Geopolitics
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/fgeo20

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Available online: 05 Aug 2011

To cite this article: Anke Schmidt-Felzmann (2011): EU Member States' Energy Relations with Russia: Conflicting Approaches to Securing Natural Gas Supplies, Geopolitics, 16:3, 574-599

To link to this article: http://dx.doi.org/10.1080/14650045.2011.520864

Geopolitics, 16:574–599, 2011

ISSN: 1465-0045 print / 1557-3028 online
DOI: 10.1080/14650045.2011.520864

Routledge
Taylor & Francis Group

EU Member States' Energy Relations with Russia: Conflicting Approaches to Securing Natural Gas Supplies

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European Union (EU) member states' 'failure' to cooperate on energy policy towards Russia has been much criticised in the media and by policy analysts since the mid-2000s. This article analyses member states' choices to ensure domestic supply security by either increasing gas supplies from Russia or by reducing gas imports from Russia. The article seeks to explain why the member states pursue energy supply objectives towards Russia that are opposed by other member countries, despite the official commitment to acting 'in a spirit of solidarity'. It argues that the member states' choices are informed by their assessment of the geopolitical reality and its expected impact on their national energy supply security. This is, in turn, informed by their perceived vulnerability that stems from their geographic location, historical experience and bargaining position vis-à-vis Russia. The analysis shows that calls in the EU for 'solidarity' regarding the security of natural gas supply serve primarily as a cover for the pursuit of individual and not collective EU interests. The rhetoric of 'solidarity' and the need for cooperation in the EU also serves the European Commission's interest in acquiring a more important role in external energy policy.

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EU MEMBER STATES' ENERGY SUPPLY SECURITY AND RUSSIA

Energy supply security – often referred to as 'energy security' – has become a key issue on the EU's agenda over the past decade. The rapid depletion of member states' primary energy reserves, especially oil and gas, has underlined the need to import energy from third countries. Research on EU external energy policy has mainly focused on exploring the position of the EU in relation to external energy producers, and Russia in particular. The main explanatory model employed by scholars to explain the contemporary energy relations of the EU and third states is that of 'Markets and Institutions' and 'Regions and Empires'.[1] The 'Markets and Institutions' approach is derived from economic liberalism; it emphasises the importance of energy markets and multilateral cooperation in international energy relations. From this perspective the EU's external energy relations are embedded in international institutions such as the International Energy Agency (IEA) and the Energy Charter Treaty (ECT) and liberal market principles are regarded as the driving forces of EU external energy relations. The 'Regions and Empires' approach is, in contrast, based on economic nationalist principles. It depicts international energy relations as a competition between blocks of states over the control of energy resources and energy markets. From the perspective of 'Regions and Empires', the EU's energy relations with Russia (and other third states) are understood as a geopolitical power struggle.

The Russian Federation is one of the world's major oil producers (ranking 7th in terms of its proven reserves) and the country possesses by far the largest natural gas reserves (with more than 20 percent of world proven reserves).[2] It is also the single most important supplier of gas to the EU. In recent debates on EU-Russian energy relations, the focus of attention has been on the possibility of politically motivated cuts of Russian energy supplies to the EU and the use and 'abuse' of energy as a 'power tool'. Concerns about Russia's ambitions as an 'energy superpower' reflect persisting worries in the new post–Cold War geopolitical reality about a revival of Russian ambitions to command political and economic influence in Europe. Following more than 30 years of uninterrupted deliveries to EU member states, Russian energy companies have, since 2004, been engaged in disputes with Belarusian (2004 gas; 2007 oil) and Ukrainian (2006 gas; 2007/2008 gas; 2009 gas; 2010 oil/gas) companies and pipeline operators over transit charges and energy prices which resulted in several short-term supply cut-offs that also affected EU member countries.[3] The possibility that Russian producers could decide to cut off supplies and thus cause harmful supply shortages has become a concern for many EU member states.

As most EU member states are import dependent, dealing jointly with Russia and other external energy producers is deemed necessary to take advantage of their combined bargaining power and gain leverage in negotiations. In the official discourse and policy papers, the lack of 'solidarity'

among the member states regarding the EU's relations with Russia in general is regularly deplored. These papers often make specific reference to individual state's energy policies. Difficulties of achieving cooperation in policy towards Russia are blamed on the 'special relationships' that the large countries Germany, Italy and France maintain with Russia.[4] Although the disunity is regarded as a primary reason for the EU's limited ability to achieve results in its relations with Russia, at present literature that examines EU member states' energy relations with Russia is scarce as is that examining why member states tend to pursue their individual energy policies towards Russia rather than cooperate in the EU.[5]

This article seeks to make a contribution to filling the gap in the existing literature. It analyses EU member states' choice of how to pursue their energy objectives regarding Russia. The article is structured as follows. The first part gives an overview of member states' natural gas supply relations with Russia. The second part traces the development of the concept of 'solidarity' among EU member states in light of challenges to their supply security that emerged from disputes between Russian gas and oil companies and transit states' energy companies. The third part builds on this discussion to explain member states' choices regarding Russian supplies of natural gas by examining three controversial pipeline projects. The conclusion summarises the key obstacles to cooperation and 'solidarity' among the member states.

MEMBER STATES' ENERGY SUPPLY RELATIONS WITH RUSSIA[6]

Despite the fact that some countries do not consume any energy from Russia, the combined imports of the 27 member states from Russia are substantial. The EU as a whole receives 42 percent of its gas imports, 33 percent of its oil imports and 26 percent of its hard coal imports from Russia. Overall Russian energy resources contribute approximately 20 percent of the EU's energy consumption and generate around 10 percent of its electricity. Whereas crude oil and coal can be purchased and shipped in large volumes from other producers on the global market and stored at a comparatively low cost,[7] Russian natural gas supplies are more difficult to replace in case of a supply disruption. This is because the transport of natural gas is, for the most part, dependent on pipelines and geographic proximity to the sources. Storage of natural gas is also very costly and requires the appropriate geological conditions which are not present in every country. Natural gas can nowadays be transported by ship as liquefied natural gas (LNG), but currently only a quarter of EU member countries – Belgium, France, Greece, Italy, Portugal, the UK and Spain – have the necessary regasification infrastructure in place.[8] LNG deliveries tend to supplement, but not replace, gas transmitted by pipeline.

EU member states receive gas from Russia via two possible routes: first via Ukraine, with Slovakia, Romania, Hungary and Poland acting as transit states and second via Belarus with Poland acting as transit state for supplies to Germany. Finland, Estonia and Latvia receive gas directly from Russia and Lithuania receives gas via Belarus. The share of Russian gas in a country's energy imports is frequently used as a measure of its import dependence on Russian supplies. As Table 1 shows, the CEE states but also Finland, Greece and Austria receive their imported gas primarily, or exclusively, from Russia. The Baltic States remain an 'energy island', largely cut off from the rest of the EU and thus dependent on Russia for their gas supplies.[9] Other CEE states also receive gas from Norway, Germany, France and the CIS countries, but the majority of their gas supplies originate from Russia. The dependence on Russian gas, which is exacerbated by the fact that they lack LNG infrastructure, is a result of their close political and economic association with, or integration into, the Soviet Union during the Cold War period.[10] Greece imports much of its gas from Russia despite the fact that it

TABLE 1 EU Member States' Gas Imports from Russia and the Impact of the January 2009 Supply Crisis

	Gas from Russia, share of imports (2006)	Supply reduction, January 2009
Estonia	100%	n/a
Lithuania	100%	n/a
Latvia	100%	n/a
Finland	100%	n/a
Bulgaria	100%	−100%
Slovakia	100%	−97%
Romania	94%	n/a
Greece	81%	−80%
Czech Republic	73.9%	−71%
Austria	82%	−66%
Hungary	80%	−45%
Poland	68.84%	−33%
Slovenia	52%	−50%
Germany	44%	−10% (average) (South: −60%)
Italy	30%	25%
France	16%	15%
Belgium	4%	n/a
United Kingdom	2%	n/a

Source: Author's compilation from Commission of the European Communities, 'Europe's Current and Future Energy Position. Demand – Resources – Investment. Part B – Statistical Annex, Current National Energy Position', *Commission Staff Working Document accompanying the Second Strategic Energy Review. An EU Energy Security and Solidarity Action Plan*, COM 2008 744 (13 Nov. 2008); and Europa, 'Member State General Situation According the Significance Of Impact', *RAPID Press Release* MEMO/09/3 (9 Jan. 2009). Data on the UK is from House of Commons, *Hansard Written Answers* (4 March 2009), column 1668W.

is located at a geographical distance. It receives gas also from Algeria and, with its LNG ports, it has access to a broad range of alternative sources of gas supplies. The January 2009 crisis demonstrated that Greece is therefore able to cope with supply cut-offs from Russia. Besides Russian gas, Austria is supplied with gas from Norway. Its substantial gas storage capacity enables it to cope with supply disruptions in the short and medium term despite the lack of substantial alternative supply sources.

