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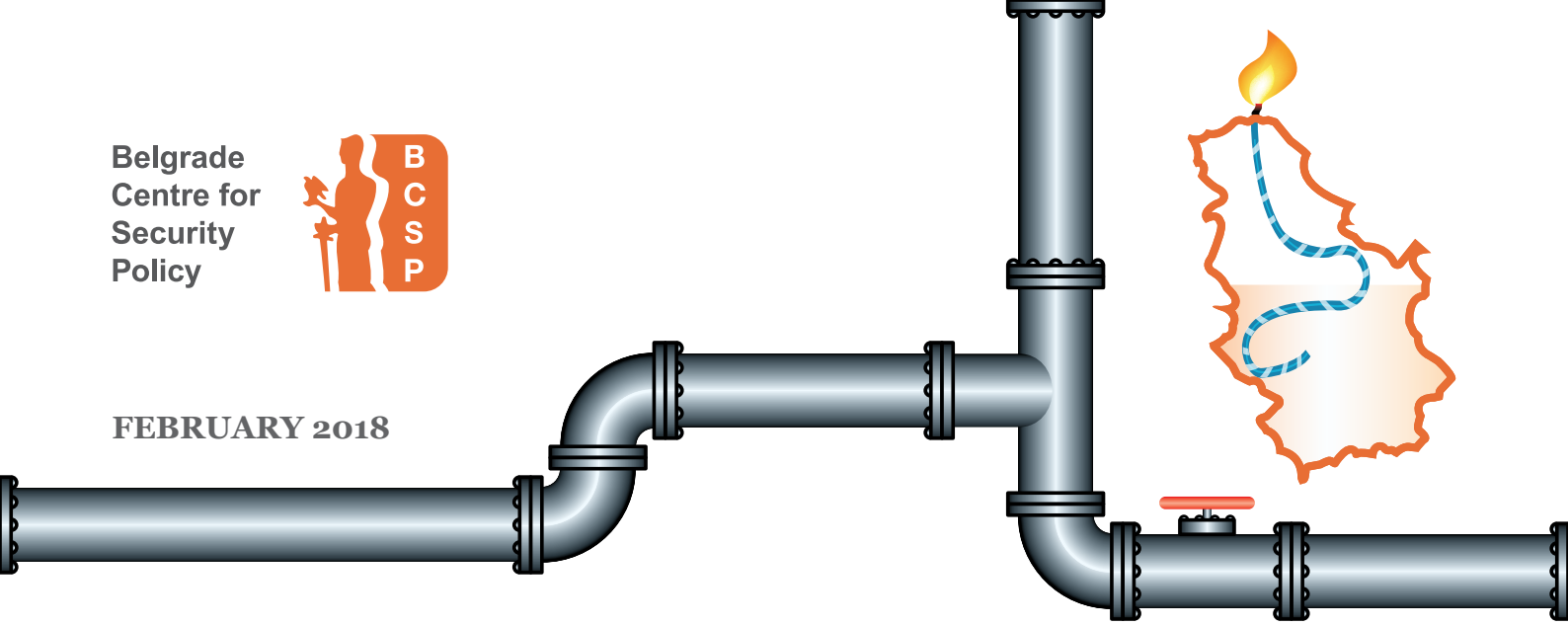

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Serbia –
Between the hammer and the anvil:
an overview of the security of supply in South-Eastern Europe

Summary

With Gazprom pulling out of Ukraine's transit network of natural gas in 2019, South – Eastern Europe, a region with high import dependency on Russian gas, must prepare itself for a post-2019 environment that could challenge the stability of the countries' security of supply. This is particularly the case for Serbia which imports over 80% of its natural gas from Russia. This paper highlights two important factors, that is; regional interconnectivity and diversification of supply, which can mitigate the weakening of Serbia's security of supply. To achieve any positive outcome Serbia has several options available that can influence both factors. I argue that the development of various energy projects in the wider region coupled with support through EU funding and grants are amongst the most ideal options. However, as will explained further on, these options are conditional on external and internal aspects. Likewise, it requires an active role, at least domestically, and interest in the developments, on the part of Serbia.

INTRODUCTION

In the first half of 2015 the CEO of Gazprom, Alexei Miller, announced that Russia will not renew the current transit contract of natural gas with Ukraine after 2019. Such statements were subsequently confirmed by Russian Energy Minister Aleksandr Novak and alarm bells were quick to go off in Brussels. Concerns were voiced at the highest levels of EU bureaucracy. Maros Sefcovic, the Vice President of the European Commission in charge of the Energy Union, stated that this would create an imbalance and have negative consequences for the future of European energy security. Such is the situation for the countries of South-Eastern Europe who rely heavily on Russian supply of natural gas. Serbia, one of the most dependent countries on Russian natural gas, now finds itself at a crossroad and needs to seriously consider how a post-2019 scenario will look like. Thus, this event presents an opportunity to analyse and evaluate the current degree of security of supply in South-Eastern Europe.

This article demonstrates that two factors are undermining Serbia's security of supply and will have potential future repercussions. Firstly, a low level of interconnectivity with its neighbours, a common characteristic amongst the countries in the region. Secondly, dependency on a single supplier and lack of alternative sources for the supply of natural gas. There are several reasons as to why a high level of regional interconnectivity and multiple suppliers strengthens security of supply. Diversification of supply, grants the importer the choice in terms of price advantage and avoids dependency on a single source. A high degree of regional interconnectivity allows the respective country to alternate between sources relatively quickly in times of disruption or cut-offs. Finally, this paper presents funding and loans from EU institutions and three energy projects to be considered as opportunities for Serbia to solve the two above mentioned factors that influence its security of supply.

