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THESES

- Significant changes on the European gas market have taken place over the past few years. The liberalisation process has gained momentum; one essential element of it comprises the new legal regulations, in particular, the so-called third energy package. The European Commission's significance in energy relations between the EU and its member states and Russia has grown. Efforts aimed at diversifying the sources of gas supply to Europe are being continued, in particular through imports of liquefied natural gas (LNG). Furthermore, gas trade rules are gradually evolving.

- The recent changes, especially in the area of legal regulations, are unfavourable to Russia. As a consequence of these changes, the long-lived energy inter-dependence between Europe and Russia, which has been asymmetrically beneficial for Moscow, has been gaining balance over the past few years. As a result of improving competitiveness on the European market and progress in building the common energy market – at a time of political stability – the role of natural gas as an instrument in Russian foreign policy is lessening. On the other hand, doubts as to whether the liberalisation tendencies will last long (delays in the implementation of EU regulations in some member states) and the decrease in LNG supplies observed in 2012–2013, along with the expected decline in Europe's own production, provide Russia with a chance of maintaining its position in relations with the EU and possibly even of reinforcing it within the next three or four years.

- Russia, being aware of the evolution of the EU gas market and the fluctuations in trends that accompany it, and in an attempt to maintain its position on the European gas market, is sticking to a dichotomous strategy. On the one hand, Moscow has taken an **offensive approach** to the challenges. Firstly, it continues its traditionally critical rhetoric with regard to the legal and institutional changes; and this rhetoric is likely to strengthen further as Russia will capitalise on the market trends which have been beneficial to it (especially in 2013). Secondly, by negating the legitimacy of the new rules, it has been making efforts to undermine them by employing legal instruments (for example, contesting the regulations of the third energy package on 30 April 2014 through the WTO Dispute Settlement Mechanism) and political measures (especially by enhancing bilateral energy relations with selected EU member states, thus making it more difficult for the EU to conduct a cohesive energy policy). Thirdly, Russia has used such

traditional economic means as investments in assets (transmission networks, gas storage facilities and companies active on the gas trade market) and pushing through the implementation of new gas pipeline construction projects (South Stream and potentially the third and fourth branches of Nord Stream). On the other hand, the evolution of the EU gas market has forced Russia to take **steps to adapt** to a certain extent. This is illustrated by both partial changes in the operation of the internal gas sector (the liberalisation of gas export rules regarding LNG) and promises to further curb Gazprom's dominant position. Another proof of this are the concessions made in trade negotiations with European partners (modifications of contract terms, including gas price reductions) and adjustments to the EU's market liberalising regulations to a limited extent.

- Given the special characteristics of Russian politics, above all the nature of the decision-making mechanisms, one should not, however, assume that the evolution of the EU gas market would bring about any durable systemic changes in the Russian gas sector within a short timeframe. Nevertheless, the intensifying rivalry between Russian energy firms (such as actions taken by so-called independent producers, Rosneft and Novatek, to consistently reduce Gazprom's position on the Russian gas market and in gas exports) might serve as a catalyst for such changes. As regards the gas strategy for foreign markets, it cannot be ruled out that in the case of legal confrontation with EU institutions a key change in this strategy would include a kind of gas rebranding involving demonopolisation of the Russian presence on the EU gas market (in addition to gas supplied by Gazprom using the pipeline system, LNG could also be supplied from Russia by so-called independent gas producers, above all Novatek).

- However, Moscow hopes that the unfolding situation on the gas markets will contribute to slowing down the recent liberalisation tendencies in the EU. Furthermore, it is very likely that the Kremlin will try to capitalise on the Ukrainian crisis and the EU's previous dependence on Ukrainian transit to revise the rules of gas co-operation with Brussels more substantially (by total or partial exclusion of internal EU regulations concerning the gas market and through reaching a political agreement that will set the grounds for Russia-EU energy co-operation in a comprehensive manner). Moscow is thus preparing itself for the 'long game' in gas with its European partners. Since the EU member states and institutions have not developed a common stance on this issue, Moscow does not seem set to lose this game.