The Western member states have alternative sources of supply which makes them less vulnerable to any potential supply cuts from Russia. Germany does not have LNG ports, but it receives gas from a number of different sources. The two large Mediterranean countries, France and Italy, import LNG and gas via pipeline. France and Germany are supplied with gas from Norway and France and Italy receive Algerian gas. Germany and Italy receive gas also from the Netherlands and Italy is supplied with Libyan gas while France receives gas from Nigeria. The UK, the Netherlands and Denmark maintain considerable domestic production capacity, with the first two producing 70 percent of EU gas output and the latter covering all of its gas needs with indigenous production.[11] As these three states' domestic reserves are declining, Russia is likely to become an important additional source of gas.[12] The UK is already using small volumes of Russian gas since it became a net importer, but imports the bulk of its external supplies from Norway and as LNG from other parts of the world. Sweden, located in proximity to Russia, and lacking gas production capacity of its own, does not import any gas from the Russian Federation but receives its supplies from Denmark. Ireland, whose gas needs are currently covered by imports from the UK and its own domestic production, and Sweden will also have to contract gas supplies from alternative sources when the UK's and Denmark's production cannot satisfy their needs. Due to its geographic location and huge volume of proven gas reserves, Russia is a likely supplier for them.

The two-week long supply cut of gas deliveries through Ukraine in January 2009 that resulted from unresolved payment disputes between Ukraine and Russia demonstrated for the first time the effect of a prolonged cut-off of the bulk of Russian gas supplies on member states' energy supply.[13] Gazprom increased supplies via Belarus but was unable to fulfil its supply commitments while simultaneously maintaining the suspension of deliveries to Ukraine. The most affected states were the CEE countries and Greece. The latter was able to substitute the shortfall with additional LNG shipments and most of the CEE countries were able to compensate the shortfall with gas supplies from other sources or by switching to other fuels. It was estimated that EU member states, with the exception of Slovakia and Bulgaria, could have carried on for several more weeks, if not months without significantly disrupting the supply to consumers. The disruptions did however create substantial costs for the affected member states. Hungary, Romania and Poland had to reduce or cut off the gas supply to large

industrial companies to safeguard gas flow to households. In Bulgaria and Slovakia alone the losses from the suspension of supplies cost around €350 million a day.[14] This tells us that almost all EU member states are able to deal with supply disruptions, albeit at a financial cost, to an extent that the damage the Russian producer(s) can inflict with the 'gas weapon' is more limited than might have been expected.

Another measure of EU member states' dependence on natural gas supply from Russia is the volume that each receives from it. The member states importing large volumes are in a stronger bargaining position vis-à-vis Russia as the gas sales to them provide substantial revenues to the budgets of Gazprom and, through taxes, the Russian state. In contrast a suspension of deliveries to states importing small volumes of gas is of little consequence to Russia, wheras large quantities are difficult to replace in the event of a supply disruption, especially when pipeline capacity restricts volumes that can be imported from other sources. Russia's largest customers receive their gas from various sources and are able to increase imports from other producer states to compensate shortfalls. As can be seen in Figure 1 Russia supplies by far the largest volumes of gas to Germany and Italy. Together their gas volumes account for almost half of all Russian gas supplied to the EU.[15] This underscores the importance for Russia of its bilateral relations with these two countries.

In addition to the gas volume consumed by EU member states, the share of Russian gas supplies in total energy consumption gives further insights about its importance for the national economies. We can see in Figure 2 that there is a distinct difference between new and old member states with many of the CEE countries using around three times more gas in their national energy consumption than the Western member states. Russian gas is thus of

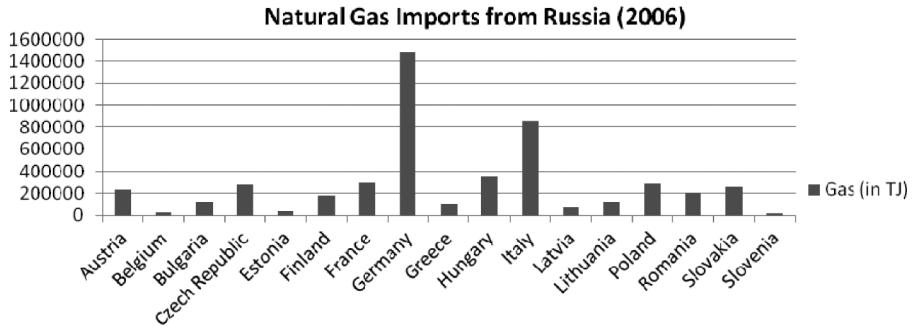

FIGURE 1 Volume of natural gas (in TJ) imported from Russia.
Source: Author's compilation from Commission of the European Communities, 'Europe's Current and Future Energy Position. Demand – Resources – Investment. Part B – Statistical Annex, Current National Energy Position', *Commission Staff Working Document accompanying the Second Strategic Energy Review. An EU Energy Security and Solidarity Action Plan*, COM 2008 744 (13 Nov. 2008).

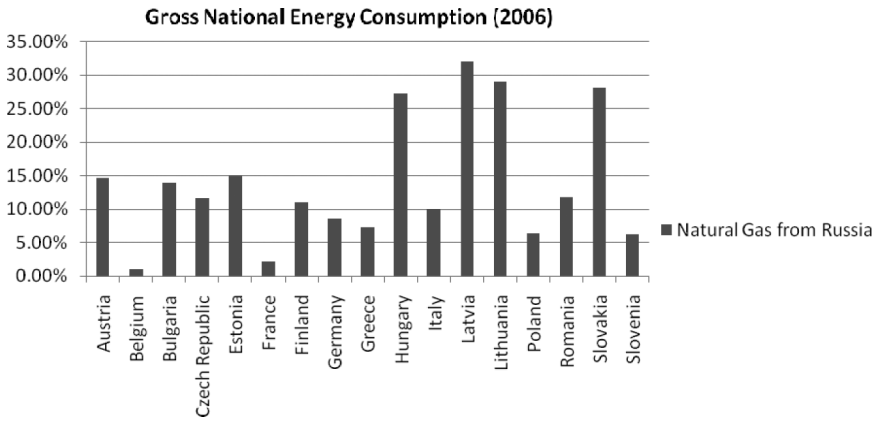

FIGURE 2 Share of Russian gas in member states' energy consumption.
Source: Author's calculations from Commission of the European Communities, 'Europe's Current and Future Energy Position. Demand – Resources – Investment. Part B – Statistical Annex, Current National Energy Position', *Commission Staff Working Document accompanying the Second Strategic Energy Review. An EU Energy Security and Solidarity Action Plan*, COM 2008 744 (13 Nov. 2008).

greater overall importance for these new EU members than for the old member countries. The Baltic States and Bulgaria consume only limited volumes of gas in the household sector[16], so Russian gas supply does not play such an important role, although the supply crisis of January 2009 demonstrated that Bulgaria suffers most severely from Russian gas supply disruptions due to a lack of pipeline connections with other member states that could have enabled it to receive gas supplies from other sources. Romania maintains an important domestic production covering more than half of its gas demand which reduces its dependence on imports.[17]

The share of Russian natural gas in electricity generation is an indicator of the vital importance of security of supply for the population at large, not least because on average 30 percent of EU-27 heating is from electricity.[18] Natural gas from Russia makes an important contribution to national electricity generation in some of the new member states, especially Latvia, Hungary and Lithuania[19] where it accounts for around a quarter of power generation. But in Figure 3 we can see that Russian gas plays only a small role in many of the CEE states' power generation. In contrast some of the Western EU members, especially Greece, Italy and Austria, are among the countries that use much higher shares of Russian gas supplies in their domestic electricity generation. The inconsistent patterns of dependence among the CEE states and between the new and old member states can be explained by the considerable differences in the type of energy used for electricity generation.

