the Hungarian standpoint regarding Nabucco and South Stream? Familiarity with the Hungarian natural gas market, and with the impact of the Soviet Union on Hungary unfold the prevailing importance of the Russian Federation regardless of the stronger ties developing with 'Western Europe' in the form of EU membership.

[15] However, that a clear correlation is not possible to examine using this quantitative method.

Chapter 4. Forming interests in the field of energy in the European Union

4.1 The role of Russia in the energy policy of the EU

Russia is one of the largest conventional energy producers of the world, possessing the fourth largest oil and largest natural gas reserves making it the world's second highest oil and gas producer in 2011 (BP 2012: 22). Endowed with valuable resources, Russia has been capitalizing on its assets and penetrated the lucrative European market, where countries have considerably less energy resources, incapable of fulfilling domestic demand. This situation created strong ties between parties, which – as seen before – are not free from political considerations. There is a wealth of academic work discussing the strategic component of Russian energy relations with its offtake markets, and studies demonstrate how the 'eastern neighbour' utilizes such economic relations to exert control and influence, particularly in post-soviet countries in Eastern Europe (and the FSU) (Butler 2011: 2).

Natural gas, which constitutes one quarter of Europe's TPES (IEA 2012: IV.34) requires an inflexible pipeline infrastructure in Eurasia. Pipelines, beyond their practical importance are materializations of interconnectedness or interdependence between stakeholders of demand and supply, thus they serve as useful subjects for analyzing energy relations.

The difference between interconnectedness and interdependence becomes important when contrasting Western European and Eastern European countries' energy relationship with Russia. According to Keohane and Nye '[...] dependence means a state of being determined or significantly affected by external forces. Interdependence, most simply defined, means mutual dependence. [...] Where there are reciprocal (although not necessarily symmetrical) costly effects of transactions, there is interdependence. Where interactions do not have significant costly effects, there is simply interconnectedness' (Keohane et al. 2001: 7-8). Highly profitable and reliable European markets contribute substantially to Russian GDP by generating significant export revenues.[16] The role of the western market is even more important due to Russia's dual pricing policy, whereby domestic household prices are artificially kept lower, subsidized by higher

[16] See Figure 3 in Appendix for Composition of Goods Export in Russia.

revenues generated in international trade[17]. In 2011 only around 30% of the natural gas production was sold internationally, bringing enough earnings to maintain domestic prices low (IEA 2012: II.5-II.9). The stability and lucrativeness of Western Europe combined with its high natural gas demand, and Russian resource endowment with the need for externally generated revenues had created strong interdependency, where both sides have strong interest in avoiding disruptions in natural gas trade.

Central and Eastern Europe, however, is in a somewhat different position. Mansfield and Pollins collected the available measures of interdependence and categorized them according to their focus on 'openness', 'vulnerability' and 'gain' (Mansfield et al. 2003: 11-12). This study utilised the first two concepts to show a very weak interdependence between Hungary and Russia. The table below shows the indicators of openness and vulnerability calculated for Hungary and Russia.[18]

Table 1: The openness and vulnerability of Hungary and Russia in their bilateral relations, 2011

	Openness	Vulnerability
Hungary	3.81%	5.85%
Russia	0.25%	1.58%

Openness measures the ratio of trade (Import+ Export) to total economic output (GDP), which in 2011 was 3.81 per cent for Hungary and 0.25 per cent for Russia.[19] Consequently, net bilateral trade accounts for around fifteen times more in the GDP of Hungary than that of Russia.

Vulnerability is used to indicate trade asymmetry and is 'constructed by the proportion of trade between a pair of states [...] represented in the total trade of each' (Ibid:12). The calculation results suggest that there is substantial difference between the two figures (5.85 per cent for Hungary and 1.58 per cent for Russia), indicating significant asymmetry between the two countries. The asymmetry is magnified by the difference between traded goods: Hungary exports easily substitutable products (agricultural products, medicines)[20], while energy resources are considered strategic products, harder to substitute. Furthermore, '*economically large states tend*

[17] Gazprom applies three different price categories depending on the destination of gas: those charged on the domestic market, prices on former-Soviet Union (FSU) markets and western/"far abroad" markets (Sharples 2012:6). See Appendix Table 2 for quantities sold and revenues generated at the three different price levels in 2010.

[18] See Appendix Table 3 and Calculation 1 for more detailed results and methods of calculation.

[19] The calculation is based on reports published on the relevant national statistical office sites: KSH in Hungary, GKS in Russia.

[20] See Appendix Table 4 for the main groups of traded goods between Hungary and Russia.

to be politically powerful', which in this case implies that the observed economic asymmetry translates into an even more asymmetric politico-economic relationship between Hungary and Russia. Although there is no benchmark for the precise differentiation between interconnectedness and interdependence, the calculations and qualitative observations imply that the bilateral relationship of Hungary and Russia is rather asymmetric, and is better characterized as interconnectedness.

CEE states have less supply sources, are more reliant on natural gas and are more dependent on a single source of supply[21] (Noël 2008: 1-8). Apart from Ukraine, which was the single most important transit and purchase country of westward gas trade, therefore had leverage over Russia[22], CEE states individually are not powerful enough to influence Russia significantly. The inability to influence the supplier country holds, regardless of the definition of 'power', whether it is conceptualized using realist, neoliberal or constructivist paradigms. They are undoubtedly strongly interconnected via economic and political linkages, but as the example of the South Stream pipeline will illustrate, Hungary, for instance, is not of pivotal importance to Russian natural gas policy – should the country withdraw from the construction of the pipeline, Gazprom would divert it to a different route without hesitation (Interview with Mr. János Erős). Even if transit countries do, in principle, have the capacity to block the flow of gas or siphon supplies, doing so could only be a solution of last resort, because the immediate 'retaliation' of the supplier could have severe consequences for the transit country, particularly for one where consumption is dominated by natural gas – as exemplified by the Ukrainian case. As Orbán noted, the gas price disputes between Ukraine and Russia in 2006 and 2009 'disproved the assumption that supplier and transporter countries were in a state of mutual dependence' (Orbán 2008: 2). However, the interconnectedness of CEE states with Russia translates into (more symmetric) interdependence when understood on a systemic level: their membership in the EU and their transit role makes them important means to the supplier's end of reaching lucrative western markets.

Numerous academic studies examine Russia's practice exerting political influence by means of economic intervention: as dicussed by Stulberg (2007), Orbán (2008), Butler (2011) and many others, Russian investments and share acquisitions in CEE (and FSU) countries were backed by

[21] The segmentation of Europe's gas market is well illustrated on Pierre Noël's figure to be seen in Appendix, Figure 4.

[22] In 2000 around 82 per cent of Russian natural gas exports to Europe were transported via Ukraine. In 2007 this ratio was 76 per cent, which then decreased to 68 per cent by 2009 (Yafimava 2011: 141-144). The 2011 inauguration of the Nord Stream pipeline bypassing both Ukraine and Poland is expected to have contributed to further decline in Gazprom's gas transit via Ukraine.

political and strategic incentives, and the '[...] target function of Russia [...] was positively dependent on the desire to exert influence and control over foreign countries' (Christie 2009: 284-285). The collapse of the Soviet Union not only caused changes in the actors of the Eurasian natural gas market, but transformed previously existing relations and patterns of causal power (Yafimava 2011: 32). The new gas network *'…can be described as dynamically interconnected and simultaneous processes, heavily laden within asymmetries of power'* (Ibid:26). Building on interconnectedness and asymmetric relationships, Russia has made attempts to exert influence on CEE states in their natural gas sector and to eliminate the possibility of CEE countries acquiring more favourable bargaining position via cooperation. For example, Gazprom's negotiations about gas supply and infrastructure are always bilateral.[23] These negotiations are not only conducted between Gazprom and natural gas companies, but are backed by intergovernmental agreements, guaranteeing an elevated political emphasis to the projects (Ibid: 54-55).

4.2 Collective and national interests in the EU regarding natural gas

Although the European Union was funded on the idea of integration in the field of energy (European Coal and Steel Community, 1951), Member States had retained full competence over energy resources and corresponding legislation. The 2009 Lisbon Treaty brought along changes and introduced some Union-level competence in this field, but by no means transferred exclusive decision-making rights to European institutions and left the borderline between MS and EU competencies elusive (Braun 2011: 2-3). By joining the EU, CEE states agreed to subscribe to a multilateral framework superior to their own national law and where legal requirements of EU-level regulations (Energy Charter Treaty, Transit Protocol, energy acquis, Energy Community Treaty) prevail over bilateral frameworks (Yafimava 2011: 36). Since the EU regulations have been created along the lines of MS preferences, 'unwilling to give up on sovereignty in energy matters, considering the stakes to be too high with respect to their national interests in the area of energy dependence and control of their resources' (Finon et al. 2007: 427), the accession of CEE states and their bilateral ties with Russia fragmented the general European foreign policy towards the eastern neighbour further.[24] As noted by External Trade Commissioner (2004-2008), Peter

[23] The point about divergent negotiation styles of Russia and the EU (bilateral and multilateral respectively) was made by one of the experts of energy policy during an interview.
[24] Based on opinion of an energy policy expert.

Mandelson in 2007: '*no other country reveals our differences as Russia*' (Schmidt-Felzmann 2008: 170).

Due to their better energy resource, transit route and source diversification, old Member States are less inclined to perceive Russia as a source of threat in questions of 'energy security'. Argued by Yafimava, new MSs, on the other hand, do perceive dependence on *Russian* gas as a threat to security (Yafimava 2011: 28). Such a divide in European threat perception puts a burden on the definition of community interest – a situation well illustrated by the initial debate about the Nabucco project. Proposed first in 2002, the ultimate objective of the pipeline was to diversify supply routes and sources by delivering Caspian gas into Europe via CEE states. While potential CEE transit countries favoured the project, but they were short of capital to finance the enormous upfront investments, Western Europe – particularly Germany, Italy and France – blocked initiatives within the EU to fund the construction of the pipeline. Only after the Russian-Ukrainian gas dispute in the beginning of 2006 did support for Nabucco grow significantly (Freifeld 2009: 124-125). Europe's threat perception changed and supply cuts were no longer viewed as concerns 'only' of Commonwealth of Independent States (CIS) countries, but as realistic threats of the European Union as a whole (Yafimava 2011: 23). Besides the damage the dispute has done to Ukraine and CEE gas markets, it had a serious consequence for Russia: 'an irrecoverable damage to Russia's reputation as a reliable supplier' (Pirani et al. 2009: 33). The importance of reliability has been emphasized by Gazprom CEO, Alexey Miller in 2012: 'Gazprom Group pays particular attention to ensuring the reliability of export supplies to Europe. This and only this is the main purpose of the ongoing large-scale infrastructure projects' (Miller 2012).

There is not only division in Western and Eastern Europe's perception of Russia, but within countries of the CEE bloc as well. Russia and natural gas giant, Gazprom are perceived as threats to security in the Czech Republic and Poland, while Hungary and Slovakia recognize Russia as a '*reliable and trustworthy partner*' (Grodzki 2012: 11). A similar conclusion concerning Hungary has been drawn by Butler in a study about the controversial merger and acquisition (M&A) case of Russian Surgutneftegaz purchasing shares via Austrian oil and gas company, OMV in the Hungarian Oil and Gas Public Limited Company (MOL). Butler argued that Hungarian governmental and corporate reaction were not generated by 'fear of Russia per se', but by a foreign company's possession of ownership to the extent that it could influence strategic decisions impacting MOL

(one of the most successful companies in the CEE region) and ultimately, 'Hungarian energy security' (Butler 2011: 16)[25].

The strong, but asymmetric interconnection between Hungary and Russia on economic and political levels, the history and legacy of their interactions (thus their perception of each other) maintain an environment, where weakening energy linkages in the absence of more favourable alternatives would create no economic or political benefits for Hungary. Accession to the European Union, however, created the possibility of managing gas networks and corresponding relations in a multilateral framework. 'When perceived as an effective instrument for the pursuit of their interests, countries upload their national interests to Union-level' (Schmidt-Felzmann 2008: 172).

Hungary is influenced by a duality in its international relations that necessarily impact its energy policy – membership in the European Union which requires harmonization with principles, priorities and regulations; and the legacy of the Soviet Union and the bilateral ties that guarantee essential natural gas imports from Russia. Ideally, these linkages would bear no burden on a country like Hungary, but the special relationship between European states – thus the EU as a whole – and Russia has been controversial throughout history and the objectives of the two powers are often averse. An example of the controversy in the energy sector is the debate over two natural gas infrastructural 'megaprojects', Nabucco and South Stream, supported by the EU and the Russian Federation respectively – both pipelines are planned to run through Hungarian territory and offer several appealing benefits, but are often considered 'rivals'[26].

In order to understand the standpoint of Hungary regarding the projects, it is important to analyze how the European Union and Russia maintain their influence on Hungarian energy markets and policies with respect to natural gas. The following two chapters will analyze these

[25] Butler's conclusion in the Surgut-MOL case about perceiving not Russia, but a foreign company's share acquisition as a threat seems to ignore that Surgut purchased the shares from OMV, a more than 30 per cent Austrian state-owned company (a point Butler made himself). OMV and Austria had already had shares in the Hungarian company, therefore the statement that '*Surgut is in position which no Russian or other foreign state has had concerning potential influence over strategic decisions*' (Butler 2011: 16) does not hold. Prior to the Surgut-case OMV's declaration of intent on merger with MOL was seen in Hungary as a 'hostile takeover bid' and led to a protective regulation known as 'lex-Mol' (Ibid: 9-12). Fear of a foreign company's influence in a firm as MOL could explain Hungarian reactions to both events, but differentiation between the two would mean that the *source* of influence is decisive – that it is indeed *Russia*, which was perceived as a threat.

[26] The 'rivalry' between the two pipelines will later be elaborated on, taking into account the contextual changes in European legislation since the announcement of the two projects, which impact the legal fundaments of pipeline construction.

influences regarding structural and legislative impacts of the EU, and Russia's impact taking effect in the forms of natural gas supplies, pipelines, bilateral contracts and disruptions.

