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Research Report

Nord Stream 2: A political and economic contextualisation

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and Security Affairs

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Nord Stream 2 – A Political and Economic Contextualisation

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Nord Stream 2 – A Political and Economic Contextualisation

The plans to add another pair of pipes to the Nord Stream facility under the Baltic Sea have created waves within the European Union. While the Russian energy giant Gazprom and the project's European supporters argue that Nord Stream 2 and its new direct connections between Russian gas fields and the EU energy markets will improve Europe's energy security, the Commission and certain member states are sceptical. Their worries include further expansion of Gazprom's dominant position in the EU markets and a weakening of the current transit countries, which could potentially completely lose their function of conveying Russian gas to central and western Europe. Above all in the eastern parts of the EU, there are also concerns that the project could negatively impact the region's own security of supply and have political repercussions in the form of a revitalisation of German-Russian cooperation, with European and foreign policy reverberations well beyond the energy sector.

One major point to be emphasised is that setting the planning and construction process in motion on the basis of a commercial venture entails a clear and given application and permission procedure based on law and regulation. Nevertheless, the pipeline is a politically highly charged issue. Notwithstanding, the subsequent legal processes should not be intermingled with the political dimension.

The intense debates over the pipeline project unfold in a multi-dimensional context. For the EU, the Nord Stream 2 discussion raises the question whether – assuming the pipeline is built – it will be able to pass a three-fold consistency and coherence test: firstly in connection with the rules for the internal energy market, which should be neither watered down nor bent for political reasons; secondly in terms of its foreign policy and security objectives, concretely towards Ukraine, which should not be undermined by energy policy decisions; and thirdly, in relation to its internal cohesion, which Nord Stream 2 could erode: politically if the rifts between member states over policy on Russia and energy widen, and economically because the pipeline project could lead member states to concentrate more strongly on national energy policy and above all energy security policy, thus exacerbating market fragmentation.

On the one hand, Nord Stream 2 could serve to restore space and prospects for shared interests after the dramatic worsening of EU-Russia relations caused by the crisis over Ukraine in 2014. On the other, one cannot ignore the geopolitical dimensions of the project, which is designed to obviate the need for transit through Ukraine. Moreover, the idea of building another pipeline through the Baltic is a political live wire. Opponents argue that the project makes a mockery of the Energy Union and contradicts all its objectives. So the pipeline plan involves significant political costs whether it fails or succeeds. Nord Stream is a commercial venture, but its impacts transcend its commercial and energy implications. Without a question, the project represents a challenge for energy diplomacy both internal and external.

While the German government rightly emphasises the project's commercial character, it has also backed it for reasons of gas supply security. Germany is the landfall state in terms of existing law and regulation. From a German perspective it is particularly important to argue the benefits for the European gas market as a whole and to dispel myths. Concerns that a bilateral monopoly could emerge are unfounded, as the German gas market is fully liberalised with open competition. Germany must foster confidence (among its neighbours) in its competition authorities and scrupulously monitor shifts in markets and market power. At the same time, the potential costs for European and bilateral relations must be closely observed and where possible reduced. To that end Germany could conduct a structured multilateral energy dialogue with its central eastern European neighbours, with the aim of reconciling the different interests in the process of developing the Energy Union. The symbolic nature of the project should not be stacked any higher, but its political implications reflected and accommodated in the Energy Union framework, in order to avoid rifts with EU partners.

Additionally, the aforementioned potentially divisive effects of the Nord Stream 2 project should be reduced and inconsistencies avoided:

- ▶ The onshore connecting pipelines for Nord Stream are subject to regulation under EU law. But the offshore sections are currently a grey area, to the extent that Germany, the EU and Russia disagree over which “regime” to apply. That also opens up opportunities for a broader settlement of contentious bilateral issues. The “Gazprom-sceptical” EU member states will certainly subject any compromise granting concessions to Gazprom to close
- ▶ scrutiny, even if it were framed as a “Nord Stream 2 exit deal”. They would also revise their to date largely positive perception of the role of the European Commission.
- ▶ If Nord Stream 2 does not come into operation as planned, the problem of east-west transit and the question of the security and reliability of the Ukrainian transport corridor remains pressing. The resuscitation of TurkStream also has implications for transit volumes. A reconciliation of interests between the EU and Russia should be trilateral, including Ukraine, and be negotiated with the participation of the affected member states. A compromise should be sought that permits Russia and north-western Europe to expand their direct gas links through the Baltic, but at the same time preserves transit of a defined gas volume through Ukraine as a flexibility option. Only on the basis of such a minimum consensus can an attractive business model for the Ukrainian transit corridor be found. In any case the EU and its member states should continue their efforts to encourage stabilisation in Ukraine's energy policy and supply (above and beyond the gas sector) in the scope of the Energy Community.
- ▶ The argument that Nord Stream 2 will divide the markets is misleading, as the EU gas markets are already divided due to an uneven implementation of the third internal market package. The energy supply situation and market conditions in central eastern and south-eastern Europe need rapid market reforms and improvement. Alongside full implementation of the third internal market package, this would include calculating the consequences of possible changes in Russian gas routing for states in this region and supporting the affected countries in making the necessary adjustments to their transport infrastructure.
- ▶ None of the sides should have any interest in delaying the approval and construction process, as that would only prolong the uncertainty. Russia is keeping its options open with TurkStream (and South Stream). These imponderables create particular difficulties for network planning in central and south-eastern Europe countries, whose energy systems are extremely vulnerable.

Nord Stream 2 – A Commercial Project with Political Dimensions

The construction costs for adding two additional lines to the Nord Stream pipeline system – increasing total annual capacity by 55 billion cubic metres – are estimated at €8 to 10 billion. Realising the pipeline is the explicit object of a project company set up in September 2015 in St Petersburg. Originally Gazprom, which is majority owned by the Russian state, was to hold 50 percent of the shares of Nord Stream 2 AG, European partners the other 50 percent. The European supporters are Uniper (formerly E.On, Germany), BASF/Wintershall (Germany), OMV (Austria), Shell (Anglo-Dutch) and Engie (France). The Belgian transmission operator Fluxys is also open to becoming a Nord Stream 2 shareholder.¹

The Nord Stream 2 pipeline will start in the Narva Bay in Russia (see map, p. 8).² Its landfall lies south of Nord Stream 1's, which was sited to connect the (as yet still undeveloped) Shtokman gas field in the Barents Sea. According to the project company, the two new lines will connect the Russian Bovanenkovo gas field on the Yamal Peninsula – which is already on stream with an annual production capacity of 115 billion cubic metres – to the European gas market. But offshore, from the outer limit of Russia's exclusive economic zone, the new pipeline is to follow the same course as Nord Stream 1, which came on stream in 2011 and 2012. The Nord Stream 1 pipes are laid in parallel, roughly 150 metres apart for reasons of safety. They pass through the exclusive economic zones of Finland, Sweden and Denmark (and the coastal waters of the Danish island of Bornholm) as well as Germany's exclusive economic zone and coastal waters, before ending at Lubmin close to Greifswald. The Nord Stream 2 project is proceeding with pipes and concrete weight coating ordered, logistics and pipelaying contracts awarded.

To comprehend the European dimensions of the project, one must trace the long routes followed by Russian gas into the EU. It is no accident that OMV, Shell and Engie have joined Uniper and Wintershall in backing the project. Currently, gas from Nord Stream 1 arrives in Greifswald and is transported west through the NEL pipeline (Nordeuropäische Erdgasleitung) and south to the Czech border via the OPAL pipeline (Ostsee-Pipeline-Anbindungsleitung). In order to cope with the entire volume supplied by Nord Stream 1 and 2 and transport the gas to neighbouring countries to the west, south and east, the existing connecting pipelines will have to be used to the full, and new capacity created.

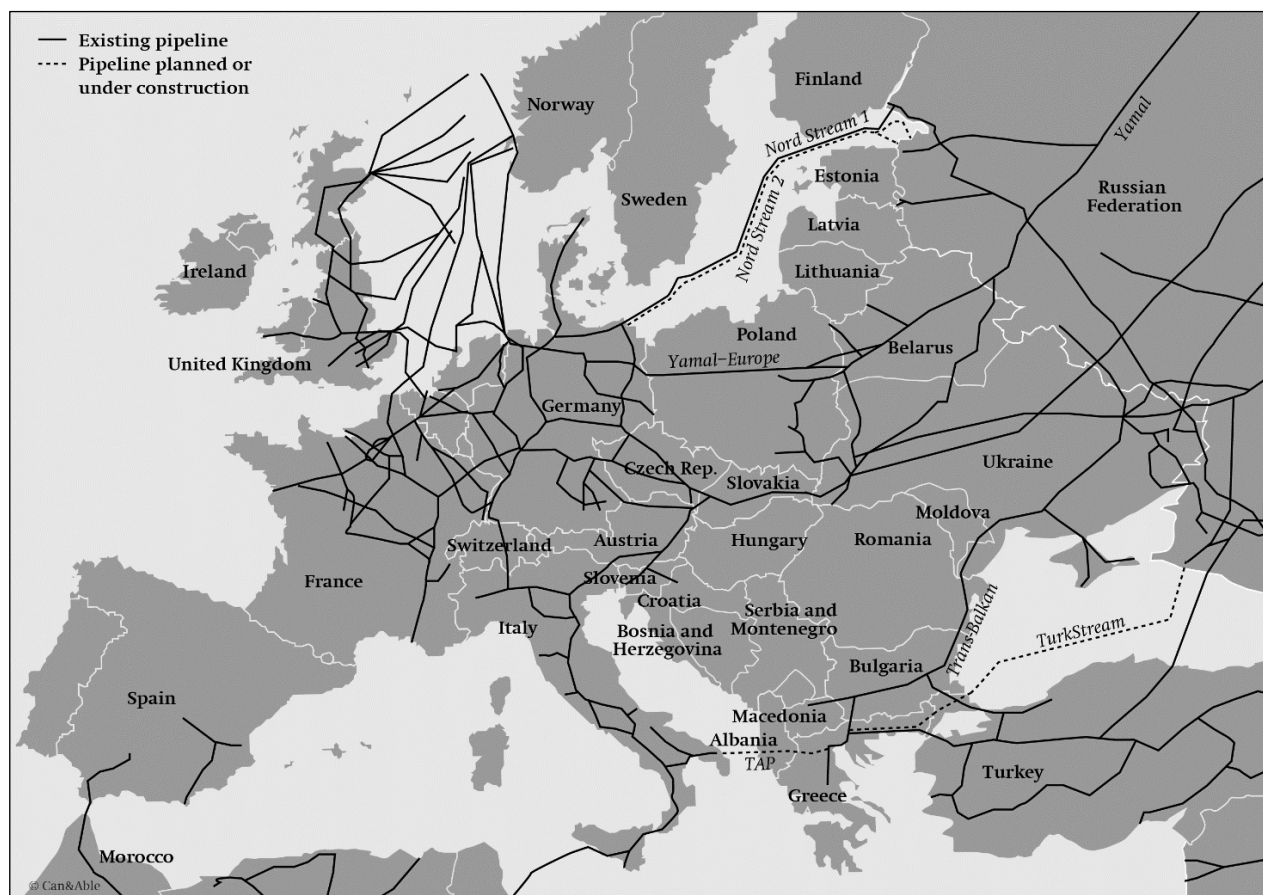
From the present perspective, it would seem almost impossible to classify Nord Stream 2 as “neutral” or “objective” in terms of energy policy and supply. Although treated in Germany especially as a commercial project of obvious economic rationality, with reference to its legal framework and private-sector investors, Germany's neighbours in the east and the European Commission in Brussels regard it as political and potentially divisive. As far as its opponents are concerned, the timing of the Nord Stream 2 project could hardly be worse, because it contradicts the goals of the EU Energy Union, aids Russia's foreign policy and economic course, and further destabilises Ukraine. Even if the venture is assessed under the criteria of the three central objectives of EU energy policy (security of supply, competitiveness and sustainability, the “energy triangle”), the level of disagreement appears so large as to preclude opportunities for compromise and reconciliation within the Union. Assessments of the pipeline's impact on the European energy system also vary enormously widely depending on the timeframe.

Aside from the outlined conflicts in energy policy, the Nord Stream 2 project also touches on another sore point in the European Union: the open disagreement within the EU-28 over where future relations with Russia – including energy relations – should be heading. The same applies to the trilateral relationship with Russia and Ukraine. While Brussels officially proclaims solidarity with Ukraine, concrete political measures are dictated by short-term crisis management. Moreover, a degree of disillusionment is detectable within the Union.

¹ “Fluxys Prepared to Become Nord Stream 2 Shareholder”, Interfax, 26 January 2017, <http://interfaxenergy.com/gasdaily/article/23713/fluxys-prepared-to-become-nord-stream-2-shareholder> (accessed 21 February 2017).

² See map on Nord Stream 2 website, https://www.nord-stream2.com/media/documents/pdf/en/2017/01/nsp2_karte-2d_rgb_baltic_nsp1-nsp2_en_2017_01_04.pdf (accessed 21 February 2017).

Map
Major gas pipelines in Europe



To reduce Nord Stream 2 to a commercial project would be to ignore its repercussions. Yet, acknowledging the importance of the the legal and regulatory, economic and political aspects should not lead to an intermingling of all the dimensions. The business aspects form the basis of the project and as such are the subject of the first chapter. Chapter 2 describes the legal and regulatory framework within which the project operates. Regulation is the Commission’s decisive leverage for shaping a competitive and integrated European gas market. Partly in response to Gazprom’s activities, regulatory arrangements have been developed further since 2009. Gazprom’s market position and the repercussions on the gas markets in north-western Europe, in Germany and in central and south-eastern Europe are addressed in Chapter 3 (“Market Trends, Market (Power) Relations and Security of Supply”, pp. 19 ff.). Since the annexation of Crimea in 2014 and the fighting in eastern Ukraine, energy trade with Russia has come under closer qualitative political scrutiny in the EU. It is also in this context that the

concept of an EU Energy Union was developed as one of the ten priorities of the Juncker Commission. Nord Stream 2 is attributed significant potential to sow division within the EU-28 and the Energy Union. The project’s political costs are high and the harm to relations with Germany’s immediate eastern “gas neighbours” significant. But failure or massive delays could multiply the existing problems in energy relations with Russia. These foreign policy and geopolitical implications are examined in Chapter 4 (“Nord Stream 2 – The Political Dimension”, pp. 26 ff.). The concluding chapter affirms the thesis that while planning and construction is a matter for Gazprom and its European partners, it is up to Germany and the EU to address the repercussions. How, in turn, the EU assesses and responds to the Nord Stream 2 venture touches on fundamental principles of EU integration and may have broader implications.

Nord Stream 2 as a Business Project

The commercial logic of Nord Stream 2 AG from the Western business perspective

After the Polish competition authority raised objections to the Swiss-incorporated company in August 2016, Gazprom is now the sole owner of Nord Stream 2 AG, registered in Zug, Switzerland. Originally Uniper, BASF/Wintershall, OMV, Engie and Shell each wanted to take 10 percent. The risks of such an investment would have been calculable: the capacity is booked by Gazprom and the return is fixed. So revenue and return on investment were predictable. Such conditions are obviously also attractive for lenders like banks and insurance companies. But consortium was subject to merger controls in both Germany and in Poland, where effects on the respective markets were to be expected. While the German Federal Cartel Office announced its approval in December 2015, the Polish competition authority sent the consortium a list of questions. The firms responded by withdrawing their application. It remains to be seen what kind of substitute arrangements (if at all) the western European firms find for their cooperation with Gazprom (convertible bonds were a first option, loans are reportedly under discussion). It has proven difficult to find a form that is similarly transparent and creates a balance of risk and control, but cannot be interpreted as simply bypassing the Polish merger control process.

The western European firms – Uniper (formerly E.On), BASF/Wintershall, OMV, Shell and Engie – would like to see their partnership with Gazprom expanded through the pipeline construction, especially given that their supply contracts with the Russian energy giant extend for decades to come. In view of the complex current market situation, characterised by declining production within the EU, depressed gas prices and a difficult business environment in Russia, they are interested in strengthening their market positions as suppliers, energy traders and/or gas producers, and safeguarding their investments in Russia. This strategy also reflects a very pragmatic attitude towards economic realities: in the short and medium term (until after 2020) Gazprom is in a posi-

tion to supply gas to the EU in flexible quantities at competitive prices.³

If the western European firms had been able to join the consortium, this would have created considerable advantages from the EU perspective, as their participation would have enhanced transparency and control in the project. In purely economic terms, it is remarkable that no public funding is required on the western side. The creation of a joint stock company to realise a private-sector infrastructure project would have dovetailed with the ideal of free-market competition and created new import capacities. Now Gazprom is the sole shareholder. While this does not necessarily erase the considerations and effects outlined above, it certainly represents something of a qualitative shift. If Gazprom does now build and operate the pipeline on its own, this will be the first direct gas pipeline connection to the European market under its exclusive control.