The article is divided into several sections. The first part will provide a brief overview of the regional gas markets in South – Eastern Europe, focusing mainly on the degree of import dependency on gas and the level of interconnectivity with and within the region. The second part is divided into two sections. Firstly I will analyse the composition of the Serbian gas market and sector. The section afterwards focuses on Serbia's membership in the Energy Community; particularly looking at Serbia's commitment to the obligations of all contracting parties and the implementation of the reforms and laws that are in line with the Energy Community's legislation, but also what the main obstacles have been so far. The final part presents three energy projects, in various degrees of development, in Serbia's neighbourhood that could serve as potential alternative channels for diversification in the future.

CONTEXT

The composition of the energy markets of South – Eastern Europe are characterised by an outdated and inefficient infrastructure, a high – level of independence on dirty fuels such as coal and oil, and a lack of solid environmental policies to deal with pollution. The region is relatively energy intensive while domestic consumption per capita is much lower than the European average (Kovacevic, A. 2017, 3). The fact that the region is very poor in terms of energy resources means that the markets are heavily dependent on the import of hydrocarbons (coal, oil, gas etc) from outside.

However, it is important to note that within the region there are significant variations of import dependence per country. Croatia and Romania have a much lower level of dependence on imports than their regional counterparts. Romania is a deviant example in this case, as it is the most energy independent country in the wider Central and Eastern Europe region and is also the main producer of natural gas in South – Eastern Europe, accounting for 80% of regional production (Kovacevic, A. 2017, 8). To put this into figures, about a third of its domestic primary energy mix is natural gas (Pachiu, L. et al. 1 May 2016). On the other end of the spectrum for countries such as Albania and Montenegro natural gas constitutes less than 1% of Total Primary Energy Supply (Kovacevic, A. 2017, 8).

Serbia is somewhere in the middle of this table. Natural gas constitutes only around 11% of the primary energy mix, according to government statistics from 2015 (Републички завод за статистику: Енергетика: *Укупан енергетски биланс*, 2015). Low level of domestic production estimated at about half a billion cubic metres per year covers only about 19 – 20% while the rest is met by imports. Serbia's sole supplier of natural gas is Russia's Gazprom, which also controls all domestic production. It is important to note that Gazprom is not only the main player in Serbia but also in the region. In both Macedonia and Bosnia & Herzegovina Russian gas constitutes 100% of total imports for consumption, while Bulgaria and Greece are not far behind with an estimation ranging between 70-90% (Mihajlovic-Milanovic, Z,Z. n/a, 6; Grigas; A. 11 Jan 2017).

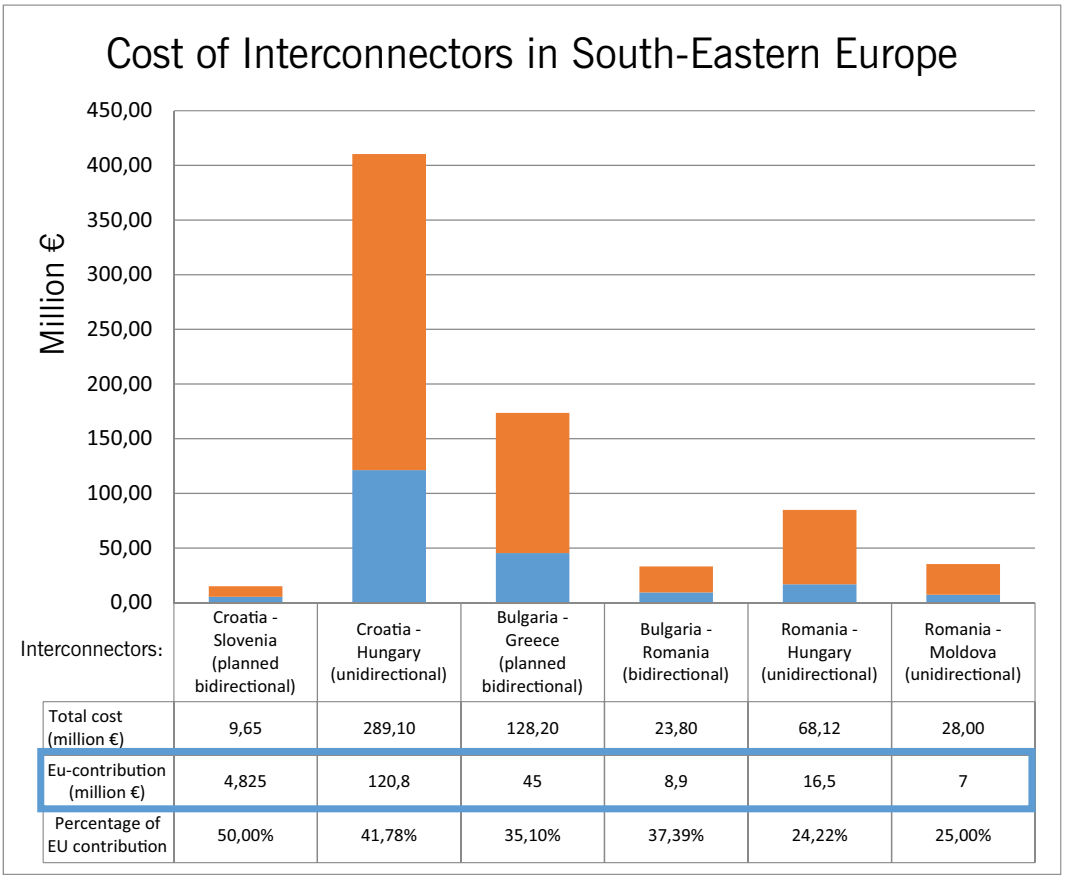
An import aspect of security of supply that needs to be underlined is interconnectivity, which in South – Eastern Europe is very uneven compared to the rest of Europe and mainly unidirectional in flow.

There are six main pipelines that supply the region with imported natural gas from abroad:

- One from Slovenia to Croatia
- One from Croatia to Hungary
- One from Hungary to Serbia
- One from Hungary to Romania
- Two from Ukraine to Romania
- One from Romania to Moldova

Within the region itself, there are only two smaller pipelines, one from Serbia to Bosnia and one from Bulgaria to Macedonia. Both have low capacity levels, at 750 million cm/year and 800 million cm/year respectively. Out of all these only the Slovenia – Croatia is bidirectional, enabling the flow of gas in both directions. In sum, the asymmetrical state of connectivity and flow within and to the region highlights a weak security of supply.