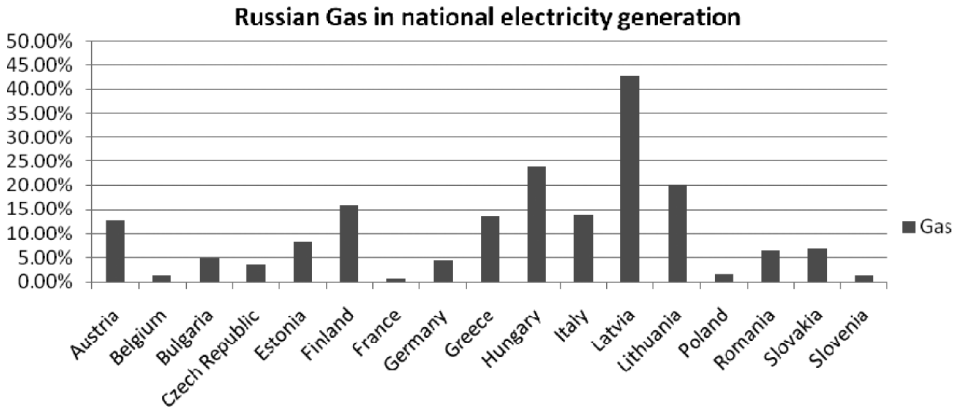

FIGURE 3 Share of Russian gas in member states' electricity generation (2006).
Source: Author's calculations from Commission of the European Communities, 'Europe's Current and Future Energy Position. Demand – Resources – Investment. Part B – Statistical Annex, Current National Energy Position', *Commission Staff Working Document accompanying the Second Strategic Energy Review. An EU Energy Security and Solidarity Action Plan*, COM 2008 744 (13 Nov. 2008).

The Czech Republic, Slovakia, Hungary, Bulgaria and Romania use nuclear energy and hard coal to generate electricity, limiting their dependence on Russian natural gas supplies.[20] Coal accounts for 90 percent of Poland's electricity generation and Estonia primarily uses oil shale, a domestic resource, and renewable energy (wind and water) to generate electricity.[21] Finland has four nuclear power stations in operation, but it also has the highest heating demand in winter among all the member states using Russian gas.[22] Sweden, Lithuania and Poland envisage the construction of (new) nuclear power stations to reduce the role of natural gas in domestic energy supply. Austria, in contrast, has opted against the use of nuclear power, and therefore relies on fossil and renewable fuels, which explains the higher shares of Russian gas in its energy consumption and electricity generation.

We can expect the member states to pursue policies that reflect their respective energy supply situation. A number of different factors are likely to influence their energy policies towards Russia. These are the share of Russian gas in total imports and consumption, the volumes of gas imported and the size of the gas market, but also the alternatives to Russian gas supplies and their status in the supply chain. If we regard a politically motivated supply cut as a possibility, those states acting as transit countries are in a stronger position than those being supplied directly. Those states that receive gas from different sources are in a stronger bargaining position as they can increase the volumes purchased from alternative suppliers. High percentages of Russian gas in imports and energy use are an indicator of a weak bargaining position vis-à-vis Russia in the case of small states with small gas

markets. It is therefore likely that these states will seek to increase their bargaining position by diversifying their energy supply sources and reducing Russia's dominant position as supplier. Consumers of large volumes of gas from Russia are in contrast in a strong position and thus prone to maintain or enhance their supply relations. Considering the different supply situations of Western and CEE states and the differences between small states compared to large gas consuming countries, it is likely that the different EU members states pursue contrasting objectives concerning Russia. Comparatively weak states are likely to seek to limit and reduce Russia's influence as dominant gas producer whereas other states are likely to seek to benefit from the fact that Russia is the world's major gas producer and that it is located in the EU's geographic proximity, enabling them to import gas at lower prices due to the comparatively lower transport costs.

SECURITY THROUGH SOLIDARITY

As we have seen, EU members have different needs and interests regarding Russia, and specifically regarding their natural gas imports from Russia, not least because they receive their gas supplies from Russia via three different routes (1. direct supply, 2. via Ukraine, 3. via Belarus) and many states receive their natural gas supplies also from alternative sources. However energy supply security has been portrayed by EU officials and member state representatives as an issue that can only be achieved through cooperation, 'unity' and 'solidarity'.[23] The Treaty on European Union of 1992 referred to 'mutual solidarity' of EU member states in the external relations domain (Title V). It implies that all EU member states should, by virtue of their membership in the EU, adopt common responses when faced with external challenges. The way in which the concept of 'solidarity' is used indicates an understanding of the term as denoting action taken in the spirit of a shared sense of belonging that requires and incites the member states to offer political and economic support to fellow member states. Membership in the EU is therefore understood as entailing a requirement of collective support – akin to NATO's commitment of collective defence (Art. 5 of its founding treaty) – in the event of threats to member states' energy supply security.

The need for the member states to act in a 'spirit of solidarity' on energy supply security has been addressed in various official documents and EU legislation since 2004.[24] In 2005, the Polish Prime Minister Donald Tusk proposed a Musketeer's Pact among EU member states to gain assurance that fellow members would assist if energy supplies to any state were under threat.[25] The 'Energy Security and Solidarity Action Plan' of November 2008 proposed a reform and update of the 2004 Gas Supply Directive that reflects a change in the understanding of what constitutes 'solidarity' in

energy supply crises.[26] The growing concerns about the need for *effective* solidarity,[27] increased by the supply reductions to the EU from Russia in 2008, prompted the European Commission then to propose the putting into place of *mechanisms* to ensure solidarity between the member states in the event of a supply crisis. It emphasised that 'solidarity is by no means charity'.[28] From this perspective solidarity is to be understood as a reciprocal arrangement between member states whereby the financial costs incurred by those states lending others support in the event of a supply crisis will be repaid.

The European Commission proposed to enshrine solidarity principles to guide member states' actions in formal, binding agreements between three or more member states and to compensate economically for 'solidarity' in the event of a supply shortage at a pre-defined cost.[29] This includes the supply from another country's gas stocks, including through a contractual transfer of gas, freeing up gas transiting the affected state for its own use.[30] This marks a shift in the meaning of solidarity from acting in the 'spirit of solidarity' to an arrangement on financial compensation for services rendered. The proposal of July 2009 for a Regulation[31] to replace the 2004 Gas Security of Supply Directive emphasised in the same vein that member states should 'devise specific measures to exercise solidarity, including . . . commercial agreements between natural gas undertakings [and] compensation mechanisms'.[32] It thus seeks explicitly to enshrine practical measures to address the member states' diverging needs and interests with regard to natural gas supplies from third countries. As various authors have demonstrated, the European Commission has, over the course of the 1990s and 2000s, pushed for the development of an EU external energy policy that is beneficial to itself in terms of increasing its influence.[33] Even though the European Community lacks the competence to negotiate external energy supply agreements with Russia or other gas producers it has used internal market competences, specifically competition rules, to influence policy and has even intervened in some member states' bilateral energy supply agreements with external producers.[34]

After the 2009 supply crisis, EU and national representatives emphasised that the member countries had demonstrated that they could speak 'with one voice' in a crisis.[35] However the fact that efforts since then have concentrated on seeking practical, technical agreements among the member states to financially compensate other states for delivering gas supplies to them implies a recognition that while agreements on commercial transactions that help other states deal with supply crises can be reached, there is no political consensus on strategies to be adopted towards external gas producers and on the issue of Russian gas supplies. The divergence of member states' external energy policies is also underscored by the reference made in the proposal of 2009 for a Regulation to Safeguard the Security of Gas

Supplies to the EU to the (perceived) problem of member which states' 'large margin of discretion' regarding the choice of measures which they can take to ensure their individual security of gas supply.[36] The proposal thus implicitly endorsed a reduction of member countries' freedom to choose what sort of gas supply policies to pursue on the grounds that individual states could 'jeopardise the proper functioning of the internal gas market' with their policy choices.[37] This, in turn, could negatively impact each state's supply security.