INTRODUCTION

The European gas market is the world's third largest regional gas market (after North America and the former Soviet republics)[1]. Since the 1950s, it has invariably been viewed as a priority market in Russian external energy policy. At present (full data for 2013), 93% of total Russian gas exports (98.5% in 2012) go to the European market within the broad meaning of the term (including Turkey), where the European Union accounts for 67% of the supplies (56.8 % in 2012), European countries which do not belong to the EU or CIS account for 14% (around 14% in 2012, as well), and the European non-EU member states which belong to CIS for around 15% (27.7% in 2012). Detailed data concerning EU member states is presented in Table 1.

Table 1. The volume of Russian gas exports to individual EU member states[2]

Country	Gas consumption (bcm)[3]				Volume of gas imported from Russia (bcm)[4]		
	2010	2011	2012	2013	2011	2012	2013
Germany	83.3	74.5	83.2	88.5	34.02	33.16	40.18
Italy	76.1	71.3	73.4	68.7	17.08	15.08	25.33
United Kingdom	99.2	82.8	79.2	79.2	8.16	8.11	12.46
Poland	15.5	15.7	16.3	16.3	10.25	9.94	9.8
France	47.4	40.9	45.6	46.1	9.53	8.04	8.21
Czech Republic	9.3	8.4	8.0	8.1	7.59	7.28	7.32
Hungary	10.9	10.4	10.1	9.3	6.26	5.29	6.0

1 In 2011, gas consumption in North America was at 869 bcm, in former Soviet republics at 703 bcm, and in Europe at 525 bcm. World Energy Outlook 2013, page 103.

2 Data from Table 1 covers both gas exported from the Russian Federation and gas bought by Gazprom from other sources and supplied to European recipients.

3 Data from Eurogas.

4 Data from the official website of GazpromExport.

Country	Gas consumption (bcm)[3]				Volume of gas imported from Russia (bcm)[4]		
	2010	2011	2012	2013	2011	2012	2013
Slovakia	5.6	5.2	5.1	5.1	5.89	4.19	5.42
Austria	10.1	9.5	8.9	8.3	5.43	5.22	5.23
Finland	3.9	3.4	3.6	3.4	4.19	3.48	3.56
Bulgaria	2.6	2.9	2.6	2.5	2.81	2.53	2.76
Lithuania	3.1	3.4	3.2	2.6	3.4	3.32	2.7
Greece	3.7	4.5	4.4	3.8	2.9	2.5	2.62
Holland	43.6	38.1	39.5	40.3	4.37	2.31	2.13
Romania	13.6	13.9	13.4	11.6	2.82	2.17	1.19
Latvia	1.5	1.6	1.5	1.4	1.25	1.12	1.13
Estonia	0.5	0.6	0.6	0.7	0.69	0.64	0.73
Slovenia	0.8	0.9	0.8	0.7	0.53	0.5	0.54
Denmark	5.0	4.2	3.5	3.3	0.05	0.33	0.33
Croatia	–	–	2.9	2.8	–	–	–
EU total	**502.9**	**453.1**	**405.8**	**402.7**	**127.22**	**115.21**	**137.64**

Author's calculations based on data published by Eurogas, GazpromExport and BP Statistical Review.