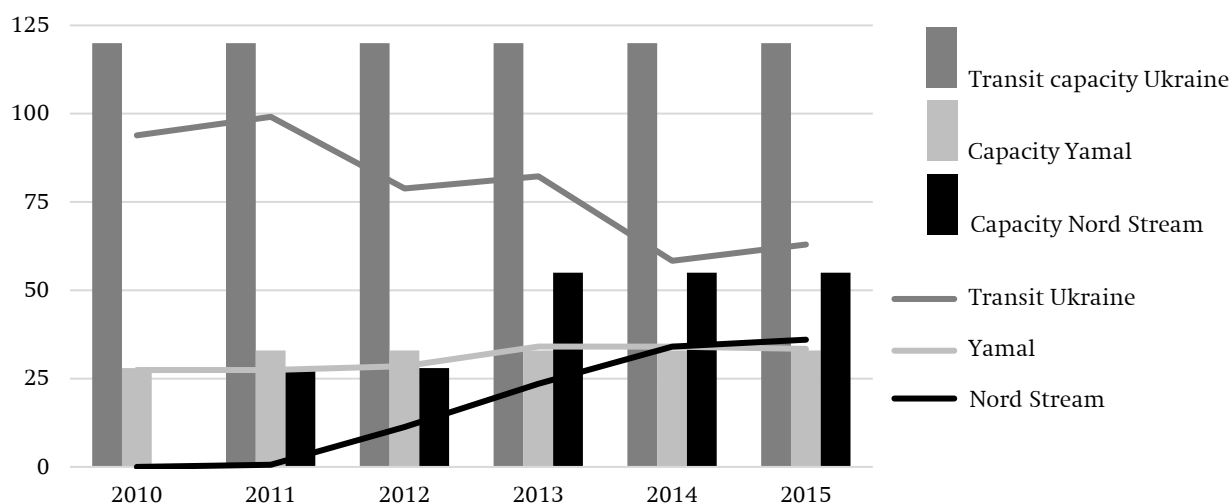
Gazprom's calculation

Since 2014 Russia has made it abundantly clear that it is seeking alternative export routes, in order to avoid or minimise gas transport through Ukraine, which it now regards as an unacceptable risk. For the Russians, this is the main reason to build Nord Stream 2. At the height of the crisis over Ukraine in 2014 the Kremlin and Gazprom headquarters both called for a complete end to Ukrainian transit.⁴ During the following year, 2015, the position was somewhat relativised, with Gazprom now intimating that it had been told to negotiate post-2019 transit terms with Ukraine.

³ Simon Pirani and Katja Yafimava, *Russian Gas Transit across Ukraine Post-2019: Pipeline Scenarios, Gas Flow Consequences, and Regulatory Constraints*, OIES Paper NG 105 (Oxford: Oxford Institute for Energy Studies [OIES], February 2016), 7.

⁴ “Miller: Rol' Ukrainy' v kachestve transitera svedetsya k nulyu” [Miller: Ukraine's role in transit will fall to zero], *Vzglyad*, 6 December 2014, <http://vz.ru/news/2014/12/6/719045.html> (accessed 19 December 2014).

Figure 1
Russian gas transport capacities and exports to the EU, 2010–2015 (billion cubic metres per annum)



Source: “Gas Trade Flows in Europe, in Mcm”, International Energy Agency (IEA) website, 2016, <http://www.iea.org/gtf/index.asp> (accessed 2 December 2016); IEA, *Gas: Medium Term Market Report 2015: Market Analysis and Forecasts to 2020* (Paris, 2015), 106.

The West asserts that Moscow has geopolitical motives for constructing new pipelines in the Baltic, concretely that they are linked to efforts to bypass and weaken Ukraine.⁵ Indeed, in the case of the Nord Stream 2 project, there is much to suggest that Russia’s economic and political interests coincide. After all, the Russian state owns more than half of Gazprom. But Nord Stream 2 is just one of several pipelines to Europe and Asia brought into play by Gazprom in 2014/15. In a fluid geopolitical situation, the Kremlin wishes to preserve as many economic and political options as possible. Facing pressure in all its traditional markets, Gazprom is forced to experiment with new marketing strategies and develop new sales channels. Moreover, from Moscow’s perspective the Nord Stream 2 project and its support by Western companies demonstrates that – despite international sanctions – Russia is not isolated and remains an attractive economic partner.

Beyond the *geopolitical* aspects there are also identifiable *geo-economic* reasons to avoid transit through Ukraine. In general terms, a modern, efficient and direct connection to the market reduces (transit) risks, given that transit status tempts states to leverage their transport monopoly to maximise rents. Since the late 1990s, and especially since the early 2000s, Russia has worked to diversify export routes and reduce the

volume of gas transited through Ukraine. The Yamal-Europe pipeline and Nord Stream 1 have already done a great deal to curb the volume of gas transported through Ukraine (see Figure 1 above).

Expanding the Baltic connection will allow Gazprom to supply its largest market, Germany, directly, expand to deliveries, and to reduce the transit risks to other major customers (including France). The European and global gas markets have undergone a fundamental transformation since 2009/10. Considerably more than half the natural gas traded today is tied to hub prices. Gas prices have fallen and are converging across the north-west European markets, with only small price differences remaining. In this new market situation, Gazprom has successively adapted its price strategy and granted retroactive discounts to many of its north-west European customers. It has also auctioned gas in Germany and the Baltic states. Nonetheless, Gazprom’s business relations are still largely based on long-term take-or-pay contracts. Gazprom has to maintain the gas fields it requires to supply the volumes ordered by its customers in the EU.

Gazprom’s long-term contracts with European firms extend long beyond 2019. They oblige Gazprom to supply specific volumes in specific periods, and in return guarantee stable sales volumes past 2030. From Gazprom’s perspective, Germany is an extremely good choice as the hub for its westward gas exports. Germany is the EU’s largest gas market and also the largest purchaser of Russian gas, with long-term contracts extending until 2034. And Gazprom has a strong pres-

⁵ This view was explicitly expressed by the Obama administration. The position of US President Trump and his new administration was not yet clear at the time of writing (as of February 2017).

ence along the entire German supply chain. Proximity to the German and European markets and access to major storage capacities grants Gazprom every opportunity not only to fulfil its long-term contracts, but also to pursue a volume-driven strategy in response to a changing (and at the wishes of the EU more strongly spot market-driven) EU gas market. In a saturated gas market the incentives for other companies to invest in alternative projects may fall. Gazprom possesses great flexibility in its marketing strategies (even more so with an additional pipeline through the Baltic Sea), a flexibility that used to lie on the European side.⁶ In other words, Gazprom could consolidate its market shares in the currently oversupplied gas market and (at least temporarily) defend them against competitors. Such an optimisation of its own market position and price strategy would be economically rational. Here it is up to the German competition authorities to monitor the relevant market activities.

From the Russian perspective, the transit risks associated with the Ukrainian route are not going away. The Ukrainian pipeline system has been neither modernised nor overhauled for decades, and it must be assumed that de facto westward transit capacity is now no more than 90–95 billion cubic metres annually.⁷

For the past quarter-century since the collapse of the Soviet Union, Ukrainian-Russian gas relations have been characterised by a process of continued bargaining of political and economic concessions (for example retention of the Russian Black Sea naval base in return for gas price discounts). Transit revenues and access to cheap gas from the east bred corruption and hindered reforms in Ukraine (and on the Russian side too). Attempts to place gas trade and transit on a new contractual basis in 2009 did not really put an end to these quid-pro-quo deals, and disputes over gas pricing and Ukrainian debts exploded again in June 2014 in the context of the Russian annexation of Crimea and

military destabilisation of eastern Ukraine.⁸ The spat supplied Gazprom and Russia with an excuse to seek new supply routes, not least in order to fulfil the long-term supply contracts with European customers.

From the commercial perspective, it is significant that the current transit contract expires in 2019. But there is uncertainty over transport charges and transit terms both before and after that date (see “Transit through Ukraine”, p. 20).

The imponderables associated with gas transit through Ukraine have thus grown, because the legal, economic and technical context is and will remain complicated (see below, pp. 20 f.). Ultimately, the Ukrainian discussions about new and much higher gas transport tariffs boost the apparent economic benefits of Nord Stream 2.⁹ The transportation tariffs for Nord Stream 2 lie about 20 percent below the current charges for the Ukrainian corridor.¹⁰

⁶ Thierry Bros, *Has Ukraine Scored an Own-goal with Its Transit Fee Proposal?* Oxford Energy Comment (Oxford: OIES, November 2016), 5, <http://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/11/Has-Ukraine-scored-an-own-goal-with-its-transit-fee-proposal.pdf>.

⁷ Andreas Goldthau, *Assessing Nord Stream 2: Regulation, Geopolitics and Energy Security in the EU, Central Eastern Europe and the UK*, Strategy Paper 10 (London: European Centre for Energy and Resource Security [EUCERS], 2016), 18, and Agency for the Cooperation of Energy Regulators (ACER) and Council of European Energy Regulators (CEER), *Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2014* (Ljubljana and Brussels, November 2015), 258.

⁸ ACER and CEER, *Annual Report* (see note 7), 262.

⁹ Where the old transit contract set a price of approximately \$2.70 per thousand cubic metres per hundred kilometres, the cost to Gazprom is set to almost double when the non-regulated (volume-based) transit contract is superseded by a regulated contract with capacity booking, see Bros, *Has Ukraine Scored an Own-goal* (see note 6), 3/4.

¹⁰ Goldthau, *Assessing Nord Stream 2* (see note 7), 19.

Nord Stream 2 and Regulation in the EU's Internal Market

The legal framework in the internal market

Even while a Russian-European consortium was still on the cards, Nord Stream 2 faced a difficult political environment and unclear regulatory situation in the European Union. The pipeline runs counter to the political objectives of Brussels and many member states, whose declared goal is to diversify gas sources and reduce dependency on imports from Russia (especially where this creates vulnerability). This long-term interest was also central to the design of the Energy Union. The political concerns are addressed in a later chapter (see below, pp. 26 ff.) The discussion here concentrates on the legal and regulatory framework, because internal market regulation has proven the most effective instrument for Brussels to pursue energy policy objectives.¹¹ For this reason, the Commission has also conducted an examination of the legal framework.

In order to understand the legal and regulatory discussions, one must remember that power over energy policy is shared between the Union and the member states.¹² While the latter possess national sovereignty over their energy mix, the Union establishes norms designed to ensure a functioning energy market and security of supply through the legislative procedure. As far as the operation of gas pipelines is concerned, Regulation (EC) No. 715/2009 on conditions for access to the natural gas transmission networks and Directive 2009/73/EC concerning common rules for the internal market in natural gas are particularly significant. Both are part of the third internal market package. Under Directive 2009/73/EC, vertically integrated gas suppliers must relinquish their transmission systems, thus separating the latter from production, import and distribution (Article 15). Implement-

ing the unbundling requirements and certifying independent pipeline operators is the responsibility of the member states and the respective national regulator.¹³ In the case of certification of pipeline operators, the Commission provides only an opinion on the certification procedure. Third-party access to pipelines (Article 13) is regulated through so-called network codes governing allocation of transport capacities, modalities for cross-border operations, and procedures for setting tariffs and congestion management. The network codes are prepared by the European Network of Transmission System Operators for Gas (ENTSO-G) on the basis of the framework guidelines of the Agency for the Cooperation of Energy Regulators (ACER), approved by the Commission and implemented by the national regulatory authorities. Long transitional periods are provided for transport capacities set in pre-existing long-term contracts, and the network code for capacity allocation, which came into effect on 1 November 2015, permits large capacities to be booked up to fifteen years in advance. On these aspects the EU made concessions to gas exporters like Gazprom. The Commission also permitted exceptions for major infrastructure projects (interconnectors, LNG terminals; storage), to which third parties can be denied access in certain cases. Exemptions may be granted by national regulators in the interests of competition and security of supply, but must also be confirmed by the Commission. These internal market rules thus define the respective radius of action enjoyed by Brussels and the member states.

Nord Stream 2 – Legal approaches and contested issues

All these aforementioned aspects play an important role in the question of how rapidly and under what regulatory and legal terms Nord Stream 2 could be realised.

The Nord Stream 2 consortium has chosen to pursue the same realisation path as was taken for Nord

¹¹ Andreas Goldthau and Nick Sitter, "Soft Power with a Hard Edge: EU Policy Tools and Energy Security", *Review of International Political Economy* 22, no. 5 (2015): 941–65; Kirsten Westphal, "Gazprom und die EU-Regeln des Binnenmarktes – auch eine politische Frage", *Russland-Analysen*, no. 305 (20 November 2015): 2–5.

¹² See also Deutscher Bundestag, Unterabteilung Europa, Fachbereich Europa, *Ausarbeitung: Nord Stream 2 – Vorgaben des europäischen Energierechts*, PE 6-3000-27/16 (March 2016).

¹³ *Ibid.*, 7.

Stream 1.¹⁴ Since the planning phase for Nord Stream 1, however, the political and legal circumstances in the EU have changed. The construction of the first trans-Baltic pipeline was decided in 2005 and begun in 2010. The twin lines came on stream in 2011 and 2012.¹⁵ There was no formal inter-governmental agreement between Germany and Russia for Nord Stream 1.¹⁶ In September 2005 then German Chancellor Gerhard Schröder and Russian President Vladimir Putin merely signed a declaration of intent. Nor was there any formal agreement between the EU and Russia, even though the project was originally supposed to have a pan-European dimension and was planned as part of the Trans-European Networks. At the time it was intended to connect the major Shtokman field to the European grid.

The preparatory work on the Nord Stream 2 project has started. This implies a formal process of application and assessment under national legislation, EU law and international conventions.¹⁷ The planning and construction process is conducted under the provisions of the United Nations Convention on the Law of the Sea (UNCLOS) and the Espoo Convention, established under the United Nations Economic Commission for Europe. In line with UNCLOS, which stipulates the freedom to lay submarine pipelines, but requires state consent for the exact route where they pass through exclusive economic zones and/or territorial waters. Nord Stream 2 passes through the territorial waters and/or exclusive economic zones of Russia, Finland, Sweden, Denmark and Germany. In

this countries Nord Stream 2 must apply for various consents to the construction and operation of the pipeline under national law. The Espoo Convention has the objective to reduce cross-border environmental impacts. This includes exchange of information and cooperation between neighbouring states, such as Estonia, Latvia, Lithuania and Poland. Although Russia has not ratified the Espoo Convention it is committed to complying with the provisions again, as it did in the case of Nord Stream 1. By January 2017, Sweden had received a formal application based on these international conventions, which it will have to assess accordingly. Nord Stream 2 can be expected to apply to the other states very soon too. In Germany as the landfall state, the Mining Authority (Bergamt) in Stralsund and the Federal Authority for Maritime Navigation and Hydrography (Bundesamt für Seeschifffahrt und Hydrographie) conduct the necessary investigations. An environmental impact assessment based on the EU EIA Directive will also be part of the licensing process. Given that this process of application, assessment and rejection/permission is based on a clear sequence of procedural steps, and given that the application for Nord Stream 1 passed in all states, it would require a sound legal argumentation to reject the application this time around.

This is why opponents look to the Third Energy Market Package and its applicability.¹⁸ Where offshore pipelines begin outside the EU but pass through the exclusive economic zones and coastal waters of EU member states, room exists for various legal interpretations. The crucial question is whether the Third Energy Market Package applies to the pipeline through the Baltic Sea. If EU law applies offshore (which poses technical difficulties) the pipeline's categorisation would be decisive for the application of EU rules.¹⁹ Under Article 34 of Directive 2009/73/EC upstream pipelines are excluded from the internal market package, and are regulated by the landfall state. On the basis of that interpretation, German Economy Minister Sigmar Gabriel declared that Germany was seeking to retain regulation of Nord Stream 2 under the remit of its national authorities, when he visited

14 Karel Beckman, "Can Nord Stream 2 Be Stopped?", *Energy Post (online)*, 14 April 2016, <http://www.energypost.eu/can-nord-stream-2-stopped/> (accessed 8 September 2016).

15 For a very detailed description of the process, see *Nord Stream, Sichere Energie für Europa. Das Nord Stream-Pipelineprojekt 2005–2012* (Zug, July 2013), http://www.nord-stream.com/media/documents/pdf/de/2014/04/sichere-energie-fur-europa-komplette-fassung_245_20140417.pdf (accessed 8 September 2016).

16 Normally an IGA between the exporting country and the landfall state would clarify the most important questions: environmental protection, regulatory responsibility, liability. It would also specify matters such as force majeure, transparency and technical maintenance, see Philipp Offenberg, *The European Neighbourhood and the EU's Security of Supply with Natural Gas*, Policy Paper 156 (Berlin: Jacques Delors Institut, 15 January 2016), 17, http://www.delorsinstitut.de/2015/wp-content/uploads/2016/01/20160115_EU_NeighbourhoodAndGas-Offenberg-JDIB-Jan161.pdf (accessed 1 February 2016).

17 See also Ulrich Lissek, *Regulation of Nord Stream 2: Rule of Law, Equal Treatment and Due Process: A View from the Project Developer*, CEPS Commentary, 15 November 2016.

18 For greater detail see Kim Talus, "Application of EU Energy and Certain National Laws of Baltic Sea Countries to the Nord Stream 2 Pipeline Project", *Journal of World Energy Law and Business* 10, no. 1 (2017): 30–42.

19 In that case third-party access would theoretically have to be offered at some point (in the coastal waters, in the exclusive economic zone or in Russia).

Pipelines and EU energy law

Since the announcement of plans to build a second pair of pipelines under the Baltic, the EU has debated whether an offshore pipeline that passes through the coastal waters (and the exclusive economic zone) of one or more member states is subject to regulation under the third internal market package. If it was, the relevant rules would apply, including the unbundling requirement for transmission system operators. But first it would have to be considered whether Nord Stream 2 was an upstream pipeline or a transmission system.

Upstream pipelines are treated as part of the gas production process, transporting gas to other production-related facilities (treatment plant or terminal). They end where saleable gas is fed into the transmission system.^a Upstream pipelines are regulated by the national agency of the landfall state.^b In that sense, Nord Stream is not an upstream pipeline as it connects the Russian gas transmission system with the German one.^c Under the wording of the EU energy acquis Nord Stream 2 cannot be categorised as an *interconnector* or *cross-border interconnection* between EU member states either, even though it is an interconnector from a technical perspective.^d EU law makes no provision for a pipeline transporting gas between two markets with different regulatory regimes.^e

a Deutscher Bundestag, *Ausarbeitung: Nord Stream 2* (see note 12), 7.

b Offenberg, *The European Neighbourhood* (see note 16), 17–19); Catherine Banet, *Access to Upstream Infrastructures: The Regulation of Third Party Access* (University of Ohio, JUS5410 – Petroleum Law, 26 February 2012).

c See also Talus, “Application of EU Energy and Certain National Laws” (see note 18), 35.

d *Ibid.*

e Talus even argues that “(t)he fact that external pipelines connecting with the transmission system of the EU at the external borders are not covered by this framework indicates that the legislator did not intend to include these pipelines into the scope of the EU energy acquis. [This...] is also visible in the CAM code (Capacity Allocation Management), which specifically notes that the entry-exit-regime will not be applicable to such connections with third countries.” Talus, “Application of EU Energy and Certain National Laws” (see note 18), 49.