The appropriateness of the EU's Internal Energy Market liberalisation as a means of achieving energy supply security is itself highly contested. In fact the objectives pursued by EU member states towards Russia are much more closely related to the *Regions and Empires* approach than the *Markets and Institutions* view on energy relations with Russia. This is because Russia (unlike Norway, for example) is a highly controversial political partner, with conflicting views being held by the western (old) and CEE (new) member states. In the latter states and Sweden, Russia is regarded as a 'fickle' energy supplier and most of these states are concerned, based on their experience, that the Russian government could use energy supply cuts to achieve political objectives.[38] They therefore seek to limit or reduce their dependence on Russian gas supplies. In contrast Western EU member states emphasise that despite the East-West confrontation gas supplies from the Soviet Union were completely reliable, that this is still the case and that Russia is therefore a much more predictable and trustworthy energy producing country than the major energy producers in the Middle East, Africa and Latin America.[39]

In response to the supply disruptions of Russian oil and gas to EU member states since 2004 and because of the eastern member states' concerns about the reliability of Russian supplies, the conclusion of new energy supply agreements with Russia and 'memoranda of understanding' for the construction of pipelines from Russia to EU member states have become subject to criticism and provoked claims that they contradict the 'spirit of solidarity'. If a bilateral agreement with Russia could jeopardise the energy supply security of another member state, the respective state should refrain from concluding such an agreement. This view is also reflected in a European Parliament report of 2007 that urged the member states to consult and keep each other informed of major bilateral energy projects and agreements with third countries and to work with the European Commission to 'neutralise' any negative effects of bilateral agreements that run contrary to other states' interests, 'in accordance with the principle of solidarity'.[40] Through the Network of Energy Security Correspondents (NESCO), launched in May 2007, the Commission was also to receive information about member states' envisaged energy supply contracts with Russia and other energy producers.[41] From the Commission's perspective, this increased, at least in theory, its ability to coordinate and promote the development of a common external energy policy. Two policy analysts, Leonard and Popescu, went a

step further in advocating that the European Commission be granted the right to monitor agreements of energy companies from EU member states with Gazprom and to pre-approve 'big energy deals', especially the construction of new pipelines.[42] The reality of member states' energy policies continues to defy the widely held expectation of coordination and solidarity. Decisions on the allocation of EU funding to support new energy supply infrastructure are taken at the EU level, but benefit first and foremost the participating states and stakeholders but the member states continue to retain and defend the freedom of manoeuvre to decide on the sources of their energy supply and the pipeline projects they wish to support.

DIVERSIFYING GAS SUPPLY ROUTES AND SOURCES

The construction of new infrastructure to deliver external gas supplies to the EU has been identified as a key solution to address the risk of supply disruptions from deliberate cut-offs.[43] According to Czech Minister Vondra, whose country was holding the EU Presidency at that time, it is necessary to ensure that the EU's member states have a choice of at least two suppliers and at least two different supply routes so as to limit their dependence on a particular producer and transit country.[44] Geopolitical considerations, notably concerns about Russia potentially abusing its position vis-à-vis EU member states as the main gas producer and comparatively cheapest supplier, have fostered the view among EU officials and many national governments that infrastructure must be built and supply agreements be concluded with alternative producers 'to be able to bargain with Russia'.[45] The three natural gas pipeline projects that will be discussed here have been the focus of attention in debates about supply route and supply source diversification.[46] These are the Nord Stream, Nabucco and South Stream pipelines. The three projects have caused a great deal of controversy among EU member states – Noël even speaks of 'political divisiveness' of Russian gas supplies[47]. Some analysts juxtapose Nord Stream and Nabucco as 'rival' projects while others argue that South Stream and Nabucco are competing with one another. Nabucco brings in supplies from alternative producers whereas Nord Stream and South Stream will diversify the supply routes, but not the supply source. The latter two will bypass the 'problematic' transit states Ukraine and Belarus and supply EU member states directly, without crossing non-EU states in transit. Natural gas deliveries through Nabucco will depend on external transit countries.

In Northern Europe the envisaged Nord Stream pipeline, launched in September 2005 under the name Northern European Gas Pipeline (NEGP), is to bring Russian gas directly to Germany across the Baltic Sea. The NEGP started as a German-Russian project, but the rebranded Nord Stream consortium includes also a Dutch and a French company as stakeholders[48]

with French participation envisaged from 2010. Gas supplies have been contracted or imports firmly envisaged by Danish company DONG Energy, German E.ON Ruhrgas, Gas de France, Gazprom Marketing and Trading UK and Wingas. The designated sources of gas are Yuzhno-Russkoye, which will provide the bulk of supplies, and fields on the Yamal Peninsula in Ob-Taz bay and the offshore Shtokman field.[49] Nord Stream is to pump around 27.5 billion cubic metres (bcm) annually through each of two parallel pipelines. Before the construction of Nord Stream could start the consortium required environmental permits and construction permits from the states bordering the Baltic Sea through whose territorial waters and/or Exclusive Economic Zones (EEZs) the pipeline was to be built. The construction of the underwater pipeline began in April 2010 following its approval by Russia, Germany and the three Nordic states (Finland, Sweden, Denmark) through whose EEZ or territorial waters the pipeline is to be routed.[50] The first pipeline is expected to be operating in late 2011 and the second, parallel, pipeline is expected to be operational in late 2012.

Gas supply security is a key factor in the decision of EU member states to support, or to object to, the construction of Nord Stream. Polish officials and many critics in the Baltic States and Sweden have called for the German government to withdraw from Nord Stream and demonstrate 'solidarity' with them given the geo-strategic implications for them of the construction of Nord Stream. The pipeline will, first and foremost, benefit the 'old' western member states. Among them are the two largest states, Germany and France, and three 'new' recipients of Russian gas via Nord Stream – Denmark, the Netherlands and the UK. For Germany and France the direct gas pipeline promises to increase the reliability of gas deliveries from Russia as the 'difficult' transit countries Belarus and Ukraine are bypassed.[51] Nord Stream will help ensure domestic gas supply security by enabling France and Germany to meet a growing demand and compensate for declining energy production, including the intended phase out of nuclear power stations in Germany.[52] Germany, as the key partner in the project, has been accused of putting its own interests above those of the other member states in pursuing the pipeline project with Russia.[53]

The 'new' EU member states, Poland and Estonia, who do not stand to benefit from the new pipeline, have been particularly strongly opposed to the realisation of Nord Stream. Poland's opposition to Nord Stream is motivated, at least in part, by its position between two powerful neighbours, one to the West (Germany) and one to the East (Russia) and the historical experience of repeatedly being the object of geopolitical power games. The pipeline is viewed – not just by Polish officials, but also by critics in the Baltic States and opposition parties in Sweden – as a means for Russia to exert political pressure on Poland and the other CEE and CIS states.[54] By enabling Russia to cut off energy supplies and circumvent the smaller CEE energy markets while continuing to supply its largest market, especially

Germany, and other Western European states, Russia could, it is feared, punish the former Eastern Bloc countries for policies that contradict Russian interests. This would allow the expansion (or reassertion) of political influence through 'blackmail'. The geopolitical concerns that the project raised were reflected in the allusions made by Polish officials to Nord Stream as a 'Putin-Schröder Pact'. Polish Defence Minister Radoslaw Sikorski went as far as to draw explicit parallels with the Molotov-Ribbentrop Pact.[55]