Chapter 5. Hungarian energy policy in the European and Russian contexts

5.1 Hungarian energy policy in the EU context

The collapse of the Soviet Union was a downfall of Soviet politics and ideology that put a burden on countries that began to see Western Europe as the realm of wealth, stability and freedom. Eastern European countries wanted to become members of the European Union, which offered a vision of prosperity and a viable alternative to rebuild their countries after the Soviet repression. The economics and politics of Eastern European states went through a paradigm shift, gradually or rapidly (depending on the country) gravitating towards 'western democracies' and the market economy. Privatization and market liberalization served the purposes of 'westernization' and were steps made towards future harmonization with EU principles, legislation and policies in hope of gaining accession. It was learnt soon that despite fulfilling the minimum Copenhagen criteria, political, regulatory, institutional, economic and social changes remained necessary to continuously take place after accession.

5.1.1 Structural changes of the Hungarian natural gas market

The domestic processes of privatization and liberalization of the natural gas market led to diversified international shareholder structures in previously Hungarian state-owned gas companies. Ownership of company shares facilitated intensified international involvement in decision-making and since many of the foreign investors were state-owned companies, the otherwise technical negotiations were not free from political dimensions. The mutually dependent character of domestic and foreign policy demands understanding of structural changes in the Hungarian natural gas market in order to clarify how national energy policy on natural gas is influenced by the international context.

After the collapse of the Soviet Union the Soviet satellite states – including Hungary – began their political and economic transformation, which necessitated a strong capital base that the socialist regime was short of. The process of privatization had two objectives that were considered

essential for Hungarian governments from 1991: 1) the efficiency objective – that is, to transform state-owned enterprises into efficient and profitable companies; 2) raising revenue for state budget (a portion of which would be utilized to repay outstanding government debt) (World Bank 1999: 27).

Privatization of the gas sector led to a substantially different ownership structure and was considered a 'success story' in the region (European Commission 1997: 29). Before 1991 the gas market was centralized in the hands of state-owned National Oil and Gas Trust (the predecessor of MOL) possessing the rights to all upstream and downstream activities on the territory of Hungary. By 1995 five regional distributor companies were first declared independent, then sold to international companies, including German Ruhrgas (now E.ON Ruhrgas), VEW and French GdF (World Bank 1999: 60). The Hungarian Government kept so-called 'golden shares' with special rights aimed at maintaining a certain level of influence in the distribution companies (Ibid: 34). The restructuring of MOL was a more complicated, 'multi-phase privatization process' (Ibid: 59) and was only completed by 1999. The Hungarian Government considered MOL and its activities of 'strategic interest' and despite the vague definition of the concept, it was used to legitimize governmental intervention in the management or ownership of the company (World Bank 1999: 29). Such 'strategic' labelling of a utility company was not unknown in the global energy sector – as observed by the World Bank: 'The companies are usually large, capital-intensive natural monopolies and are considered to be strategic due to their critical role in the economy.' (Ibid: 41). The strategic importance of MOL was due to its dominance on the Hungarian energy market: it was 'a fully integrated energy company, engaged in everything from exploration to importing natural gas from Russia, refining crude oil and operating a chain of gas stations' (Nash 1995: 1).

Even though oil product price distortions were removed as early as 1991, the liberalization of gas markets began only in the late '90s in conformity with EU Directives (IEA 1991: 21), and was almost fully completed by 2009, when price regulations were removed as stipulated by the Act XL of 2008 (Gas Supply Act, GET) (EconGas official website). In a liberalized natural gas market tariffs for transport and distribution mirror real costs of operations, and whereas in regulated gas markets the price of the commodity is determined by oil-indexation[27], in free markets it is expected to reflect demand and supply (Van der Wal 2003: 23-25). The prolonged development of Hungarian liberalization plans was partially due to changing European policies: the EU directive on

[27] Oil-indexed prices mean that the price of gas is adjusted to the price of oil. This method has been applied in case of long-term contracts of often ten-fifteen years of duration with negotiated gas quantities to be delivered from the supplier to the consumer.

gas market liberalization (Directive 98/30/EC) and additional national adaptation plans that delivered changes in the legal order of natural gas markets were developed in 1998 (Arentsen et al. 2003: 3).

As a result of changing EU legislation and corresponding Hungarian implementation, the ownership structure of the Hungarian natural gas sector changed significantly even after MOL and its distribution subsidiaries were sold to private investors or international oil and gas companies. In 2004 (in the year of EU accession) MOL split its gas operation into three companies dealing with transmission (MOL Natural Gas Transmission), supply (MOL Natural Gas Supply) and storage (MOL Natural Gas Storage) (Orbán 2008: 192), while '*the Hungarian government sold its remaining shares and gave up its golden shares*' (Butler 2011:8). The full owner of MOL gas wholesale and supply became Germany-based E.ON (via E.ON Ruhrgas, a natural gas subsidiary of E.ON) and from March 2006 the two businesses operated under the names E.ON Földgáz[28] Trade and E.ON Földgáz Storage, fulfilling the requirement of 'ownership unbundling'. Comparison of the ownership structures of MOL and other major natural gas companies in the countries of the CEE region illustrates that the Hungarian energy company emerged as one of the most privatized ones[29] (see Figure 5 in Appendix).The economic downturn and unfavourable regulatory interventions (such as the Robin Hood tax, originally levied on energy supplying companies only for the period 2009-2010, but still in use), and after realizing a HUF 606 million loss in 2011 have recently caused E.ON to reconsider its presence on the Hungarian market (E.ON Földgáz Trade official website). In November 2012 Prime Minister Viktor Orbán and E.ON CEO, Johannes Teyssen had signed a Memorandum of Understanding about the purchase of the two E.ON businesses by MVM (Hungarian Electricity Ltd.), Hungarian state-owned energy company (Ibid.).[30]

There are currently fifty-three companies operating on the Hungarian natural gas market: ten distributors, only two of which are in Hungarian possession; forty-one companies have licence for

[28] Stands for natural gas in Hungarian.

[29] As observed by energy experts during interview.

[30] The deal has controversial interpretations in Hungarian media: while the government and its supporters are convinced that state-ownership of the two gas businesses will: a) facilitate more favorable bargaining position when negotiating with Russia about future gas supplies (current long-term contract signed in 1996 will expire in 2015) and b) enable lower gas prices in Hungary (by using subsidies) and c) create security of supply (as the prime minister of Hungary was reported to have said). Skeptics are concerned that a state may not be a better bargaining partner than E.ON, which has maintained beneficial relationship with Gazprom, and that financing of such a deal would have substantial costs necessary to reallocate from other sectors of the Hungarian economy (Gazdasági Rádió 2012).

natural gas trade, sixteen with Hungarian majority ownership; seven universal service providers[31], in only one is a domestic actor a majority shareholder; two storage companies, one is a property of E.ON Ruhrgas, the other belongs to MOL[32]; and two transmission companies, FGSZ Zrt. (also the Transmission System Operator, TSO), which is the 100 per cent property of MOL, and MGT Zrt., which, through MVM, is owned by the Hungarian state.[33]

The number of foreign companies present on the Hungarian gas market demonstrates that privatisation and liberalization were successful in opening up the market for external investors and generating capital. As illustrated by Table 5 in Appendix, the sources of foreign investments are centralized around a few large Western companies and their subsidiaries, such as E.ON (GER), RWE (GER), GDF Suez (FRA) and Eni (ITA). The market research found that Russian investors are almost absent from the shareholder structures of corporate participants: there are only two companies with trade licenses that are indirectly owned by Gazprom, but only one of them was able to realize a profit in 2011, thus Russia has marginal direct influence in gas companies through ownership or share possession.

5.1.2 Legal changes in the multilateral EU framework

By joining the European Union (and complying with the acquis communauitaire, including the energy acquis) Hungary agreed to act in accord with multilateral EU legislation, and although their implementation necessitated serious preparations, Union-level regulations left considerable liberty to Member States in the field of energy. The most overarching multilateral framework for intergovernmental co-operation in the energy sector is the Energy Charter Treaty (ECT; and Transit Protocol), signed in 1994 (Energy Charter Secretariat 2004: 13). Despite the expressed mutual need for a beneficial energy-based cooperation between Russia and the EU was a catalyst in creating the ECT, Russia signed, but never ratified the treaty. The wide spectrum of signatories and ratifying states (EU Member States, non-EU European states, successor states of the former USSR, Russia) means that the treaty embraces numerous legislations united under the objectives of the

[31] As provided by Article 32(1) of GET 2008 XL,' *Universal service providers are natural gas traders providing universal service to eligible customers requiring such service. Customers eligible for universal service shall be household customers and other customers with a purchased capacity of less than 20 m3/hour[…] until the end of the period defined therein.*'

[32] Currently 24.6 per cent of MOL's shares belong to the Hungarian state. (MOL Nyrt official website)

[33] Note that some companies operate with more functions, therefore the aggregate of listed statistics exceeds the total number of companies. Data are derived from natural gas market research based on information shared on official company websites and additional internet sources, if necessary. See Appendix Table 5 for the summary of findings.

ECT, but also implies that in order to meet long-term targets, an extensive array of often opposing national, regional, sub-regional, union-level interests would have to be fulfilled.[34]

While in 2004 the European market became more divided with the accession of several CEE countries, which were considerably different in their energy production, import-, consumption-, price-, legislation-, etc. structures, the gas price dispute between Russia and Ukraine in 2006 alarmed both Western and Eastern Europe about instability in natural gas supply from Russia. The disruption pinpointed the weakness of the European offtake market of natural gas, and revealed the riskiness of volatile relationships between supplier and transit countries. The dispute led to elevated 'energy security' discourse in the EU and in MSs and soon led to legislation aiming at the construction of strategic storage and diversified infrastructure that could provide supplies even in case of a sudden drop in natural gas flows within Member States.[35] EU-wide support for the Nabucco pipeline transporting gas from the Caspian region has grown substantially as a reaction to the dispute.

The Lisbon Treaty (signed in 2007, entered into force in 2009) initiated changes in the competences of the EU in the field of energy and Article 2 A(2) stipulated that it becomes a sphere of shared competence[36] (Article 2 A(2) Treaty of Lisbon, OJ 2007 C 306/42). Article 194 of the Treaty on the Functioning of the European Union (TFEU), which was altered by the Lisbon Treaty, provided that the European energy policy has four key objectives that shall be achieved in a 'spirit of solidarity'[37]: ensuring the functioning of the energy market; ensuring the security of energy supply of the European Union; promoting energy efficiency; and promoting the interconnection of energy networks (Article 194 of the TFEU, OJ 2010 C 83/135). Although these aims are not natural gas-specific, they define the lines along which Union-level and state-level regulations and policies concerning natural gas are conducted.

The European Union recognised the need for a more transparent European gas market without the monopolistic position of a limited number of large companies on the national markets

[34] The Transit Protocol, for instance, has for long been criticised by Russia that has still not ratified the treaty.

[35] Example: Hungarian Act XXVI of 2006 on strategic storage of natural gas, http://www.complex.hu/kzldat/t0600026.htm/t0600026.htm

[36] Shared competence on a specific issue area means that the Union and Member States may legislate and adopt legally binding acts in the area. 'The Member States shall exercise their competence to the extent that the Union has not exercised its competence.' (Article 2A(2) Treaty of Lisbon)'

[37] 'Spirit of solidarity' is explained in Article 222 (Solidarity Clause) of the TFEU, '*calling for the Union and its Member States to act jointly in a spirit of solidarity and assist a Member State in its territory in the event of a natural or man-made disaster*' (ClientEarth 2010: 10).

and passed several directives aiming at separation of ownership along the gas supply chain. The EU directive on gas market liberalization (Directive 98/30/EC) was a large step towards a more transparent, harmonized European gas market, but did not eliminate inconsistencies between national tariff systems within the EU and left the question of ownership separation[38] along the supply chain open. Directive 2003/55/EC made further steps towards unbundling, but the effects were only moderate as the legislation only required legal separation[39] of transmission and distribution systems, not complete ownership unbundling (Directive 2003/55/EC, OJ 2003 L176/57). The importance of unbundling was reinforced in the Third Energy Package (signed in 2007, entered into force in 2009) and in corresponding Regulations and Directives (for example: Directive 2009/73/EC, (OJ 2009 L211/94) which provided effective ownership unbundling in the natural gas market – that is, separation of production and supply activities within EU gas networks). The requirement of unbundling was fulfilled by a 2010 amendment of the GET, which stipulated the independence of the Hungarian TSO, FGSZ. The Third Energy Package was adopted to address numerous key issues, including: strengthening national market regulators and underlining their independency as being of pivotal importance; unbundling the activities of vertically integrated TSOs[40]; and third country aspects referring to unbundling of TSOs from supply and production in companies that operate in any MS (Proposal for Third Energy Package 2007: 4-8). The third country aspects of the Package have been vehemently opposed by Gazprom. At a press conference in Slovenia, Alexey Miller voiced his concerns that certain requirements of the Package 'do not make economic sense': '[...] European and national authorities do not allow us to use all the capacities of the host infrastructure, even when such infrastructure has no other bidders'. (Miller 2012: 5) Furthermore, Miller went as far as claiming that '[...] *we* [Gazprom] *are opposed to regulation and legislation used against the Gazprom Group as a political weapon*' (Ibid: 5).

[38] Separation of ownership became a key component of EU natural gas directives and the concept is now widely referred to as 'unbundling'. 'Ownership unbundling implies the appointment of the network owner as the system operator and its independence from any supply and production interests' ((8) Directive 2009/73/EC, OJ 2009 L211/94).

[39] 'Legal separation implies neither a change of ownership of assets and nothing prevents similar or identical employment conditions applying throughout the whole of the vertically integrated undertakings.' (as provided by (10) Directive 2003/55/EC)

[40] Article 2(4) of Directive 2009/73/EC provides that '"transmission system operator" means a natural or legal person who carries out the function of transmission and is responsible for operating, ensuring the maintenance of, and, if necessary, developing the transmission system in a given area and, where applicable, its interconnections with other systems, and for ensuring the long-term ability of the system to meet reasonable demands for the transport of gas'. That is, TSO own, build and operate transmission pipelines (sometimes storage facilities) and belong to a regulated industry (Bjørnmose et al. 2009: 15).