EU regulation and Gazprom's engagement in the EU gas market

Since 2009 at the latest, the EU's paradigm of creating a functioning and competitive internal market has included the politically motivated goal of geographically diversifying sources of energy imports – driven by deteriorating relations with Russia. Unlike Norway and Algeria, whose export pipelines generally make landfall in their main market, Gazprom is forced to transport its gas through several countries in order to reach customers in countries like Germany. The EU's political perception of supply relations with Russia changed in the course of its eastern enlargement in the mid-2000s, when the new member states brought the legacy of their former dependency on Moscow into the Union. And the gas transit crises of 2006 and 2009 cast a sharp light on the enlarged EU gas market's dependency on Russian supplies. In this way the discussion about the concrete shape of the third internal market package and the implementation of unbundling was strongly influenced by Gazprom's actions. With an eye to the Russian monopolist, the Commission sought to restrict the acquisition of transport infrastructure by companies from third states to those that granted the same right reciprocally. While this so-called “Gazprom clause” was ultimately dropped, the package did require that investments from third states be reviewed by the relevant national competition authority and confirmed by the Commission.

Moscow in October 2015.²⁰ Many observers misunderstood this statement as a rejection of the Energy Union.

After Nord Stream 2 was announced in 2015, lively discussion over legal interpretations ensued in the EU, with stiff resistance to the project, and consequently a search for regulatory leverage, not only among certain member states but also within the Commission and the Parliament (see text box “Pipelines and EU energy

²⁰ “Sostojalas vstrecha Vladimira Putina c vize-kanzlerom, ministrom ekonomiki i energetiki Federativnoj Respubliki Germanija Sigmarom Gabrielem” [Meeting between Vladimir Putin and Sigmar Gabriel, Vice-Chancellor and Minister for Economic Affairs and Energy of the Federal Republic of Germany], 28 October 2015, <http://www.kremlin.ru/events/president/news/50582> (accessed 29 October 2015).

South Stream

South Stream was the project of a Gazprom-led consortium including BASF Wintershall (Germany), Eni (Italy) and EdF (France). The proposal was for a pipeline with an annual capacity of 63 billion cubic metres through the Black Sea to Bulgaria and on to Austria and Italy, partly offshore, partly onshore. An initial agreement was concluded in February 2009. The third internal market package came into force in August that year, with far-reaching repercussions for South Stream. After failing to obtain an unconditional exemption for the OPAL pipeline – and therefore being able to use only half its capacity until October 2016 – Gazprom decided not to apply for an exemption for the onshore section of South Stream at all. Instead Russia concluded inter-governmental agreements with the relevant EU member states. Moscow based its arguments on a position that international agreements carry greater force than the third internal market package. At the same time, in April 2014, it lodged a complaint with the World Trade Organisation.^a

^a World Trade Organisation (WTO), *Dispute Settlement, Dispute DS476: European Union and Its Member States – Certain Measures Relating to the Energy Sector. Request for Consultation by the Russian Federation* (8 May 2015), <http://bit.ly/2fgfYqd> (accessed 2 December 2016).

The Commission, on the other hand, regarded the inter-governmental agreements as a breach of the terms of the third internal market package and demanded that the affected member states terminate or renegotiate them. Otherwise it threatened infringement proceedings. Eventually the Commission did open two cases against Bulgaria, including for violating the third internal market package. Bulgaria stopped construction work on the pipeline in August 2014.

In this way, Brussels raised the bar to realisation of the South Stream pipeline ever higher. Its expansion of the rules of the third internal market package to South Stream is not uncontroversial, because the associated regulations and network codes did not in fact include clear rules (for example for identification, allocation and tariff setting) for incremental and new infrastructure.

In relation to South Stream, the Commission argued in the spirit of its internal market package, but found itself on shaky legal ground. It is no secret that the project was already unpopular in Brussels, because it competed with the “southern corridor” preferred by the Commission. In the wake of the Crimea crisis, all the stops were pulled out to terminate the project for political reasons.

law”).²¹ In fact, there is simply a legal grey zone concerning transmission pipelines connecting a market outside the EU with the EU market.

Drawing on the legal framework for existing pipelines is problematic.²² So altogether there is no regulatory regime for Nord Stream 2 that is recognised by all sides. This opens room for an international agreement between the EU and Russia. Yet, because the project is being realised in a highly charged environ-

ment, it is evident that its opponents will use all available levers, including EU regulations, to impede and delay construction. Gas relations between the EU and Russia have taken a significant turn for the worse since the construction of Nord Stream 1 and the supply and transit disruptions in Ukraine (see text box “EU regulation and Gazprom’s engagement in the EU gas market”). Conflicts between Russia and the EU have flared largely in connection with two pipelines: South Stream (see text box “South Stream”) and OPAL, the connecting pipeline for Nord Stream 1. Poland’s legal action against the European Commission’s OPAL exemption decision exemplifies the politically charged environment (see the next chapter on connecting pipelines).

Brussels has not yet made an official statement on its legal assessment of the Nord Stream 2 pipeline. Sweden and Denmark urged the Commission at the end of January 2017 to provide clarity on the implications of EU legislation and of the objectives of the

²¹ Deutscher Bundestag, *Ausarbeitung: Nord Stream 2* (see note 12), 6.

²² The four pipelines from North Africa to Spain and France are neither unbundled nor do they provide third-party access. They can be seen as upstream pipelines (producer pipelines), because they connect gas fields to the European network. On the other hand, pipelines from Norway, as a member of the European Economic Area, are subject to the regulations of the internal market (see Catherine Banet, *Access to Upstream Infrastructures: The Regulation of Third Party Access* [University of Ohio, JUS5410 – Petroleum Law, 26 February 2012]).

OPAL

The OPAL pipeline was built exclusively to transport gas from Nord Stream 1. The consortium therefore applied at an early stage for an exemption for sole use of the pipeline.^a Although provision of non-discriminatory access for third parties is a requirement of the third internal market package, Gazprom remains (to date) the only importer of natural gas in Greifswald.

An exemption granted by the German regulator Bundesnetzagentur in 2009 was rejected by the Commission the same year on the grounds that while it would enhance security of gas supply, it would not improve competition.^b The Commission suggested conducting a so-called gas release programme, where Gazprom would have offered three billion cubic metres of natural gas for auction in Greifswald.^c At that point Gazprom was unwilling to do so. On 31 October 2013 Gazprom, OPAL Gastransport and Bundesnetzagentur agreed a settlement that would have allowed Gazprom to use 100 percent of the transport capacity: 50 percent permanently assigned, the other 50 percent acquired at auction.^d Although this solution was reached in the presence of the Commission, the latter's approval was not granted as expected in March 2014, but repeatedly postponed.

The conflict in and over Ukraine plainly played a role here. In December 2014 Gazprom then withdrew from the settlement. As a result transport via OPAL was limited to just 18 billion cubic metres per annum for several years.

a For more detail see Katja Yafimava, *The OPAL Exemption Decision: Past, Present, Future*, OIES Paper NG 117 (January 2017). For a critical view see Alan Riley, "OPAL Pipeline Exemption", <http://www.statecraft.org.uk/research/opal-pipeline-exemption-implications-questionable-decision> (accessed 28 February 2017).

b Commission of the European Communities, *Betreff: Ausnahmegenehmigung der Bundesnetzagentur für die OPAL-Gasleitung gemäß Art. 22 der Richtlinie 2003/55*, K(2009) 4694, 12 June 2009, 9.

c *Ibid.*, 22.

d "OPAL Gastransport muss geplante Jahresauktion verschieben: Beteiligungsverfahren der EU-Kommission noch nicht abgeschlossen" (Kassel, 28 February 2014), OPAL Gastransport website, http://www.opal-gastransport.de/fileadmin/user_upload/140224_OPAL_Mitteilung.pdf (accessed 8 September 2016).

In mid-May 2016 the Bundesnetzagentur agreed a new settlement with Gazprom and OPAL Gastransport, based largely on the earlier agreement. But this time the notification procedure lay in the hands of the Commission. In the end Brussels approved the compromise with stricter conditions on 28 October 2016: 50 percent of the capacity remains completely exempt from network access and tariff regulation. Up to 20 percent of the capacity at exit point Brandov must be offered in short-term contracts at Gaspool's virtual trading point, where Gazprom can bid at the base price. OPAL Gastransport must also apply for certification as an independent transmission operator. Under the exemption decision Gazprom can use at least 80 percent of OPAL's capacity, or 28.8 billion cubic metres annually. If its bid at base price is accepted it can use the full 36 billion cubic metres per annum (on a short-term basis). This exemption applies until 2033, after which EU regulation applies in full. The settlement agreement was signed by all parties in November 2016.

The European Commission's exemption decision and the settlement agreement with the German Bundesnetzagentur received harsh criticism from eastern European countries, in particular Poland and Ukraine. The Polish company PGNiG Supply and Trading filed a complaint at the Court of Justice of the European Union on 4 December 2016.^e On 27 December 2016 the Court of Justice suspended the decision and requested detailed information from the parties. On 15 December 2016 PGNiG brought legal action before the German Higher Regional Court in Düsseldorf. In an interim decision of 30 December 2016 the Higher Regional Court ruled to suspend the settlement agreement and further capacity auctions. Thus, only the capacity auctioned in December for January could be used by Gazprom. Accordingly, flows dropped to the old pre-December level at the beginning of February 2017.^f

e For documents see en.pgnig.pl/search-results?phrase=OPAL.

f Bundesnetzagentur, "Antrag auf Freistellung von der Regulierung gemäß § 28a EnWG: Hier: Information Vergleichsvertrag 'OPAL'". https://www.bundesnetzagentur.de/DE/Service-Funktionen/Beschlusskammern/1BK-Geschaefte/zeichen-Datenbank/BK7-GZ/2008/2008_0001bis0999/2008_001bis099/BK7-08-009_BKV/Veroeffentlichung_Aktuelles.html (accessed 22 February 2017).

Energy Union. The legal opinion of Germany,²³ which is central on account of its status as the landfall state, is not going to change, and is unaffected by the consortium issue.

The connecting pipelines for Nord Stream 2

Nord Stream 2 will remain incomplete until the question of how (and where) the Russian gas is transported onwards has been resolved. Onward transport capacity for the planned additional 55 billion cubic metres arriving annually from 2019 in Greifswald is as yet lacking. The following variants are conceivable for the onshore section in Germany:

- a) full utilisation of OPAL,
- b) construction or expansion of a pipeline within the regulated network planning process and
- c) construction of new capacities under the planned amendments on incremental capacity to the Network Code on Capacity Allocation Mechanisms,²⁴ which is still in the comitology procedure.

The Nord Stream 1 system has two offshore pipelines and two connecting pipelines in Germany. Nord Stream 1 has a technical capacity of 55 billion cubic metres annually, of which only 38 billion cubic metres were used in the past. 20 billion cubic metres annually were transported west through the NEL pipeline. OPAL is the onward connection from Nord Stream's landfall at Lubmin via Olbernhau in Saxony to the Czech Republic. While the OPAL pipeline has a capacity of 36 billion cubic metres, until October 2016 regulatory difficulties meant that Gazprom was only able to use 50 percent. The settlement of 28 November 2016 permitted Gazprom to use 80 percent of capacity,²⁵ and under certain conditions to make temporary use of the remaining 20 percent (see text box OPAL).²⁶ The

first auctions took place on 19 December 2016 on the PRISMA capacity platform. Accordingly, flows through OPAL significantly increased from the end of December 2016 until the end of January 2017,²⁷ allowing for use of full capacity during the cold spell. The level is now back to 50 percent of capacity, after the Court of Justice of the EU's decision to suspend execution of the exemption decision (see text box OPAL) (as of February 2017).

The NEL pipeline is not classified as an interconnector by the Commission and is thus subject to full regulation by the German regulator Bundesnetzagentur. This pipeline would need to be expanded in order to transport additional volume supplied by Nord Stream 2. Many stakeholders – gas traders, exporters and importers – made corresponding submissions to the 2016 network development process. The Nord Stream 2 expansion is modelled in Variant Q2 in the German 2016 network development plan and thus subject to regulation by the Bundesnetzagentur.²⁸ Like any pipeline construction project, it also requires a two-stage planning permission process.

German transmission operators expect a total additional volume of 65 billion cubic metres (Nord Stream 1 and 2).²⁹ In general the costs of an expansion are passed on to the future users of the pipeline or of the operator's network as a whole. In the 2016 network development plan the additional costs for regulated expansion of the German network are estimated at €500 million.

Gas from Nord Stream 2 will be transported to Poland, to the Czech Republic, and via the Czech Republic to Baumgarten (Austria). This is the conclusion reached by transmission operators Gascade, Gasunie and Ontras on the basis of a European market survey to determine demand for new gas transport capacities at the boundaries of the north German mar-

²³ At the beginning of March 2017, a letter was sent by the President of the Bundesnetzagentur to DG Energy arguing that EU gas market liberalisation rules do not apply to the offshore pipeline Nord Stream 2. Author's archive.

²⁴ "Incremental capacity", ACER website, http://www.acer.europa.eu/en/gas/framework_guidelines_and_networkcodes/pages/incremental-capacity.aspx (accessed 21 February 2017).

²⁵ Bundesnetzagentur, *Antrag auf Freistellung von der Regulierung gemäß § 28a EnWG: Hier: Information Vergleichsvertrag OPAL*, http://www.bundesnetzagentur.de/DE/Service-Funktionen/Beschlusskammern/1BK-Geschaeftszeichen-Datenbank/BK7-GZ/2008/2008_0001bis0999/2008_001bis099/BK7-08-009_BKV/Veroeffentlichung_Aktuelles.html (accessed 8 December 2016).

²⁶ European Commission, "Gas Markets: Commission Reinforces Market Conditions in Revised Exemption Decision

on OPAL Pipeline", press release (Brussels, 28 October 2016), http://europa.eu/rapid/press-release_IP-16-3562_en.htm (accessed 15 November 2016).

²⁷ OPAL website, gas flow data <https://ivo.opal-gastransport.biz/ivo/physicalFlows?3#showData> (accessed 22 February 2017).

²⁸ However, the 2016 network development plan is experiencing significant delays; it could be autumn 2017 before it comes into force.

²⁹ FNB Gas and Prognos AG, *Szenariorahmen für den Netzentwicklungsplan Gas der Fernleitungsnetzbetreiber* (Berlin, 4 September 2015), 37, http://www.fnb-gas.de/files/2015_09_04_nep_gas_2016_szenariorahmen.pdf (accessed 8 September 2016).

ket area Gaspool.³⁰ These capacities have been offered at Prisma platform at the beginning of March 2017. The auctions largely confirmed the results of the market survey.³¹ Now a completely new pipeline to the Czech Republic is planned, named EUGAL and running largely parallel to OPAL.

The market survey process and planning steps for EUGAL are interesting in several respects. The object of the study was to estimate future demand for transport capacity between market areas as early and realistically as possible, in order to expand the gas pipeline infrastructure accordingly. The participation of eight market participants in a voluntary survey (and thus more than the then six members of the Nord Stream 2 consortium) underlines the great interest in gas sourcing and in expanding cross-border transport links.

Another aspect is also notable in relation to the chosen method of the market survey: the transmission operator relied on an auction mechanism comparable to procedures under the network code for capacity allocation (NC CAM). Provisions for incremental and new capacities were previously lacking (see text box South Stream, p. 15) and are in the comitology procedure. The European Agency for the Cooperation of Energy Regulators (ACER) sent its draft amendment to the network code to the Commission for approval on 13 October 2015. If the Code achieves legally binding status in time, the first auctions could take place in July 2017.³² The relationship between the new market survey method and network development planning is largely open, but the aim is to make EUGAL part of the German Ten-Year-Network Development Plan 2018. But the signs are that the EUGAL market survey is covered by the new code. With Gascade, an already certified transmission operator is proposed to run EUGAL. The transport capacities will be auctioned on the capacity trading platform PRISMA.³³

To summarise, onshore sections of the Nord Stream 2 are planned as part of the regulated process. For the offshore part of the Nord Stream 2 system, however,

there is no regulatory regime recognised by all parties. Instrumentalising the Third Energy Market Package as leverage to obstruct construction and operation of the submarine pipeline would be problematic with respect to the requirement that the Commission remain neutral in regulatory matters and the requirement for a transparent and predictable legal framework,³⁴ and almost incompatible with the Commission's function as guardian of the treaties. It would also be tantamount to a paradigm shift and contradict the principles of free-market competition. At this juncture it is namely relevant that no public funding is required to realise the project.

³⁰ See "New Capacities for Tomorrow's Gas Transport", More Capacity website (Gascade Gastransport GmbH), <http://www.more-capacity.eu/aktuelles/> (accessed 31 August 2016).

³¹ <https://www.more-capacity.eu/en/news/press-release/news/successful-auctions-for-new-transport-capacities/> (accessed 9 March 2017).

³² See "Gasmarkt Deutschland", *Energate 1* (2016), 20–21; ACER, *Public Consultation* (see note 24), and *idem.*, *Incremental Capacity*, http://www.acer.europa.eu/en/gas/framework%20guidelines_and_network%20codes/pages/incremental-capacity.aspx (accessed 15 November 2016).

³³ Goldthau, *Assessing Nord Stream 2* (see note 7), 26.

³⁴ Goldthau also follows this argument, *ibid.*, 21.

Market Trends, Market (Power) Relations and Security of Supply

Nord Stream 2 and the gas supply in north-western Europe

Nord Stream 2 AG and its supporting European gas companies act against a market background whose future developments are increasingly difficult to predict. Their planning and application for a new pipeline into Europe are based on sound market analysis.

The north-west European gas markets have experienced rapid development since 2009/10. Oversupply has not only expedited the implementation of the third internal market package, but also created a comfortable supply situation. In this buyer's market the hubs in the United Kingdom, the Netherlands and Belgium, and also increasingly in Germany, profit from competition, from numerous new potential supply sources and channels, and from the liquidity of the markets. Because they are well networked (via interconnectors), the prices at the hubs correlate and correspond. That is reflected in lower prices (and greater benefits to consumers). Although price differences between EU market areas persist, the price gap between "hub products" and long-term contracts has shrunk, as the latter have adjusted.