Despite this unevenness, the experience of cut-offs of Russian gas in the early 2000s has resulted in a steady surge in the development of new interconnectors. More importantly, these plans have not only emphasised the need to increase capacity but also the importance of bidirectional flow. In fact, every country in the region is either drafting plans or in bilateral talks with its neighbours to construct interconnectors. An important point to highlight regarding the interconnectors in the region is that a big proportion of the total construction cost comes in the form of grants from EU institutions (*see chart*). The importance of cost and funding of such projects will be elaborate further in the article.



Interconnectors:	Croatia - Slovenia (planned bidirectional)	Croatia - Hungary (unidirectional)	Bulgaria - Greece (planned bidirectional)	Bulgaria - Romania (bidirectional)	Romania - Hungary (unidirectional)	Romania - Moldova (unidirectional)
Total cost (million €)	9,65	289,10	128,20	23,80	68,12	28,00
Eu-contribution (million €)	4,825	120,8	45	8,9	16,5	7
Percentage of EU contribution	50,00%	41,78%	35,10%	37,39%	24,22%	25,00%

* *Those pipelines not included in the chart are negated due to not being financed by EU institutions, with the exception of the Serbia – Bulgaria interconnector which is, but has been reserved for in-depth analysis in the next section.*

POTENTIAL FUTURE GAS PROJECTS THAT COULD INCREASE SERBIA'S SECURITY OF SUPPLY

This section is divided into two parts. Firstly, I will provide a brief overview of the composition of both the Serbian gas market and gas sector. In the second part the will outline the progress Serbia has made as a participant of the Energy Community, how this has influenced the Serbian gas market and what the main obstacles have been and are.

The second part I will highlight the potential future development of 3 gas projects that could benefit Serbia's future in terms of security of supply. The aim of this part is to underline the potentiality and likeliness of success of these projects, looking at both achievements so far as well as obstacles that need to be overcome. This is why it is important to understand that that each project is conditional on several factors related to each respective case. While the relatively unpredictable nature of global crude oil, and intrinsically natural gas, means that any outcome is possible, what is important, though, for Serbia is to be prepared and take advantage of a likely positive outcome. In other words, should one or several projects be achieved Serbia needs to take the right steps in advance by developing a solid infrastructure for interconnectivity with its neighbours. Only then can Serbia hope to take part in any of the below mentioned projects and in return strengthen its security of supply for the future.

CURRENT STATE OF SERBIA'S GAS MARKET

The main problem with the countries in South – Eastern Europe is exactly this lack of liberalisation, characterised as relatively isolated domestic markets. This is also the case for Serbia. The domestic natural gas market in Serbia is dominated by two big players, NIS (Naftna Industrija Srbije) and Srbijagas, and several smaller ones. NIS is the only company that deals with both production and exploration of domestic natural gas, with the majority of reserves located in the northern region of Vojvodina. Previously completely state-owned, Gazprom bought a 51% share of the company in 2008 and increasing its share to 56.15% in 2012. The national pipeline system is owned and managed by state-owned Srbijagas, with the exception of a section between Pojate and Niš which is owned by Yugorosgaz, a joint stock company, majority owned by Gazprom. Moreover, Srbijagas acts as the transmission system operator (TSO) and supplier of natural gas in Serbia. The storage of gas is carried out by Banatski Dvor, also majority owned by Gazprom, and operates an underground facility with a capacity of 450 million cm. Consumption of natural gas is characterised by seasonal fluctuations with winter months seeing a three times higher consumption compared to the summer months. Srbijagas also dominates the retail gas supply market accounting for an estimated 67% of total natural gas sales, according to estimates from 2014 (Ekapija, 29 Sep 2016). As can be seen, the natural gas market in Serbia is quite centralised around the dominant players.

The Energy Community is an international organisation composed of several parties which are the EU, represented by the European Commission, along with 9 other countries bordering the former, one of them being Serbia. Its main objective is to extend the EU internal energy market to South – Eastern Europe and the Black Sea Region. By this it aims to meet certain goals. The most relevant goals, for this article, are to create an integrated market that would facilitate cross-border energy trade which in turn would enhance energy security but also boost competition at the regional level. This is important for several reasons. Firstly, through regional cooperation and coordination, as well as ensuring solidarity in times of emergency, future gas supply crisis can be prevented (European Commission, 18 Feb 2016). This is achievable through higher interconnectivity amongst all members, through energy projects such as interconnectors. Secondly, an integral regional energy market with a healthy level of competition among suppliers (achieved through liberalisation and demonopolization) would make prices converge across all participant states (Albers, M. 26 Oct 2001, 1). An example of such a convergence has been noted in the Czech Republic and Slovakia where prices have moved towards German/European gas price hubs. Gas prices in Eastern Europe are usually set by each individual country's relative dependence on Russian gas, determined by existing infrastructure and state of political relations between the respective country and Russia (Harrison, C. & Princova, Z. 29 Oct 2015). Newer infrastructure and the opening up of local energy markets, with competition amongst suppliers, will make gas be driven more and more by commercial considerations (Harrison, C. & Princova, Z. 29 Oct 2015). This pattern is set to continue as more local companies will pull out of long – term supply contracts at least for part of their imports (Harrison, C. & Princova, Z. 29 Oct 2015).

As a participant member in the Energy Community, Serbia is obliged to implement both the Second and Third Energy package (legislative packages for gas and electricity) and harmonise its energy policies with the EC's. However, by record, the progress of implementation by the Serbian state has been sluggish.