The 'security of gas supply' received an even more immense position in European energy policy after the 2009 gas dispute between Russia and Ukraine, as the disruption of gas supply was unprecedented in its length and magnitude (Yafimava 2011: 1). The crisis provided a strong incentive to introduce Regulation (EU) No 994/2010 concerning measures to safeguard security of gas supply. The Regulation called for Union-level commitment to achieve security of gas supplies ((49) of Regulation (EU) No 994/2010, OJ 2010 L295/6) and put strong emphasis on diversification as an essential instrument of the objective. Relying on the pivotal importance of a well-functioning internal market and effective competition within, the Regulation identified necessary infrastructural developments and referred to concrete 'priority actions', including the Nabucco, Interconnector Turkey Greece Italy, interconnection of the Baltic region and north-south gas interconnections across CEE ((7), (14) Articles (6)-(7) of Regulation (EU) No 994/2010). As noted by an energy policy expert referring to the reaction generated by the 2006 and 2009 gas disputes, while the EU's answer to 2006 was 'Nabucco', it was 'interconnectors' in 2009.[41] As observed by another expert, '*interconnectors are the most important things we* [Eastern Europe] *can do as Europeans*'[42]. The incremental role of these interconnectors is also reflected in the Hungarian energy strategy as provided by the currently employed National Energy Strategy 2030.

The pillars of the European energy policy have been implemented in the Hungarian energy strategy and both recent documents, the Energy Policy of Hungary 2007-2020 (official energy policy of the previous government led by the Hungarian Socialist Party, MSZP) and National Energy Strategy 2030 (official energy policy document of the current government led by the two-thirds majority of Hungarian Civic Union, Fidesz) highlight the fundamental roles of 'competition', 'sustainability' and 'security of supply'. The value of examining these documents rests on the assumption that 'a country's national security strategy typically reflects the current government's values and capabilities, as well as the international and domestic security situations' (Christie 2009: 276) – applied to the field of energy. Both policies agree that owing to its geographical location and infrastructural developments, Hungary could become a strategic actor in the natural gas transit of the region. The former strategy envisaged the achievement of the security of supply through the development of a balanced resource structure, import diversification (both source and route diversification) with a view on 'avoiding deterioration of good energy relations with Russia' (Felsmann: 2007); through the accumulation of strategic storage, infrastructural

[41] Information derived from interview with an energy policy expert.
[42] Information derived from a conference discussion with the expert.

development and social responsibility. The document saw competition guaranteed in liberalized energy markets (and ultimately, in a single market) and in the establishment of market pricing reflecting demand and supply (Ibid.). Energy efficiency, energy saving and renewable resources were given an instrumental role in facilitating stability and sustainability.

Prioritizing the three objectives of the EU energy policy, the currently applied National Energy Strategy 2030 delegates an active role to Hungary in the integration of European energy markets, yet accepts the limited weight of the country in the materialization of large international pipeline projects.[43] The author identified three particularly relevant aspects in which the current Strategy differs from the previous policy document: 1) it dedicates considerable substance to renewable and nuclear energy resources; 2) it denotes larger emphasis to interconnectors; 3) it assigns a more dominant role to the state in the natural gas sector. While the first is of secondary relevance for the current discussion the latter two have far-reaching consequences. The Strategy and its corresponding economic impact analysis underline the beneficial returns on the construction of interconnectors, (particularly those on the Slovakian-Hungarian interconnector or the HAG2 expansion) (REKK 2011: xi-xii). These infrastructural developments are given primary focus within the strategic aim of 'regional infrastructure platforms' referring to enhanced cooperation on regional network integration. A brief SWOT analysis[44] points at the value of Union-level cooperation (Ministry of National Development 2012: 44) and thus suggests the possibility of managing these projects in a multilateral framework – 'uploading' the issue to the level of the EU. Apart from the economic advantages that can be derived from interconnectors, the construction of the infrastructure can assist the development of more favourable bargaining positions at negotiations with Eastern suppliers (Ibid: 68).

The quest for improved bargaining positions has contributed partially to a domestic energy policy in Hungary that assigns a more decisive role to the state. As it has been illustrated by the comparison of the ownership structure of other large gas companies and MOL, the domestic natural gas market is highly privatized, which is now seen as a condition questionable in facilitating the complete elimination of oil-indexed prices (REKK 2011: 4). It is also argued by advocates of enhanced state-ownership in the sector that it could better serve 'national strategic interests', particularly in situations when supply contracts are (re)negotiated. There is a clear reference made

[43] In the absence of Hungary's decisive power in the realization of 'megaprojects', the Strategy does not address projects, such as Nabucco and South Stream in detail (REKK 2011: 61).

[44] A SWOT analysis is a widely applied method to evaluate Strengths, Weaknesses, Opportunities and Threats of businesses or projects.

to the 2015 expiry of Hungary's ten-year gas contract in the Strategy in relevance to strengthening the influence of the state (Ministry of National Development 2012: 17), which indicates that the government does assume more favourable outcomes at the renegotiation of conditions on Russian natural gas supply once state presence is increased in the sector.[45]

While the National Energy Strategy promotes the principles and objectives of the European Union and states that 'the European integration of energy markets shall not be taken as an externality' (Ibid: 64), assuming the country a 'proactive' role in the process, the true weight of Hungary may be brought into question by the simultaneous use of rather controversial expressions as 'proactively react' or the declared need for 'continuous adaptation' (Ibid.). The country's goal was summarized as '*independency from energy dependence'* (Ibid: 13), but it is best taken at face value as the objective is logically flawed suggesting either that there *is* such thing as energy independence, or that it is possible to externalise (become independent) a condition that is inherently internal (dependency). The conceptual emptiness of this defined goal is further verified by the contextual analysis of the rest of the document or affiliated impact analysis, which point at 'Russian natural gas as an unavoidable factor' (Ibid: 65) and the 'well-known vulnerability of the Hungarian natural gas sector' (REKK 2011: vii).

Hungarian national energy policies and corresponding domestic interests are stated 'to be fulfilled by consideration of principles and mechanisms supported by the European Union' (Ministry of Economy and Transport 2007-2020: 7), but they are not defined exclusively by Union-level preferences. Interconnectors are the most unambiguously supported infrastructural developments promoted under the principle of solidarity in Hungarian energy policy: their promotion to EU-level importance ('uploading') is seen as an effective instrument of expanding the gas infrastructure. The European Union does not only advocate their role in legislation (Regulation (EU) No 994/2010), but provides capital for the materialisation of projects (Croatia-Hungary interconnector, Romania-Hungary interconnector, planned Slovakia-Hungary interconnector) (European Energy Programme for Recovery official website).

However, as it has been noted earlier, the unequivocal articulation of community interests regarding natural gas supply in the EU is limited by the divide in the Member States' relationship with the supplier and their perception of it. As it appears in all official documentation and debates,

[45] Agreements about the purchase of the gas businesses currently owned by E.ON mirror the aim of enhanced state influence in the natural gas sector.

Russia is of substantial importance to Hungarian energy policies and the context it has created as a supplier defines decisions that strive to maintain a stable flow of natural gas to such an extent that the importance of bilateral ties is unlikely to diminish.

5.2 Hungarian energy policy in the Russian context

As it has been observed, Member States' perception of and relationship with Russia are divergent across the EU, which makes the largest natural gas importer of Europe a highly controversial political partner (Schmidt-Felzmann 2011: 584). Old MSs, such as Germany and Italy – which receive the largest volumes of Russian natural gas – apprehend Russia as a reliable supplier, and their bilateral relationships are invaluable for both sides. Countries of Eastern Europe, however, maintain a considerably different relationship with Russia due to the history and legacy of economic and political interactions.

The planned economy is widely known for its negative legacies in both FSU countries and in former satellite states, yet the regime had a number of positive legacies in the energy market, such as the high share of natural gas in the energy mix, organised modes of transport and efficient public transport systems, and low rate of individual consumerism (Ürge-Vorsatz 2005: 2284-2285). However, these positive effects could not be conserved in the long run: the high share of natural gas in TPES and consumption is now labelled as a characteristic that is necessary to mitigate in Hungary; and household consumption increased rapidly after the regime change eliminating the effect of the Soviet era. The negative effects of the planned economy in the energy sector are more widely voiced: inefficient energy utilization (particularly in the production processes of heavy industries), ignorance of sustainability, cross-subsidies, and general energy and infrastructure dependency on the Soviet Union. All these negative legacies had severe impacts on the Hungarian energy market and natural gas sector, even if some of them were possible to eliminate (cross-subsidies) or the problems caused by them are now taken into more serious consideration (energy efficiency). From the perspective of this research, the last negative legacy is of fundamental importance as the asymmetric bilateral relationship created in the previous regime is 'conserved' in pipelines and long-term contracts constituting pivotal angles of the Hungarian energy policies on natural gas.

Pipelines are often described with reference to Russia as '*steel umbilical cords of dependence*' (Stulberg 2012: 809) and it has been argued widely by using a multitude of diverse theories that

these infrastructures serve as means of politically motivated ends, and are tangible '*manifestations of national ideas about energy security*' (Ibid.).

As noted earlier, until 1996 Russia was the exclusive supplier of natural gas to Hungary and the Brotherhood pipeline, a tangible legacy of the Soviet regime, remains an important source of gas even today. As pointed out by Dr. Robert M. Cutler, the capital-intensity of pipelines and the complicated planning processes that precede their often technologically challenging construction require at least proportionate tangible returns on enormous upfront human, diplomatic, technological and financial capital investments, therefore the economic utilisation of transit infrastructure is highly desirable by investors – in the analyzed context this key investor has often been Gazprom (and thus the Russian state itself) (Cutler 2012). Once pipelines are constructed they provide transit at a relatively low unit cost, therefore are the generally preferred route of natural gas trade (Ericson 2009: 29). Natural gas network developments, supplies, and prices are traditionally established in bilateral agreements with Russia, and are usually supported by states either in the form of state ownership in the partner companies, or in forms of IgAs.

The pre-1996 situation of Hungarian-Russian energy relations can be characterized as a 'bilateral monopoly', whereby a single supplier faced a single consumer (World Bank 1999: 14). Under such circumstances it is the relative bargaining power of parties that determines the outcomes of a business deal, including quantity, price, duration of contract, payment methods and other conditions. 1996 also marks the agreement of MOL (Hungary) and Gazprom (Russia) on a long-term supply contract (LTSC), typically signed for the duration of eight-fifteen years[46] (Yafimava 2011: 21). The advantage of these contracts had been the voluminous supply they guaranteed and the relatively favourable prices that had remained below Western prices – a condition that no longer holds.

Within the framework of the LTSC, MOL and Gazprom (via intermediary Panrusgaz) agreed in gas deliveries of 194 bcm from Russia between 1996 and 2015, with a possibility of purchasing extra 2 bcm annually during the last five years of the contract (IEA 1999: 59). Given that the Russian bargaining partner[47] had overwhelming governmental influence (thus had strong political backing), it was the interest of the Hungarian government to provide state-support to MOL and

[46] During the Soviet regime these LTSC-s were signed for the extensive period of twenty-thirty years.

[47] The 1996 LTSC was concluded between MOL and Panrusgaz, which was a joint company of MOL (50%), Gazexport (40%) and Interprokom (10%), with an operation concentrated on serving as an intermediary between MOL and Gazprom (Orbán 2008: 46). The latter two companies were owned by Gazprom, the Russian energy giant that has had considerable Russian influence and even today is known for its tight linkages with the political elite of Russia (IEA 1999: 53-54).

ensure that the outcomes of negotiations would not be dictated utterly by the Russian partner. Governmental influence was maintained by 25% state ownership plus one share and the possession of golden shares in MOL (World Bank 1999: 57). The signed LTSC still guarantees the largest gas import capacity, followed by the contract of E.ON Ruhrgas and Bothli Trade AG (Szolnoki et al. 2011: 51).

If analyzed along Knorr's realist coercive understanding of power, pipelines and relating LTSCs can be classified as instruments of what Knorr refers to as, '*economic penetration of foreign economies by means of foreign investment*'[48] (Knorr 1975: 16). He argued that 'economic penetration' does not necessarily lead to 'political penetration' – it only occurs if '*personnel of the private sector act as agents of their government*' (Ibid.). The Russian state's involvement in Gazprom and the realists' understanding of the use of such economic strength the company possesses, point at the conclusion that Gazprom serves Russian interests in exerting power abroad. However, a traditional, 'hard power' approach to 'power' does not explain why, in times of 'economic expansion' Russian relative economic power was declining (Orbán 2008: 12) or why military expansion never followed. Neoliberal and constructivist theories are more reluctant to express power in purely coercive terms and they do not limit their definitions to military and economic perspectives. While neoliberals put an emphasis on 'soft power', constructivists are more inclined to take power as a matter of perception and subjective assessment. The 1996 LTSC was not purely of Russian interest, although it would be an exaggeration to state that the conditions were taking the parties' interests into equal consideration. An in-depth analysis of the contract is beyond the scope of this research, but a broad conclusion regarding the 'power of pipelines' can be drawn based on secondary observations. It has been noted that Hungary and Russia assigned sharply different roles to intermediary Panrusgaz. Using the case as one of the examples of Russian expansionist aspirations, Orbán observed that while Russia saw Panrusgaz as a tool of '*gaining a foothold in the Hungarian gas transit business*' (Orbán 2008: 47), Hungary considered it as an intermediary instrument to create an export market for domestic products, as provided in the barter agreement (Ibid.). Signing a deal of gas supply and creating markets for

[48] Note that 1996 only marks the signing of the LTSC, not the construction of the Brotherhood pipeline (1967), therefore one may question whether the use of Knorr's 'economic penetration', referring to investments, is adequate for analysis in this particular case. In 1994 Panrusgaz, the intermediary of the deal was set up with a seemingly equal Hungarian and Russian ownership, but as noted above, Gazprom held the majority of shares. The single function of Panrusgaz was to ensure that MOL receives natural gas from Gazprom in the framework of the 1996 LTSC (Orbán 2008: 45-47). Involving significant international investments, the case is useful to analyze Knorr's theory of exerting political influence via 'economic penetration'.