Yet nonetheless, the natural gas markets in north-western Europe face a special challenge in relation to security of supply. Assuming that demand will tend to stagnate rather than sink, rapidly declining domestic production in Germany, the Netherlands and the United Kingdom will have to be replaced. In place of low-calorific gas (L-gas) from German and Dutch fields, gas with a higher calorific value (H-gas) will have to be integrated into the system. With North Sea production also falling, the share of imported gas in the EU will continue to rise. This is also reflected in the network development planning: Germany's annual gas demand is forecast to decline only slightly, from 91.5 billion cubic metres in 2016 to 86.3 billion cubic metres in 2026.³⁵ But with production more than halving in the same period, from 8.8 billion cubic metres to 3.8 bil-

³⁵ Own conversion to billion cubic metres from data in FNB Gas, *Konsultationsdokument zum Netzentwicklungsplan 2016* (Berlin, 15 February 2016), 19, http://www.fnb-gas.de/files/2016_02_12-konsultationsdokument_nep-gas-2016.pdf (accessed 8 September 2016).

lion cubic metres, imports will remain at about the same level (2016: 81.9 billion cubic metres; 2026: 81.5 billion cubic metres).³⁶ For the EU as a whole too, there will be an additional import gap besides the expected constant import needs of 170 billion cubic metres annually until 2035.³⁷ Norwegian production will also fall sharply from 2023, barring rapid major investment. In this situation, there is more than established relations to make Russia a preferred partner. Nord Stream 2 connects the German and European gas markets to the largest gas fields in western Siberia and the Yamal Peninsula. Physical bottlenecks are not to be expected in connection with these reserves, because Gazprom maintains considerably more than 100 billion cubic metres of spare annual production capacity.³⁸ The direct connection through the Baltic Sea and onward transport via Germany keeps transport risks low, because the German gas market is organised in a highly competitive, liberalised and diversified manner. Gazprom is also known in the markets for holding adequate reserves, and has invested in storage capacities in the EU. With European production falling – and removing a source of flexibility close to the consumer – that is at least in theory an important component of a reliable gas supply.

Nord Stream 2: Price trends and liquidity

The German market areas – Gaspool in the north and NetConnect Germany in the south – with their virtual trading points, gas transmission operators and traders will benefit just as much from Nord Stream 2 as the Austrian market area and its Central European Gas

³⁶ Ibid.

³⁷ Ibid., 34. The demand scenarios exhibit a wide range of variation, see ENTSOG, *Ten-Year Network Development Plan 2015 – Main Report* (April 2015), <http://www.entsog.eu/publications/tyndp#entsog-ten-year-network-development-plan-2015> (accessed 8 September 2016).

³⁸ For a detailed discussion of the situation in the Russian gas market, see Alexander Gusev and Kirsten Westphal, *Russian Energy Policies Revisited: Assessing the Impact of the Crisis in Ukraine on Russian Energy Policies and Specifying the Implications for German and EU Energy Policies*, SWP Research Paper 8/2015 (Berlin: Stiftung Wissenschaft und Politik, December 2015).

Hub (CEGH). Expansion of the pipelines through the Baltic Sea to Germany and the Czech Republic strengthens the physical hub at Baumgarten, too. Liquidity in these markets increases significantly, multiplies the welfare gains from falling gas prices and optimises consumer surplus.³⁹

Contrary to widespread misconceptions, the project's construction costs will not increase gas prices, because gas prices in the EU are contractual or market prices and not subject to cost-plus arrangements. The risk of higher transport costs is borne by the gas supplier.

In the German market areas public funding is not provided for network expansion. In the EU in general transport costs in the regulated market segment are borne by the gas suppliers. Tariffs for connecting pipelines in Germany are set by the German regulator Bundesnetzagentur, taking account of amortisation and operating costs. Gas traders and suppliers pay for actual use of either a pipeline or an entire network. Whereas the German transmission operators are largely private-sector, a state transmission operator dominates in most other EU member states. In theory the risk of "stranded investments" exists where losses incurred by a state operator must be borne by the taxpayer.

The question of whether further expansion of gas relations with Russia will contribute to creating a liquid and securely supplied EU market will depend on how strictly the EU competition rules are enforced, and above all also whether other flexibility and import options are created (also on the demand side). Utilisation of new infrastructure will depend on price developments, for which in turn regional and global fluctuations in supply and demand for pipeline gas and LNG are decisive. Gazprom has already adapted its marketing strategies, including for example gas auctions in the German and Baltic markets. Moreover, largely ignored by the EU, a liberalisation is under way in Russia's own gas market, which could result in future in a breaking-up of Gazprom's monopoly on exports to Europe.⁴⁰ As the gas volumes traded at the SPIMEX in St Petersburg are simultaneously increasing, the Nord Stream system could in future work as "communicating tubes" between the German and the Russian markets.⁴¹

³⁹ ACER and CEER, *Annual Report* (see note 7), 169; Goldthau, *Assessing Nord Stream 2* (see note 7), 27.

⁴⁰ Gusev and Westphal, *Russian Energy Policies Revisited* (see note 38), 18–31.

⁴¹ We owe this thought to Tatiana Mitrova.

Transit through Ukraine and unresolved problems

The largest gas markets in north-western Europe (Germany, France, United Kingdom) rely only partially or not at all on transit through Ukraine (see Table 1). The only exception among major gas markets is Italy, whose operator ENI was involved in the South Stream project and also discussed as a member of the Nord Stream 2 consortium. Table 1 shows what proportion of their gas member states receive via Ukraine.

Ukraine's moves towards the EU have been accompanied since the security crisis of 2014 by a radical reduction in its own gas consumption, a similar reduction in gas imports from Russia and an increase in gas imports from the EU via reverse flows. Beginning with a physical flow-reversal of 15 billion cubic metres annually at the Slovak-Ukrainian border from September 2014, Ukraine has acquired the ability to import 20 billion cubic metres annually from the West (including 5 billion cubic metres from Poland and Hungary). These capacities are thus larger than its import needs.⁴² Between 2013 and 2015 Ukrainian gas consumption fell from 50.4 billion cubic metres annually to 33.8 billion. Imports in 2015 were 16.5 billion cubic metres, of which 60 percent came from the EU.⁴³ Ukraine itself now relies on receiving (Russian) gas from the west. Interestingly, west-east gas flows to Ukraine were initially largely politically motivated, but later also spurred by economic considerations, as for a time the gas available from the west was cheaper.⁴⁴

One of the main economic arguments against Nord Stream 2 is the loss of about \$2 billion in annual transit revenues for Ukraine.⁴⁵ However, as Goldthau rightly points out, although Ukraine would lose transport fees it has already gained price advantages from the reverse flow of Russian gas.⁴⁶

As well as affecting the country's gas imports, the crisis over Ukraine accelerated reforms in the Ukrainian gas sector. Russia and Ukraine are still wrangling over the legal and contractual framework; the supply

⁴² Yuriy Vitrenko, "Naftogaz Procurement Strategy in Europe: Switching from East to West?" PowerPoint presentation at E-world Congress 2016, 16 February 2016, International Gas Market, Part 2: The European Development, slide 2.

⁴³ Ibid.

⁴⁴ ACER and CEER, *Annual Report* (see note 7), 253–54.

⁴⁵ "Nord Stream-2 Pipeline to Kill Ukraine's Gas Transit Business – Naftogaz CEO", *Reuters*, 6 November 2015.

⁴⁶ Goldthau, *Assessing Nord Stream 2* (see note 7), 6.

Table 1
European gas imports from Russia (billion cubic metres), share of total imports and gross domestic consumption (billion cubic metres)

| Country | Imports from Russia | | | | | Russian share of total volume 2014 | Gross domestic consumption 2014 |
|--|---------------------|------|------|------|------|------------------------------------|---------------------------------|
| | 2000 | 2005 | 2010 | 2014 | 2015 | | |
| <i>Countries receiving their entire Russian gas imports via Ukraine</i> | | | | | | | |
| Italy | 21.0 | 23.3 | 15.0 | 25.8 | 21.7 | 39% | 60.3 |
| Austria* | 5.1 | 6.8 | 5.6 | 4.2 | 5.0 | 31% | 7.7 |
| Greece | 1.5 | 2.4 | 2.1 | 1.7 | 2.0 | 57% | 3.0 |
| Bulgaria | 3.3 | 3.0 | 2.6 | 2.8 | 3.1 | 94% | 2.8 |
| Czech Republic | 7.2 | 7.1 | 7.5 | 0.8 | 0.9 | 87% | 7.4 |
| Romania | 3.4 | 5.3 | 2.2 | 0.5 | 0.3 | 4% | 11.1 |
| Slovenia | 0.6 | 0.7 | 0.5 | 0.4 | 0.5 | 37% | 0.7 |
| Slovakia | 7.0 | 7.4 | 6.1 | 4.4 | 3.8 | 105% | 4.5 |
| Serbia | 1.1 | 2.1 | 1.8 | 1.5 | 1.9 | 70% | 1.9 |
| Croatia | 1.1 | 1.1 | 1.0 | 0.6 | 0.6 | 0% | 2.4 |
| Hungary | 7.9 | 8.8 | 9.1 | 5.4 | 6.0 | 93% | 8.3 |
| <i>Countries receiving part of their Russian gas imports via Ukraine</i> | | | | | | | |
| France | 12.0 | 9.5 | 7.5 | 7.6 | 10.5 | 14% | 38.8 |
| Poland | 6.6 | 6.9 | 9.8 | 9.1 | 8.9 | 55% | 16.0 |
| Turkey | 10.1 | 17.5 | 17.6 | 15.5 | 22.5 | 29% | 47.8 |
| <i>Countries receiving no Russian gas imports via Ukraine</i> | | | | | | | |
| Germany | 34.7 | 38.2 | 34.0 | 40.3 | 47.4 | 38% | 76.2 |
| Finland | 4.2 | 4.4 | 4.7 | 3.1 | 2.8 | 100% | 3.0 |
| Netherlands | 0 | 4.4 | 4.0 | 4.7 | 8.4 | 6% | 34.6 |
| Denmark | 0 | 0 | 0 | 0.4 | 0.7 | 0% | 3.3 |
| Estonia | 0.8 | 1.0 | 0.7 | 0.4 | 0.5 | 100% | 0.5 |
| Latvia | 1.4 | 1.8 | 1.1 | 1.0 | 1.3 | 72% | 1.3 |
| Lithuania | 2.5 | 3.1 | 3.1 | 2.5 | 2.2 | 98% | 2.5 |
| United Kingdom* | 0 | 3.8 | 10.7 | 15.5 | 22.5 | 18% | 71.1 |

* Source: Gazprom, *Gazprom in Figures 2000–2004* (2005), 29, <http://www.gazprom.com/f/posts/20/985450/3statistikan.pdf>; idem., *Gazprom in Figures 2005–2009: Factbook* (2010), <http://www.gazprom.com/f/posts/05/285743/gazprom-in-figures-2009-en.xls>; idem., *Gazprom in Figures 2010–2014: The Power of Growth* (2015), 82, <http://www.gazprom.com/f/posts/00/463337/gazprom-in-figures-2010-2014-en.pdf> (all accessed 17 November 2016).

Total volume = production + imports + change in stocks, Source: Simon Pirani and Katja Yafimava, *Russian Gas Transit across Ukraine Post-2019: Pipeline Scenarios, Gas Flow Consequences, and Regulatory Constraints*, OIES Paper NG 105 (Oxford: Oxford Institute for Energy Studies [OIES], February 2016), 60/61; Eurostat.

and transit contracts concluded in 2009 do not actually expire until 31 December 2019.⁴⁷ But Ukraine, like the states of the Western Balkans and Moldova,

⁴⁷ Jonas Grätz and Kirsten Westphal, *Ende gut, alles gut? Das russisch-ukrainische Gasabkommen auf dem Prüfstand*, SWP-Aktuell 3/2009 (Berlin: Stiftung Wissenschaft und Politik, January 2009).

has joined the European Energy Community and thus committed itself to gradually adopt the parts of the *acquis communautaire* relevant to the energy market. Accordingly it implemented in its national legislation first of all EU primary law (April 2015) and then successively the secondary legislation from the EU's third internal market package (in November and December 2015). The extent to which – and when – the new tran-

sit regime, the access rules (in other words the corresponding network code),⁴⁸ and the transport tariff are implemented, and what repercussions that will have on the ten-year gas contract with Russia concluded in 2009 remains unclear.⁴⁹

From Kiev's perspective technical considerations also come into play, alongside the declared aim of "amortising" the "transit pipeline" in the remaining period until 2019. Cost-based transport pricing is standard practice in the EU. In the case of Ukraine there are good reasons to suppose that that principle will not be entirely simple to implement. As Table 1 shows, gas transit through Ukraine has declined with each new pipeline from Russia to the EU (Yamal Pipeline and Nord Stream). Additionally, gas consumption in Ukraine itself has plummeted. At the same time, the transit system inherited from the Soviet era is closely interconnected with the Ukrainian gas supply network and optimally dimensioned for much larger volumes. If actually transmitted gas volumes decline any further this could create and exacerbate technical problems. In principle, a spin-off of one of the connections for transit to western Europe (for example Pomary-Uzhgorod with an annual capacity of approximately 30 billion cubic metres) would be necessary. That in turn would require considerable investment, which should also be reflected in the high transit fees. These factors are absolutely decisive for the question of whether and with what capacity the Ukrainian transit corridor survives as a flexibility option for Europe (and Russia). Alongside unbundling, the Ukrainian pipeline network needs a "business model" that gives investors a long-term perspective. Basically what is needed here is an exemption for transit of Russian gas through Ukraine under the new framework of the third energy market package.

The transit regime is not the only bone of contention; the supply contract and old debts also generate friction. Here arbitration cases are in progress, with each side demanding huge sums. That contains quite some conflict potential and also represents a threat to the EU's security of supply.

⁴⁸ Under the EU's third internal market package, network codes govern pipeline access, congestion management and tariff arrangements.

⁴⁹ "Ukraine Network Code Aims to Liberalise, but Hurdles Remain", *Heren Report*, 4 August 2015, 14/15.

The gas markets in central eastern Europe

While Germany and the north-west European hubs will profit economically from Nord Stream 2, an analysis of the central eastern and south-east European (and also Baltic) EU gas markets produces a much more mixed picture. The small central eastern and south-east European markets are highly dependent on both Russian gas supplies and Ukrainian transit. These countries also pay the highest wholesale gas prices.⁵⁰ There are several reasons for the persistence of price differences within the EU: specific contractual arrangements, different main supply sources and diverging competition and liquidity situations in the individual member states.⁵¹ While it is apparent that the development of the internal markets has produced welfare gains overall, the consumer surplus is very unequally distributed among the member states.⁵² The higher import prices paid by certain states are caused by the market dominance of a single source (Gazprom), but also the weaker interconnection of and restrained competition within their gas markets.⁵³ These countries have long been eager to diversify their gas supplies and object to Gazprom's market power and the political instrumentalisation thereof. This explains their vehement opposition to Nord Stream.

Table 2 (see p. 23) illustrates Gazprom's central market position. Central eastern and south-eastern Europe import most of their gas from Russia (see Table 1, p. 21). And these supplies are routed exclusively via Ukraine.

In central and eastern Europe Gazprom possesses a market share far exceeding 50 percent and in some cases up to 100 percent. Abuses of Gazprom's monopoly were the subject of a Commission anti-trust investigation, whose findings were published in April 2015:⁵⁴ According to the report Gazprom had included territorial restrictions such as export ban and destination clauses in its supply contracts with Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia. It also ruled that the prices set for Bulgaria, Estonia, Latvia, Lithuania and Poland were un-

⁵⁰ European Commission, DG Energy, *Quarterly Report on European Gas Markets, Market Observatory for Energy* 9, no. 1 (2015/16), 29, https://ec.europa.eu/energy/sites/ener/files/documents/quarterly_report_on_european_gas_markets_q4_2015-q1_2016.pdf (accessed 8 September 2016).

⁵¹ ACER and CEER, *Annual Report* (see note 7), 237.

⁵² *Ibid.*, 242–50.

⁵³ *Ibid.*, 239.

⁵⁴ European Commission, *Antitrust: Commission Sends Statement of Objections to Gazprom – Fact Sheet* (Brussels, 22 April 2015).