The Third Energy package, particularly, included ownership unbundling, which envisages the ''separation of ownership over activities which deal with the production, transporting and supply of gas or electricity, and the enabling of access to the electrical grid and gas transport lines for third parties'' (Euractiv.rs, 27 Jan 2015). For Serbia this means to unbundle Srbijagas, being both the domestic supplier and the transmission system operator. The government of Serbia outlined a plan to transform the state-owned company into a holding company with a separate TSO, Transportgas Srbija, and a separate DSO (distribution system operator), Distribucijagas Srbija, by June 2015 (Euractiv.rs, 27 Jan 2015). However, the process of unbundling has been frequently criticised for having partially been achieved; in law but not in functionality (Euractiv.rs, 27 Jan 2015). In other words, despite having restructured the company, Srbijagas still acts as the main TSO and DSO in practise (Lakovic, M. & Petrovic, A. 1 Apr 2017). Likewise, the smaller Yugorosgaz established a subsidiary for pipeline transport in 2013 but did not meet the Directive's requirements (InSerbia.info, 26 Feb 2014). This is not unique to Serbia, as its neighbours have likewise been accused of delaying liberalisation of their gas markets, as was pointed out in the chapter above on Romania.

Another issue the Energy Community has raised with Serbia is regarding the 2011 natural gas agreement with Russia. The deal, put into effect via a contract between Gazprom and Yugorosgaz, regards the delivery 5 bcm of gas per year at a discounted rate for Serbia for a period of 10 years. It is important to mention here that even with discounted natural gas Serbia "is in the upper end of the spectrum in terms of price paid to Russia" (Glenn, K. Jul 1 2014). As a result of the above mentioned contract, Serbia was faced with allegation of non – compliance with Energy Community law (Ralev, R. 16 Jan 2017). The agreement states that the amount of gas supplied is intended solely for the Serbian market, which constitutes a destination clause (Ralev, R. 16 Jan 2017). As a result, Janez Kopac, head of the Energy Community, warned Serbia that it could lose its voting right and, more importantly, the EU may suspend funds for future energy projects (Reuters, 16 Jan 2017). Moreover, former Head of EU Delegation to Serbia Michael Davenport highlighted that the harmonisation of the country's energy sector is critical to any progress in its EU accession talks (Europa.rs, 30 Jan 2014).

This should be worrying for the Serbian government, particularly considering the development of the Serbia – Bulgaria Interconnector, which would enable the flow of 1.8 bcm/year in both directions, with a potential future expansion of 4.5bcm/year. The project is expected to be complete by 2020 and would greatly improve Serbia's security of supply. With an estimated total cost of €127.3 million construction of the Serbian part of the pipeline would be around €80 million (Ekapija, 20 Jan 2017). Moreover, the government in Serbia are intent on securing a €50 million grant from the EU for the construction of the Serbian part (SEE Energy News, 22 Mar 2017). Even in a positive scenario where Serbia would secure this grant, the slow progress and disinterest in reform in the natural gas market could threaten other future energy projects should the EU pull the financial plug. While Serbia does have a higher level of security of supply than its ex-Yugoslav non-EU neighbours it also consumes much more than all of them together and as was mentioned above EU funding is essential to establishing greater degree of interconnectivity amongst the countries in the region.

ROMANIAN NATURAL GAS

Romania can be considered a potential option for Serbia in terms of diversification and to ensure a stronger security of supply. Romania's is both the fifth largest producer of natural gas and has the fifth largest proved reserves in Europe (Radut, C. 24 Feb 2015). However, what is more important is the fact that until recently Romania managed to decrease its import dependency to almost insignificant amounts, opening up the possibility for export of its natural gas. Secondly, there has been a growing interest of offshore natural gas exploration in Romania's section of the Black Sea which would complement the above. Nevertheless, actually production in the Black Sea has yet to start and success is very much dependent on coherent policymaking at the national level for the energy sector. Additionally, important to bear in mind, the slump in price of global oil will be an important factor that will influence any decision. The following section will provide a brief elaboration of the above.

As mentioned above Romania has the fifth-largest proved natural gas reserve in Europe estimated at 150 billion cubic metres (Radut, C. 24 Feb 2015). Domestic natural gas production in Romania,

according to figures from 2015, stands at around 11 bcm annually (Pachiu, L. et al. 1 May 2016; Radut, C. 24 Feb 2015). On the other hand, domestic consumption is about 14 bcm per year (Radut, C. 24 Feb 2015). The remaining 3 bcm are covered by imports supplied by Gazprom, the sole external gas supplier of Romania (Romania – Insider, 9 Nov 2016).