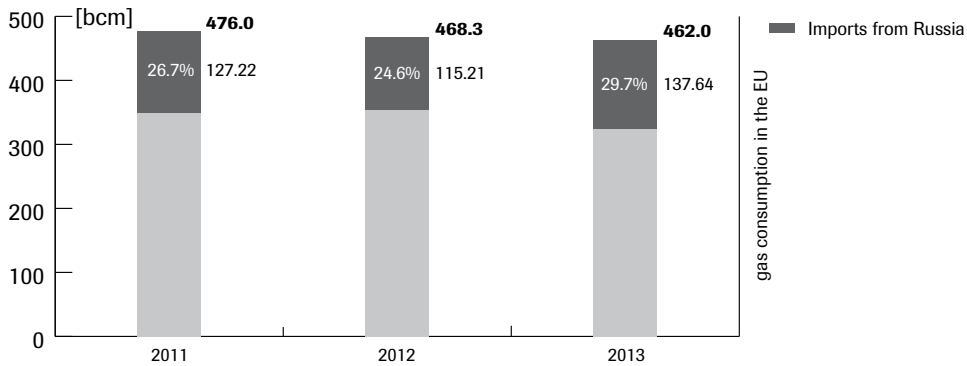
Those EU member states which traditionally form the main group of Russian gas recipients play a special role. From among them, Germany is the most important partner for Gazprom: in 2013, Germany bought 40.18 bcm of Russian gas and Italy bought 25.33 bcm, accounting for 29.1% and 18.4% of Russian gas exports to Russia, respectively. In turn, as regards European non-EU member states, Turkey, with imports at 26.61 bcm in 2013 [5], is a particularly important outlet for Russian gas. According to data published by GazpromExport in mid February 2014, Russia's share in the European gas consumption market

[5] Data from the website of GazpromExport: http://www.gazpromexport.ru/statistics/ (accessed on: 30 January 2014).

(the EU, Turkey and other European recipients of Russian gas taken together) reached its highest level in history at 30%[6].

Gas sale to Europe accounts for more than half of Gazprom's income. Although income from gas sales does not contribute to the state budget as much as income from oil exports[7], it is still treated as an important source of income for the Russian government elite and used to finance cost-intensive social projects or special organisational projects, such as Sochi 2014 Olympics[8]. Therefore, changes taking place on the European gas market, where Gazprom is the only Russian entity as yet, pose a very serious challenge to the government in Moscow.

Chart 1. The share of gas supplied by Gazprom in total gas consumption in the EU



Sources: www.eurogas.org; www.gazpromexport.ru

6 'Доля «Газпрома» на рынке Европы достигла исторического максимума', *Ведомости*, 18 February 2014, http://www.vedomosti.ru/companies/news/22888731/dolya-gazproma-na-rynke-evropy-vozrosla-v-2013-godu-s-254-do (accessed on: 18 February 2014). Gas supply volumes reached a record high in 2006–2008: 166.4 bcm of gas in 2006, 173.8 bcm in 2007 and 171.7 bcm in 2008. 'Gazprom in Figures 2005–2009', page 56.

7 Income from oil and gas sales in 2013 accounted for 46.1% of the Russian Federation's budget (oil sales generated US$194 billion and gas sales US$28 billion).

8 Gazprom directors' wages and bonuses in 2013 were worth around US$49.7 million in aggregate. 'Газпром себя не обделил', http://www.gazeta.ru/business/2014/02/15/5908845.shtml (accessed on: 16 February 2014). According to media reports, Gazprom invested around US$5-6 billion in the construction of Olympic infrastructure in Sochi; http://1prime.ru/Finance/20130226/761411889.html (accessed on: 17 October 2013).

I. CHANGES TAKING PLACE ON THE EUROPEAN GAS MARKET AND THEIR CONSEQUENCES FOR RUSSIA

The evolution of the European gas market covers: **legislative changes** (above all, the enactment of the so-called energy packages, including directives and regulations aimed at liberalising the EU energy market); **institutional changes** (the increasing significance of the European Commission as regards enforcement of applicable regulations in the energy sector, for example through the use of measures aimed at legal protection of competition in the EU's internal market); **economic changes linked to change in the market structure** (attempts at diversifying the sources of oil and gas supplies, the development of infrastructure used to transport and store oil and gas inside the EU, and the evolution of gas trade rules).