Table 2: Long-term supply contracts in selected central and eastern European states

| Country | Annual contract volume (billion m ³) | Expires | Annual consumption 2014 (billion m ³) | Annual contract volume as proportion of 2014 consumption | Importer | Main shareholder |
|----------------|--|---------------------------------------|---|--|---|--|
| Bulgaria | 0.4 | 2019 ^a | 2.8 ^b | 117.8% | Overgas | Gazprom ^c (50%) |
| | 2.9 ^d | 2022 | | | Bulgargaz Holding EAD (subsidiary of Bulgarian Energy Holding EAD) ^e | Bulgarian state |
| Czech Republic | 9.0 ^f | 2035 | 7.35 | 129.2% | RWE Supply & Trading CZ a.s. | RWE AG |
| | 0.5 | 2017 ^g | | | Vemex s.r.o | Gazprom ^h (50%) |
| Poland | 10.24 ⁱ | 2022 | 15.95 | 64.2% | PGNiG | Polish state |
| Hungary | 9.9 | 2015 (extended to 2019 ^k) | 8.3 | 119.3% | Panrusgaz | Hungarian state / Gazprom ^l |
| Romania | 5.0 ^m | 2030 | 11.14 | 62.8% | WIEE Romania | Romanian state / Gazprom ⁿ |
| | 2.0 ^o | 2030 | | | Conef Energy | Conef SA (Vimetco N.V.) |
| Slovakia | 6.5 | 2028 | 4.5 (4.48) | 145.0% | SPP | Slovak state ^p |
| Slovenia | 0.83 ^q | 2018 (2035) | 0.745 | 111.4% | Geoplin Plinovodi | Slovenian state ^r |

Table based on a compendium by Regionális Energiagazdasági Kutatóközpont (REKK)/Regional Centre for Energy Policy Research (RCEPR), Budapest.

a “Overgas Takes Gazprom to Court over Halt in Supplies”, *novinite.com*, 7 April 2016, <http://www.novinite.com/articles/173914/Overgas+Takes+Gazprom+to+Court+over+Halt+in+Supplies> (accessed 12 Dec. 16).

b Consumption data (2014): http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_103a&lang=en, converted to billion m³ on Delek Drilling website, <http://www.delekenergy.co.il/?pg=calc&CategoryID=198> (accessed 8 Sept. 16).

c “Foreign Partners: Bulgaria”, Gazprom Export website, <http://www.gazpromexport.ru/en/partners/bulgaria/> (accessed 8 Sept. 16).

d “Bulgaria Signs on to South Stream”, Natural Gas World website, 15 November 2012, <http://www.naturalgaseurope.com/bulgaria-gas-contract-south-stream-fid> (accessed 8 Sept. 16).

e “Foreign Partners: Bulgaria“ (see note c).

f RWE Transgas, *Annual Report* (Prague, March 2007), http://www.rwe.cz/media/o-rwe/rwe/RWE_Transgas-EN.pdf (accessed 8 Sept. 16).

g “Foreign Partners: Czech Republic”, Gazprom Export website, <http://www.gazpromexport.ru/en/partners/czech/> (accessed 8 Sept. 16).

h “Vemex Ownership Structure”, Vemex s.r.o. website, <http://www.vemex.cz/en/about/structure/> (accessed 12 Dec. 16).

i “PGNiG SA Signs an Annex to the Yamal Contract for Natural Gas Supplies”, PGNiG SA website, 2 November 2010, <http://bit.ly/2fw5Sg5> (accessed 8 Sept. 16).

j “Shareholder Structure of PGNiG SA”, PGNiG SA website, <http://en.pgnig.pl/investor-relations/stock-informations/shareholder-structure>.

k “Press-Konferentsiya po zawerschenii rossijsko-wengerskih peregpworow” [Press conference following conclusion of Russia-

Hungary talks], Kremlin.ru website, 17 February 2016, <http://kremlin.ru/events/president/transcripts/51352> (accessed 8 Sept. 16).

l “State Energy Group MVM Buys 50% of Panrusgaz under Option”, *Budapest Business Journal*, 16 February 2015, http://bbj.hu/economy/state-energy-group-mvm-buys-50-of-panrusgaz-under-option_92607; “About Us”, Panrusgaz Gas Trading PLC website, <http://www.panrusgaz.hu/> (accessed 12 Dec. 16).

m Gazprom Export, *Gazprom Press Conference 2010 – Booklet* (Moscow, 2010), http://www.gazpromvideo.ru/fileadmin/press/2010/files/eng/layout_eng_02.06.pdf (accessed 8 Sept. 16).

n Agata Łoskot-Strachota, *Gazprom's Expansion in the EU: Co-operation or Domination?* (Warsaw: Centre for Eastern Studies [OSW], October 2009), 31, http://www.osw.waw.pl/sites/default/files/gp_eu_10_09_en.pdf (accessed 12 Dec. 16).

o “‘Gazprom’ i Conef Energy SRL podpisali dolgosrochnij kontrakt na postawku gaza w Rumuniyu” [Gazprom and Conef Energy SRL sign long-term contract for gas deliveries to Romania], Gazprom.ru website, 4 April 2007, <http://www.gazprom.ru/press/news/2007/april/article56131/> (accessed 8 Sept. 16).

p “Foreign Partners: Slovakia”, Gazprom Export website, <http://www.gazpromexport.ru/en/partners/slovakia/> (accessed 12 Dec. 16).

q *Gazprom Export* [company brochure] (2013), http://www.gazpromexport.ru/content/file/brochure/ge_en_2013.pdf (accessed 8 Sept. 16).

r “Organisational and Ownership Structure of the Company”, Geoplin website, <http://www.geoplin.si/en/company-geoplin/organisational-and-ownership-structure-company-0> (accessed 12 Dec. 16).

fair, because they exceeded the benchmarks in other markets, in some case by up to 40 percent.⁵⁵ Gazprom, it found, had also made the sale of gas conditional on the participation of the incumbent in a major infrastructure project (South Stream, Bulgaria). In Poland Gazprom is reported to have tied gas supplies to control over investment decisions in connection with the Yamal-Europe pipeline. Since autumn 2016 there have been increasing signs that the Commission and Gazprom have reached a compromise, although the details remain unknown (as of February 2017). That might mean that Gazprom will act to bring its market strategies in central eastern Europe into line with EU rules. Or it could mean that the EU's evidence is not solid enough to insist on fines in this politically sensitive case.

Regardless of these current developments, the attitude of the central eastern and south-east European states towards Gazprom remains very critical. Their geographical situation, existing long-term contracts and the comparatively small volumes of gas involved make it hard for these countries to diversify. Long-term contracts with Russia cover most of their demand for many years, and in some cases even exceed annual requirements (see Table 2, p. 23). Thus, major diversification and infrastructure projects are not worthwhile in these generally small gas markets. This is also a reason why the EU has to date failed to realise major alternative supply corridors (such as Nabucco). These countries lack the negotiating power to achieve price concessions, all the more so where alternative import options are lacking. In this situation it is easy for suppliers to segment markets and apply pricing tactics.⁵⁶ In some of these countries implementation of the third internal market package is slow, with established operators preventing the expansion of cross-border trade. Nevertheless, efficient network development and full use of cross-border capacity are the key to a cheap and reliable gas supply in the EU.

In the event of significant gas volumes being routed via Nord Stream 2 to parts of south-eastern Europe the number of entries and exits for transit would increase and the gas would have to be transported through a series of market areas. Cross-border bottlenecks and tariff barriers are worst in southern and south-eastern Europe, but also exist between Germany and Poland,

Germany and Czech Republic, Austria and Hungary, Romania and Bulgaria, Bulgaria and Greece, and Slovenia and Croatia. However, the “use it or lose it” (UIOLI) rule introduced in July 2016 for entry/exit points and nodes with limited spare capacity requires that unused capacities be made available to other operators.⁵⁷

On account of the long distances, Nord Stream 2 is unlikely to fully supply south-eastern Europe. But these countries worry that the rerouting of gas volumes for north-western Europe through the Baltic could face them with two issues: Firstly, they are concerned that Gazprom could target its market power significantly more precisely by ensuring adequate supplies only to the north-west European markets (via Nord Stream 2), but instrumentalising the volumes flowing (via the Ukrainian corridor) to central eastern and south-east European markets and Ukraine itself. These concerns are based partly on the findings of the anti-trust investigation against Gazprom and partly on the experience of supply reductions by Gazprom between November 2014 and March 2015, which were apparently intended to make it harder or impossible for Ukraine to receive supplies through the western entry points. Secondly and more importantly, they also fear that loss of transit status will weaken their position in talks with Russia. Although these concerns cannot be rejected out of hand, the situation from the perspective of the north-west European markets appears rather different. Here the perceived danger is becoming drawn into political quarrels between transit states and Russia (regardless of who is to blame).

Nord Stream and changing gas flows in eastern Europe

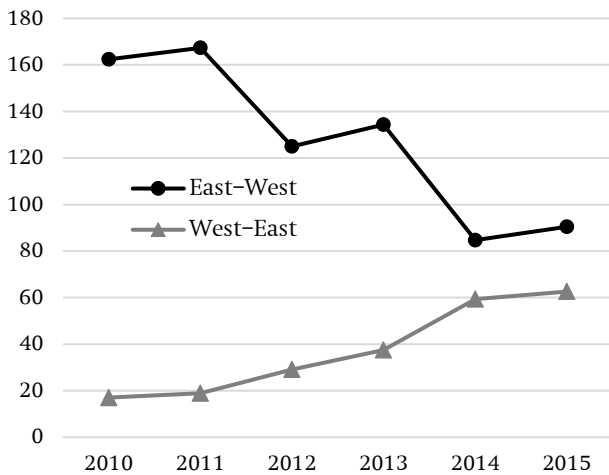
The completion of Nord Stream 1 and the expansion of interconnectors between member states have expanded west-east gas flows within Europe and the EU. Traditionally the direction has been east to west. In the wake of the Ukraine-Russia crisis of 2009 and the European Regulation on measures to safeguard security of gas supply adopted a year later, connections into the eastern EU member states were upgraded, and by 2014 it was possible to supply Ukraine from the west via reverse-flow options. Although east-west flows still predominate on account of the existing long-term contracts and fixed delivery periods, with

⁵⁵ Najia Badykova, “Politics and Pricing Sharpen Gazprom’s Competitive Edge”, *Newsbase*, (online), 16 September 2015, 5.

⁵⁶ ACER and CEER, *Annual Report* (see note 7), 240.

⁵⁷ *Ibid.*, 251.

Figure 2
Natural gas flows in central eastern Europe (billion cubic metres per annum), east-west and west-east



Note: East-west flows: Ukraine–Slovakia, Slovakia–Austria, Czech Republic–Germany, Slovakia–Czech Republic, Austria–Germany, Czech Republic–Austria; west-east: Germany–Czech Republic, Czech Republic–Slovakia, Slovakia–Ukraine, Germany–Austria. Source: “Gas Trade Flows in Europe, in Mcm”, International Energy Agency (IEA) website, (2016), <http://www.iea.org/gtf/index.asp> (accessed 2 December 2016).

Gazprom holding fixed transit capacities and retaining ownership of the gas through to the point of delivery, west-east flows have nonetheless increased (see Figure 2).⁵⁸ Gas supplies from the west involve a series of commercial transactions. Figure 2 illustrates clearly what occurred after Nord Stream 1 came on stream. Further, the study by ACER and CEER shows that these west-east flows have boosted gas/gas competition. In a nutshell, this generally means gas purchased at the hubs in north-western Europe competing with Russian gas from the existing long-term contracts.⁵⁹ So these developments have granted central eastern European member states and Ukraine access to cheaper (mostly Russian) gas.

The expansion of interconnectors has thus strengthened competition and influenced prices. In relation to the question of the effects to be expected in connection with Nord Stream 2, the decisive aspects are which route gas from the long-term contracts takes and how much technical and contractual free capacity is available at the cross-border transmission interconnection points. The interconnectors were constructed to transport gas from alternative sources traded on the spot

markets (including “Russian” gas) to the east (as far as Ukraine) and south-eastern Europe. There are concerns that cross-border interconnection points will become congested if gas from the long-term contracts is also transported from west to east, and that this could isolate the markets. This would curtail competition and prices would remain high. However, the technical cross-border capacities exceed the contracted volumes. There is also reason to believe that Gazprom is interested in renegotiating delivery points for the long-term contracts. This, conversely, would give these countries an opportunity to agree new arrangements for example for purchase obligations. Internal market integration could be advanced through the expansion of interconnector capacities and the dismantling of tariff and regulatory obstacles in central eastern and south-eastern Europe.

However, there are also objections that the establishment of a north-south corridor in western Europe would prevent the development of a north-south corridor in eastern Europe (to access alternative gas sources).⁶⁰ Nord Stream 2 thus pits advantages for some member states against drawbacks for others: and as such touches on the political question of solidarity within the EU.

⁵⁸ Ibid., 260.

⁵⁹ Ibid., 17–18; Goldthau, *Assessing Nord Stream 2* (see note 7), 6.

⁶⁰ Agata Łoskot-Strachota and Paweł Popławski, “EUGAL: The Unknown German Branch of Nord Stream 2 Will Make Germany the Key Gas Hub in Europe”, *Energy Post* (online), 6 June 2016, <http://www.energypost.eu/eugal-project-unknown-german-branch-nord-stream-2-will-make-germany-key-gas-hub-europe/> (accessed 8 September 2016).

Nord Stream 2 – The Political Dimension

The Nord Stream 2 project and the function of the Ukrainian corridor are highly politically charged. The project is seen in light of the crisis over Ukraine and the challenge to the security order in Europe. Thus, security concerns and military considerations even surround the planned construction through the Baltic Sea. Sweden rejected plans to use the strategically sensitive island of Gotland as a base for construction because of worries about national security. Yet, the port of Karlshamn may be used for the same purpose.⁶¹ This episode illustrates that the planning of Nord Stream 2 is taking place in a completely different security and political environment than Nord Stream 1. Sweden is vigilant because Russian military activity has increased in the Baltic Sea since 2014. At the end of January 2017 Stockholm, together with Copenhagen, therefore asked the European Commission to assess the legal and political dimensions of the pipeline project and to report back to the member states.⁶²

Exacerbating an already difficult political situation, Russia is supporting illiberal movements in the EU that contest European integration. Thus, there is a growing impression within the EU that the Kremlin's intention is to weaken the cohesion of the Union (also with the "wedge" of Nord Stream 2).

Yet, above all Nord Stream 2 faces political scrutiny with respect to the intentions associated with the Energy Union. The Nord Stream 2 project consortium was unveiled in 2015, just a few months after the Juncker Commission declared the creation of the Energy Union one of its ten priorities. The crisis over Ukraine and the further deterioration of European-Russian relations supplied the impetus for the April 2014 proposal by then Polish Prime Minister Donald Tusk. According to this, the Energy Union was to concentrate primarily on security of gas supply and work

to diversify energy sources. But since then the objectives have broadened. The strategy for implementing the Energy Union, which is based on ideas of trust and solidarity, names five dimensions: security and diversification of supply, a fully integrated internal market, energy efficiency, decarbonisation of the economy, and support for research, innovation and competitiveness.⁶³ The Commission would also like to see the Regulation on security of gas supply of 2010 adapted to the new circumstances. In a word: the Nord Stream 2 project appeared on the scene at a highly sensitive moment.

Nord Stream 2 and the strategic energy triangle

The criteria of security of supply and diversification play a part in the political deliberations, alongside their regulatory role in the granting of exemptions. It will be much harder for the EU to judge Nord Stream 2 in economic and energy terms than it is for the participating companies to assess its commercial viability. The reason for this is above all that the weighting of targets in the energy triangle – security of supply, competitiveness and sustainability is subject to individual political prioritisations in the member states. And these diverge considerably.

Definitions of security of supply differ within the EU depending on how particular aspects – physical supply failure, price spikes, political costs – are weighted. The EU member states also apply very different governance principles to their energy markets. While Germany leaves security of supply primarily to private-sector companies and the market, growing renationalisation tendencies are observed especially in the central eastern European states, including neighbouring Poland. Here, diversification and reducing imports from Russia are the watchwords. Cost/benefit assessments of (strategic and costly) diversification projects diverge accordingly. These asymmetries are

⁶¹ "Sweden Drops Objections to Port Striking Nord Stream Deal", Reuters, 30 January 2017, <http://www.reuters.com/article/us-sweden-nordstream-idUSKBN15E1RI> (accessed 28 February 2017).

⁶² Letter of 25 January 2017 from the Danish Ministry of Energy, Utilities and Climate and the Swedish Prime Minister's Office to the Vice President of the Commission and the Commissioner for Climate Action and Energy.

⁶³ European Commission, *Priority – Energy Union and Climate: Making Energy More Secure, Affordable and Sustainable*, ec.europa.eu/priorities/energy-union-and-climate_en (accessed 11 April 2016).

further exacerbated by differences in implementation of the third internal market package within the EU.

In essence this means that the EU lacks a united stance towards Gazprom. While north-west European gas customers regard it as a largely business-orientated, reliable (as in rational) company, the central and eastern European EU states see it above all as a geo-political instrument of the Kremlin whose gas supplies obey political considerations. Opinions on this fundamental question are sharply divided.

In Germany economic interdependency between exporter and importer is still viewed more positively than in Brussels or the central eastern European states, in the historical context of the “Ostpolitik” and the “gas for pipes deals” of the 1970s. Although the plans for Nord Stream 2 took the German government by surprise in early summer 2015, a political line quickly emerged. First, the legal procedure is a given. Germany as the landfall state follows a defined application and planning process. As soon as the project has been launched and applications submitted, the legal and regulatory trajectory is clear. Any rejection would have to be based on solid legal grounds. Second, the economic assessment of the German government converges with those of the participating companies, highlighting increasing import needs and affordable and abundant reserves in Russia. A responsible government has to take these factors into account, even more so because almost half of Germany’s heating systems run on natural gas. Third, the project is of symbolic significance for German foreign and economic policy, which relies on a dual strategy of deterrence and cooperation towards the Kremlin. In this context the German handling of Nord Stream 2 already sent a clear message that this policy approach would be retained. Yet, there is also awareness that this sound economic project comes at a highly sensitive time politically.

In the EU-28 energy and climate policy is riven by a series of fault lines, which run particularly deep in the case of natural gas. One side attributes it an important bridging function in the decarbonisation context; the other regards it largely as a source of growing dependency on and political vulnerability to Russia and would like to see its share in the energy mix reduced. The unpredictability created by potentially 28 (27) future energy paths in the EU makes it difficult to assess the economic and energy impacts of Nord Stream 2 in terms of cost/benefit and security of supply, nor its consequences for the internal gas market. The degree

of unpredictability varies depending on the chosen timeframe.