Hungarian products was the economic interest of the country and the LTSC was not perceived as a threat to security even if it conserved dependence on the supplier.

What all theories agree on is that pipelines (and corresponding contracts) carry the potential to serve non-commercial political or foreign policy ends; although the power of these infrastructures would be conditional not only to the capacity to influence, but to the *exercise* of this capacity in more constructivist approaches. For instance, Yeung defined power as 'the relational effects of the capacity to influence and the exercise of this capacity through actor-specific practice [...] encapsulated in both position and practice' (Yeung 2005: 45). The 2006 and 2009 gas disputes between Russia and Ukraine are illustrative examples of conflict over natural gas that moved beyond purely commercial considerations and involved the *use* of influence on both the Russian and Ukrainian sides.

Verified by the quantitative concept analysis of Hungarian parliamentary plenary sessions Russian-Ukrainian gas price disputes played an important role in raising the matter of energy (particularly, natural gas) to the forefront of Hungarian political and security agenda. The 2006 dispute resulted in 40 per cent reduction in natural gas supplies to Hungary, reflective of the declines in most of the CEE region (Grodzki 2012: 3). The following, 2009 natural gas price conflict between Ukraine and Russia has been labelled 'unprecedented in scope, length and consequences' (Ibid.) in numerous studies. The disruptions led to a 45 per cent cut in Russian natural gas supplies to Hungary (Pirani et al. 2009: 54), severely affecting large industrial companies in order to safeguard gas flows to residential consumers (Schmidt-Felzmann 2011: 578-579). Although the economic context of the two disruptions was rather different, they both led to the reconsideration of the stability of natural gas supplies on both Union- and national levels. 'Security of supply' has evolved as a primary objective of energy policies, and diversification of sources, routes or resources have been underscored as necessary mechanisms to achieve more stability.

The European Union's answer to the 2006 supply cut was the promotion of the Nabucco pipeline project[49], planned to serve the purposes of both source and route diversification. To neutralize the effects of potential future gas supply disruptions, the Hungarian legislation passed an act in 2006 requiring the increase of its strategic storage by the construction of an underground storage facility. In 2009 diversification remained of high importance, but interconnectors and regional natural gas market integration received more attention both on Union-level and in

[49] Information derived from interview with energy experts.

Hungarian energy policy planning. Even without the completion of all network developments, the utilisation of pipeline capacities changed sharply on the Brotherhood and HAG routes: whereas the former used to be the main source of supply, in 2011 55 per cent of imports were channelled through the latter pipeline operating at full capacity (REKK 2012: 7). The effects of the economic recession contributed to a decline in gas demand, and owing to the increase of natural gas supply, the spot price of the commodity was lower than the oil-indexed price applied by Russia (Ibid.).

The expiry of the 1996 LTSC and more favourable 'western' prices leave uncertainties regarding the future renegotiation of supply contracts with Russia. Gazprom's history of contract strategy suggests that it would attempt to renew long-term agreements (Finon et al. 2008: 442) and engage in infrastructural developments (Ministry of National Development 2012: 68). Changes in EU legislation and more competitive spot prices on the Western market may contribute to a better bargaining position of the Hungarian party[50] when renegotiating the terms of contracts.

A more favourable bargaining position of a small country like Hungary does not mean that it is likely to be taken as an equal negotiating partner in all respects. From the Russian perspective Hungary has limited individual role in energy policy and its weight only becomes significant when understood in the regional and European contexts (Terényi 2009: 8).

In contrast, it is admitted in Hungarian official energy strategy documents that the Russian supplier is an inevitable component of decisions regarding natural gas (Ministry of National Development 2012: 64) and it is unlikely to diminish due to its vast reserves, production and reliability – although the latter has been called into question after the two gas disputes.

The disputes have been noted to be of 'risks to Hungarian energy security' (Terényi 2009: 10), but neither Russia, nor Ukraine have been explicitly identified as threats by the acting Hungarian government. Hungary was also very careful in identifying the threat in the OMV-Surgutneftegaz-MOL deals. After OMV's proposition of a merger between MOL and OMV (a proposition that was considered as '*hostile*' and '*value destructive*' by MOL as expressed by I. Szabolcs Ferencz, Corporate Communications Vice President of MOL (MOL official website)) was unanimously rejected by both MOL and the Hungarian government, OMV sold its shares to Surgutneftegaz, a Russian oil company that is known for its strong ties with the Russian government. As noted above, Butler's analysis explained that 'fear of Russia per se cannot be regarded as a justification for the Hungarian reaction to the sale of MOL shares to Surgut' (Butler 2011: 16).

[50] Reliable information on the Hungarian negotiating party is not available, but it can be expected that the responsibility will be carried out by state-owned MVM, which has lately been assigned an increasing role in the natural gas business.

Confirmed by interviewees, labelling Russia as a threat to the stability of natural gas supplies would be highly destructive and irrational for the Hungarian-Russian energy relations. Gazprom and Russia supply a substantial portion of natural gas imports to Hungary, and even if the utilized capacity of the Brotherhood declined, Russian energy relations remain of crucial importance – as emphasized in energy strategy concept notes and in less sector-specific foreign policy documents. The current government introduced the concept of 'Eastern opening' into its foreign policy jargon, which, by no means shall be confused with the Eastern Partnership of the European Union, even if their foundations share similar elements. The most obtrusive difference is Russia's role – whereas it is not directly dealt with in the EU policy, it is 'one of the strategically important key countries in "Eastern opening" policy' (Martonyi 2013). Despite the frequent use of 'Eastern opening', the concept is emptied by the lack of precise definition of what 'East' entails and by the often inconsistent use of the label (Rácz 2012: 1-14). As observed by Rácz, there is considerable uncertainty regarding the parallel use of terms, such as 'Global opening' – a concept often used as a tool to underline the importance of Hungarian participation within multilateral frameworks – and 'Eastern opening' – often supporting bilateral ambitions of Hungarian foreign policy (Ibid.).

While acting governments have been promoting the 'creation of a Union-level energy policy and mutual achievement of security of supply' (Ministry of Foreign Affairs of the Republic of Hungary 2005) and have been emphasizing corresponding EU and Hungarian interests in the direction of foreign policy[51], Prime Minister Viktor Orbán notoriously stated in one of his speeches in 2010 that '[...] *although we are sailing under a Western flag, there are Eastern winds blowing in the world economy*' (Orbán 2010), referring to the importance of the increasing weight of the 'East' in global balance. The dominantly, but not exclusively economics-based relationship with Russia is occasionally re-evaluated and strengthened by bilateral meetings between Russia and Hungary. At his meeting with Prime Minister Viktor Orbán, President Vladimir Putin accentuated the 'promising multidimensional development of the relationship between the two countries' (official website of the Hungarian Government 2013) and declared that Hungary is 'certainly a partner of priority in Central Europe' (Ibid.). The Hungarian Prime Minister emphasized the government's support for Russian investments and underscored the importance of maintaining fruitful cooperation.

The significance and inevitability of bilateral relations with Russia is demonstrated by the changing rhetoric of Members of Parliament depending on whether they are in opposition or in

[51] See Hungary's Foreign Policy after the Hungarian Presidency of the Council of the European Union.

the leading party, or whether they actively engage with a representative of Russia or they formulate their opinions in the national Parliament. For instance, formerly holding the position of Chairman of the Committee of Foreign Affairs and Hungarians Abroad in 2006, Zsolt Németh[52] (Fidesz – largest opposition party at the time) voiced the importance of cooperation between Hungary and Russia during a visit of Russian President Vladimir Putin and declared that a natural gas pipeline of southern direction would serve the objective of 'energy security' (Göncz 2007: 57/39). A year later Németh pointed at the inconsistency of then-Prime Minister Ferenc Gyurcsány regarding his position on the EU-backed Nabucco and Russian-backed Blue Stream pipeline expressed in public speeches, and criticized the government for supporting the extension of the latter project[53], thus interfering with the other pipeline that would serve European and Hungarian energy supplies (Németh 2007: 57/37). Since the last elections (2010) Németh has been serving as the Minister of State for Foreign Affairs and has been an active participant of policy-making, highlighting the strategic importance of Russian relations and giving priority to the South Stream pipeline project promoted by Gazprom.[54]

The asymmetric relationship developed during the Soviet era between Hungary and Russia has been conserved in the natural gas supply and its corresponding infrastructure and contracts. The large share of gas in Hungarian energy consumption and moderate domestic production continue to necessitate imports, which have, for long, been provided by Gazprom. Despite the bilateral asymmetry and the lack of capacity to create symmetric interdependence, it is not of Hungarian national interest to loosen ties with Russia. Membership in the European Union and subscription to EU legislation do not ensure substitutes to natural gas supplies, therefore the cultivation of a favourable bilateral relationship remains indispensible. Even though the reliability of the Russian supplier was questioned after the gas disputes (especially after 2009), Hungary did not perceive Russia as a threat in the field of energy, instead, had been addressing it as a strategic economic partner of paramount importance.

[52] The example of Mr. Németh is not unique and it is not chosen to criticize his activities, but serves as an illustration of a generalizable observation that MP-s tend to alter their standpoints on energy issues depending on their position in Parliament. The author could have chosen multiple other examples, but Mr. Németh is a well-known politician with a foreign policy focus, who has been representing Fidesz since the birth of the party.

[53] The support of Blue Stream was expressed by the MP as 'assistance to the materialization of intentions about creating the Eurasian energy monopoly of the Kreml' (translated by author from original in Németh 2007: 57/37).

[54] Note that both Nabucco and South Stream pipelines are both priority projects.

Hungary is a transit country of both planned pipelines Nabucco and South Stream and it has had divergent positions since the propositions of the projects. A comparative analysis will assess the characteristics of both EU-backed Nabucco and Russian-backed South Stream pipelines – the projects which reflect the 'community interest' of the European Union wrapped in the rhetoric of 'solidarity', and the interest of Russia offering an alternative through bilateral arrangements that CEE transit countries would be hesitant to reject. The previously established international context framed by the EU and Russia is then put into a test by examining the Hungarian standpoint on the two pipelines expressed during Parliamentary plenary sessions. The qualitative analysis will mirror the influence of the European Union and of Russia perceived by the political elite of the Hungarian state.

Chapter 6. The two 'megaprojects' and the Hungarian standpoint

6.1 The Nabucco and South Stream pipelines

The Nabucco pipeline was developed as part and now flagship project of the Southern Corridor to diversify natural gas supplies to Europe importing from the vast reserves of the Caspian. The route was planned through Turkey and Eastern European transit countries, Bulgaria, Romania, Hungary and Austria, thus benefitting new Member States dominantly dependent on the Russian supplier, Gazprom, and meeting growing natural gas demand in the EU[55] (Barysch 2010: 1). Pointed out by an energy expert, after the first gas dispute in 2006, Nabucco became more of a political and strategic project[56] lit from a security of energy supply angle and was often discussed – particularly in public media – as an alternative to 'reduce the undisguised hostility of Russia' (Erdogdu 2010: 2940). Nabucco became a project contrasting Euro-Atlantic opening (the United States, although an external actor in the debate, has been supporting the construction of Nabucco) and conserved dependence on Russia[57]. The pipeline would serve as a solution to transit

[55] Note that European natural gas demand showed an increasing pattern in the years of drafting the first ideas of the project, but has plummeted to 2003-2005 levels since the recession and it isn't forecasted to grow at a high pace until 2030 (IEA 2012: V.9.; European Commission 2010: 65-179).
[56] Interview with energy expert.
[57] Innterview with energy expert.

disruption problems similar to the ones in 2006 and 2009 through independency from the Russian source and Ukrainian transit infrastructure. Diversification bypassing Russia is argued to contribute to more intensive competition on the natural gas market with pricing schemes avoiding oil-indexation and being more reflective of market demand and supply. Supportive, easily expendable infrastructure is referred to as 'scalability' and is identified as a key preference of infrastructural development.[58] In compliance with the legislation of the EU, Nabucco is planned to satisfy the fundamental requirements of reverse flow (Article 3(3.4) of Act 2009.CV. of the Republic of Hungary[59]), third party access and ownership unbundling meaning that the producers of natural gas will not be the TSOs of Nabucco (Finon 2011: 56).

However, while the establishment of such market conditions may be suitable for the mature European market, Finon argued that the application of the very same strategy in a radically different market is inadequate, as it underestimates the role of regional competition for Caspian energy resources – a competition that is 'distorted' by Russian LTSCs and the Caspian countries' willingness to sell their commodities as long as high (and reliable) returns are guaranteed (Ibid: 48-57). Russia has already capitalized on this situational weakness of Nabucco both upstream and downstream: Gazprom signed bilateral agreements about the purchase of Caspian gas, and prepared the plans of the South Stream pipeline project (see below), which would deliver primarily Russian (and potentially also Caspian) gas to European markets (Ibid.).

The critiques of the Nabucco project were summarized as "*No demand, no supply and no money"* (Barysch 2010: 1). Following the 2009 review of European natural gas demand projections, the argument that either of the large pipeline projects would be essential to satisfy Europe's hunger for gas has lost from its validity. The question of supply source has been a subject of heated debate and only Azerbaijan and its Shah Deniz field (particularly phase two of the extractions) seem to provide a stable source of gas to feed the pipeline[60]. Alternative sources, such as Iraq and Iran had to be eliminated due to political reasons: the conflict of Northern Kurdish part of Iraq with the central government creates considerable instability, and Iran is currently under Western sanctions due to its nuclear program. Another resource-rich Caspian state, Turkmenistan

[58] Information derived from interview with energy policy expert.