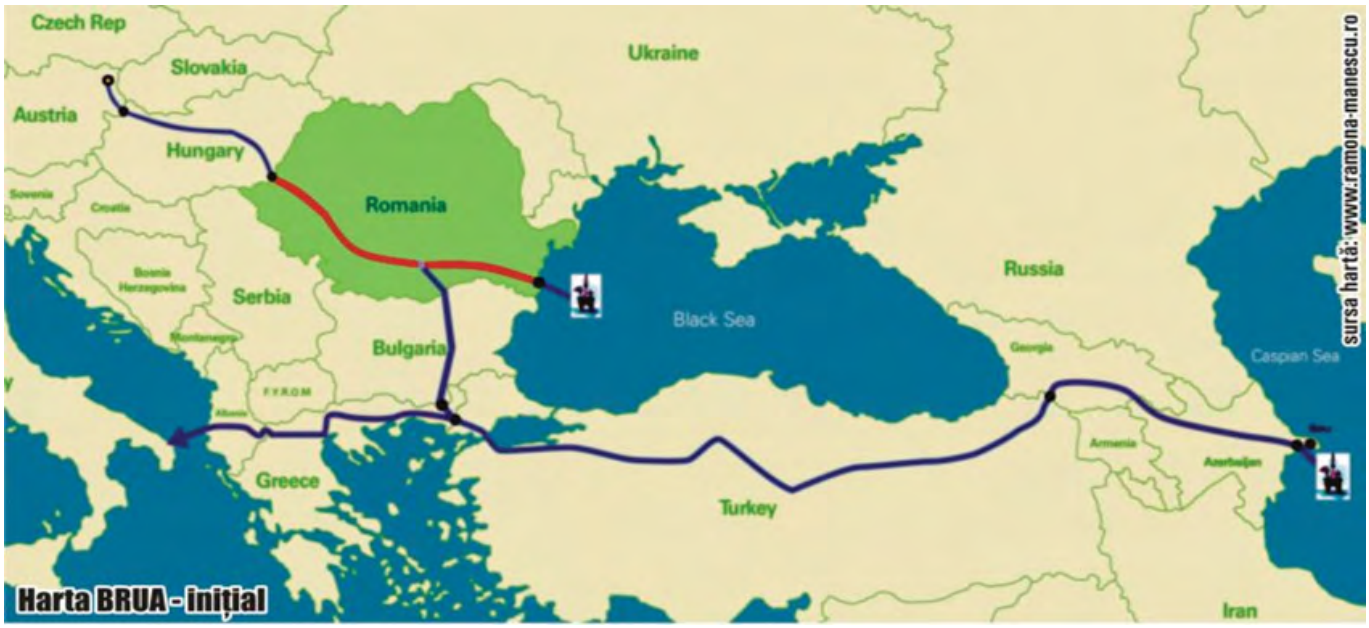
The main problem facing the Romanian domestic gas market lies with production. Domestic production comes from around 400 conventional onshore reservoirs, which are small in size (averaging below 4 million cubic metres per year) and have a high depletion rate (Gitenstein, M, H. 6 Jan 2015). In the short to medium term new technologies would yield a higher recovery rate of the existing fields while in the medium to long term deep exploration in offshore areas in the Black Sea would reverse the current trend (Nineoclock, 28 Feb 2016). To attract investment, particularly foreign technological innovation, requires an attractive fiscal framework.

In part attributed to the low price of global crude oil but also due to unfavourable fiscal policies and legislation imposed by the state on the energy sector (SEE Energy News, 8 March 2017). Below I will highlight a few examples along with arguments.

Firstly, the overall tax breakdown for natural gas companies includes a 16% corporate income tax and royalties are set between 3.5% and a max of 13%, depending on the size of the field. To this the government has additionally imposed an 80% (initially 60%) supplementary windfall tax on gas producing companies which applies to their extraordinary revenues resultant from gradual price deregulation (Pachiu, L. & Mustaciosu, R. 4/1/2017; Digi24, 22 Jun 2017). According to a study by Deloitte the average effective rate of royalties and taxes on revenues is much higher in Romania than the European average and it has been noted that the average taxation has been increasing in the last few years while in the rest of Europe it has been decreasing (Deloitte, Apr 2017).Moreover, the Romanian Petroleum Exploration and Production Companies Association (ROPEPCA) states that the supplementary taxation discriminates against domestic gas businesses and creates a poor business environment to attract investment in the domestic natural gas market (ROPEPCA, n/a).

Moreover, unfavourable legislation has also affected the competitiveness of domestically produced gas and in turn affected import dependency. The energy legislation stipulates that domestic gas companies are obliged to peg their gas prices at RON 72/MWh (EUR 16) for household clients (Marinas, R, S. 31 May 2016). When in November 2016 the price of imported gas dropped to RON 68-70/MWh (EUR 15 – 15.5) domestic gas became uncompetitive on the market (Energy World, 20 Dec 2016). This resulted in a jump from 2.4% to 9% of gas imports in 2016 (Romania – Insider, 9 Nov 2016). In contrast, in 2008 Romania imported 25% and prior to 2016 imports had reached a low of 2.4% in 2015 (EnergyWorld, 11 Sep 2015; Romania – Insider, 9 Nov 2016). While this was in part due to the slump in price of global crude oil it nevertheless highlights the degree of incoherency within the energy legislation and the consequences that can result thereof. Finally, there is some evidence that points to internal lobbying against de-monopolisation of the natural gas market. In 2016 the European Commission launched an infringement procedure against the Romanian Government regarding the attempt to control and delay exports of domestically produced gas while also conducting unannounced inspections at the three main Romanian natural gas companies (SEE Energy News, 22 Jul 2016).

Experts state, however, that while oil output is in terminal decline, natural gas production still has much potential, particularly offshore in Romania's section of the Black Sea (Murphy, J. 7 Apr 2016). Recent exploration by the two supermajors Chevron and ExxonMobil in Romania's offshore section of the Black Sea has reinvigorated some interest in the potentiality of the Black Sea gas fields and has produced some results. A joint venture between OMV Petrom and ExxonMobil discovered a substantial reserve of offshore natural gas estimated between 42 – 84 bcm of gas. Moreover, by 2020 ExxonMobil and OMV Petrom are expected to commence extraction (Agerpres, 5 Mar 2017). While it is assumed, according to official reports, that the gas will be sourced through the Bulgaria – Romania – Hungary – Austria (BRUA) gas pipeline, currently under construction, it also raises the prospect of additional gas that can be exported elsewhere (Bendre, G. 6 Mar 2017).



In conclusion, Romania has the potential to become a net exporter of gas. This is contingent on two endogenous factors. Firstly, that the state pursues a simplified tax regime and a coherent legislation for the energy sector. This will unburden domestic companies and create competition within the market. Secondly, that it should attract foreign oil and gas companies to the Black Sea region by promoting an investment friendly fiscal framework. However, even though a start of production date could be assumed in the short term, achieving a steady and sufficient flow of natural gas can only be considered achievable in the long term. In addition to this, as stated above, initial production is assumed to be contracted for the BRUA pipeline. Yet, the actual capacity of production is not yet measurable, meaning there is a potential of excess supply. Thus, in the context of Serbian security of supply, any potential implication would be in the long rather than short term. However, Serbia has the advantage of being a neighbour and has a relatively low yearly consumption rate. In addition, despite the timeframe, there has been some positive response regarding an interconnector with Romania, from the Ministry of Mining and Energy (Srnovršnik-Volarič, T. 12 Sep 2017).