Nord Stream 2 in the context of climate and environmental considerations

The fiercest criticism of Nord Stream 2 in Germany comes from the environmental and climate lobby. Relevant studies focus on the environmental and climate compatibility of the plans and the danger of “stranded investments” – that would indeed exist if the EU achieved its climate and energy targets for 2030 and consistently pursued the proposed decarbonisation path for 2050.⁶⁴ Nevertheless, the share of gas in the energy mix will indeed have to fall in the longer term in light of the long-term goal of carbon-neutrality noted in the Paris Agreement of 2015. What the critics neglect, however, is the climate benefits of a direct, modern and efficient pipeline as against an outdated system. Even more importantly, what these views ignore is that network planning in the EU has for good reason been based to date not on normative scenarios, but rather on “best-guess” scenarios. This follows the responsible device of “better safe, than sorry”.⁶⁵

Moreover, modelling the utilisation path poses difficulties, because political decisions are still awaited on the role of gas in the process of rapidly and effectively reducing greenhouse gas emissions. Gas is regarded as a bridge to a more sustainable energy system, because it burns much more cleanly than coal or oil products and produces less particulate pollution.⁶⁶ One obvious dilemma remains politically unresolved: the future demand situation in Germany and

⁶⁴ Examples include: Energy Union Choices, *A Perspective on Infrastructure and Energy Security in the Transition*, July 2016, http://www.agora-energie-wende.de/fileadmin/Projekte/2016/Energy_Union_Choices_Gas/EUC_Full_Technical_Report_Embargoed_10.00_CET_3_March_1__2_.pdf (accessed 8 September 2016), and Jonathan Gaventa, Manon Dufour and Luca Bergamaschi, *More Security, Lower Cost: A Smarter Approach to Gas Infrastructure in Europe*, E3G Energy Union Insight Series 1 (Berlin, March 2016).

⁶⁵ Jens Hobohm, “Gas Scenarios and Infrastructure Planning in the EU: Better Safe than Sorry”. Talk at E-World Essen, 7 February 2017.

⁶⁶ Taking the entire chain into account, methane leakage could also significantly worsen the climate balance of natural gas, as methane is a much more powerful greenhouse gas than carbon dioxide (although with a considerably shorter atmospheric residence time). However, effective precautions can be taken.

the EU is associated with great uncertainty, because it depends not only on relative price developments, but also on the implementation of measures in the areas of energy efficiency, electrification and ‘sectoral coupling’.⁶⁷ On the basis of today’s knowledge, demand can only be estimated very vaguely (see Chapter “Market Trends”, pp. 19 ff.). In short, political decision-makers have yet to resolve the extent to which public funds will (still) be provided for the development (expansion) of fossil fuel infrastructure, and what the basis should be for assessing these projects within the strategic triangle.⁶⁸ This question is also acutely relevant with respect to the need for security of supply, which relies on the preservation (and expansion) of flexibility and buffering in the system and on increasing diversification.

In the given open and uncertain market situation it is, however, part and parcel of competition and regular business practice for energy firms to pursue all kinds of paths and projects. The stranded investment risk for Nord Stream 2 is Gazprom’s. That is one of the features that characterises it as a commercial project. This perspective also tallies with the ideal of the free market, which predominates in Germany and characterises the internal market packages. Of course Germany exposes itself to accusations of inconsistency if it demands a shift in investments from fossil fuels to sustainable energy, but at the same time welcomes the construction of new gas pipelines through the Baltic and backs them politically vis-à-vis other EU member states. The reason many EU member states express reservations over Nord Stream, however, is not climate protection but because they see it contradicting their efforts to improve their security of supply by diversifying their energy sources.

Criticisms from central eastern and south-eastern Europe

While Nord Stream 2 strengthens the gas markets in north-western and western Europe, with their liquid

⁶⁷ Relative price trends play an important role with natural gas, which competes with other energy sources and raw materials in almost all fields (heat and power, industry, transport).

⁶⁸ The concluding chapter of a study by Energy Union Choices airs the provocative question of whether public institutions should be controlling or even authorising private investments and contracts in the fossil fuel sector, Energy Union Choices, *A Perspective on Infrastructure* (see note 64), 38.

hubs, the effects on central eastern and south-east European countries are a good deal more ambivalent. The project therefore has consequences for relations among EU member states. The planning phase for Nord Stream 1 was already accompanied by major disputes, especially between Germany and its eastern neighbours, and to some extent also with Nordic countries. The participating companies and the political actors backing the project argued that diversification of routing and a more direct connection to the Russian gas fields would bring benefits in terms of stability of supply. In response to reservations expressed by central eastern European countries, it was asserted that the new pipeline system would merely add volume, with little change in existing transit flows. Most of these countries rejected this line of argument, however. For many of them the supposedly secondary foreign policy consequences were decisive. They feared not only undesirable developments in their own energy sectors, but also a German-Russian rapprochement with strategic and geopolitical consequences. If bilateral tensions between Germany and its neighbours did not intensify when construction began or when Nord Stream 1 came on stream, this is partly because the sceptically minded countries made progress on diversification and Germany was able to win their confidence through its stance in the Ukraine-Russia conflict.

The circumstances surrounding Nord Stream 2 have changed significantly since its predecessor was built, however, especially concerning the motivations and justifications for the project. The central eastern European countries fear that Nord Stream 2 could restrict their options for improving their security of supply and reducing their dependency on Russia and at the same time undermine Ukraine in its conflict with Russia. They also see political intentions behind the project, despite German insistence that Nord Stream 2 is a purely commercial venture. In this context they regard it principally as an egotistical venture at the expense of third parties. They accuse Germany of demanding support from its EU partners, for example concerning refugee policy, but playing the solidarity card only when it suits its own interests.

Nor should the potential consequences of another Nord Stream pipeline for the EU member states and accession candidates in south-eastern Europe be overlooked. The transport infrastructure in some of these countries is historically biased towards routes coming out of Ukraine. If these routes were to be marginalised or fall away altogether, these countries would be forced to rapidly adapt their gas transport networks

with new interconnectors, which would potentially alter their existing infrastructure planning and force them to make additional investments.

Hence it comes as no surprise that the announcement of the Nord Stream 2 project provoked strong criticism in some quarters, especially in central eastern Europe, both of the project itself and of Germany's attitude. In this context, energy-related arguments have been raised, as well as doubts concerning foreign policy and European affairs. As the energy ministers from seven east central and south-east European countries (Estonia, Latvia, Lithuania, Poland, Slovakia, Hungary, Romania) put it in a joint letter to the Vice-President of the European Commission responsible for the Energy Union, the Nord Stream 2 project contains "alarming aspects", that could negatively affect "energy geopolitics in Europe".⁶⁹ They also complain that the project contravenes the spirit of European energy policy and in particular violates the idea of energy solidarity. Nord Stream 2, they say, is tantamount to "dismantling the Energy Union".⁷⁰ In the eyes of central and eastern European countries termination of transit through Ukraine in the medium to long term would also have negative consequences for EU member states presently connected to the Ukrainian east-west route. These would either lose their own role as transit countries (principally Slovakia) or be forced to develop new infrastructure for receiving Russian gas as consumers (example states in south-eastern Europe). This would weaken the affected states vis-à-vis Moscow, for example when negotiating new supply contracts. From the central and eastern European point of view, the new pipeline would also increase the (alleged) danger of cheap Russian gas from the newly dominant German hub (initially) flooding the markets in central Europe and undermining the profitability of diversification projects there (such as the construction of LNG terminals or interconnectors). Another point made is, that the transport infrastructure emerging in the region in the context of the north-south corridor would not be used to import and transport gas from alternative sources,

but largely for Russian gas.⁷¹ Central and eastern European observers also see a danger of firms in the Nord Stream 2 consortium securing political backing from important member states to pressure the Commission with the aim of overturning central principles of European energy policy, above all in the scope of the third internal market package. In concrete terms, this means the possibility of Gazprom succeeding in its demand for complete or far-reaching exemptions from the requirement to provide non-discriminatory third-party access to connecting pipelines in member states, above all OPAL and Gazela (a pipeline from Saxony to Bavaria passing through Czech territory). The decision of the European Commission at the end of October 2016, under which Gazprom will be able to use up to 80 per cent of the capacity of the OPAL pipeline, was accordingly received largely critically in eastern EU countries, where it was seen as confirming pre-existing fears.

Altogether, the opponents say, the EU's security of supply will worsen, because Nord Stream 2 fails to bring about any diversification of sources but reduces the number of existing transport routes, leaving the future connection from Russia reliant – in the worst case – on one single route. This, they say, would make the Europe more vulnerable to interruptions of supply, whether technical or politically motivated.

These strictly energy-related concerns are joined by foreign policy and security considerations. The critics view the plans for Nord Stream 2 as a political or even strategic flagship project, signalling deepening cooperation during a troubled phase in relations with Russia and reviving a German-Russian alliance they had thought was a thing of the past. They also point to the foreign policy and security implications for Ukraine, and thus for European *Ostpolitik* as a whole. Nord Stream 2, they say, not only robs Ukraine of east-west transit revenues but deprives it of the power deriving from its status as a vital transit channel – one of the few trumps still held by Kiev in its asymmetrical relationship with Moscow.

Interests of individual member states

Closer examination reveals notable differences between the interests of the states that have expressed their open rejection of Nord Stream 2. While many

⁶⁹ Letter of 30 November 2015 from the Slovak Economic Affairs Minister Vazil Hudák (in the name of the energy ministers of Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia) to Commission Vice-President Maroš Šefčovič. Author's archive.

⁷⁰ Mikołaj Budzanowski, "Demontaż unii energetycznej" [Dismantling the Energy Union], *Rzeczpospolita*, 5 November 2015.

⁷¹ Agata Loskot-Strachota, "The Case against Nord Stream 2", *Energy Post* (online), 23 November 2015, http://www.energypost.eu/case-nord-stream-2/#_ftnref6 (accessed 8 September 2016).

eastern central and south-east European countries take critical positions, some of them also act pragmatically or even show interest in cooperation.

Slovakia. If Nord Stream 2 were to be realised, Slovakia would definitely be one of the potentially biggest “losers” among the EU states. Up to 90 billion cubic metres of gas annually can be transported through the pipelines of national transmission operator Eustream. Falling Russian exports to western Europe and the completion of Nord Stream 1 caused the transit volume to shrink from 76 billion to 46.5 billion cubic metres since 2008.⁷² Eustream has a contract with Gazprom requiring transport of annually about 50 billion cubic metres until 2028 (“ship-or-pay” clause). As such, the Slovak state’s transit revenues (amounting in 2015 to €355 million) are safe for the medium term.⁷³ But Gazprom could still attempt to renegotiate the contract before it expires or – in the worst case – close the Ukrainian route on grounds of force majeure (for example in the event of disruption to Ukrainian pipeline operations for technical or other reasons). The same applies to Gazprom’s contract with Slovak gas supplier SPP (also valid until 2028), which stipulates acceptance at the Slovak-Ukrainian border, alongside contractual minimum volumes. At the end of June 2016 Gazprom promised Eustream verbally that the Slovak transport corridor would continue to be used even if Nord Stream 2 is built. This was seen as positive in Slovakia, but altogether viewed with caution.⁷⁴

The plan to build a new direct link between the Czech and Austrian networks (the BACI pipeline, see below) in connection with Nord Stream 2 and the associated expansion of deliveries reaching Baumgarten in Austria via the OPAL pipeline and the Czech Republic is especially problematic for Slovakia. One

⁷² Eustream, *Výročná správa* [Annual report] (Bratislava, 2014), http://www.eustream.sk/sk_media/sk_vyrocne-spravy (accessed 8 September 2016).

⁷³ “Firma Eustream stále štedro prispieva do štátneho rozpočtu” [Eustream continues to contribute generously to state budget], *Portal V energetike.sk* (online), 15 July 2016, <http://venergetike.sk/firma-eustream-stale-stedro-prispieva-do-statneho-rozpoctu/> (accessed 8 September 2016).

⁷⁴ “Uistenie Gazpromu je pozitívny signál, dôležitejšie sú uzavreté zmluvy” [Gazprom’s promise is an important signal, signed contracts are more important], *Portal dennikn* (online), 1 July 2016, <http://energia.dennikn.sk/spravodajstvo/zemny-plyn-a-ropa/analytik-uistenie-gazpromu-je-pozitivny-signal-dolezitejsie-su-uzavrete-zmluvy/20586/> (accessed 7 November 2016).

consequence of this would be that transport from the Czech Republic to Austria via Slovakia (to date the only route) would be reduced and could cease altogether.⁷⁵ If that project goes through it will generate significant stress in Czech-Slovak relations.

Slovakia is pursuing at least two projects designed to expand or at least preserve its status as a transit country. Gas from the EU is already being sold to Ukraine via reverse-flow from Slovakia. If at some point Slovakia’s pipeline system is no longer being used in the east-west direction, it could serve instead to supply Ukraine with much larger volumes than has to date been the case. The Eastring project, in turn, would create a connection from the Slovak system to Hungary (or Ukraine), Romania and Bulgaria through to the Turkish border. Slovak Prime Minister Robert Fico discussed Eastring with his Russian hosts during a visit to Moscow in June 2015, plainly as a kind of substitute for the failed South Stream project that would have brought Russian gas into the EU from the south-east. In recent times, however, the Eastring pipeline, which is conceived as reverse-flow-capable, has also been discussed as a means to transport gas from western or central European hubs to south-eastern Europe. Regardless of these uncertainties, Eastring was placed on the EU’s List of Projects of Common Interest when it was amended at the end of 2015.⁷⁶

It thus comes as no surprise that some of the most critical voices are Slovak. Prime Minister Fico has spoken (referring to the home states of the participating firms) of “betrayal”, the head of Eustream accused Germany of “behaving like von Ribbentrop”.⁷⁷ Neither government circles nor the opposition would exclude taking a complaint to the European Court of Justice if Nord Stream 2 goes ahead.⁷⁸ But the government has

⁷⁵ “Češi, Němci a Rakušané prý chtějí z tranzitu plynu vyšachovat Slovensko” [Czechs, Germans and Austrians supposedly seeking to squeeze Slovakia out of gas transit], *Servis O energetice* (online), 21 April 2016, <http://oenergetice.cz/plyn/hamzik-cesi-nemci-a-rakusane-pry-chteji-z-tranzitu-plynu-vysachovat-slovensko/> (accessed 8 September 2016).

⁷⁶ European Commission, *Annex VII: The Union List of Projects of Common Interest* (Brussels, 18 November 2015), https://ec.europa.eu/energy/sites/ener/files/documents/5_2%20PCI%20annex.pdf.

⁷⁷ “Mareček, Hlavný problém je konanie Nemecka a la von Ribbentrop” [Mareček, main problem is Germany behaving like von Ribbentrop], *Energia.sk* (online), 25 November 2015, <http://energia.dennikn.sk/dolezite/zemny-plyn-a-ropa/marecek-hlavny-problem-je-chovanie-nemecka-a-la-von-ribbentrop/18413/> (accessed 8 September 2016).

⁷⁸ Eventually, the Slovak prime minister said he would wait for the German regulator’s verdict on the project; “Slovenskí politici odkazujú ‘nie’ ruskému plynovodu” [Slovak politi-

recently adopted a more moderate tone and said it would wait to see how the project turned out. It cannot be ruled out that Slovakia will accommodate Nord Stream 2, as long as there is a convenient alternative ensuring gas transit. The fact that Eustream and the Czech grid operator Net4Gas have announced auctions for transit capacities through their pipelines to Austria demonstrates their wish to test future demand for shipping gas from the Nord Stream system to central Europe and further.⁷⁹

When a revitalisation of TurkStream was floated in autumn 2016 this raised hopes in Slovakia, which would like to see Easting connected to TurkStream and Slovakia become the hub for gas from the south-east. Bratislava also believes that building TurkStream and Nord Stream 2 simultaneously would overstretch Gazprom financially. As such TurkStream would reduce the chances of Nord Stream 2.⁸⁰

Poland. In recent years Poland has undertaken considerable efforts to improve its security of supply in the gas sector, building new links to the Czech Republic, increasing the capacity of existing interconnectors with Germany and creating the preconditions (technical or virtual, by offsetting without physical flow reversal) for using the Yamal transit pipeline in reverse-flow mode. According to Polish transmission operator Gaz-System this would allow up to 10 billion cubic metres annually to be imported from western Europe in case of need, corresponding to 90 percent of import requirements.⁸¹ The new Polish LNG terminal at Świnoujście began operations in June 2016 after some delay. The facility has a capacity of 5 billion cubic metres annually (with an option to expand to 7.5 billion). A contract with Qatar initially secures

Poland 1.5 billion cubic metres annually. These measures generate a tangible improvement in Poland's security of gas supply.

Nord Stream 2 would not directly affect Polish energy security. But indirectly the pipeline project and the new transit capacities it creates could at some point call into question the Yamal route transporting Russian gas to western Europe (the agreement with Gazprom secures use of the pipeline until 2019). Polish critics of Nord Stream 2 have expressed concern above all that cheap Russian gas supplied via Germany could pose a commercial threat to the Polish LNG terminal or domestic production, which meets about one-third of Polish needs.⁸² They also fear that Nord Stream 2 could foil their efforts to establish and expand a new north-south energy corridor and make Poland into a hub routing gas (from Norway and its own LNG terminal) to central Europe and other neighbouring countries, particularly Ukraine.⁸³ Similar fears already exist in connection with Gazprom's expanded utilisation of the OPAL pipeline, for which the European Commission recently granted its approval. The CEO of PGNiG has complained that this decision will cut Poland off from gas supplies from the east, but flood it with gas from the west. In early December 2016 the (German-registered) PGNiG subsidiary PGNiG Supply and Trading submitted a complaint against the Commission's ruling to the European Court of Justice.⁸⁴

Alongside such energy policy aspects, Poland also raises economic and logistical objections (as it did in connection with Nord Stream 1). Laying pipelines on the sea bed, the Poles say, would hamper the development of shipping in Świnoujście and Szczecin, because maritime regulations would then prevent larger vessels docking there.⁸⁵

cians say "no" to Russian gas pipeline], *HNonline.sk* (online), 5 January 2016, <http://hn.hnonline.sk/ekonomika-a-firmy-117/slovenski-politici-odkazuju-nie-ruskemu-plynovodu-1049976> (accessed 8 September 2016).

⁷⁹ Eustream chystá aukciu nových kapacít. Dôvodom je Nord Stream 2 [Eustream prepares auction of new capacities: The reason is Nord Stream 2], 1 March 2017, *Energie.sk*, <http://energia.dennikn.sk/dolezite/zemny-plyn-a-ropa/eustream-chysta-aukciu-novych-kapacit-dovodom-je-nord-stream-2/22974/>.