[59] The Act states the following with regards to reverse flow: 'Each State Party shall endeavor to ensure the capability of Transportation of Natural Gas in reverse flow direction for the whole length of the Nabucco Project at a specific tariff agreed between Nabucco International Company or the relevant Nabucco National Company and Shippers as far as technically possible and economically feasible' (Ibid.).

[60] Note that understanding the critical role of Shah Deniz reserves, Gazprom signed a deal with State Oil Company of Azerbaijan about the purchase of Azeri natural gas in 2009 (Euractiv 2009).

also appeared as a potential supplier, but a portion of its natural gas resources was purchased by Russia in an LTSC until 2028[61] (a move that is often argued to target the prevention of Nabucco by radically declining the availability of Turkmen gas) (Stulberg 2009: 115-116), and another share of natural gas is contracted to flow on the Central Asia-China gas pipeline (commissioned in 2009) (Barysch 2010: 7). The original, now called 'Classic' version of Nabucco had been approximated to cost EUR 8 billion, but the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD) offered contribution to the high expenses of the project. As explained earlier, Union-level support for Nabucco Classic had been divided and financial help had been opposed by Germany and Italy, who after the 2006 dispute seemed to take a more encouraging stance on the realization of the project. However, the German support for EU financing of Nabucco that would only indirectly benefit the German market, turned out to be conditional to the EU's reconfirmed support for Nord Stream (a pipeline now in operation, shipping Russian gas bypassing Ukraine and Poland[62] to Germany) (Bartysch 2010: 3). Apart from the risks that potential supplier countries posed, the planned transit route – particularly the section leading to eastern Turkey was perceived unstable, which was exacerbated by Turkey's demands for a higher transit tariff (proportional to the length of the pipeline crossing the transit state) and '*the use of the pipeline as a political instrument for negotiating EU membership*' (Erdogdu 2010: 2941).

Besides contracting with upstream Caspian countries, Russia entered into dialogues about construction of the South Stream pipeline with several Nabucco-ally CEE states – a move that was interpreted controversially – some analysts went as far as claiming that these discussions were 'major diplomatic offensives' (Ericson 2009: 50). Nabucco and South Stream were immediately announced as rivals and are still – somewhat mistakenly – referred to as competitors in public media. Hungary is a transit state of both projects and its position on the two alternatives has varied over the past years. The table below summarises the main characteristics of the Nabucco and South Stream projects.

[61] The deal included the Russian purchase of around 2 trillion cubic meters of Turkmen gas until 2028 at a price of USD 44 per thousand cubic meters (the arrangement also contained a barter agreement about half of the price being covered by goods and services) (Stulberg 2009: 115-116).

[62] Nord Stream bypassing Poland has notoriously been nicknamed the 'Molotov-Ribbentrop pipeline' referring to the 1939 Soviet-Nazi pact. (Petersen 2009)

Table 2: Comparison of the Nabucco and South Stream natural gas pipelines

	Nabucco [West][63]	South Stream
Start	2004, NIC [2012]	2007 (Eni, Gazprom)
Source of gas	Azerbaijan (10bcm) + ?	Russia
Route[64]	[Turkey], Bulgaria, Romania, Hungary, Austria	1) Russia, Bulgaria, Serbia, Hungary, Austria 2) Russia, Bulgaria, Greece, Italy
Length	3300 km [1300 km]	3200 km
Capacity	31 bcm/y [10 bcm/y scalable]	63 bcm/y
Cost	EUR 14 billion [N/A]	EUR 16.5 billion (and additional facilitating infrastructure: EUR 18.5 billion + EUR 12.5 billion)
Participating company	NIC: BOTAS, Transgaz, MOL, OMV, BEH, RWE	Gazprom, Eni, EDF, Wintershall, BEH, Srbijagas, DESFA, Plinacro, Plinovodi, MVM, OMV
Type of agreement	Multilateral (corporate, later IgA)	Bilateral (IgA)
Company arrangement	Nabucco Gas Pipeline International GmbH (NIC) and National Nabucco companies operating as subsidiary	Offshore: South Stream Transport AG (Gazprom, Eni, EDF, Wintershall) Onshore: joint ventures between Gazprom and national energy companies
Separate producer from infrastructure developer	Yes	No (partially)
Type of diversification	Source, route	Route

Sources: Nabucco pipeline official website, South Stream official website, OAO Gazprom official website, Erdogdu 2010, Dempsey 2011, Korchemkin 2013

South Stream emerged as 'ultimately a reactive' project (Baran 2008: iii) to infrastructural development plans that were aimed at bypassing Russia and served as a strong alternative of minimizing (if not completely eliminating) Ukrainian transit risks (Maximov 2012: 4-5).

The economic rationale of South Stream has been questioned in numerous academic works analysing a diversity of variables, but these arrive to an identical conclusion that South Stream is

[63] Several parameters of Nabucco 'Classic' (the original plan) are different from those of Nabucco West (the current version), the latter is marked in [] brackets.
[64] See Map 1, 2 and 3 in Appendix for the routes of Nabucco Classic, West and South Stream respectively.

dominantly a politically motivated project serving strategic purposes (Barysch 2010: 10; Chyong 2011: 3; Finon 2011: 48).

Chi-Kong Chyong, for instance, compared the cost-efficiency of South Stream to the utilisation of existing pipelines via Ukraine taking European demand and transit disruptions into account, and found that these factors alone cannot justify Gazprom's enormous investments in one of the most expensive pipelines ever built. He showed that – calculating the net present value (NPV) – the only scenario South Stream would generate positive returns to Russia is if European demand grew by at least an annual 2.07 per cent (Chyong 2011: 16). Comparing his observation with the projections of the European Commission (see Table 6 in Appendix) suggests that a high demand case is unlikely, therefore the enormous investment will not lead to profitability. Accounting for transit risk in Ukraine, Chyong found that the NPV of South Stream would improve only marginally, but the project could not neutralize the effects of a major disruption in Ukraine and thus could not create a positive NPV for the system as a whole (Ibid: 18). Chyong concluded that 'South Stream's main value for Gazprom is in cementing its monopoly position in the Ukrainian gas market and keeping Ukraine's import price in line with European prices without risking its supplies to Europe' (Ibid: 20). Both price disputes were actively seeking the elimination of price differential between Western European and Ukrainian import prices, which was achieved as the outcome of the 2009 gas dispute (Ibid: 22-23). South Stream would serve as an 'insurance' against further transit disruptions (Ibid.) with undeniable political and strategic motivations of Russia that would conserve the asymmetric relationships developed with CEE countries within strictly bilateral circumstances.

Yet, South Stream offers numerous appealing advantages to transit states, which hardly make the pipeline an instrument of coercive power exertion. Importantly, it provides an alternative route of transit (as discussed above), which would 'lessen dependence on Russian-Ukrainian gas disputes' (Interview with Mr. Erős) for states, like Bulgaria, Serbia or Hungary (Dieckhöner 2012: 174). Whereas economic returns to Gazprom are rather questionable (as described above) due to the high capital intensity of the full project (which also requires Russian domestic infrastructural developments radically increasing aggregate costs), South Stream could create more significant net benefits for Hungary, as its investments would only refer to the section of the pipeline within Hungarian borders. Another major advantage of the pipeline is the high transit fee it would generate for transit states (Interview with Mr. Erős). In comparison to Nabucco 'Classic', South Stream plans had supplies that could fill the pipeline, although whether the full 63 bcm capacity of

South Stream would be utilized should be regarded with scepticism (Cutler 2012). Stable, long-lasting Russian supply is conditional to the construction of a national infrastructure that would channel gas from the Yamal peninsula requiring enormous investments.[65] (See Map 4 in Appendix including expenses.)

The advantages of South Stream convinced the Hungarian party that '*it is typically a project that could not be missed* [...] *had Hungary refused to participate, Russia still would have continued plans towards Italy and Austria* [...] *it would have been a catastrophe for us if Hungary had been excluded.*' (Interview with Mr. Erős).

Claims that identify 'diversification' as an advantageous outcome of the South Stream pipeline are best viewed critically, because although the route of transit would be different, the source of supply would remain Russia. Complete diversification is only proposed by projects within the Southern Corridor of the EU, modifying the source to the Caspian. Conditional to a fully liberalized, well-functioning gas market, where prices are determined by demand and supply on spot markets and disruptions do not occur, the source of commodity would not be of paramount importance. The ultimate objective of the EU is to establish such internal market conditions, decreasing the strength and prevalence of resource-based, political asymmetries, but the heterogeneity of MS interests puts a burden on the speed of the process. In the absence of such ideal market conditions, the source of natural remains a decisive factor.

The most significant weaknesses of South Stream are its capital-intensity and questionable cost-efficiency. Despite construction works have already begun last year and Gazprom seems to be determined to implement the project, as mentioned above, the utilization of the full 63 bcm capacity is rather uncertain (Assenova 2012). Lower traded volumes of natural gas would generate lower tariff fees for transit countries, thus although their energy demands do not necessitate 63 bcm annual capacity, their economic interest is maximum utilization for high transit income.

South Stream is challenged by the EU that has been 'changing its gas regulations completely' (BBC interview with Prof. J. Stern 2013) recently. As discussed earlier, there have been numerous regulations and directives passed in the EU that support the formation of a free internal gas market. Ownership unbundling, the elimination of discrimination, third party access to natural gas and reverse flows on transit infrastructures are few of the most important principles that the legislation addresses and most of which Gazprom and its plans fail to comply with. Europe has also

[65] These developments are included in the Southern Corridor gas pipeline system which is approximated to cost around EUR 50 billion, 40 billion of which would be financed by Gazprom and the remaining by partners (Korchemkin 2013).

been more assertive in investigating Gazprom's activity in MSs and its pricing policy and LTSCs in eight MSs (located in CEE and the Baltics) are under scrutiny by the EU Competition Commission. The EU suspects that 'Gazprom may have been abusing its dominant position', may have applied unfair pricing and/or sanctions in the arrangement of LTSCs and have been limiting third party access, which go directly against EU regulation (BBC interview with A. Comolbani, Prof. A. Riley and Prof. J. Stern 2013).

Nabucco and South Stream have different ownership structures (as explained in the comparative table above) and Hungarian participation is also divergent across the two cases: Hungary's presence in Nabucco is ensured i) by MOL's[66] shares in NIC, the international consortium providing equal influence to all shareholders along the pipeline, and ii) by an IgA signed in 2009 in order to harmonize conditions across partner countries (Nabucco pipeline official website). The South Stream project is noticeably different in its division of influence: Gazprom has formed joint ventures with *state-owned* energy companies from each transit state, their authority limited to the territory defined by national borders. Gazprom's current Hungarian partner is MVM, a fully state-owned company, which, prior to 2011 had no activity on the gas market.[67] The arrangement of South Stream is reflective of the 'traditional' bilateral method in which Russia minimizes the bargaining power of the other party by excluding third participants, thus eliminating the possibility of the accumulation of opposing interests. Both upstream (Caspian) and downstream (CEE) agreements were projections of the asymmetric relationship between the parties, but the unbalance was not used to exert direct pressure, rather to 'define the terms of debate' (Stulberg 2007: 27). The Hungarian case serves as an illustrative example for Russia's impact on foreign policy outcomes by having influenced the terms of discussions regarding the conditions of the relevant section of the pipeline: explained by Mr. János Erős, former CEO of the South Stream contractor Hungarian Development Bank (MFB,) '*it was Russia's request that a 100 per cent state-owned undertaking becomes the Hungarian partner*' (Interview with Mr. Erős). The Hungarian partner in the South Stream Hungary Zrt joint venture (established in 2008) was not MOL, the largest energy company of the country, but MFB.

[66] The original Hungarian shareholder of NIC was MOL, but following effective unbundling and the Hungarian Prime Minister's announcement that MOL is considering leaving the consortium (April 2012), ownership rights were transferred to FGSZ, the Hungarian TSO, a 100 per cent subsidiary of MOL. The transfer was rather a technicality and had no impact on the project as a whole.

[67] The IgA between Hungary and Gazprom about South Stream was signed in February 2008 with the presence of the Hungarian Development Bank (MFB), the original partner of the project. In 2010 South Stream Hungary was established with 50-50 per cent ownership of the two corporate parties, but in October 2011 the Hungarian contractor was modified from MFB to MVM (OAO Gazprom official website).

Proven by this study, there is wide-spread understanding that the development of large transmission pipelines is not purely based on economic considerations, but their cost functions include political and security variables. The political sphere of Hungary, a stakeholder of both projects, addressed Nabucco and South Stream within the framework of plenary sessions indicating the importance of international energy projects at such scale. The qualitative analysis of these plenary sessions will explain the position of both government and opposition on the two pipelines and corresponding questions of Hungarian natural gas policy.

6.2 The position of the Hungarian political elite on the Nabucco and South Stream pipelines

Analysis of plenary sessions, 1998-2013

The initial discussions of Nabucco began in 2002 on a corporate level and NIC was established two years later. The primary Hungarian stakeholder in the project was MOL, in which the government still possessed a 'golden share' at the time (2004) until 2006[68]. Before the 2006 gas price dispute, Nabucco was dominantly a business project (note that the IgA was only signed in 2009) and was only occasionally addressed during plenary sessions – with considerable scepticism regarding its feasibility. In line with intensified international discourse of and support for Nabucco, and following the pattern of 'energy security' terminology frequencies in Hungarian plenary sessions, discussions about Nabucco grew substantially in the Parliament from 2006 (see Appendix, Table 1 for the frequency of 'Nabucco' and 'South Stream' use.).