1. The legal and institutional changes and their consequences for Russia

One of the most serious changes on the EU gas market are the new **energy law regulations,** and in particular the so-called third energy package, which as yet includes three regulations and two directives[9] (and network codes are being developed), aimed at deepening the liberalisation of the European gas and electricity markets. Regulations which provide for unbundling of gas production from their transport and distribution to end users is among the key elements of the third energy package. EU regulations offer member states the choice of one of the three models of unbundling: (1) **ownership unbundling** (one and the same entity may not at the same time produce the raw material and control its transit and distribution); (2) the so-called **Independent System Operator** (ISO) model, where the owner of the transmission network (a vertically integrated entity) has the obligation to indicate the transmission operator who is formally independent from the owner (meets the ownership unbundling criteria); (3) the so-called **Independent Transmission Operator** (ITO)

[9] Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC; Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC; Regulation (EC) No. 713/2009 of the European Parliament and of the Council of 13 July 2009 establishing an Agency for the Cooperation of Energy Regulators (ACER); Regulation (EC) No. 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity; Regulation (EC) No. 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No. 1775/2005.

model, where the transmission system operator and owner is a vertically integrated company, which however undertakes that its two parts (one in charge of sales and the other in charge of transmission) will in practice operate independently, and their independence will be controlled by a special supervisory body. Another essential item is the so-called Gazprom clause[10], which envisages that third-country entities may be allowed to control the transmission system or transmission system operator only if they meet the requirements of effective unbundling set under one of the three aforementioned unbundling models. One important element of the regulations is the TPA (Third-Party Access) principle, which formerly applied in earlier market liberalising directives and was extended to the gas storage sector as part of the third energy package. This principle imposes the obligation on operators to guarantee equal access to infrastructure to all market participants, including transit gas pipelines and gas storage facilities, and allows exclusions only in strictly defined cases. The new regulations were introduced above all to improve competitiveness and to subsequently cause a reduction in energy prices. These regulations are of special importance because they are in force not only in the EU; the member states of the Energy Community are also obliged to implement them[11].

The trend in regulatory changes on the EU market (demonopolisation in individual member states which is aimed not only at improving competitiveness in the horizontal dimension - having numerous gas suppliers present in the market - but also in the vertical dimension, i.e. unbundling supplies from transit and distribution) contradicts the rules according to which the Russian market operates. One characteristic of the Russian model is low competitiveness, with Gazprom holding the dominant position. The state, and especially President Vladimir Putin, holds a strict political control over this company. Gazprom functions as a vertically integrated structure and is not only in charge of the greater part of the Russian gas output but also fully controls the transmission network and still has a statutorily guaranteed monopoly over Russian gas exports via the pipeline system[12].

[10] This regulation concerns all entities from third countries but in fact was introduced primarily with a view to Gazprom.

[11] Moldova, Ukraine, Bosnia and Herzegovina, Serbia, Montenegro, Kosovo, Macedonia and Albania.

[12] The restrictions on Gazprom's export monopoly imposed on 1 December 2013 concern only liquefied natural gas. For more see: Szymon Kardaś, 'A feigned liberalisation: Russia is restricting Gazprom's monopoly on exports', *OSW Commentary*, 28 November 2013, http://www.osw.waw.pl/sites/default/files/commentary_121_0.pdf

As the member states of the European Union and the Energy Community adopt the third energy package, Gazprom's position on the European market might be tangibly undermined. The implementation of the EU regulations is putting at stake Russian assets since this entails the introduction of the unbundling principle in the member states. Furthermore, it is unclear whether some infrastructural projects will be carried through now that the TPA rule (third-party access to transport infrastructure and gas storage facilities) has been introduced.

The obligation to reserve transport capacity to ensure adequate levels of supply, which has been imposed as part of regulations liberalising the EU gas market, is viewed as another serious challenge by Gazprom. The route via which Russian gas is supplied to European recipients under long-term contracts currently in force runs through more than one EU member state (with the exception of Finland, Hungary, Poland, Slovakia, Romania and the Baltic states). The implementation of the new regulations will mean that Gazprom will have to reserve the capacity for each territorial section through which the exported gas flows separately.