⁸⁰ Erik Cziria, "Plynovod Turkov a Rusov berie Slovensko zatiaľ ako príležitosť" [Slovakia now regards Turkish/Russian pipeline as opportunity], *Pravda* (online), 23 October 2016, <http://spravy.pravda.sk/ekonomika/clanok/408776-plynovod-turkov-a-rusov-berie-slovensko-zatial-ako-prilezitost/> (accessed 18 November 2016).

⁸¹ Gaz-System, *Nasze Inwestycje* [Our investments], <http://www.gaz-system.pl/nasze-inwestycje/> (accessed 8 September 2016).

⁸² Budzanowski, "Demontaż unii energetycznej" (see note 70).

⁸³ "Zamiast Unii Energetycznej wojna na huby gazowe: 'Sprzeczne interesy Berlina i Warszawy'" [War over gas hubs rather than Energy Union: "Opposing interests in Berlin and Warsaw"], *Portal Energetyka24* (online), 7 August 2016, <http://www.energetyka24.com/424730,zamiast-unii-energetycznej-wojna-na-huby-gazowe-sprzeczne-interesy-berlina-i-warszawy> (accessed 8 September 2016).

⁸⁴ "Woźniak: Jeśli Bruksela pomoże Gazpromowi ominąć Polskę, PGNiG pójdzie do sądu" [If Brussels helps Gazprom to bypass Poland, PGNiG will go to court], *Biznes Alert* (online), 9 November 2016, <http://biznesalert.pl/wozniak-jesli-bruksela-pomoze-gazpromowi-ominac-polske-pgnig-pojdzie-sadu/> (accessed 18 November 2016).

⁸⁵ Unless they are buried, the pipelines will reduce the already relatively shallow depth of these ports and with it the maximum draught of vessels using them. Dissatisfied with a compromise reached before construction started,

Poland responds in two different ways to Nord Stream 2. Firstly, it seeks if not to prevent the project then at least to complicate or delay it using European and national instruments. For example, Poland expects the European Commission to thoroughly scrutinise the project. The Polish foreign minister called on the Danish government to deny its approval to the pipeline, which also passes through Danish territorial waters. The Polish competition authority UOKiK has formulated objections to the Nord Stream 2 consortium's application, which it sees as strengthening Gazprom's already dominant market position.

Secondly, Poland is increasingly seeking further diversification options, such as another potential expansion of the LNG terminal in Świnoujście or the construction of a floating LNG terminal in the Bay of Gdansk. Warsaw would also like to revive a project that was discussed several years ago, but then dropped: The offshore Baltic Pipe would connect Norwegian gas supplies via Denmark to Poland. Polish gas supplier PGNiG has in the past invested in Norwegian gas fields, and has now announced that it will prioritise the Baltic Pipe. Construction of a pipeline to the Norwegian gas fields could, it said, be completed by 2022. If 7 billion cubic metres were transported annually, the project would break even. PGNiG currently sources about half a billion cubic metres annually from its Norwegian fields for the Polish market.⁸⁶ It is conspicuous that interconnectors with Germany are rarely mentioned in the Polish diversification discussions. It is argued that such connections would merely import gas from Russia, just from the other direction. Above all, the Poles see a danger of gas from Germany plac-

Poland went to court in Germany to challenge the decisions. The administrative court in Hamburg rejected the complaint at the end of 2015; Andrzej Kublik, "Niemcy blokują rurą Nord Stream rozwój portu w Świnoujściu" [Germany blocks development of Świnoujście port through Nord Stream pipeline], *Gazeta Wyborcza*, 19 December 2015, <http://wyborcza.biz/biznes/1,100896,19369299,niemcy-blokuja-rura-nord-stream-rozwoj-portu-w-swinoujsciu.html> (accessed 8 September 2016).

⁸⁶ "Kowalski: Baltic Pipe priorytetem. 'Kluczowa kolejność powstawania gazociągów'" [Kowalski: Baltic Pipe is a priority: "Sequence of pipeline construction is crucial"], *Energetyka 24* (online), 16 May 2016, <http://energetyka.defence24.pl/370388,kowalski-baltic-pipe-priorytetem-kluczowa-kolejnosc-powstawania-gazociagow;> "Będzie więcej ropy i gazu z PGNiG" [There will be more oil and gas from PGNiG], *Wirtualny Nowy Przemysł* (online), 25 October 2016, http://gazownictwo.wnp.pl/bedzie-wiecej-ropy-i-gazu-z-pgnig,284184_1_0_0.html (both accessed 18 November 2016).

ing commercial pressure on projects like the LNG terminal or the proposed Baltic Pipe.⁸⁷

Foreign policy objections to Nord Stream 2 are also discussed in Poland, at least as clearly as energy-related and economic reservations. They are based on the idea that the gas trade, as the Polish Minister for European Affairs put it "has strategic consequences in our part of the continent", and for example revenues from the energy business could flow via the Russian state budget directly into the defence sector.⁸⁸ Nord Stream 2, prominent MEP Jacek Saryusz-Wolski said, represented a primarily political project with negative security and geopolitical implications for eastern Europe, after Nord Stream 1 had already allowed Moscow to exert pressure on his part of Europe.⁸⁹ President Andrzej Duda said that Nord Stream 2 would not improve Europe's energy security and was therefore an "unnecessary and politically harmful" investment.⁹⁰

The Baltic states. The Baltic states also belong to the camp of firm critics of Nord Stream 2. Although they have no direct repercussions to fear from the pipeline plan (as none of them have transit pipelines on their territory) they are unsettled by the possible foreign policy implications and potential indirect conse-

⁸⁷ Such concerns apply for example to the proposal to build a pipeline from Bernau (north of Berlin) to Szczecin, "Szanse i zagrożenia Korytarza Północnego: Eksperti o największym projekcie III RP" [Opportunities and risks of the northern corridor: Experts on the largest project of the third republic], *Energetyka 24* (online), 17 May 2016, <http://energetyka.defence24.pl/371268,szanse-i-zagrozenia-korytarza-polnocnego-eksperti-o-najwikszym-projekcie-iii-rp> (accessed 8 September 2016).

⁸⁸ PAP, "Konrad Szymański, PiS: będziemy podnosić argumenty przeciw Nord Stream 2" [Konrad Szymański, PiS: We will present arguments against Nord Stream 2], *Wirtualny Nowy Przemysł* (online), 12 November 2015, http://gazownictwo.wnp.pl/konrad-szymanski-pis-bedziemy-podnosic-argumenty-przeciw-nord-stream-2,261187_1_0_0.html (accessed 8 September 2016).

⁸⁹ "Saryusz-Wolski: Nord Stream 2 jest szkodliwy nie tylko energetycznie, ale przede wszystkim geopolitycznie" [Saryusz-Wolski: Nord Stream 2 is harmful in geopolitical as well as energy policy terms], interview with Jacek Saryusz-Wolski, 24 November 2015, *Defence24* (online), <http://energetyka.defence24.pl/274179,saryusz-wolski-nord-stream-2-jest-szkodliwy-nie-tylko-energetycznie-ale-przede-wszystkim-geopolitycznie-wywiad> (accessed 8 September 2016).

⁹⁰ "Budowa Nord Stream 2. Duda: To politycznie szkodliwa decyzja" [Construction of Nord Stream 2: Duda: A politically harmful decision], *money.pl* (online), 3 November 2015, <http://www.money.pl/gospodarka/wiadomosci/artukul/budowa-nord-stream-2-duda-to-politycznie,2,0,1945602.html> (accessed 8 September 2016).

quences for their diversification efforts. The prime ministers of the three Baltic states therefore demonstrated public solidarity with Ukraine and pressed for thorough scrutiny of the project by the European Commission.⁹¹ Nord Stream 2, according to Lithuanian President Dalia Grybauskaitė, represents yet another Russian attempt to divide the EU. Alluding to the proposed sale of a French amphibious assault ship to Russia (which was eventually stopped for foreign policy reasons), Grybauskaitė called Nord Stream 2 a “Mistral test for the Energy Union”.⁹² In May 2016 the then Estonian Prime Minister Taavi Rõivas called Nord Stream 2 a “a political project, which contradicts the energy policy of the European Union” and “a part of Russia’s foreign policy ambitions aimed at undermining of [sic] Europe’s unity.”⁹³

Czech Republic. In the Czech Republic the discussion is more differentiated. The country is also part of the broader Nord Stream 1 system, because gas from the OPAL pipeline is transported from Saxony to Bavaria via the Gazela pipeline, which passes through Czech territory. Nord Stream 2 therefore potentially offers the Czech Republic a chance to expand its position as a transit country, especially given the small volume of gas today using the route from Ukraine and Slovakia through the Czech Republic to the west. Moreover, the Czech Republic began diversifying in the 1990s, so its integration into the western European gas market is already well advanced. It is therefore fitting that the Czech government ultimately refrained from signing the joint letter from the east central European energy ministers. Altogether, Prague seeks to have the best of both worlds, reconciling interest in participating in Nord Stream 2 with a desire to uphold gas transit through Ukraine. The Czech Economic Affairs Minister has signalled that construction of Nord Stream 2

should be compensated with an agreement promising Ukraine substantial ongoing transit volumes.⁹⁴

Hungary. Attitudes in Hungary are also graduated. Ending gas transport from Ukraine would also imply a reconfiguration of Hungary’s supply channels, as the country is currently connected to the Ukrainian network. Moreover, it is argued in Budapest that once Nord Stream 2 comes on stream Hungary can forget consolidating (still less expanding) its storage business for gas from the east. Hungarian critics also point out that Nord Stream 2 would compete with the South Stream project, in which Hungary has great interest. In this connection the Hungarians accused the European Commission of “double standards” (Hungarian Foreign Minister Péter Szijjártó), having applied stricter legal standards to South Stream.⁹⁵ Hungary’s foreign minister still sees opportunities to reinvigorate South Stream, provided the Bulgarian government takes a more active stance.⁹⁶ Hungarian politicians were initially reserved in their responses to the revival of TurkStream in autumn 2016, although the project is regarded as likely offering new opportunities connecting to a supply route from the south-east.

Altogether in Hungary foreign policy arguments (such as effects on Ukraine) play a much smaller role than for example in Poland. Here it must also be remembered that Budapest pursues a pragmatic course towards Russia, and geostrategic considerations are comparably less prominent. The construction of a new interconnector to Slovakia also gives Hungary an additional entry point, ending its exclusive reliance on interconnectors with Ukraine and Austria. As such it will be able to compensate possible changes in supply flows from Russia. Completed in mid-2015, the pipe-

⁹¹ In early November 2015 the three heads of government met with Ukrainian Prime Minister Arseniy Yatsenyuk and backed his criticism of Nord Stream, “Baltics Back Ukraine and Blast Nord Stream 2 Project”, *LSM.lv* (online), 5 November 2015, <http://www.lsm.lv/en/article/politics/baltics-back-ukraine-and-blast-nord-stream-2-project.a153658/> (accessed 8 September 2016).

⁹² “Lithuania’s President: Nord Stream-2 Is Mistral Test for EU’s Energy Union”, *Baltic Course* (online), 22 January 2016, <http://www.baltic-course.com/eng/energy/?doc=115719> (accessed 8 September 2016).

⁹³ “Estonia Considers Nord Stream 2 Project as Disruption of EU’s Unity”, *Gas News* (online), 30 May 2016, <http://gasnews.today/2016/05/30/news/estonia-considers-nord-stream-2-project-disruption-eus-unity.html> (accessed 14 November 2016).

⁹⁴ “Mládek: Nord Stream by se mohl rozšířit, kdyby padla dohoda o zachování ukrajinské cesty” [Mládek: Nord Stream could be expanded with agreement to keep Ukrainian route], *Euractiv.cz* (online), 7 January 2016, <http://www.euractiv.cz/energetika/clanek/mladek-nord-stream-by-se-mohl-rozsirit-kdyby-padla-dohoda-o-zachovani-tranzitu-pres-ukrajinu-013090#sthash.mlfxf2D.dpuf> (accessed 8 September 2016).

⁹⁵ Website of the Hungarian Government, “Közép-Európa érdeke a dél-európai gázfolyosó” [Central Europe’s interest in southern European gas corridor], 12 November 2015, <http://www.kormany.hu/hu/kulgazdasagi-es-kulugyminiszterium/hirek/kozep-europa-erdeke-a-del-europai-gazfolyoso> (accessed 12 November 2015).

⁹⁶ A bolgár választásoktól is függ a magyar gázellátás? [Hungarian gas supply also depends on Bulgarian elections], *Portfolio*, 1 March 2017, http://www.portfolio.hu/vallalatok/a_bolgar_valasztasoktol_is_fugg_a_magyar_gazellatas.244805.html.

line has a capacity of 4.5 billion cubic metres annually for transporting gas to Hungary, which could come through the Nord Stream 2 system (via Czech Republic and Slovakia).⁹⁷ At their meeting in February 2017 Hungary's Prime Minister Viktor Orbán and Russia's President Vladimir Putin declared that Hungary might receive gas deliveries from Russia via the Nord Stream system.

Bulgaria. In the end, like the Czech Republic, Bulgaria decided not to sign the joint letter from the east central European energy ministers. Sofia is still (or again) concentrating on reviving the South Stream project (possibly in modified form under a new name), especially given that work on it had already begun. The Bulgarian prime minister emphasised just at the end of 2015 that his country was interested in becoming a Balkan gas hub, mainly distributing Russian gas, alongside deliveries from Azerbaijan and domestic production.⁹⁸ Critical observers suspect that Gazprom was involved in the conflict between state energy companies and private-sector supplier Overgas that broke out at the end of 2015. Elimination of the only competition to the state-controlled operators gave Sofia incentives to come to an arrangement with Gazprom.⁹⁹ Gazprom is probably speculating that regulatory exemptions for Nord Stream 2 will create a precedent for a southern route, and that the chances for South Stream could therefore improve again. If transit via Ukraine ceased completely, Bulgaria would certainly have to create infrastructure from scratch to receive gas from Russia via a different route. Currently Bulgaria's gas arrives through Romania. Similar diffi-

culties would arise for a number of non-EU states in the Western Balkans, especially for Macedonia.¹⁰⁰

Romania. Romania, finally, is also part of the group critical of Nord Stream. On account of its own substantial domestic reserves, Romania imports relatively small amounts of Russian gas. Following a steady decline in consumption, domestic production (roughly 10 billion cubic metres annually) already covers more than 90 percent of Romanian demand.¹⁰¹ So Bucharest's rejection of Nord Stream 2 is likely motivated primarily by foreign policy: support for Ukraine and a traditional scepticism towards Russia. In terms of energy policy, Nord Stream 2 is relevant in relation to potential repercussions for planned pipeline projects involving Romanian firms. Thus it matters to Romania whether Nord Stream 2 has positive effects on the BRUA project favoured by Romanian Transgaz (connecting Bulgaria, Romania, Hungary and Austria and for possible transport of gas from the south-east or the Black Sea),¹⁰² or tends to favour the Slovak Eastring project.

97 Moreover it would also be possible to import from Poland LNG via the north-south corridor and this link; see "Új irányból hoznának orosz gázt Magyarországra" [Russian gas could come to Hungary from a new direction], *Világgazdaság* (online), 18 August 2016, <http://www.vg.hu/vallalatok/energia/uj-iranybol-hoznanak-orosz-gazt-magyarorszagra-474246>; "Slovensko-maďarský plynovod ožil" [Slovak-Hungarian pipeline revived], *V energetike* (online), 30 March 2016, <http://venergetike.sk/slovensko-madarsky-plynovod-ozil/> (accessed jewels am 18 November 2016).

98 Georgi Gotev, "Borissov: I Told Merkel Bulgaria Plans Pipeline Similar to Nord Stream 2", *EurActiv.com* (online), 17 December 2015, <http://www.euractiv.com/sections/energy/borissov-i-told-merkel-bulgaria-plans-pipeline-similar-nord-stream-2-320564> (accessed 8 September 2016).

99 "Bulgaria's Overgas 'Warned EU' Russia Might Seek to Renew South Stream Business Energy", *novinite.com* (online), 7 January 2016, <http://www.novinite.com/articles/172530/Bulgaria%27s+Overgas+%27Warned+EU%27+Russia+Might+Seek+to+Renew+South+Stream> (accessed 8 September 2016).

100 Jack Sharples and Andy Judge, "Bulgaria and Macedonia Would Be Hardest Hit by a Suspension of Russian Gas Exports through Ukraine", *LSE Europp Blog* (online), March 2014, <http://bit.ly/1gnh8IG> (accessed 8 September 2016).

101 Autoritatea Națională de Reglementare în domeniul Energiei (ANRE), *Raport anual de monitorizare pentru piața internă de gaze naturale – 2014*, [Annual 2014 – Monitoring the internal natural gas market], <http://www.anre.ro/download.php?f=gayBgg%3D%3D&t=vdeyut7dlcecrLbbvY%3D> (accessed 8 September 2016).

102 Anca Elena Mihalache, "Energy Security in Central and South Eastern Europe – The Ongoing Saga", *Natural Gas Europe* (online), 15 June 2015, <http://www.naturalgaseurope.com/energy-security-in-central-and-south-eastern-europe-4168> (accessed 8 September 2016); the Romania-Bulgaria interconnector, an important step for BRUA, opened in November 2016; "Bulgaria-Romania Gas Interconnector Pipeline Finished", *Sofia Globe*, 11 November 2016, <http://sofiaglobe.com/2016/11/11/bulgaria-romania-gas-interconnector-pipeline-finished/>.

Summary and Outlook

Summing up the debates about Nord Stream 2, the following aspects are central: The objective of Nord Stream 2 is to bypass Ukraine and deliver gas directly to the north-west European markets. The geopolitical and economic interests of Gazprom and the Kremlin are behind the project. The pipeline through the Baltic Sea brings benefits to the German gas market and other large adjacent markets, above all if the transit connection through Ukraine is preserved as a flexibility option. Nord Stream 2 creates a direct, efficient, modern connection to the major gas fields of Western Siberia. So the medium term economic benefits are obvious for north-western Europe. To what extent, however, Nord Stream 2 volumes will be transported on from Baumgarten to Italy and south east Europe is unclear. The south-east European member states and the Balkans will either have to pursue alternative diversification projects or rely on Turk Stream or a reincarnation of South Stream and continuing use of the pipelines through Ukraine.