Concerns about the possibility of politically motivated supply cuts from Russia are increased by the fact that Poland and the Baltic States lack access to substantial alternative supplies. The Polish (and also the Baltic States') gas market is small and demand does not necessitate an additional gas pipeline, which has been one of the reasons why Polish diversification plans were not implemented although successive governments have aimed for a diversification of supply sources.[56] Polish gas company PGNiG is however in the process of constructing an LNG terminal which will allow it to import gas from elsewhere in the world without the need for a pipeline connection.[57] Poland's resistance to the Nord Stream pipeline also stems from its interest in increasing Russia's dependence on routes that deliver energy through Poland for which it would receive transit revenues.[58] In this context Poland is concerned that deliveries that pass through the pipeline crossing its own territory could be channelled through Nord Stream instead.[59] The Polish-Russian agreement on the construction of the gas pipeline known as 'Yamal Europe' envisaged the construction of a second, parallel trunk (Yamal-II) which, more than a decade later, has yet to be built.[60] Nord Stream has been framed, against this background, primarily as a threat to Poland's position. Polish elites suspect that it is deliberately targeted at weakening Poland's role as transit state for Russian gas deliveries to the latter's key customer, Germany.[61] Echoing Polish concerns, Estonian President Ilves argued in early 2009 that the construction of the second parallel trunk of Yamal would be cheaper and do the same job as Nord Stream. In particular he questioned the cost-effectiveness of Nord Stream and criticised the use of EU funds for such a project.[62] An 'Amber' gas pipeline proposed by Poland and the Baltic States to transport Russian gas via Latvia, Lithuania, Kaliningrad and Poland to Germany, and under discussion since 2004, is also unlikely to be realised now that Nord Stream is being built.[63] This is unfavourable for the states that are being circumvented as an overland pipeline crossing their territory would both earn them transit revenues and also increase their bargaining position vis-à-vis Russia.[64]

Estonia's negative reaction to the planned Nord Stream pipeline necessitated a revision of the pipeline route. In September 2007 Estonia refused the consortium permission to survey the seabed to route the pipeline through its EEZ on environmental grounds. As a consequence, an alternative route was chosen which bypasses CEE states and instead crosses the Baltic Sea EEZs under Finnish, Swedish and Danish jurisdiction. Swedish opposition parties

and Lithuanian and Finnish critics have also opposed Nord Stream because of the environmental risks involved in the construction resulting from munitions from the Second World War located on the seabed along the pipeline route and the effects on marine life of the disruption of the sediment on the seafloor.[65] Economic reasons do not appear to have motivated Estonia's rejection and energy security issues are also unlikely reasons as Estonia has, because of its location, thus far not acted as a gas transit state and would neither bear any losses from the new pipeline nor make any gains from an additional land-based pipeline.[66] Instead, geopolitical factors are likely to have played an important role in Estonia's decision to refuse Nord Stream's request to conduct the preliminary survey as the rejection of the Nord Stream consortium's request followed a serious bilateral dispute with Russia that conjured up concerns about Russia's willingness and ability to interfere in the former Soviet Republic's domestic politics.[67] Political elites from Poland and the Baltic States, but also Swedish and Finnish sceptics have expressed their concern that the Russian government will (ab)use the situation to deploy troops in the Baltic Sea to guard the pipeline which could, they fear, build up a strong Russian military presence in their neighbourhood.[68] In March 2010 the sale of four French assault warships was announced in conjunction with GDF Suez's bilateral energy agreement with Russia. With this deal GDF acquired a 9 percent share in the Nord Stream consortium and confirmed an increase of its gas supply purchases from Russia.[69] The possibility of Russia deploying the military equipment in the Baltic Sea region increased concerns in the CEE states that agreements were being concluded by powerful EU members with Russia without any regard for them.

Finland, Denmark and Sweden decided in favour of the Nord Stream project and thereby enabled the pipeline construction to go ahead. Denmark's approval coincided with an agreement of the Danish energy company DONG with Gazprom to double the volumes of gas already contracted for delivery through the pipeline.[70] Economic and energy supply interests seem therefore to have been a key motivating factor. Whereas in Denmark the decision on the pipeline construction received comparatively little attention, in Sweden the Nord Stream pipeline has been the subject of intense political debate.[71] The Swedish government under Frederik Reinfeld underlined that the decision on the pipeline was based on environmental criteria only, but the decision to grant the permit is likely to have been influenced by the failure of 'Scanled', a project designed to bring Norwegian gas to Sweden which was terminated in mid-2009 after a preliminary survey (2005–2009).[72] Nord Stream could deliver Russian gas via the existing pipelines from Germany via Denmark to Sweden to compensate for declining Danish production. Scanled was also intended to bring Norwegian gas via the Scandinavian states to Poland and this diversification of gas supplies would have strengthened Poland's position towards Russia.

What we can see is that the bilateral energy supply situation of EU member states with Russia has influenced their decision to support or object to Nord Stream. The diverging assessment of Russia's intentions is also a key factor explaining member states' contrasting perceptions of the benefits and dangers of Nord Stream. Differences are, to a considerable extent, a result of the contrasting geopolitical experiences of the CEE and the neutral Nordic states compared to the Western EU member states.[73] Whereas German-Russian and French-Russian relations are built on mutual respect and recognition of their political, economic – and in France's case also military – power, the Baltic States and Poland's position has been weak and they have had very little influence over developments on the European continent.[74] Besides the (genuine) environmental concerns, all interested parties appear to be predominantly focused on securing their national interests, with little or no regard for other member states' economic, political and security situation.

The two pipeline projects planned in the South – Nabucco and South Stream – were since their inception cast by critics as mutually exclusive. In the initial planning phase supporters of Nabucco complained about the lack of solidarity of the member states supporting the 'rival' project South Stream. This is because the member states that view Russia as a potential threat to their national security are concerned that South Stream could serve to strengthen Russia's influence and undermine the prospects of EU member states receiving natural gas from alternative producers in Central Asia. They are further concerned about an increase of gas imports from Russia given the already comparatively high share of Russian gas in EU imports. Critics of South Stream fear therefore that it increases Russia's leverage and makes the EU more vulnerable. Member states' support for or objection to the two projects seemed to reflect the historical experience and nature of contemporary bilateral relations with Russia with those countries regarding Russia as an unreliable gas supplier supporting the construction of Nabucco (which is intended to bring in gas from countries other than Russia), while countries that regard Russia as a reliable supplier supported the construction of South Stream (which is to bring Russian gas to Southern and Central European member states). But as Table 2 demonstrates, this is only partially true as more than half of the participating states have committed to participating in both diversification projects.

The planned South Stream pipeline is a Russian-Italian venture between Gazprom and Italian ENI. The project was launched in 2003 and is envisaged to be operating from 2015. In addition to Gazprom and ENI, shareholders are from Hungary and Bulgaria. South Stream will deliver Russian gas from Russia and Central Asia across the Black Sea to Bulgaria and from there to Greece, Italy, Hungary and Slovenia. In 2008 and 2009 Gazprom signed agreements with all of these countries for the construction of the pipeline

TABLE 2 Overview of Member States Participating in South Stream and Nabucco

South Stream	Nabucco
Austria	Austria
Bulgaria	Bulgaria
Hungary	Hungary
—	Germany
Greece	—
Italy	—
—	Romania
Slovenia	—

trunks on their territory.[75] Austria joined the project in April 2010. The envisaged capacity of South Stream is 30 bcm per year.

In contrast the Nabucco pipeline is to connect EU member states to gas supplies in the Caspian region (Azerbaijan, Turkmenistan and Kazakhstan), the Middle East (Iran and Iraq) and Egypt.[76] The pipeline would run via Turkey to Bulgaria and through Romania and Hungary, ending at Austria's natural gas hub from where supplies could be distributed further to Central and Western European states. The joint venture for the construction of Nabucco was established in June 2004. The states that have committed to participating in Nabucco are, in addition to Turkey, the two newest EU members, Romania and Bulgaria, and Hungary and Austria. The participating states signed an Intergovernmental Agreement in July 2009. The shareholders are from the five participating countries and from Germany.[77] The envisaged capacity of Nabucco is 31 bcm per year.