THE TRANS ANATOLIAN NATURAL GAS PIPELINE, TRANS ADRIATIC PIPELINE AND AZERI NATURAL GAS

The top priority on the EU's energy security agenda has always been the diversification of natural gas, not being reliant on a sole supplier, in its case Russia. Different energy projects have been proposed, shelled and left hanging in the air through the years but with a notable exception: The Southern Gas Corridor. This project envisions bringing natural gas from the Caspian region and is made up of two pipeline systems: the Trans – Anatolian and the Trans – Adriatic pipelines. The whole system would bring natural gas from Azerbaijan, through Georgia, Turkey, Greece, Albania and finally over the sea to Italy. Both pipelines are under construction, with the former expected to be completed by 2018 and the latter by 2020. The overall capacity is estimated at 16 bcm per year, with expected future capacity of 23 bcm by 2023 and 31 bcm by 2026. 6 out of the total 16 bcm has been contracted for Turkey, while the other 10 bcm will continue on to Europe, where Italy will receive the majority of 8 bcm and Greece and Albania each have signed up for 1 bcm. There has also been discussions about adding two extra compressor stations for the TAP pipeline which would increase output to 20 bcm per year. The initial contracted gas will be supplied entirely from the Shah Deniz – 2 field in Azerbaijan once its production starts in 2018.

This grandiose project has attracted the attention of many countries in South – Eastern Europe due to its sheer size and capacity. Technically, with the completion of the Greece – Bulgaria and Bulgaria – Serbia interconnectors an additional extension of the pipeline could be added to transport gas to Central Europe through Serbia. However, as will be presented below, this is conditional on several factors.

It is important to raise two factors here that will influence the efficiency and the ideality of this huge energy project. Firstly, it is important to focus on the subject of Russia's Turkish Stream project and secondly whether Azeri production will be sustainable in the medium to long term.

Turkish Stream is a planned pipeline project across the Black Sea from Russia to Turkey. This project will replace the former Russia sponsored South Stream, which intended to supply gas to Bulgaria through a pipeline, however, Bulgaria withdrew its support following pressure from Brussels. In October 2016 the project was signed into agreement and is currently under construction (Russia Today, 8 May 2017). The expected date for completion is 2019 and will consist of two pipelines, each carrying a capacity of 15.75 bcm annually. While the first pipeline will exclusively be used for the Turkish market, the second one will pump the diverted gas from Ukraine to the EU. This puts into doubt the main aim of the Southern Gas Corridor which is to diversify away from Russian natural gas. Moreover, Gazprom has stated its intention to use the TAP pipeline to transport gas to Italy (Gotev, G. 13 Mar 2017).

The former South Stream failed to materialise due to the fact that it breached EU laws, particularly the Third Energy Package, which states that a single company cannot both own the pipeline and be the sole supplier (Gotev, G. 10 Dec 2014). Turkish Stream, on the other hand, can terminate at the Greek or Bulgarian border without breaching EU legislation, since Turkey is not an EU member (observer status in the Energy Community) unlike the majority of the countries in the EU's neighbourhood. Ironically, EU legislation hindered the South Stream project but in this scenario it could actually benefit Russia. According to EU regulation 50% of TAP's total capacity for the Expansion capacity (second stage) is open for Third Party Access (Gurbanov, I. Apr 2015, 2). Secondly, the EU legislation states that TAP is obliged to construct additional entry/exit points upon request by third parties to allow competition by non – Shah Deniz gas (Gurbanov, I. Apr 2015, 2). However, it is important to note that this initial capacity of 10 bcm of Azeri gas for Europe has been contracted for the next 25 years (Socor, V. 25 Sep 2013). Thus, even though Russia could occupy a certain amount of the capacity of TAP, potentially offsetting Azeri natural gas, in the near future it is unlikely Russian gas will be transported in the pipeline. The only other factor that could alter the current scenario is if Azerbaijan cannot meet its contracted volume of production for export and according to a research paper published by the Oxford Institute for Energy Studies there is evidence that raises some doubt on the prospect of future Azeri production.

The research paper argues that estimates of Azeri gas production in the near to medium future have been over optimistic (see Pirani, S. Jul 2016). Firstly, the total demand from the domestic market and, externally, from Azerbaijan's main buyers, i.e. Turkey and Georgia, has increased rapidly in the last few years, from 14.8 bcm to 19.3 bcm in 2015, and is set to continue growing in a steady pace (Pirani, S. Jul 2016, 2-3). Coupled with this, the expected natural decline of Azerbaijan's existing natural gas fields will decrease overall output, while bringing new fields online is advancing at a too slow pace to offset the overall decline of production (Pirani, S. Jul 2016). The reason for this slow development of fields is due to the fall of the price of global crude oil which severely affected Azerbaijan's economy and forced SOCAR and foreign producers to scale back on their investment plans (Pirani, S. 2016, 2, 7). Pirani, S. concludes that "only if Azerbaijan regains momentum in field development… will it have any significant volume of gas to export" (2016, 12). A final point the author makes is that in a worst case scenario Azerbaijan might need to make up domestic shortages with Russian imports (Pirani, S. 2016, 12). Such signs have been observed as was the case in May 2016 SOCAR submitted a proposal to Gazprom to purchase between 3 to 5 bcm per year, but eventually backtracked in September (Babayeva, F. 12 May 2016; APA, 5 September 2016).

However, the extension of the contract of the century, concerning the country's biggest oilfield, between BP and Azerbaijan up to 2050, which was signed in September 2017, represents a silver lining for the country (Bagirova, A. & Bousso, R. Sep 14 2017). BP's Chief Executive Officer Bob Dudley stated that the new deal remains profitable for its partners at current oil prices of $55 a barrel (Bagirova, A. & Bousso, R. Sep 14 2017). Even though the terms of the deal have yet be disclosed it will award Azerbaijan a one-off bonus of $3.6 billion but most importantly secure a large investment sum, potentially up to $40 billion in the next 32 years, and an expected increase in production (Bagirova, A. & Bousso, R. Sep 14 2017).