The repercussions of Nord Stream 2 extend far beyond energy relations. Despite (or precisely because of) the emerging compromises to end protracted disputes between Gazprom and the Commission, the pipeline project encounters great reservations. It is associated with high political costs, regardless whether it is completed rapidly, late or never. The differences in interests and perceptions already have consequences for relations between EU member states, between the EU and Russia, and between individual member states and Russia. Nord Stream 2 exposes the energy policy – and more broadly internal market and foreign policy – dilemmas faced by the EU.

Developing the Energy Union. Critical observers and many EU member states believe that the Nord Stream 2 plan contradicts the objectives of diversification and security of supply. The project therefore needs to be subjected to a qualitative political review orientated in particular on the paradigms of “solidarity and trust” upon which the Energy Union was founded. However, it is difficult to estimate the costs and benefits for individual member states on the basis of this approach: firstly, because a clear prioritisation between target categories (security of supply, competition, sustainability) is lacking and there is little

consensus within the Union over the future development of the Energy Union; secondly, because the scope of energy solidarity within the EU is unclear, in other words how massive the potential negative effects on one or more member states have to be before firms and/or one or more other member states have to cancel a project. The beneficiaries of a project like Nord Stream 2 will turn the argument on its head, playing down potential drawbacks for other member states and arguing that preventing the project on political grounds would show a lack of solidarity by denying commercial and energy policy benefits.

In the EU as a collective the question of solidarity and cooperation in developing the Energy Union is decisive. That also means that one project cannot decide the fate of the Energy Union, which after all consists of five dimensions.¹⁰³ Very different prioritisations of these five dimensions are found within the EU-28 and the Union’s organs. And that opens up possibilities for a reconciliation of interests.

State and market paradigms. Nord Stream 2 illustrates that the rivalry between market and state in the energy sector in the EU has yet to be resolved. This is why the criticism that Nord Stream 2 is driving a wedge into the EU’s gas market is misleading. The gas market is already divided over the implementation of market reforms. If anything, Nord Stream 1 has contributed to expanding spot market transactions into eastern Europe. However, there are also growing tensions between the EU member states and the Commission over the distribution of powers in this area of policy. While Germany supports and propagates a market governed purely by commercial considerations, a number of neighbouring countries see growing trends towards renationalisation and state influence. So in the EU there is a need both to contain disintegrative tendencies and to balance out the roles and responsibilities between the Commission, the member states and companies.

Commission as political actor? In the scope of developing the Energy Union, the Commission is increasingly

¹⁰³ This argument is also followed by Severin Fischer, *Nord Stream 2: Trust in Europe*, CSS Policy Perspectives 4/4 (Zurich: Center for Security Studies [CSS], March 2016).

seeking to play a more political role. As the discussions over the application of internal market regulation to Nord Stream 2 demonstrate, there are strong tendencies to view energy relation through the geopolitical lens. The most effective lever at its disposal is regulation. But instrumentalising regulation in order to enforce (geo)political interests is a dangerous road. Recourse to legalistic arguments is always problematic, and inappropriate in the case of a project whose implications extend far beyond the energy aspects. Observing its own principles and upholding generally applicable frameworks (even where there are unintended consequences) is a question of the credibility of the EU and a requirement for rule-based dealings between companies, states and the Commission. Moreover, the freedom to do business in a competitive market is a fundamental principle that should not be lightly sacrificed to geopolitical and strategic interests.

Political costs and relations with Russia. Strategically and politically it is an important question whether the pipeline project ultimately places Germany and the EU at the mercy of the Russian gas monopoly, which could lead directly to political vulnerability.¹⁰⁴ The project certainly reinforces Gazprom's position in the German market, supplies it with another instrument with which to optimise its market strategy, and could potentially inhibit the appetite of other market participants to invest in diversification projects. Yet, this is part of market power play and profit maximisation strategies and as such (a common) issue for competition and antitrust control. On the one side, this calls for action by the German competition authorities. On the other, Germany is part of the integrated north-west European gas market and possesses a series of options for sourcing gas elsewhere.

Regardless of the current situation of well-supplied gas markets, political perceptions also play a role. Within the EU there are very different political stances on energy trade with Russia. Whereas the central eastern European states focus on dependency and vulnerability, Germany has for decades shaped its relations under the paradigms of rapprochement, change and interdependency. This approach implies a realisation that economic interrelations can contribute to making political actions more predictable by increasing the costs of worsening the relationship. Reducing the density of economic ties and interactions is not perceived as an appropriate response to a sensitive

¹⁰⁴ The authors are grateful to Heiko Lohmann for pinpointing this aspect in comments and discussions.

security situation. This is the basis of the dual strategy of deterrence and cooperation pursued by German foreign policy since the crisis over Ukraine.

In terms of the general state of relations between the EU and Russia, there are good grounds to build on the economic dimension of relations and maintain the energy trade as a major channel of cooperation. In times of growing divergence and strained relations, economic exchange offers added value. At the same time, the Russian gas market has witnessed remarkable reforms in recent years. Gazprom is increasingly prepared to follow the rules in the EU. It will not be possible to amplify that momentum of economic rationality if the EU itself insists on purely geopolitical stances. Although positive effects for other policy areas cannot be expected in the current situation, there is certainly a danger of negative spill-over effects if conflicts occur over gas. There is, however, also greater scope for coordination of interests, because Gazprom and other Russian gas suppliers will continue to need the European market.

So at the same time Nord Stream 2 sends signals that extend beyond economic relations. If it is realised, that would send Russia a visible message that a deepening of cooperation with the EU and/or economic entities from the EU is possible and desirable, and that essentially economic projects will not be obstructed by member states' interests, foreign policy calculations or EU law. That fundamental message could confirm to Russia that there is no powerful veto within the EU against vital energy projects, regardless whether the objections are motivated commercially or by foreign policy. Whether this interpretation gains traction in Russia will depend at the same time on how the modalities of implementation turn out in the end: what terms and conditions are ultimately placed upon the construction of the Nord Stream pipeline and its onward connections.

If Nord Stream 2 is not built for the time being on account of resistance within the EU, Gazprom will be "forced" to continue to fulfil its contracts with European customers via Ukraine, because these contracts are overwhelmingly long-term with fixed volumes and delivery dates. In the medium term Russia could attempt to further discredit Ukraine as an unreliable transit country and use destabilisation to call into question that route's reliability.

On the other hand, Russia would regard realisation of Nord Stream 2 as a political success in multiple respects. Firstly, because it would have achieved an important foreign policy objective in the "near abroad";

secondly, because it would demonstrate that Russia is able – despite European energy policy and Energy Union – to exploit opportunities in the system to secure special interests and cooperation; and thirdly because Russia would have demonstrated that it is possible to realise a major economic cooperation project with European actors even in difficult times. Altogether, therefore Russia, would also regard the construction of Nord Stream 2 as a step towards consolidating relations with the EU (that are deadlocked or negative in other areas). So here too, conflicts of goals arise for Brussels and the member states, because Nord Stream 2 would send Russia a message that even a massive conflict need not necessarily preclude cooperation in key areas.

Ukraine: borderland, bridge or part of the European market? The European Commission and numerous member states wish to maintain transit through Ukraine.¹⁰⁵ If gas transit from Russia through Ukraine to central and south-eastern Europe ceases, the foreign policy and security consequences for Kiev will be significant. Kiev will lose its “transit power” vis-à-vis Russia and already existing asymmetries will shift in Moscow’s favour. So what is at stake for Ukraine is the preservation of leverage – which in view of the geopolitical dimension of the energy trade must be regarded as problematic from the importers’ perspective.

In fact all sides to this discussion – Ukraine, European Union and Russia – must actually have an interest in significant volumes continuing to be transported through Ukraine, simply for reasons of diversification. Compartmentalising the transport question, isolating it from the geopolitical situation, is thus technically and economically rational. But that presupposes that all parties demonstrate a political will to act rationally and objectively. Developments in the European gas market currently appear headed for division and regulatory/technical/planning dislocation, as there is a lack of perspective-seeking dialogue about shared rules between the EU/Energy Community and Russia/Eurasian Economic Union. It should not be forgotten that a sustainable solution for the Ukrainian gas transit must involve both Russia and Ukraine.

Thinking it from the Ukrainian point of view casts a very clear light on the broader context of the Nord

Stream 2 project. Under strategic/political aspects the first question is whether it will destabilise Ukraine.¹⁰⁶ The loss of important transit revenues can be partly compensated by cheaper gas prices, while security of supply has been transformed by the west-east flow reversal options. Ukraine’s future is not going to be determined by retention or loss of its transit role, but by deep reforms (in the area of energy) and a restructuring of the energy system. Above all in view of the urgently-needed, long-postponed but now advancing energy market reforms, there is good reason to believe that gas transit will not have a decisive bearing on the country’s economic and energy situation (nor on its political survival). What is important is the approach pursued by the EU, namely to encourage sweeping reforms and to improve the connectivity of Ukraine’s energy markets with those of the Western Balkan states and Moldova, and above all with the EU’s internal market.

A further problem looms for the trilateral talks in which representatives of Russia, Ukraine and the EU have met regularly since the beginning of the crisis: since summer 2014 Russia and Ukraine have been embroiled in dispute settlement cases over supply and transit contracts concluded in the form of international treaties.¹⁰⁷ A ruling from the Stockholm Arbitration Institute is not expected before spring 2017. The Ukrainian gas supplier Naftohaz complains that the price is unfairly high; Gazprom points to the price formula and purchasing duty laid out in the 2009 contract.¹⁰⁸ In the meantime further cases are pending. Altogether the sums involved on the Ukrainian side amount to roughly \$10 billion. Russia’s demands could easily be of the same order of magnitude. It is doubtful whether these sums will be paid from one side to the other, quite regardless of the outcome. That would deepen rather than smooth the conflicts between Russia and Ukraine. The EU and Germany should therefore work towards political containment of open and latent disputes.

Gas development region south-eastern Europe. Changes affecting the Ukrainian transit corridor potentially have consequences for the south-eastern European EU member states, for the Balkan members of the Energy

105 The Commission “remains of the opinion that Ukraine is a credible partner for the transit of Russian natural gas and that it would be in the interests of all sides for Ukraine to remain a transit state”, response of 21 January 2016 from Commissioner Miguel Arias Cañete to a written question from MEP Jacek Saryusz-Wolski. Author’s archive.

106 The authors are grateful to Heiko Lohmann for raising this aspect in comments and discussions.

107 Grätz and Westphal, *Ende gut, alles gut?* (see note 47).

108 Helmut Steuer, “Das Schweigen der Schlichter im Gasstreit”, *Die Welt*, 14 July 2014, <http://www.welt.de/politik/ausland/article130133100/Das-Schweigen-der-Schlichter-im-Gasstreit.html> (accessed 8 September 2016)

Community, and for Turkey (European part and Istanbul). While Nord Stream 2 is most important for the north-west European gas markets, the markets in south-eastern Europe and the Balkans depend on the development of regional interconnectors and above all the fate of the TurkStream and South Stream import projects discussed above. Here the EU and the Energy Community are faced with a strategic dilemma over network development. From the Russian perspective it would be tactically wise to keep all options open – also but not solely on account of the geopolitical volatility. For the countries in the region that heightens the uncertainties of network development, hampering alternative projects from the planning state onward, but also inhibits intra-European networking between the EU and the Energy Community.

Recommendations for Germany and the European Union

Even though Germany adheres to its line that Nord Stream 2 is a strictly commercial and economically prudent venture, Berlin still has to address its foreign policy reverberations.

European and foreign policy costs must be expected in particular where countries that feel disadvantaged or even harmed by Nord Stream 2 seek counter-strategies and may even question their partnership with Germany in a broader context. Reducing these effects demands clear messaging and visible steps to protect or restore trust. This applies most strongly in relation to certain central eastern European states such as Poland and Slovakia. The fields most in need of such confidence-building steps are energy policy (bilateral and European) and foreign, Russia and neighbourhood policy. The corresponding measures need to be initiated via Brussels in the scope of the Energy Union, but backed up by German European and energy policy. This demands a high level of energy diplomacy. The aim must be to accommodate Nord Stream 2 within the principles of European energy policy and the goals of the Energy Union, and to make progress with the integration of the internal market. That means above all the following:

- ▶ It is in Germany's interest to play an active part in shaping European energy policy and the Energy Union. Germany needs to avoid being perceived as the spoiler of trust and solidarity in a central field of European policy on account of its line on Nord Stream 2. To that extent Germany's scepticism over

regional cooperation in the discussions over the new Regulation on security of gas supply sends a misleading and unfortunately timed message, even if there are good reasons behind its criticisms at the granular level. Berlin should make it clear that it is fundamentally positive towards the idea of regional mechanisms for ensuring security of gas supply.

- ▶ Germany is interested in advancing integration in the gas market on its own account, and should therefore work to counteract divisive tendencies that the project might create. It is already apparent that Nord Stream 2 will open new rifts, because certain states see grounds to accelerate their diversification efforts or expedite regional counter-measures, for example to protect themselves against an influx of cheap Russian gas that they fear would thwart their diversification strategies. In order to counteract such developments, bilateral and regional technical, operational and regulatory cooperation need to be stepped up along the supply corridors. The key to this is implementing the third internal market package in central eastern and south-eastern Europe and establishing functioning competition in the region, including through changes in the tariff system and facilitating cross-border flows.
- ▶ Germany should signalise fundamental interest in maintaining a diversity of gas import routes from Russia, in other words the coexistence of Nord Stream (1 and 2), Yamal and the Ukraine corridor. It is becoming clear that troubles will continue to afflict the Ukrainian corridor, and require conflict management and a mediating role on the part of the EU Commission. Tensions will arise at least in connection with the transition from the transit contract of 2009 to the regulatory regime of the third internal market package, and in the context of the three arbitration cases where enormous sums are at stake and no legal solution can be expected. Addressing these conflicts will also open up possibilities for compromise, for example in defining transitional periods for implementing new tariffs or in the form of improvements in the transparency of tariff-setting after 2019. For the modernisation and reorientation of the Ukrainian pipeline network it is absolutely decisive to have clarity about the volumes to be transported and the transit tariffs to be applied. And beyond this, a "business model" for the pipeline operators needs to be established. All involved should see an interest in preserving this flexibility option.

- ▶ Energy talks with Russia should concentrate on constructive outcomes. The emergence of possible solutions for OPAL and the anti-trust case in autumn 2016 represents an important step forward. One element of a comprehensive package could be to develop the central eastern and south-east European gas markets and network planning initially in the Central Eastern and South Eastern Gas Connectivity Forum – ideally including Russia and Turkey. Here a shared energy vision for the Black Sea region and the eastern Adriatic needs to be sought. That presupposes a technical/regulatory dialogue, as well as a reconciliation of interests: whereas Russia wants Nord Stream 2, the EU would like to expand its gas imports from Azerbaijan (and in the longer term Turkmenistan).
- ▶ Germany and the Visegrád countries could set up a task force on energy and security of supply (similar to the pentilateral forum for electricity), to discuss questions such as improving energy solidarity between Germany and these neighbouring countries, for example in the gas sector between Germany, Poland, Czech Republic and Slovakia. This format could also be used to explore to what extent Slovakia could become a new transit country for transporting gas to Ukraine or south-eastern Europe. A dialogue in a multilateral setting might demonstrate that differences of interest also exist between the central eastern European countries (as for example the Czech Republic’s stance on Nord Stream 2 already demonstrated).
- ▶ If the construction or operation of Nord Stream 2 are delayed or the pipeline is put on ice because of the final ruling on the OPAL pipeline and a compromise acceptable to Gazprom in the anti-trust case, that would represent only a strategic pause and not the end of the search for a lasting solution to the problem of east-west gas transit into the EU. Gazprom and Moscow will continue to question Ukraine’s status as a transit corridor. The TurkStream project will continue to ensure movement and agitation there. At the same time, the worries of the central eastern European EU states have by no means been dispelled. Their initial responses to the OPAL ruling suggest that they fear that the Commission’s settlement with Gazprom will at least lead to more effective utilisation of Nord Stream 1, which would face them with quantitatively smaller but qualitatively similar effects to Nord Stream 2, for example in connection with Russian gas supplies to their domestic markets. All

in all, this could foster scepticism towards the European Commission, which has in the past been seen as an important ally in the conflict with Gazprom. So if Nord Stream 2 were to be suspended – even temporarily – there would be a need to intensify the energy dialogue between the Commission and relevant member states and between these member states and Germany. If these countries maintain their stance that Nord Stream 2 or a Nord Stream 2 “exit deal” would violate the fundamental principles of European energy policy or the Energy Union, they will feel justified in hardening their position or interpreting principles in their own interests elsewhere (from energy to climate policy).

Abbreviations

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| ACER | Agency for the Cooperation of Energy Regulators |
| CEER | Council of European Energy Regulators |
| CEGH | Central European Gas Hub |
| ENTSO-G | European Network of Transmission System Operators for Gas |
| EUGAL | European gas pipeline link (Europäische Gas-Anbindungsleitung) |
| IEA | International Energy Agency |
| LNG | Liquefied natural gas |
| NC CAM | Network Code Capacity Allocation Mechanisms |
| NEL | Nordeuropäische Erdgasleitung (northern European natural gas pipeline) |
| OMV | Österreichische Mineralölverwaltung (oil company) |
| OPAL | Baltic Sea Pipeline Link (Ostsee-Pipeline-Anbindungsleitung) |
| PGNiG | Polskie Górnictwo Naftowe i Gazownictwo (Polish oil and gas company) |
| RCEPR | Regional Centre for Energy Policy Research (Budapest) |
| REKK | Regionális Energiagazdasági Kutatóközpont (Budapest) (Regional Centre for Energy Policy Research; RCEPR) |
| RWE | Rheinisch-Westfälisches Elektrizitätswerk AG (German power company) |
| SPP | Slovenský plynárenský priemysel, a.s. (Slovak gas supplier) |
| UOKiK | Urzędu Ochrony Konkurencji i Konsumentów (Office of Competition and Consumer Protection, Poland) |