A key feature of Nabucco is that it will pool various sources of supplies from different producers and, in contrast to Nord Stream and South Stream, does not channel supplies from one major producer to one or several major consumers in the EU. That very fact is also a major point of criticism. The Nabucco consortium's ability to contract sufficient gas volumes is in doubt because a number of prospective Central Asian gas suppliers for the pipeline have been locked in long-term supply contracts with Gazprom.[78] Azeri gas from an offshore gas field in the Caspian Sea (Shah Deniz-II) is supposed to make up the bulk of supplies for Nabucco, but the available production capacity falls short of filling the pipeline. In addition, Azerbaijan signed a supply agreement with Russia in June 2009 and started supplying gas to Southwest Russia in January 2010 with the possibility of increasing the volumes supplied. Turkey is also a prospective customer of Azeri gas and as such a large and growing market. Two alternative producers in Central Asia, Kazakhstan and Turkmenistan, also have committed to delivering gas to Russia. Turkmenistan also supplies gas to China. The questions about the ability of the consortium to contract sufficient gas to fill the pipeline is

likely to have influenced participating states' decision to also join the South Stream project.

Another factor that seems to have influenced their choice to support South Stream – despite the geopolitical implications of strengthening Russia's bargaining power – is the fact that the third countries that are to be involved in Nabucco bear a host of political, economic and security problems for the EU which are arguably of greater concern than bolstering Russia's position as a key source of natural gas supplies. In addition to the well-known problems associated with Iraq, Iran's assertive policy towards the 'West' and the generally volatile political situation in the region turn it into a difficult partner which is likely to use energy supply as a bargaining tool. Turkey could, as an EU membership candidate, be expected to be a reliable and cooperative partner, but experts believe it will use its position as a key transit country for gas from the Middle East to bargain both with the EU and with Russia, with a possibility that the EU could lose out. Furthermore, its own gas needs are significant which means that large volumes of gas intended for transit may stay in Turkey rather than transit further on to EU member states.[79] Consequently, critics view Turkey as a transit country that could prove to be as 'troublesome' as Ukraine for the EU.

Because Italy, the key partner country of Russia in South Stream, is the second largest consumer of Russian gas in the EU and the Italian government also maintains 'special' relations with the Russian government, countries concerned about Russia's increasing influence are worried that the Russian government is outmanoeuvring CEE states. South Stream and Nord Stream flank the EU and will deliver Russian gas to the two gas importing countries with the largest markets – Germany and Italy – by circumventing Central Europe. Furthermore, the commercial viability of South Stream has been questioned as Russia's gas production capacity has been declining due on the one hand to a lack of investment and delays in the exploitation of new oil and gas fields and on the other hand to growing domestic consumption.[80] This has reinforced the suspicion among critics in the CEE states that the pipelines will simply divert Russian gas from the overland pipelines, thereby negatively impacting the traditional transit states. The geopolitical implications of contemporary Russian pipeline politics and the possibility (however unlikely it is) that Gazprom could deliver gas via the Northern and Southern route while cutting off the supplies to CEE states that are delivered through the overland pipelines, preoccupy the former Eastern Bloc states.

There have also been claims that Gazprom seeks to snatch EU member states from Nabucco and thereby undermine its realisation while pushing forward the implementation of South Stream.[81] With Hungary, Bulgaria and Austria, Gazprom has indeed recruited three countries that are integral to Nabucco to participate also in South Stream (see Table 2), but these three member states have strong incentives of their own to participate. For Bulgaria, South Stream promises to increase its role as transit country for

Russian gas supplies to other European states after the January 2009 crisis had demonstrated that the country is extremely vulnerable to disruptions of Russian gas deliveries. In addition, participation in both South Stream and Nabucco would substantially increase Bulgaria's supply security in the event of a disruption of deliveries from Ukraine as supplies through the two alternative pipelines could compensate for shortfalls. Hungary and Austria benefit from participation in South Stream due to their strategic, central location in the transit of gas to Western European states.[82] Russian gas supplies play an important role in their energy mix and both are, like Bulgaria, small states which places them, from the outset, in a weaker bargaining position vis-à-vis Russia. Increasing Gazprom's dependence on them as transit states through South Stream while also diversifying supplies, and acting as transit states for Nabucco, will most certainly bolster their bargaining position. In contrast, Romanian elites remain strong supporters of Nabucco which is regarded by President Traian Basescu as a means of decreasing Romania's supply dependence on Russia at the same time he rejected the idea of Romania participating in South Stream, to avoid an increase in Russian gas imports.[83]

Although many CEE countries are concerned about Russian ambitions to expand its influence in the energy sector, the views of political elites on Russia, and consequently the pipelines, are by no means homogenous. Czech Europe Minister Vondra has argued that more natural gas supply routes, even if they do not bring in gas from alternative sources, will help 'ensure safe and stable gas supplies to EU citizens'.[84] In contrast, Czech Prime Minister Topolanek supports the Nabucco pipeline and strongly criticised Nord Stream and South Stream.[85] The Bulgarian President Georgi Pyrvanov has been supportive of projects involving Russia such as South Stream whereas Bulgarian Prime Minister Boyko Borisov favours alternative supply solutions, such as Nabucco.[86] While the Swedish government under Frederik Reinfeld gave the go-ahead to the Nord Stream construction, which could be interpreted as a sign of support for the pipeline, the previous government and opposition parties were strongly against its implementation. These snapshots of domestic divisions in EU member states underscore the fact that in addition to the broader geopolitical and economic factors, the domestic political considerations can determine member states' choices regarding the three pipelines.

CONCLUSIONS

EU member states are located at varying distances from Russia. Their historical experiences with Russia and their energy import dependence on Russia differ significantly. It is therefore to be expected that they pursue divergent energy supply objectives. As EU members, they are however expected to act in solidarity with one another. The official rhetoric of 'solidarity' among the

member states regarding the security of natural gas supply is omnipresent in official documents and speeches. Despite the great emphasis placed on solidarity, in reality, member states for which Russian gas supplies are of great salience pursue conflicting objectives. A number of factors shape their energy supply policies. First of all, the intensity of bilateral energy supply relations with Russia, second, the geographic location and access to alternative sources of supplies, third, their bargaining position and standing in relation to Russia which is influenced by their size (large markets vs. small markets) and position in the supply chain (strategic transit state vs. destination countries). Finally, it appears that the main driver of individual states' policies on natural gas supply is how they assess Russia as an international actor and how they assess the Russian government's proclivity to use energy supplies for political objectives.

The policies pursued to ensure security of natural gas supply differ as the member states assess the geopolitical reality and the impact of a gas import dependence on Russia differently. The member states can, in this regard, be grouped into two 'factions' with one, composed mainly, but not exclusively, of CEE states, emphasising the possibility of deliberate, politically motivated supply cuts. This group tends to regard Russia as a threat because of their historical experience as weak states whose fate was at the mercy of great power rivalry on the European continent. The other group, mainly composed of Western, and in particular large and influential member states, underlines the benefits to be gained from intensifying relations with Russia as major natural gas producer. There is therefore no consensus on whether or not an increase in Russian gas supplies is desirable or whether supply volumes from alternative producers should be increased in order to limit the reliance on Russian gas.

Besides the geopolitical factors and past experiences that play into member states' support for, or opposition to, the pipeline projects, their energy supply policies are also motivated by anticipated gains from the construction of the pipeline(s) favoured by them. The possible impact of their choices on other member countries' gas supply security does not appear to play a role in EU member states' decision on which project to support and participate in. The call for solidarity with regard to new pipelines seems to serve primarily as a cover for the pursuit of individual political and economic gains. There are two main explanations that can shed light on why there is a gap between the 'solidarity' rhetoric and the reality of member states' pursuit of conflicting energy supply policies, especially with regard to natural gas pipelines. First, the emphasis on 'solidarity' and the need to cooperate in the EU on a common external energy policy appear to serve the interests of the European Commission to acquire greater influence in external energy policy. The regular mention of solidarity as a justification for closer cooperation and coordination at the EU level, including even a transfer of sensitive data to the supranational institution, is not so much a reflection of member

states' core interests, but rather a sign of the influence the Commission has over the framing of policies and European Community legislation in the field of energy. Second, in the EU the solidarity concept has developed from a comparatively vague and broad understanding of action to be taken 'in the spirit of solidarity' by virtue of being an EU member state to a much more concrete and practical understanding of solidarity as assistance that is to be compensated financially, based on binding prior agreement. This apparent and significant evolution of the solidarity concept seems to be a reflection of the fact that member states' actions are, specifically in the energy sector, determined by their assessment of costs and benefits to them rather than a concern for the interests of other member states or a striving for the 'greater good' of the EU as a whole.