Apart from the emphasis of their economic importance, large pipeline projects were viewed through the lenses of 'energy security' and 'security of gas supply' by both governing and opposition parties. While in opposition, MPs of Fidesz laid more emphasis on the security dimension of these projects, MSZP (one of the governing parties) MPs stressed more economic perspectives. Similar to the general global pattern, the frequent reference to 'energy security' was not proportional to the clarity of the term, and different parties identified different sources of threats with regards to stable natural gas supply. Representatives of the opposition in 2006-2010 made remarks that were less careful to suggest the perception of Russia itself as a source of

[68] The abolition of 'golden shares' was a requirement of EU legislation – their possession was considered a factor severely hindering the free movement of capital on the market (Conroy 2006).

threat, for example: '*Russia used the energy weapon*' (Balla 2007: 68/130) and '*ever since January 2006, the Russian threat is very much present in energy issues'* (Németh 2007: 59/18-22) – however the MP explained that *Gazprom* was to be understood by 'Russian threat'. During the same period, governing party representatives pointed at dependency on Russian sources, but as claimed by former Minister of Economy and Transport, '[...] we are vulnerable to a *technology* with significant risks. These risks are not primarily or not exclusively political, but are of commercial and technological character' (Kóka 2006: 284/12). In 20008, no longer holding the ministerial position, but representing his governing SZDSZ party, Kóka took a less diplomatic stance and stated that '[…] energy can easily become a weapon if concentrated in one hand. We have seen what happened in the beginning of 2006 in Ukraine, in 2007 in Belarus, and we know what happened in Georgia recently' (Kóka 2008: 157/251). Such a change in opinion confirms the previously made observation that the rhetoric of MPs tends to change depending on the position they hold.

Diversification became instrumental to 'security of supply' with a clear understanding of the distinction between source and route diversification. The importance and priority of source diversification and corresponding Nabucco were voiced by the opposition during cycles 2006-2010, whereas the governing party saw alternative Russian plans[69] as more easily achievable projects of route diversification.

The most noticeable difference between the standpoint of the governing and opposition parties has been the identification of the two projects as being either competing and almost mutually exclusive, or conversely, as potentially capable of co-existing alongside one another. Fidesz MPs (2006-2010) saw the Nabucco pipeline as an instrument in:

- Creating energy security;
- 'Serving the independency of the EU and Hungary' (Németh 2007: 59/18-22);
- 'Increasing the sovereignty of Hungary'(Ibid.);
- 'Minimizing the vulnerability of Hungary and the probability that the country becomes a subject to political bribery' (Ibid.); and in
- Establishing competition on the natural gas market (Horváth 2008: 128/142).

[69] South Stream was not the first recent Russian gas pipeline project that would have involved Hungary: an extension of the Blue Stream pipeline was considered as a serious alternative and was also discussed in the Hungarian Parliament as a 'rival' to Nabucco. The extension project never materialized, but was suddenly changed to South Stream, similarly delivering Russian gas, but on a different route.

Fidesz considered South Stream plans to have been developed to obstruct the construction of Nabucco (Németh 2009: 196/59) and viewed corresponding negotiations critically. In contrast, MPs of the governing MSZP party did not regard the projects (neither in case of Blue Stream nor in case of South Stream) as alternatives and expressed Hungary's need for both pipelines (Dióssy 2008: 128/144; Keller 2008: 130/3; Kránitz 2008: 128/68; Veres 2008: 176/34). While negotiating South Stream plans, the governing parties acknowledged the necessity of speeding up the preparation of Nabucco, which 'could reduce dependency on Russian gas' (Ibid.) and which was lagging behind South Stream since its announcement in 2007.

The intensified international discourse about the two 'rival' projects led to a metaphoric understanding of Nabucco as the embodiment of EU interests and South Stream as Russian interests. The Hungarian opposition in 2006-2010 developed a similar interpretation of the two projects and criticized the government for not acting in compliance with the interests of the EU when negotiating with Moscow - suggesting that participation in South Stream or even the simultaneous support for both projects could put Hungary into a position where it is evaluated unfavorably by the EU (Balla 2007: 83/68) for the lack of strategic transparency and 'swing politics' in energy (Németh 2007: 67-214). However, neither the European Union, nor Russia had expressed disapproval of participation in the South Stream or Nabucco pipelines, respectively. Brussels was consistent in not opposing MSs engagement in different natural gas infrastructure development projects, regardless of whether they were conducted in cooperation with third countries (Dióssy 2008: 128/144). The European standpoint, however, changed with the enforcement of the Third Energy Package in 2009, which modified the enabling legal conditions of gas infrastructure projects.

'The Russian party did not consider Nabucco as a serious rival during negotiations regarding South Stream and seemed to be indifferent with respect to Hungary's participation in both projects' – dominantly because Moscow doubted the feasibility of the EU-backed project in the short-run (Interview with Mr. Erős).

Government party interpellations following the appearance of South Stream suggest that the contrast view of the two megaprojects was (is) seen to be damaging to Hungarian interests – particularly in light of the metaphorical, international meaning these pipelines were given. Fruitful, dominantly economic relations with those countries that facilitated natural gas supplies either via source provision (Russia) or transit (for example, Ukraine) remained of substantial importance (Kozma 2008: 124/48), even after the disruption caused by price disputes. The Hungarian

government maintained a neutral stance and refrained from identifying either parties as the *cause* of conflict. Although the second disruption was undoubtedly more severe in its effect and led to numerous regional diversification plans independent from the supplier, both Russia and Ukraine remained important partners of Hungary – dominantly on economic and commercial grounds, yet – as seen before – not free from political aspects.

The question of the two pipelines was addressed by the government in 2006-2010 as primarily a matter of *national* interest, which, admittedly, 'needs to be in line with European community interests' (Göncz 2007: 57/39). The country's engagement intensified in both projects labelled as national interests, as Hungary (and MFB) signed an agreement with Gazprom at the beginning of 2008, and later that year Nabucco received a priority status with the introduction of a directive establishing the Nabucco Committee (Directive 98/2008. (IX.26.) OGY). The qualitative analysis showed that recognising the division of the European Union in energy questions and understanding that international pipelines crossing CEE would be of particular interest to the region, the rhetoric of the Hungarian political elite shifted towards the promotion of a more *active* participation in Union-level energy policy-making: 'It is our elementary interest not to remain passive observers of EU energy policy, but to take an active role in shaping it and ensure that our national interests are represented' (Dióssy 2008: 124/24). These 'national interests' were addressed by former Prime Minister, Ferenc Gyurcsány (MSZP), ranking them according to a 'strategic and logical order':

1. Increased availability of natural gas;
2. Route diversification; and
3. Source diversification (Gyurcsány 2007: 59/2).[70]

Hungary's EU presidency in 2011 was ambitiously perceived by the political elite as an optimal opportunity to take a proactive stance in shaping community energy policy (Martonyi 2010: 37/83). Despite the reiteration of the importance of Hungary's active participation in shaping EU energy policy, plenary sessions revealed that the political standpoint on the two projects was more prudent in admitting that Hungary is not in a decisive position to affect the development of either pipelines significantly (Dióssy 2008: 128/128).[71] In this respect, the CEE state acts as a '*market-taker*' (Interview with Mr. Erős), short of significant influence: it's withdrawal from South

[70] He also clarified that in case route and source diversification options were available under equal conditions, but were exclusive, source diversification shall be preferred (Ibid.).
[71] Also confirmed by energy policy expert in an interview.

Stream, for instance, would not be detrimental for the project, because it could easily be diverted elsewhere (Eörsi 2009: 233/24).

The Eastern European natural gas transit role that Hungary envisages, necessitates wide-ranging infrastructural developments, including participation in large pipeline projects. In this respect, 'happiness *is* more pipelines' for Hungary, as emphasized on numerous accounts, particularly by the MSZP-SZDSZ coalition government in 2006-2010 (Podolák 2007: 65/237-239; Göndör 2008: 130/2): 'Natural gas supply security is indeed positively influenced by the increasing number of pipelines crossing Hungary' (Józsa 2007: 65/245). Although when the party was in opposition, it criticized this approach, after Fidesz won the elections in 2010, it radically changed its rhetoric and became more supportive of natural gas policy aiming at participation in as many infrastructural developments as possible, yet by then the international environment has changed – partially as a result of the 2009 dispute.

The dispute collided with the economic recession, which, through the collapse of credits, limited the funds available for non-economical international pipeline projects, like Nabucco or South Stream. Furthermore, effective implementation of the Third Energy Package took place in 2009, with a significant impact on the future realization of South Stream: the criteria of ownership unbundling, a fundamental component of EU energy legislation, fails to be met by Gazprom. As explained by energy policy experts, the absence of Gazprom's ability to act in accordance with a building bloc of community regulation minimizes the 'rivalry' between South Stream and Nabucco (Interview with energy policy experts).

The economic recession, the implementation of the Third Energy Package and the gas price dispute shifted the focus of European natural gas policy to the potential role of interconnectors, which facilitate links between national transmission systems of MSs (Article 2(17) of Directive 2009/73/EC). These infrastructures received elevated attention in the Hungarian energy policy arena as well, and numerous development projects were completed by 2011 with the legislative support of the government (Croatia-Hungary interconnector (2011), Romania-Hungary interconnector (2010), Beregdaroc import capacity expansion) (FGSZ official website). The primary advantage of interconnectors is their capacity to neutralize the negative impacts of future disruptions of natural gas supply regionally. As explained earlier, the currently applied Energy Strategy 2030 and its economic impact analysis underscore the benefits of interconnectors, but also indicate that the long-term stability of competition on the natural gas market necessitates the construction of at least one of the large pipelines (REKK 2011: xii). Similarly to the practice of

previous governments, acting Fidesz became supportive of both source and route diversification, and has come to see energy security and natural gas market liberalization ensured by large-scale infrastructural developments, both in forms of smaller interconnectors, storage facilities and large pipeline projects (Fónagy 2012: 218/34). In this respect, Hungarian governments have been following similar principles, whereby the more pipelines cross the country, the more benefits Hungary can derive.

The differences between government and opposition parties observable in plenary sessions are no longer dominated by the *opposing* views on the international political dimension of natural gas transit. This does not foreshadow a decline in the importance of this angle, but suggests that there seems to be a mutual understanding between parties that the *national interest* of Hungary is to participate in infrastructural projects – both those of the EU and Russia. Analyzing plenary sessions and the recent developments of the Nabucco and South Stream projects revealed that Hungary refrains from expressing an exclusive devotion to either projects, which could have been expected based on the position Fidesz had taken as opposition, clearly preferring the EU-backed pipeline. On the contrary, the current government has been actively seeking cooperation with Russia in numerous fields and advocated the construction of South Stream, no longer emphasizing its limited diversification effect.

Recently, the main point of contention between government and opposition in natural gas policy has been formed around the facilitation of a hospitable investment environment for infrastructural developments. The opposition has been criticizing the methods of governmental legislation in energy-related matters and claimed it 'ad hoc' (Jávor 2010: 62/139). It has expressed concerns that such regulatory conditions create transparency and an unpredictable business environment (Göndör 2011: 75/108), where entrepreneurship decreases, resulting in a decline in foreign investments. Also directly affecting the business environment, the acting government has been laying an increasing emphasis on the role of the state in the 'strategic sector' of energy. Fidesz views state-ownership in the sector as 'indispensable' (Bencsik 2010: 62/131) and implicitly referred to the necessity of increasing governmental influence (through ownership) in the natural gas market, both in the National Energy Strategy 2030 and during plenary sessions: referring mainly to energy, 'Hungary will try to keep all systems of strategic importance primarily in state hands' (Ékes 2013: 257/398). The policy has been widely criticized building on the worry that high level of government involvement will hamper the creation of fully liberalized prices (spot market prices). Although currently a domestic policy matter, the future level of state ownership in the

natural gas business will have implications internationally. As explained earlier, the government party is confident that by increasing state participation in the sector it will create more favourable bargaining conditions when renegotiating Russian supplies in 2015.

Nabucco and South Stream have been subjects of heated Parliamentary debate in Hungary particularly after the first gas price dispute in 2006. In the cycle of 2006-2010 the government and opposition parties had conflicting views about the two megaprojects – both relying on Hungary as a transit country – for two main reasons: i) the largest opposition party had interpreted the pipelines as competing and exclusive, while the government believed that the two projects can be coexistent; ii) the pipelines became identified with the European Union and the Russian Federation. Combining the significance of Nabucco for the European Union and its exclusive character, the standpoint of the opposition of the previous cycle had been that the EU-backed pipeline shall receive considerably higher dedication from the Hungarian side, and 'rival' South Stream shall not be supported. In contrast, the government viewed 'happiness as more pipelines' and considered the interpretation of the projects as rivals and exclusive damaging. This view has been adopted by former opposition and current government party Fidesz, which has expressed its support for both Nabucco and South Stream (apart from an incident in 2012 when Prime Minister Viktor Orbán hinted the potential withdrawal of MOL from Nabucco). Both pipelines have been labelled priorities and are supported for their significance for 'national interest'. Admittedly, Hungary is not of decisive importance to the materialisation of Nabucco or South Stream and because of the uncertainties still surrounding the projects, Hungary has been more active in the development of smaller, regional infrastructures that would neutralize negative externalities on existing transit routes.

Chapter 7. Conclusions

Energy is one of the EU policies, where the Union's competencies are limited to making deterministic policy decisions on behalf of its Member States. The energy-related interests of Member States diverge to a large extent depending on their level of self-sufficiency or import-dependency, the location and concentration of external sources, the price structure of the supplied commodity, the MS's relationship with the supplier state and numerous other factors.

Following the description of the economic, political and security aspects of energy, the study investigated the question of how the largest supplier of Europe affects the articulation of community interests in the field of energy. Relying on secondary sources, the research found that Russia has been a divisive factor in the energy policy of the European Union, as it has been an important bilateral commercial partner of several countries for decades – a situation that recent conflicts in the field of energy, particularly that of natural gas, hardly changed (Germany, for example signed its own contract with Russia about the North Stream, ensuring its route diversification bypassing Poland, which left doubts about the case-specific priority of community interests and the application of the EU's 'principle of solidarity'). The European divide was magnified by Russia's relationship with former socialist states: Russia was even more tightly linked to Eastern Europe through its role as the exclusive importer to the region, and the dependency generated by these linkages was interpreted as a threat to 'energy security' in a number of CEE countries. The region's relationship with Russia remains special not only because it had been the single supplier of a key energy resource, but also due to the complex relations that the socialist system had created preventing most CEE countries to exert any influence on the Russian Federation.