Most long-term gas supply contracts with Gazprom will expire between 2025 and 2036. In turn, the contracts which regulate gas transit issues will expire between 2015 and 2025. The introduction of the new gas trade model will force Gazprom to reserve transport capacities offered by operators on auctions to be able to comply with the long-term contracts binding upon it. Gazprom has found itself in a significantly more difficult situation than other existing gas suppliers to the European market. The number of border points, and thus territorial sections through which Russian gas flows to the gas reception points agreed in the contracts, is much larger than in the case of gas supplies from Norway or Algeria. For Gazprom this will entail the need to reserve transport capacity vested in all the countries through which the Russian gas transit route runs. Another problem could be that, pursuant to the new regulations, the volume of transport capacity offered on auctions for long-term reservations will be lower than the volume of the transport capacity of existing networks. This is so because transmission system operators have been obliged to reserve at least 10% of the transport capacity of a given point for short-term products, with a term not longer than three months and at least 10% of the transport capacity for medium-term products, with a term of up to one year. The remaining capacity (80%) can be sold as part of long-term contracts, with a term of up to 15 years.

The regulatory changes are also accompanied by the European Commission's becoming **more determined** in enforcing EU law as regards liberalisation of the energy market in the EU and observing competition rules applicable in the EU. This in particular concerns the Directorate-General for Energy and the Directorate-General for Competition. It turned out that this process has affected Russia very much. In September 2012, the European Commission launched official antitrust proceedings against Gazprom on charges of abusing its dominant position in ten Central European countries by means of (1) limiting the freedom of movement of gas between EU member states, (2) preventing attempts to diversify gas supplies to EU countries and (3) imposing unfair prices upon contractors. The European Commission's actions were preceded by an investigation, initiated in September 2011, involving the search for and examination of documents in 20 EU gas companies affiliated with Gazprom (both subsidiaries and joint ventures), as well as in Gazprom's contractors and transmission operators in some EU countries[13].

This trend has also been illustrated by the stance the European Commission has taken on the intergovernmental agreements concluded by Russia with EU member states and Serbia in connection with the implementation of the South Stream project. Brussels is questioning the agreements' compliance with EU law, suggesting that they should be amended accordingly. The European Commission has highlighted three major elements as part of its reservations: the failure to ensure third-party access to the planned gas pipeline, contrary to the principle applicable in the EU, Gazprom's exclusive right to set the transit tariffs and the management of the new pipeline.

Brussels has declared its readiness to embark upon negotiations with Russia as regards the agreements on South Stream on behalf of the EU member states concerned[14], and thus has set a precedent which is unfavourable for Moscow as it undermines bilateral talks with EU member states, the form of contacts which Russia prefers.

[13] Szymon Kardaś, 'The European Commission opens antitrust proceedings against Gazprom', *OSW Analyses*, 5 September 2012, http://www.osw.waw.pl/en/publikacje/analyses/2012-09-05/european-commission-opens-antitrust-proceedings-against-gazprom

[14] The legal grounds which enable the European Commission to become engaged in such talks are provided by the Decision No. 994/2012/EU of the European Parliament and of the Council of 25 October 2012 establishing an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy.

2. Market changes in the EU's gas sector and their consequences for Russia

The European gas market has seen major changes in supply and demand over the past decade or so. On the one hand, periodical gas supply fluctuations have occurred in Europe: the consistent **decrease in own production, increased competition** and **diversification** of supply sources (mainly LNG). On the other hand, **variability in demand** for gas has been observed over the past few years in Europe due to the difficult economic situation. In addition to all this, the **gas trade rules have been evolving** (the contracting practice has changed and hubs and gas exchanges have developed).

2.1. Changes in supply and demand

One important factor which has affected the situation in the EU gas sector is the **regular decrease in own natural gas production in the EU.** While in 2011 gas output reached around 185 bcm, in 2020 it is expected[15] to fall to 135 bcm, and in 2035 even to 104 bcm. Gas production forecasts for Norway, one of the key suppliers of natural gas to the EU, are less pessimistic but still unfavourable in the longer term. In 2011 its gas output reached 101 bcm, in 2020 it is planned[16] to grow to 121 bcm annually, and in 2035 it is expected to fall to 111 bcm.