ACKNOWLEDGEMENTS

I am very grateful to the three anonymous referees for their comments and suggestions on how to improve this article.

NOTES

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6. All data discussed here is from Commission of the European Communities, 'Europe's Current and Future Energy Position. Demand – Resources – Investment. Part B – Statistical Annex, Current National Energy Position', *Commission Staff Working Document accompanying the Second Strategic Energy Review. An EU Energy Security and Solidarity Action Plan*, COM 2008 744 (13 Nov. 2008). The data is for the year 2006, and covers the EU of 27 member states. The percentage shares were calculated by the author by adding import volumes to indigenous production for each energy carrier, calculating the share of Russian origin in the total and then its share in the gross national energy consumption for each energy carrier. As the country data sheets list some gas figures in terajoule (TJ) while others are given in million tonnes (Mtoe), the gas figures had to be converted into tonnes of oil equivalent. This method is imperfect, but the figures regarding shares of Russian energy in total consumption and electricity generation yield insights into supply dependencies that the data on import volumes and the share of Russian gas in total imports cannot provide.

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10. For a detailed analysis of the supply relations of the CMEA states and Russia under the Soviet regime, see R. Maddock, 'Energy and Integration: The Logic of Interdependence in the Soviet Union and Eastern Europe', *Journal of Common Market Studies* XIX/1 (Sep. 1980) pp. 21–34.

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12. Norway's gas production, the closest alternative source of supplies for Sweden, Denmark and the UK is expected to peak in 2015–2020, and the volumes available for exports to EU member states will not substantially increase from the present level until it peaks. See Söderbergh, Jakobsson, and Aleklett (note 11) pp. 5037–5055.

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15. Noël (note 5) p. 2.

16. Ibid., p. 13.

17. Commission of the European Communities, 'Assessment Report of Directive 2004/67/EC on Security of Gas Supply, Accompanying document to the Proposal for a Regulation of the European Parliament and of the Council Concerning Measures to Safeguard Security of Gas Supply and Repealing Directive 2004/67/EC, *Commission Staff Working Document* SEC 2009 978 (16 July 2009) p. 35.

18. Commission of the European Communities, 'An Energy Policy for Europe', *Communication from the Commission to the European Council and the European Parliament* COM 2007 1 (10 Jan. 2007), Annex 3, p. 26.

19. The share of natural gas in Lithuania's electricity generation increased substantially with the decommissioning of its nuclear reactors (Ignalina) by 31 December 2009. This will have increased the share of alternative fuels, including Russian natural gas in Lithuania's national energy consumption by more than a quarter.

20. The government of Vaclav Klaus decided to restructure the energy supply system and invested in the construction of nuclear power stations, access to alternative supply sources and the connection to its Western neighbours' gas and electricity grids. For a discussion of Czech and Polish energy supply policies during the 1990s until the mid-2000s, see V. Weichsel, 'Atom, Monopol und Diversifikation. Elemente tschechischer Energiepolitik', *OSTEUROPA* 54/9-10 (2004) pp. 180–202; K.-O. Lang, 'Zwischen Sicherheitspolitik und Ökonomie. Polens Energiewirtschaft im Spannungsfeld', *OSTEUROPA* 54/9-10 (2004) pp. 203–222.

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28. Commission of the European Communities, 'An Energy Policy for Europe' (note 18) p. 10, section 3.2; p. 10, section 4.2.

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30. Ibid., p. 11, section 5. Such an agreement exists already between companies in Hungary and France. In case of reduced supplies from Russia the French company will leave behind in Hungary its share of supplies. See ibid., p. 10, section 4.4b.

31. A Regulation to replace the Gas Security of Supply Directive of 2004 does not, in contrast to a Directive, require transposition into national law, but is directly applicable to EU member states.

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39. A. Merkel, 'Speech at the 43rd Munich Security Conference', 10 Feb. 2007; S. Handke and J. J. de Jong, 'Energy as a Bond: Relations with Russia in the European and Dutch Context', *Clingendael Energy Paper* CIEP 02/2007 (The Hague: Clingendael International Energy Programme).

40. European Parliament, 'Report on towards a Common European Foreign Policy on Energy (2007/2000(INI)', *Committee on Foreign Affairs* A6-0312/2007 (11 Sep. 2007) section B, para. 27, p. 9.

41. Europa, 'European Commission to Launch EU Network of Energy Security Correspondents 10th May', *RAPID Press Release* IP/07/629 (9 May 2007); Europa, 'Gas Dispute between Russia and Belarus: Commission Activates EU Energy Networks', *RAPID Press Release* MEMO/07/318 (2 Aug. 2007).

42. M. Leonard and N. Popescu, 'A Five-Point Strategy for EU-Russia Relations', *Europe's World* 8 (Spring 2008) pp. 20–30.

43. See Commission of the European Communities, 'An Energy Policy for Europe' (note 18) p. 10, section 3.2; Ilves, '45th Security Conference' (note 38).

44. See Vondra (note 23).

45. Ibid.; Mayer (note 33) p. 252.

46. Ilves, '43rd Security Conference' (note 38); Ilves, '45th Security Conference' (note 38).

47. Noël (note 5) pp. 1, 3, 16, 17.

48. The consortium is composed of Gazprom (51 percent of shares), German energy companies E.ON Ruhrgas (15.5 percent) and BASF/Wintershall Holding (15.5 percent) and Dutch company Gasunie (9 percent) which joined them in June 2008 and French company Gaz de France (GDF, 9 percent) which joined them in June 2010. See RIA Novosti, 'Gazprom rachète à GDF Suez 5,26% de l'allemand Verbundnetz Gas', *RIA Novosti*, 27 Nov. 2009; RIAN, 'France's GDF Suez to Join Nord Stream Gas Pipeline Project', *RIA Novosti*, 1 March 2010. See Nord Stream, 'Company News. GDF Suez Acquires 9 Percent Stake in Nord Stream' (21 June 2010), available at <https://e-facts.nord-stream.com/app/article/index.cfm?fuseaction=OpenArticle&aoid=2351&lang=EN>, accessed 25 June 2011. A memorandum on the participation of the UK was signed between Putin and Blair already in June 2003. According to Russian sources, the UK has reserved the equivalent to 4 percent of the UK's total gas demand from Nord Stream. See Ria Novosti, 'Gran Bretaña se reserva en el gasoducto Nord Stream 4.000 millones de metros cúbicos de gas al año', *RIA Novosti*, 28 Nov. 2009; Gazprom, 'About/Major Projects/Nord Stream', available at <http://www.gazprom.com/eng/articles/article18466.shtml>, accessed 20 Jan. 2009; V. Pop, 'Russian Baltic Sea Pipeline Gets Final Approval', *EU Observer*, 12 Feb. 2010. For more details on the envisaged gas importers, see Nord Stream, 'Partners and Contractors' (n.d.) available at <http://www.nord-stream.com/en/our-company/partners-and-contractors.html>, accessed 25 June 2011.

49. French oil firm Total holds a 25 percent share in the consortium to develop the Shtokman gas fields which are to be operational by 2013. See Shtokman, 'About Company', *Shtokman Development Company*, available at <http://www.shtokman.ru/eng/about>, accessed 14 Jan. 2009. Almost a quarter of Yuzhno-Russkoye's reserves are owned by E.ON. See E.ON Ruhrgas, 'Yuzhno Russkoye Gas Field: Participation Agreement Signed' (n.d.), available at <http://www.eon-ruhrgas.com/cps/rde/xchg/SID-6683B57B-69EB7F6B/er-corporate/hs.xsl/4909.htm>; P. Runner, 'Nord Stream to Pump EU Gas by 2011, Russia Says', *EUObserver*, 21 Jan. 2009.