Examining the case of Hungary as one CEE country, the research demonstrated that its relationship with the key supplier, until today, is characteristically asymmetric and better described as interconnected, rather than interdependent. Due to Hungary's uneven economic 'openness' and 'vulnerability' to Russia, it would not benefit from weakening ties in the long run – in part because the European market has not yet been able to offer a substitute product for natural gas imported from Russia.

Despite the European division in energy matters, EU accession had a significant impact on the Hungarian natural gas market, analyzed in two of its aspects in the research. Privatisation and liberalisation in the field of energy that preceded EU accession were necessary conditions of the EU membership. These structural developments had been successful in attracting foreign investments to Hungary, and the analysis found that the country's natural gas market became one of the most privatized ones with the dominance of Western corporate ownership. (However he scale of private ownership and the decisive influence of external investors in the domestic natural gas market has lately been viewed sceptically by the current government.)

In addition to the structural changes, the EU has been directly affecting the Hungarian energy policy by the binding force of its regulations and directives. The study found a sound scale of implementation of these legislations in Hungary. However, until 2009, these regulations hardly limited MS competencies, and allowed quite some room for shaping bilateral commercial relations with third countries regarding natural gas trade. The Third Energy Package that entered into force in 2009 made considerable steps towards the transformation of natural gas market legislation. The community-level support for regional gas infrastructures has provided legal and financial incentives for Hungary to 'upload' the construction of interconnectors to a supranational level. The principles of the Package were implemented in Hungary, but considerable uncertainty remains regarding the effect the requirement of ownership unbundling will have on Gazprom and how that will impact the development of South Stream.

Despite the progress made in EU energy legislation, it did not completely change, either before or after the enforcement of the Third Energy Package, the impact of the strong economic ties developed in Hungary's previous era, which did not dissolve with the collapse of the Soviet Union. This legacy is conserved is natural gas supplies, in the pipelines and in long-term supply contracts. The study analyzed these and reflected on the aftermath of the 2006 and 2009 gas price disputes in Hungary. Although both disputes caused temporary disruptions in natural gas flows, the analysis found that the Hungarian government did not consider either Ukraine, or Russia as threats to 'energy security'. Categorizing Russia itself as a risk factor would have been highly inappropriate, since although the negative effects of the disputes were noticeable in Hungary, the short-term supply cuts were not coercive steps targeting Hungary, but were the spin-off effects of the Russian-Ukrainian conflict. In this system of asymmetric relations, the perception of Russia as a threat would have not brought along any commercial or political benefits, and, considering

Hungary's energy vulnerability and import-dependency, could have resulted in severe damages in the absence of alternative substitute products of natural gas on the European market.

In awareness of the country's position, neither the previous, nor the current government (who, while in opposition, called upon the government on numerous occasions to prioritize EU projects) intended to weaken the country's relationship with Russia – illustrated by addressing the supplier as a 'strategic partner' on numerous accounts and by the 'Eastern opening' policy of the current government dedicating a substantial role to Russia in it.

Primarily due to the 2006 and 2009 gas price disputes, the debates concerning 'energy security' have intensified (as observed through quantitative and then qualitative concept analyses), where source- and route diversification have taken paramount roles. The research introduced the characteristics, advantages and disadvantages of the Nabucco project enabling route diversification, and of the South Stream project facilitating route diversification. The widespread perception of the pipelines as rivals and as embodiments of, respectively, EU and Russian interests implied that the importance of community and national interests could be inferred from the analysis of the position of the Hungarian political elite on these projects. Since the Nabucco and South Stream pipelines were featured prominently in Hungarian political debates on energy and natural gas policy, they were taken as representative of Hungary's general position on an EU policy area, where there remains a certain degree of ambiguity regarding the prevalence of multilaterally defined EU interests over bilaterally articulated interests of individual MSs.

The qualitative analysis of Parliamentary plenary sessions found that acting governments did not and do not tend to consider the two 'megaprojects' mutually exclusive and were not inclined to contrast Nabucco and South Stream. There has been a rather even policy observed on the side of governments, in which more dedicated steps towards the development of one of the projects were followed by similarly supportive actions or discourses regarding the other one. Governing party speeches and interpellations at plenary sessions were found to be advocating the policy of 'happiness is more pipelines' and were aiming at establishing a transit role for Hungary in natural gas trade.

The analysis of the Hungarian positions regarding the Nabucco and South Stream pipelines proved that Schmidt-Felzmann's statement is applicable in the case of the Hungarian natural gas policy, since neither the EU accession, nor the 2006 and 2009 gas disputes deteriorated Hungary's long-established bilateral relations with Russia. The analysis of plenary sessions found that Hungary (that is, the Hungarian government) neither identified – in their bilateral relations

otherwise dominant – Russia as a threat to 'energy security', nor perceived their bilateral arrangements or plans as coercive. Instead, as indicated in official energy strategy and foreign policy documents, reaffirmed by the study of Parliamentary debates, the key energy resource supplier is a 'strategic partner' to Hungary therefore the weakening of their relationship would not serve economic or political interests. The observations imply that the community interests defined in the multilateral framework of the European Union do not prevail over Hungary's bilaterally defined national interests with third countries in the field of energy.

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Bencsik 2010: 62/131
Jávor 2010: 62/139
Göndör 2011: 75/108
Fónagy 2012: 218/34
Ékes 2013: 257/398

List of Interviewees

Dr. János Erős
Dr .Anita Orbán
Judit Szilágyi

Informal discussions conducted with:

Dr. Robert M. Cutler
Nat Moser
Borbála Tóth
International energy policy expert – identity withheld under Chatham House Rule

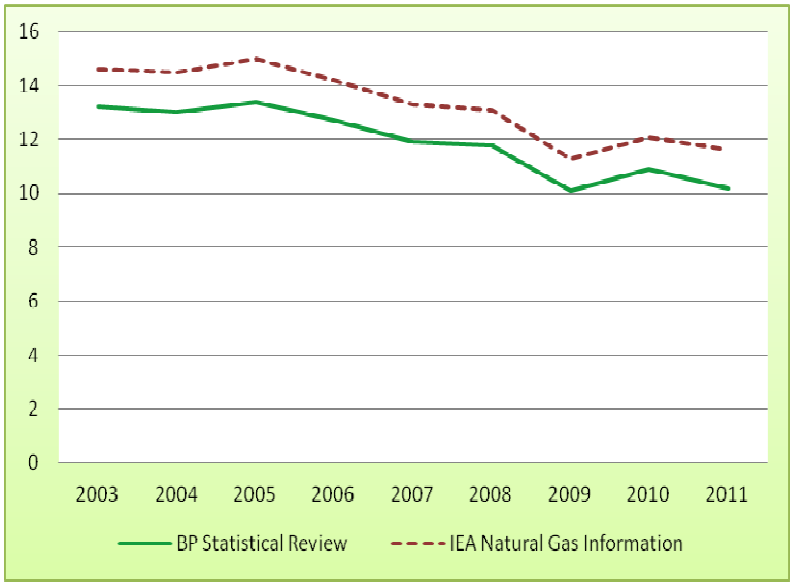
Appendix

Table 1: Keyword search entries and frequency results, 1998-2013

Keyword	Frequency 1998-2002	2002-2006	2006-2010	2010-2013	Total
Energy policy*	65	37	122	79	303
Energy strategy*	2	5	17	73	97
Energy security*	1	3	36	55	95
Security of supply*	17	36	73	105	231
Energy dependency*	4	8	24	33	69
Energy strategy* AND gas*	1	2	7	37	47
Security of supply* AND gas*	10	19	30	60	119
Energy dependency* AND gas*	3	5	11	14	33
Russian * AND dependency* AND energy*	2	1	18	7	28
Russian * AND gas*	40	40	84	64	228
EU* AND gas*	258	480	375	353	1466
Union* AND gas*	173	393	282	244	1092
EU* AND energy* OR Union* AND energy*	321	593	738	672	2324
EU* AND natural gas* OR Union* AND natural gas*	32	122	97	112	363
gas security*	0	0	0	0	0
security of gas supply*	0	2	2	1	5
gas supply* AND security*	5	23	23	21	72
natural gas supply*	5	92	58	71	226
security of supply* AND energy*	15	26	54	86	181
Nabucco*	0	5	88	28	121
South Stream*	0	0	36	28	64
Nabucco* AND South Stream*	0	0	26	12	38
Russia* AND energy*	8	13	44	26	91
gas dispute*	0	0	6	3	9
Russia* AND Ukraine*	12	7	11	10	40
Russia* AND Ukraine* AND energy*	1	2	5	4	12
Russia* AND Ukraine* AND gas*	1	1	3	3	8
Russian* AND Ukrainian* AND gas*	1	0	10	7	18
Russian*	962	841	678	388	2869
gas storage*	6	10	15	36	67
interconnector*	0	0	2	7	9
MVM* AND gas*	20	8	10	28	66
MOL* AND gas*	115	111	56	76	358

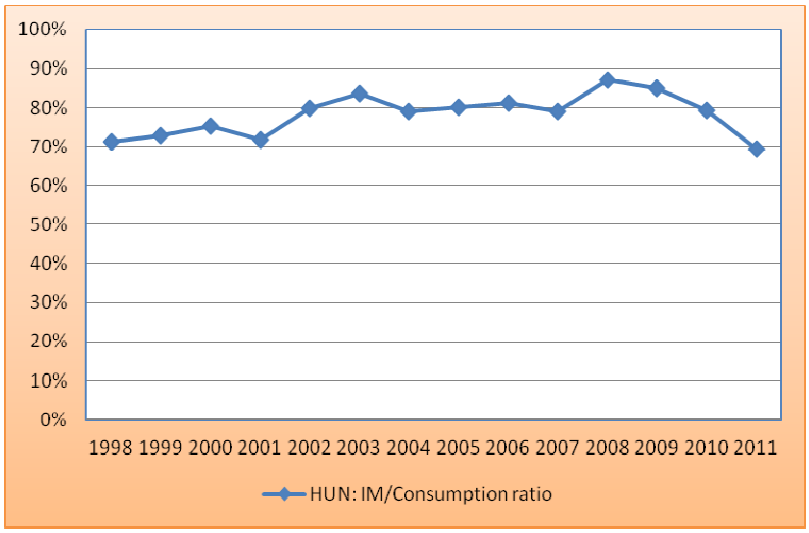
Source: Hungarian Parliamentary plenary session documentation: Országgyűlési Napló (House of the Nation Diary) at www.parlament.hu

Figure 1: Hungarian natural gas consumption 2003-2011: comparison of BP and IEA data



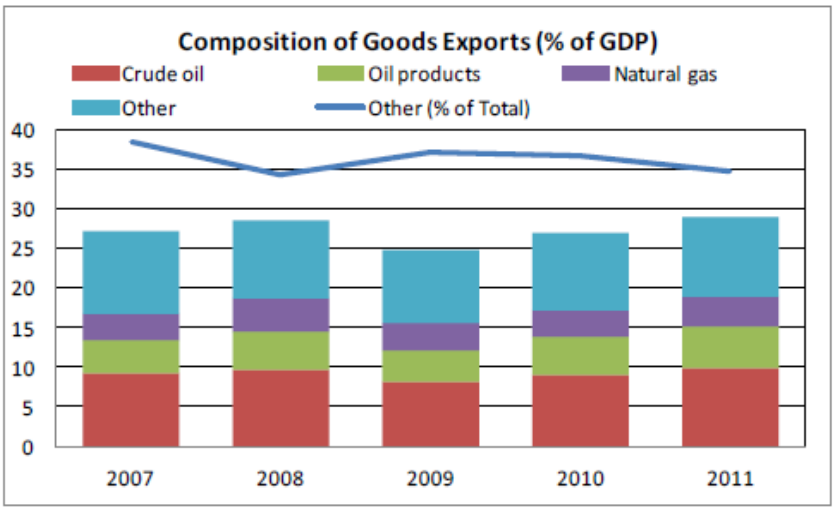
Source: BP (2012) Statistical Review of World Energy, p.23 and IEA (2012) Natural Gas Information p.V.9

Figure 2: Hungarian Natural Gas Import-Consumption Ratio, 1998-2011



Source: IEA (2012) Natural Gas Information pp. V.4-V.9 – calculated by author based on IEA annual import and consumption data on Hungary

Figure 3: Composition of Goods Exports, Russia



Source: World Bank 2012: 11

Table 2: Russian Gas Export 2010 by Offtake Market

Russian Gas Export by Market, 2010	**Total revenues (billion Rouble)**	**Quantity sold (bcm)**	**Average price (Rouble per mcm)**
"Far abroad"	1099.2	148.1	9166
Former Soviet Union	450.1	70.2	7039
Russian market	636.8	277.3	2296.8

Source: table composed based on Sharples 2012: 6

Table 3: Openness and vulnerability figures of the bilateral trade between Hungary and Russia, 2011

HUNGARY (KSH data)										
Trade between Hungary and Russia, million HUF										
GDP	Import (IM)	Export (EX)	Net trade	IM+EX	(IM-EX)/GDP	Openness	Total IM	Total EX	Total (IM+EX)	Vulnerability
27 886 401	1780764	717,429	1063335	2498193	0.03813	3.81%	20363863	22342503	42706366	5.85%
RUSSIA (GKS data)										
Trade between Russia and Hungary, million USD										
GDP	Import (IM)	Export (EX)	Net trade	IM+EX	(IM-EX)/GDP	Openness	Total IM	Total EX	Total (IM+EX)	Vulnerability
1756479	3337	7693	-4356	11030	-0.00248	0.25%	261017	437776	698793	1.58%

Source: Hungarian Central Statistical Office (KSH); Russian Federal State Statistics Service (GKS); author's calculations

Calculation 1: Openness and vulnerability figures of the bilateral trade between Hungary and Russia

Openness is defined in Mansfield et al. 2003 as 'the ratio of trade to total economic output' (Mansfield et al. 2003: 12). Trade is calculated as the difference of imports and exports:

- Hungary: $IM_{RUS} - EX_{RUS}$

- Russia: $IM_{HUN} – EX_{HUN}$.