In summary, there are three potential outcomes. In a best case scenario, Azerbaijan will achieve a sufficient increase in production from the existing fields in the short term to reach the designated export targets and dates, while in the long term, investment in new fields will render them operational, strengthening the prospect for expansion of the pipeline capacity. In the worst case scenario, the increase in production will not be enough to meet the designated dates and export targets both in the short term and long term. Or, another, equally negative, scenario would be that in the short term levels of production are sufficient but, due to a lack of sufficient investment, new fields cannot become operational, delaying the possibility of capacity extension. Both latter scenarios leaves open the possibility for Russia to step in. As it stands, all three outcomes are equally possible.

For Serbia what should be highlighted relates to TAP's capacity. Currently, the initial capacity of 16 bcm has already been contracted for. However, any expansion would entail new bidders for contracts, leaving open the possibility for countries such as Serbia to join. The Bulgaria – Serbia interconnector is thus an important component to achieve this and as such must not be stalled. The last section of this article analyses in more detail the prospect of importing LNG, focusing mainly on price comparison.

LNG IN SOUTH – EASTERN EUROPE

An interesting development in the region of South – Eastern Europe in regards to energy security has been talks of constructing a floating LNG terminal on the Croatian island of Krk. The expected capacity of the terminal is estimated at 2 bcm per year and the timeline of the construction is scheduled to begin by 2019 (Garaca, M. 17 Feb 2017). The total cost of the LNG terminal is estimated at EUR 363 million (SEE Energy News, 8 May 2017). The government of Croatia received a 102 million euros grant through the Connecting Europe Facility, an investment instrument by the European Commission, and will cover 50% of the pre-construction study and 27.94% of the actual construction (Garaca, M. 17 Feb 2017). The aim of the project is to both supply domestic and neighbouring markets. Domestic consumption of natural gas in Croatia stands at around 3 bcm annually, according to 2015 figures, of which 65% is covered from its own offshore fields, i.e. 2 bcm (Reuters, 23 Mar 2016). Even though 1 bcm per year might not seem like a lot, the option of expansion still lies on the table. Croatia had originally planned to build a land – based terminal with a capacity three times higher than the current, but because the procedures to the gas transportation are only minor, due to the smaller capacity, it opted for a cheaper version (SEE Energy News, 8 May 2017). Thus, a further expansion to 6 bcm is possible depending on future gas demand.

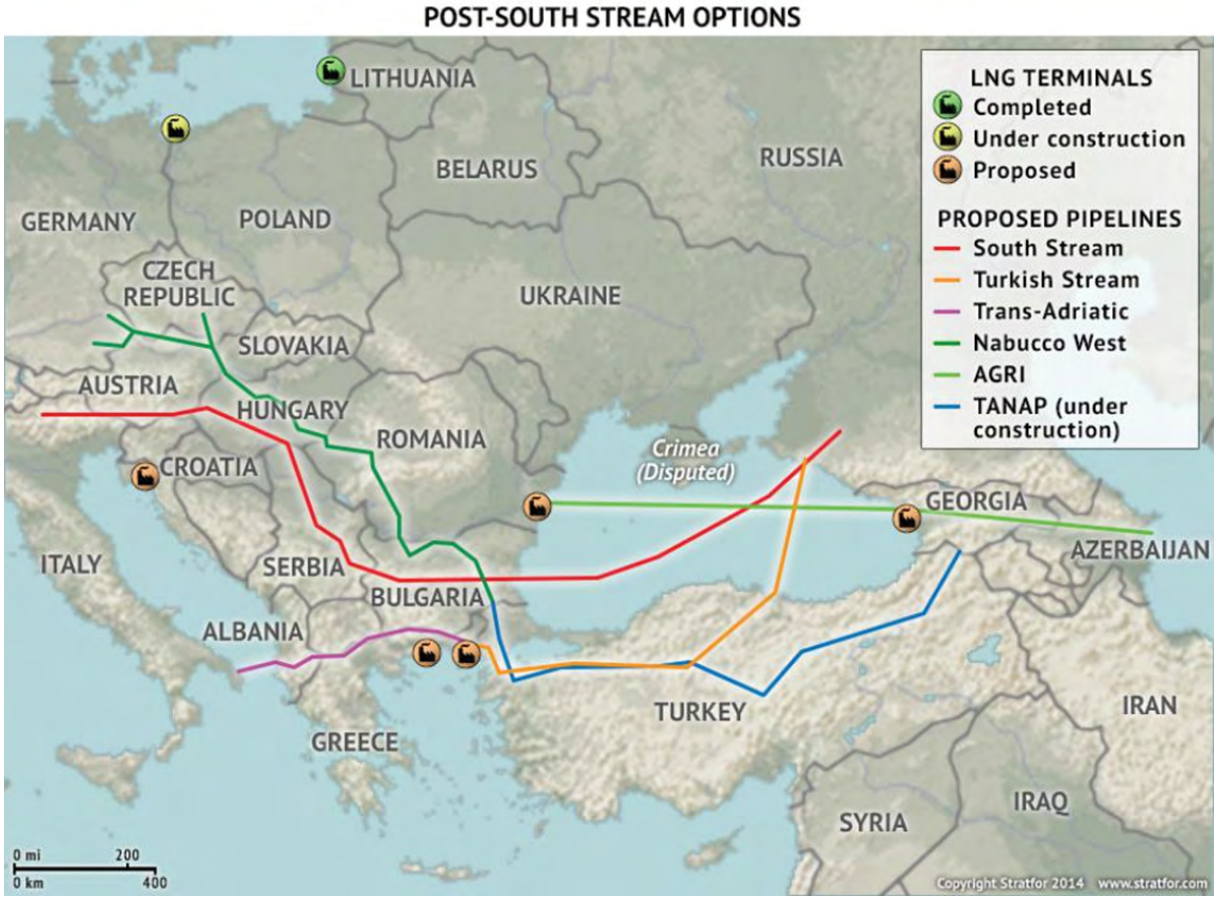
At the same time, Croatia has been quick in expanding its interconnectivity with its neighbours to prepare for eventual future natural gas transactions. In June, Croatia and Hungary signed a memorandum of understanding (MoU) on the construction of a bi – directional gas interconnector in three phases (Sadecki, A. 28 Jun 2017). The final phase will be launched once gas has been secured from either the Krk LNG terminal or the development of the Ionian Adriatic Pipeline or both (IAP) (Garaca, M. 21 Jun 2017). The Ionian Adriatic Pipeline would be connected to the TAP pipeline in Albania and flow through Montenegro, Bosnia and Herzegovina and finally into the Croatian transmission system. While construction of the IAP pipeline is still in an infant stage, the signing of an MoU between all the countries involved is a step in the right direction (TAP – AG, 29 Aug 2016). Croatian natural gas transmission system operator Plinacro signed a MoU with Bosnian BH – Gas to build a 160 km long gas pipeline, funded by the European Bank for Reconstruction and Development (EBRD) (SEE Energy News, 18 May 2017).