50. 'Rysk-tyska gasledningen. Tyskland har godkänt gasledning', *Dagens Nyheter*, 28 Dec. 2009.

51. The role of Nord Stream as an alternative to transit through Ukraine was underscored by the Czech EU Presidency in 2009. See Vondra (note 23).

52. B. S. Whist, 'Nord Stream: A Litmus Test for Intra-EU Solidarity', in Andreas Kasekamp (ed.), *Estonian Foreign Policy Yearbook 2009* (Tallinn: Eesti Välispoliitika Instituut 2009) pp. 88–89. As Danish and British production is gradually declining, both Ireland and Sweden can also be expected to benefit from Russian gas imports since their gas supplies have thus far originated exclusively from the UK and Denmark, respectively.

53. Ibid., p. 76.

54. See 'Rysk-tyska gasledningen. Danmark godkänner gasledning', *Dagens Nyheter*, 20 Dec. 2009; 'Rysk-tyska gasledningen. Regeringen säger ja till gasledningen', *Dagens Nyheter*, 5 Nov. 2009.

55. Whist (note 52) p. 76.

56. S. Bouzarovski and M. Konieczny, 'Landscapes of Paradox: Public Discourses and Policies in Poland's Relationship with the Nord Stream Pipeline', *Geopolitics* 15/1 (2010) p. 9.

57. There remain however questions about its cost-efficiency. See ibid., p. 12.

58. Ibid.

59. V. Pop, 'Putin Questions Baltic Pipeline, as Oil and Gas Prices Drop', *EUObserver*, 13 Nov. 2008; and G. Baczynska, 'Poland's Tusk Says Baltic Gas Pipeline Uncertain', *Reuters* (Warsaw), 6 Nov. 2007.

60. Yamal-Europe does not carry, as originally envisaged and indicated by its name, gas from the fields on the Yamal peninsula.

61. Bouzarovski and Konieczny (note 56) pp. 1–21.

62. Ilves, '45th Security Conference' (note 38).

63. P. Runner, 'Nord Stream to Pump EU Gas by 2011, Russia Says', *EU Observer*, 21 Jan. 2009; Whist (note 52) pp. 96, 105.

64. Whist (note 52) p. 105.

65. Ria Novosti, 'Estonian Parliament Speaks against Nord Stream Project', *Ria Novosti*, 27 Oct. 2009; 'Regeringen säger ja' (note 54); 'Tyskland har godkänt' (note 50). For a detailed analysis of the environmental impact of Nord Stream, see Karm (note 21) pp. 99–121 and Whist (note 52) pp. 98,105.

66. Whist (note 52) pp. 97–98.

67. For a detailed discussion of said events, see K. Brüggemann and A. Kasekamp, 'Identity Politics and Contested Histories in Divided Societies: The Case of Estonian War Monuments', in E. Berg and P. Ehin (eds.), *Identity and Foreign Policy: Baltic-Russian Relations and European Integration* (Aldershot: Ashgate 2009) pp. 51–63; K. Brüggemann and A. Kasekamp, 'The Politics of History and the "War of Monuments" in Estonia', *Nationalities Papers* 36/3 (July 2008) pp. 425–448; M. Mälksoo, 'Liminality and Contested Europeanness: Conflicting Memory Politics in the Baltic Space', pp. 65–83, in E. Berg and P. Ehin (eds.), *Identity and Foreign Policy: Baltic-Russian Relations and European Integration* (Aldershot: Ashgate 2009) pp. 65–83. See also P. Ehin and E. Berg, 'Incompatible Identities? Baltic-Russian Relations and the EU as an Arena for Identity Conflict', in E. Berg and P. Ehin (eds.), *Identity and Foreign Policy: Baltic-Russian Relations and European Integration*. (Aldershot: Ashgate 2009) pp. 1–14.

68. S. Sillanpää, 'Piping Down over Nord Stream', *Helsingin Sanomat*, 6 Sep. 2009.

69. A. Rettman, 'France and Russia Forge Alliance with Gas, Warship Deals', *EU Observer*, 2 March 2010.

70. 'Danmark godkänner' (note 54); 'Regeringen säger' (note 54).

71. Whist (note 52) pp. 80–81.

72. The pipeline's primary function would have been to deliver natural gas from offshore platforms to eastern Norway, with trunks supplying Sweden and Denmark, allowing also for a possible connection to Poland via Denmark. See Gassco, 'Skanled Project Terminated' (n.d.), available at <http://www.gassco.no/wps/wcm/connect/gassco-en/gassco/home/var-virksomhet/projects/skanled/skanled>. See also Bouzarovski and Konieczny (note 56) p. 14.

73. Whist (note 52) pp. 92–93.

74. See also ibid., p. 99.

75. The transit pipelines will be jointly owned by Gazprom and a national energy company of the respective state. 'Grönt ljus för rysk gasledning', *Dagens Nyheter*, 14 Nov. 2009.

76. Nabucco Gas Pipeline Project, 'Markets for Nabucco – Sources for an increased demand', available at <http://www.nabucco-pipeline.com/company/markets-sources-for-nabucco/markets-sources-for-nabucco.html>, accessed 31 Jan. 2009.

77. Shareholders are Romanian Transgaz S.A., German RWE, Austrian OMV, Hungarian MOL, Bulgarian Energy Holding EAD and Turkish Botas AS, each with a 16.67 percent share. See Nabucco Gas Pipeline Project, 'Shareholders Nabucco Gas Pipeline International GmbH', available at <http://www.nabucco-pipeline.com/company/shareholders7/table-of-content-shareholder.html>, accessed 10 Feb. 2009.

78. M. Mora, 'Cumbre privada Berlusconi-Putin para hablar de energía. La oposición califica la visita del Cavaliere a la dacha de Valdai como "indigna de un país democrático"', *El País*, 21 Oct. 2009. For an analysis of the new 'great game' taking place between Russia and the EU in this region in competition for the Central Asian countries' resources, see V. Feklyunina, 'The 'Great Diversification Game': Russia's Vision of the European Union's Energy Projects in the Shared Neighbourhood', *Journal of Contemporary European Research* 4/2 (June 2008).

79. 'Interview. Mandil: Energy Solidarity 'Still Just Words"', *Euroactiv.com*, 9 Feb. 2009.

80. For more detail on these issues, see A. Goldthau, 'Rhetoric Versus Reality: Russian Threats to European Energy Supply', *Energy Policy* 36 (2008) pp. 686–692; J. P. Stern, *The Future of Russian Gas and Gazprom* (Oxford: Oxford University Press for the Oxford Institute for Energy 2005); S. L. Tkachenko, 'Actors in Russia's Energy Policy towards the EU', in P. Aalto (ed.), *The EU-Russia Energy Dialogue: Securing Europe's Future Energy Supply* (Aldershot: Ashgate 2008) pp. 163–192; A. Wasilewski, 'Natural Gas in Russia's Foreign Policy', *The Polish Quarterly of International Affairs* 13/10 (Winter 2004) pp. 89–113; K. Westphal, 'Germany and the EU-Russia Energy Dialogue', in P. Aalto (ed.), *The EU-Russia Energy Dialogue: Securing Europe's Future Energy Supply* (Aldershot: Ashgate 2008) pp. 93–118.

81. Mora (note 78).

82. The Austrian and Hungarian national energy champions are however in competition with one another to act as Central European gas hub. For a detailed discussion see E. Butler, 'The Geopolitics of Merger and Acquisition in the Central European Energy Market', *Geopolitics* (forthcoming).

83. V. Pop, 'Romania Opens Door to Gazprom Pipeline', *EU Observer*, 24 Oct. 2008.

84. Vondra (note 23).

85. 'Europe Split Over Energy Security. Merkel Calls on EU to Support Baltic Gas Pipeline', *Spiegel Online International*, 29 Jan. 2009.

86. Centre for Eastern Studies, 'Bulgaria: The Dispute between the Government and the President over Energy Policy', *CE Weekly*, 16 Sept. 2009, available at http://www.osw.waw.pl.