Openness of Hungary (and Russia) is then expressed as the ratio of the absolute value of net trade to gross domestic product (GDP):

- $|(IM_{RUS} – EX_{RUS})|/GDP_{HUN}*100$ for Hungary, and
- $|(IM_{HUN} – EX_{HUN})|/GDP_{RUS}*100$ for Russia.

Since the fraction of net trade with Russia in Hungarian GDP (3.81%) is considerably higher than Hungarian contribution to Russian economic output (0.25%), the interruption of flows would be more expensive for Hungary.

Vulnerability is defined as 'the portion of trade (imports and/or exports) between a gives pair of states, A and B, represented in the total trade of A and the total trade of B. The more these two figures differ, the greater the asymmetry between A and B.' (Ibid.). Vulnerability figures for Hungary and Russia are calculated respectively as follows:

- $(IM_{RUS} + EX_{RUS})/(\sum IM_{HUN} + \sum EX_{HUN})*100$, where IM_{RUS} stands for from imports from Russia, EX_{RUS} stands for exports to Russia, and $\sum IM_{HUN} + \sum EX_{HUN}$ represents the sum of total imports and total exports of Hungary;
- $(IM_{HUN} – EX_{HUN})/(\sum IM_{RUS} + \sum EX_{RUS})*100$, where IM_{HUN} stands for imports from Hungary, EX_{HUN} stands for exports to Hungary, and $\sum IM_{RUS} + \sum EX_{RUS}$ represents the sum of total imports and total exports of Russia.

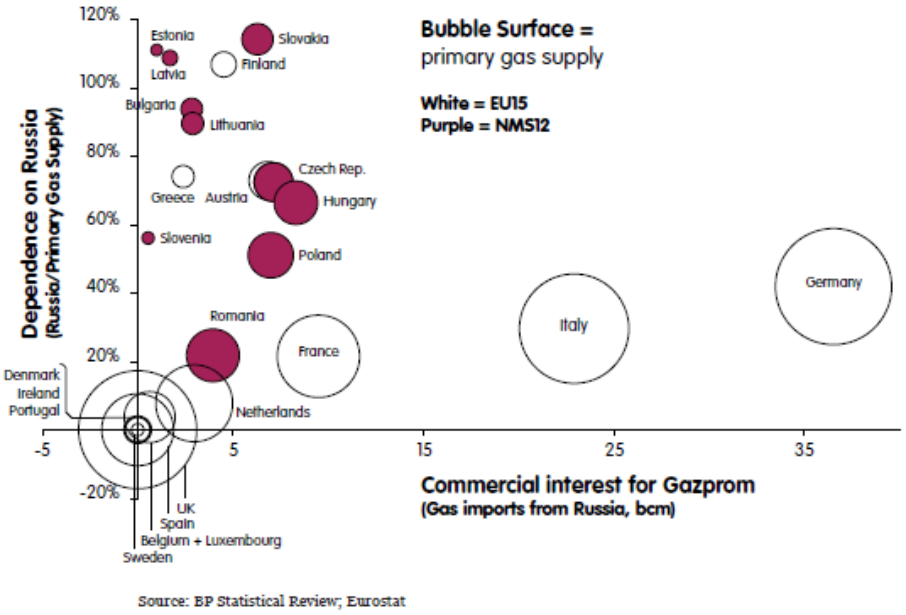
The calculation reveals that in their bilateral trade relationship Hungary's vulnerability is four times that of Russia, resulting in considerable asymmetry.

Table 4: The composition of traded products between Hungary and Russia

Main Groups of Products	Share in Imports (%)		Share in Exports (%)	
	1999	2009	1999	2009
Food, beverages, tobacco	0.2	0	33.4	6.8
Raw materials	6	2.2	8.4	0.4
Energy resources	70.3	93.4	1.4	0.8
Manufactured goods	19.2	2.5	40.4	35.8
Machines and transportation equipment	4.3	2	16.4	56.2

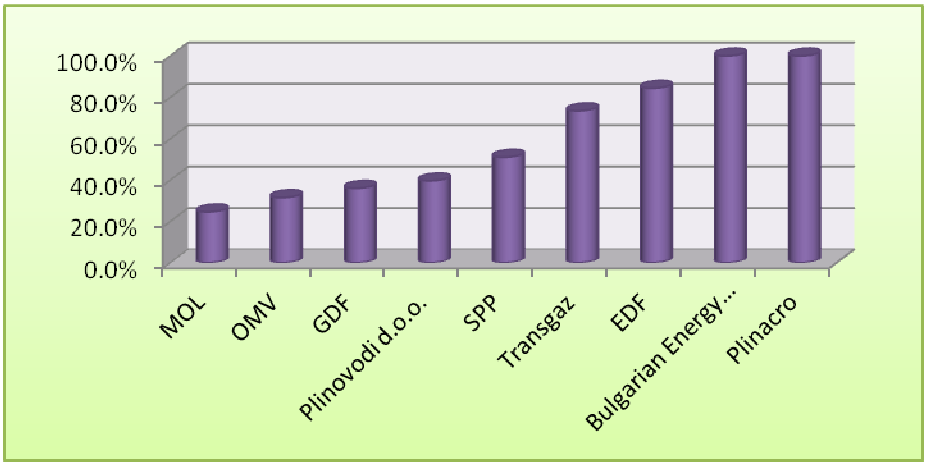
Source: KSH 2010: 2 (translated from original)

Figure 4: Imports of Russian gas, rate of "dependence" on Russia and size of the gas market, 2006



Source: Noël 2008: 11

Figure 5: State ownership in selected large energy companies (%)



Source: Official websites of companies (Note: MOL(HUN), OMV (AUS), GDF (FRA), Plinovodi d.o.o. is 100% owned by Geoplin d.o.o., which is 39.6 per cent owned by the Slovenian state , SPP (SLK), Transgaz (ROM), EDF (UK), Bulgarian Energy Holding EAD (BUL), Plinacro (CRO))
Note:GDF and EDF were selected randomly for comparative purposes

Table 5: Corporate actors of the Hungarian natural gas market (according to function and owner)

Company name	Type of permission						Majority owner
	Distribution	Trade	Supply	Storage	Transmission	TSO	
DBGÁZ Kft.	x						BFHS GmbH
E.ON DDGÁZ Zrt.	x						E.ON Hungária Zrt.
GDF SUEZ Energia Magyarország Zrt.		x	x				GDF Suez
Égáz-Dégáz Földgázelosztó Zrt.	x						GDF Suez
ISD POWER Kft.	x	x	x				N/A
ISD DUNAFERR Zrt.		x					N/A
FÕGÁZ ZRt.		x	x				Budapest municip., RWE Gas International BV
FŐGÁZ Földgázelosztási Kft.	x						Budapest municip., RWE Gas International BV
MAGÁZ Kft.	x						Hungarian private investors
OERG Kft.	x		x				N/A
TIGÁZ-DSO Kft.	x						Eni S.P.A., RWE Gas International BV
TIGÁZ ZRt.		x	x				Eni S.P.A., RWE Gas International BV
E.ON KÖGÁZ Zrt.	x						E.ON Hungária Zrt.
ELMIB Zrt.		x					Hungarian private investors
BC Energiakereskedő Kft.		x					BorsodChem
CENTREX Zrt.		x					Gazprombank (indirectly)
E.ON Földgáz Trade Zrt.		x					E.ON Ruhrgas International AG
E.ON Földgáz Storage Zrt.				x			E.ON Ruhrgas International AG
FGSZ Zrt.					x	x	MOL Nyrt.
Global NRG Zrt.		x					Global NRG Europe Ltd
Shell Hungary Zrt.		x					Royal Dutch Shell
MOL Energiakereskedő Zrt.		x					RP Explorer Liquid Fund, MOL Nyrt.
EconGas Hungária Kft.		x					OMV, EVN, WIEN ENERGIE (indirectly)
E.ON Energiaszolgáltató Kft.		x	x				E.ON Hungária Zrt.

UKRENERGY TRADE Zrt.		x					Korlea Invest Holding Ag
Alpiq Csepeli Erőmű Kft.	x	x	x				Alpiq
JAS Budapest Zrt.		x					Hungarian private investors
OTP Kereskedőház Kft./ RGT Kft.		x					OTP Bank
HUNGARO ENERGY Kft.		x					Hungarian private investors
E-OS Zrt.		x					Közgép Zrt.
EMoGÁ Kft.		x					Hungarian private investors
MMBF Zrt.				x			MOL, MSZKSZ
OPTEN TRADE Kft.		x					Hungarian investors
DunaCent Kft.		x					Hungarian private investors
MVM Partner Zrt.		x					Hungarian state
Hungarian Energy Power Kft.		x					Hungarian private investors
Magyar Telekom Nyrt.		x					Deutsche Telekom AG
HUGE Kft.		x					E.ON S.E.
Central European Gas Trade Kft.		x					Hungarian investors
GDF SUEZ Földgáz-kereskedelmi Hungária Kft.		x					GDF Suez
NZRT TRADE Kft.		x					N/A
Nordest Energy Kft.		x					Hungarian investors
WIEE Hungary Kft.		x					Wintershall Erdgas Handelshaus Zug AG
EDF DÉMÁSZ Zrt.		x					EDF Energy
MGT Zrt.					x		Hungarian state
CYEB Energiakereskedő Kft.		x					N/A
ART Energy Kft.		x					N/A
Kárpát-Gáz Kft.		x					N/A
E-OS GÁZ Kft.		x					Közgép Zrt.
Első Hazai Energia-portfolió Nyrt.		x					Hungarian investors
Mátrai Erőmű Zrt.		x					RWE Power AG, Hungarian state

ALTEO Energiakereskedő Zrt.		x					Hungarian investors
CROSS-INERGY Zrt.		x					Hungarian investors
Total (53)	10	41	7	2	2	1	

Source: Official corporate websites of the listed companies

Map 1: Nabucco 'Classic' planned route

Source: Nabucco pipeline official website (old version)

Map 2: Nabucco West route

Source: Nabucco pipeline official website (updated) at http://www.nabucco-pipeline.com/portal/page/portal/en/pipeline/route

Map 3: South Stream route

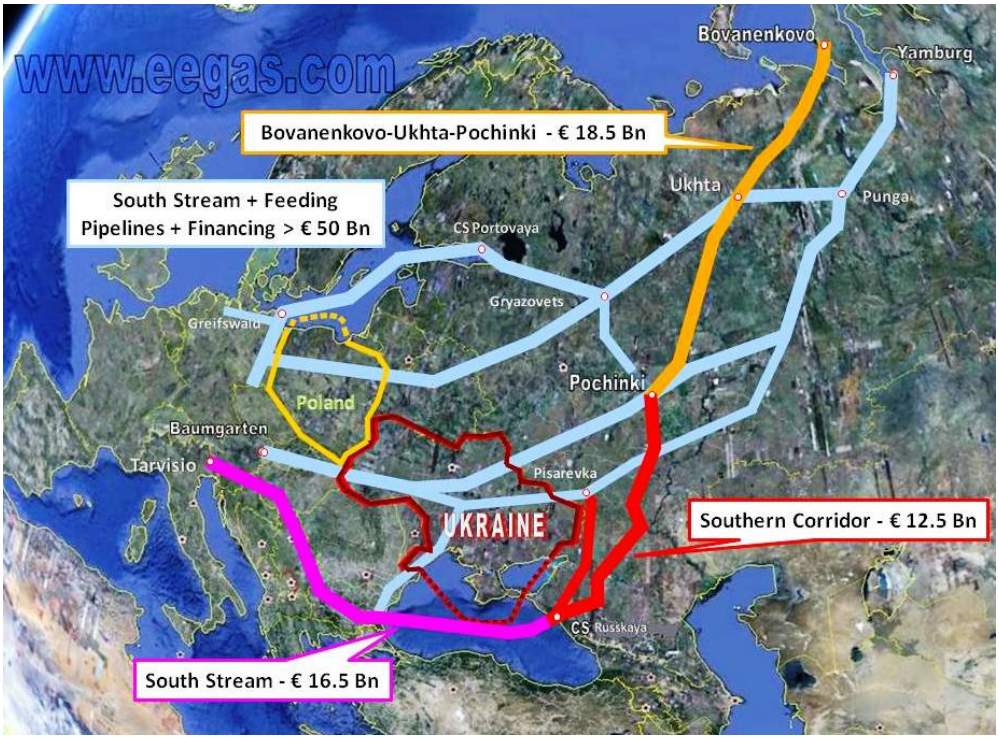
Source: Gazprom official website at http://www.gazprom.com/f/posts/85/290063/southern-corridor-2-en.jpg

Table 6: European energy and natural gas demand by 2030

EU Energy trends by 2030			Annual % change			
			1990-2000	2000-2010	2010-2020	2020-2030
Baseline scenario	Europe	Energy	0.4	0.5	0.5	-0.1
		Gas	1.5	0.7	-0.2	-0.5
	Hungary	Energy	-1.9	1.7	0.8	-0.1
		Gas	0.9	1.8	0.4	-0.3
	Germany	Energy	-0.4	0	-0.1	-0.8
		Gas	2.8	0.8	-0.7	-1.1
	Italy	Energy	1.4	0.7	0.7	0.3
		Gas	2.5	0.8	0.8	0
Reference scenario	Europe	Energy	0.4	0.5	0.4	-0.2
		Gas	1.5	0.7	-0.9	-1
	Hungary	Energy	-1.9	1.7	0.7	-0.3
		Gas	0.9	1.8	-0.9	-1.5
	Germany	Energy	-0.4	0	-0.2	-0.9
		Gas	2.8	0.9	-1.1	-1.9
	Italy	Energy	1.4	0.7	0.7	0.2
		Gas	2.5	0.8	0.2	-0.4

Source: European Commission – Directorate-General for Energy (2010) EU Energy Trends to 2030 pp.65-179

Map 4: Southern Corridor gas pipeline system



Source: Korchemkin 2013