However, the most relevant project to Croatia's pursuit of LNG development remains the Croatia – Hungary Interconnector. This is because the interconnector will become an integral part of the envisioned North – South Gas Corridor, aiming to connect the existing LNG terminal in Świnoujście, Poland, with the one in Krk (Sadecki, A. 28 Jun 2017). This opens up the future possibility of a Serbia – Croatia Interconnector to supply LNG to Serbia and eastward.

A final point to mention is that critics would argue that LNG is too expensive for the countries in South – Eastern Europe. Yet recent publications have shown otherwise about the foreseeable future. Not only does LNG reduce dependence on a single gas supplier but importing countries can take advantage of the current global gas glut that has resulted in cheap LNG (Bochkarev, D. 2 Dec 2016). Between 2005 and 2015 global natural gas production rose by 27%, mainly as a result of the American shale gas revolution, and has resulted in the largest natural gas surplus in a

decade, estimated at 70bcm in 2015 (Grigas, A. 11 Jan 2017). Secondly, as the bulk of European gas supplies from the main producing countries (UK, the Netherlands and Norway) are in rapid depletion, Europe needs additional imported gas to meet domestic demand that is estimated to reach between 394 bcm and 527 bcm by 2035 (Bochkarev, D. 2 Dec 2016). However, Russia will still remain in the future a dominant player in the European gas market. Currently, Gazprom supplies a third of Europe's gas, up from a quarter in the past two decades, and is set to continue (Zhdannikov, D. 25 Apr 2017). The main advantage for Europe due to this, however, along with the rising competition from LNG and the drop in oil prices, is in negotiations. Recent talks between Brussels and Gazprom have seen the latter concede on long term contract renegotiations, export and monopoly pricing, which could potentially lead to a linking of prices to the European gas market hub standard (De Carbonnel, A. 13 Mar 2017; Dzhambazova, B. 19 Apr 2017).

While at present the price of Russian natural gas is more financially viable than the current price of LNG, there is no reason not to believe that a persistent global gas glut and developments within the gas trade would in the long term make LNG competitive to piped gas. At the very least, the oversupply of gas will further drag down prices meaning that Serbia could negotiate better terms of pricing once the current gas trade agreement with Russia expires in 2021. As mentioned above, Serbia's discounted price is still situated in the higher price spectrum compared to other European countries (see Glenn, K. Jul 1 2014). A final point, which would be advantageous in a future LNG scenario, is the development of LNG facilities in the countries in its near vicinity (Greece or Croatia) which would reduce the cost of transit.



CONCLUSION

This article has provided an overview of the fragile state of the security of supply in the Balkans but also outlined potential energy projects under development in Serbia's neighbourhood that may in the future reshape the current status quo of the region. The TAP project, offshore natural gas in the Romanian Black Sea, LNG from Croatia or Greece must be envisioned with results in the long term rather than in the short term. Both internal and external factors are promoters as well as obstacles to the realisation of each project, and as it stands, it is only possible to predict the outcomes. However, this should not translate to passivity on the part of Serbia. Rather, as advocated in this paper, Serbia should strive to prepare itself for a positive outcome, which necessities the development of interconnectivity with its neighbours. A high degree of regional interconnectivity facilitates the access of new sources of supply in the event of the realisation of one or more projects. It strengthens the security of supply by enabling the rapid delivery of natural gas by shifting between sources during times of gas transit crisis, rather than relying on a single supplier. A higher level of interconnectivity in the region coupled with the liberalisation of domestic natural gas markets will allow consumers a greater degree of freedom in switching between suppliers according to price. Moreover, in the case of availability of cheaper natural gas in the future it could create an incentive for these countries of South – Eastern Europe to increase the composition of natural gas in their primary energy mix by moving away from coal and dirtier fuels.

As this article has proved, the development of interconnectors to establish regional interconnectivity, particularly in the case of East European states, are vastly supported through funds and loans granted by EU institutions. These grants and loans, however, are conditional on member states adhering to policies of the Energy Community and converging the national energy laws in each respective country to the laws stipulated in the Energy Community's legislation. This is where the main obstacles arise, that is; the reluctance by both private and state actors (in most cases colluding together) to deregulate domestic energy markets and promote competitive market policies, as it would threaten their monopolies and/or their, often suspiciously acquired, personal assets. Such tendencies are not unique to Serbia but a common feature all over the countries of South – Eastern Europe, with the only difference being the degree of rent-seeking and monopolism. This reluctance among the elites to change will consequently harm any progress in strengthening the security of supply for the countries in the region. Thus, the decision rests in the hands of the government to not only draft coherent policies for the gas sector to address the issue of future security of supply, but, equally important, to enforce them within the framework of a strong rule of law which can combat any type of elite capture of the energy sector.

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