The chances that the EU will increase its gas output through shale gas extraction are uncertain, to say the least. This can be concluded from preliminary geological work and exploration drilling carried out in Bulgaria, Romania and Poland. The lack of a common stance on the ecological impact of possible shale gas extraction inside the European Union (some member states are opposed to it due to the potential threat to the natural environment) is an additional impediment.

The increasing share of LNG on the European gas market seen in the first decade of the 21st century has been an essential element of the changes; a consistent growth in LNG supplies to the European market could be observed from

[15] This in particular concerns the United Kingdom and Holland (in 2013, the output of Holland's largest field, Groningen, reached 54 bcm, and is expected to fall to 42.5 bcm in 2014–2015). http://media.argusmedia.com/~/media/Files/PDFs/Samples/Argus-Gas-Connections.pdf (accessed on: 20 January 2014).

[16] 'World Energy Outlook 2013', page 109.

45 bcm in 2005[17] to around 90 bcm in 2010. This upward trend was reversed in 2012, and LNG imports to Europe fell noticeably to 66.75 bcm, i.e. as much as 26% as compared to the preceding year[18]. The greatest falls in supply levels were seen in the case of the largest LNG importers: Spain (by 16%, imports at 19.95 bcm), the United Kingdom (by 44%, to 14.32 bcm) and France (by 32%, to 9.89 bcm). LNG imports shrank even more in 2013[19], 30.25%, reaching the level of 46.56 bcm.

Table 2. LNG imports to Europe in 2010–2013 (bcm)

		2010	2011	2012	2013
Europe	Quantity	90	90.47	66.75	46.56
	Change in %		+ 1	- 26	- 30.25
Asia	Quantity	185.4	211.09	229.85	244.23
	Change in %		+ 13.85	+8.8	+6.2

Author's calculations based on IGU World LNG Report – 2013 Edition; IGU World LNG Report – 2014 Edition.

Table 3. Regasification potential of EU member states (as of April 2014)

Country	No. of terminals	Total regasification capacity (bcm)
Belgium	1	9
France	3	23.75
Greece	1	5.3
Spain	6	60.1

17 http://www.eurogas.org/uploads/media/statistics_2005_01.01.05.pdf (accessed on 30 April 2014).

18 D. Bonhomme, 'Competition pipeline gas vs. LNG in Europe', a presentation announced during the 17th International Conference & Exhibition on Liquefied Natural Gas, http://www.gastechnology.org/Training/Documents/LNG17-proceedings/06_03-D-Bonhomme-Presentation.pdf

19 World LNG Report – 2013 Edition, http://www.igu.org/gas-knowhow/publications/igu-publications/IGU_world_LNG_report_2013.pdf; World LNG Report – 2014 Edition, http://www.igu.org/gas-knowhow/publications/igu-publications/igu-world-lng-report-2014-edition.pdf

Country	No. of terminals	Total regasification capacity (bcm)
Holland	1	12
Portugal	1	7.9
United Kingdom	4	52.7
Italy	3	14.71
Total	20	185.46

Author's calculations based on data published by Gas Infrastructure Europe and World LNG Report 2014

One characteristic feature which has accompanied the emergence of LNG on the European gas market is the **increase in competition,** namely a higher number of countries supplying gas to the EU (from 14 to 23 between 2000 and 2010). In addition to Russia, Norway, Algeria and Holland, exporters of gas to the European market now include Egypt, Qatar[20], and Nigeria. Other exporters, such as Oman, Peru and Trinidad and Tobago also hold a small market share.

Changes in demand on the gas market has been an important factor affecting the market's structure. The economic crisis in European countries and the related slow economic growth have been the main cause of falling demand for gas in the EU. Other important factors include maintaining the significance of coal in the energy sectors of many key EU countries (in contrast to the USA, where cheap gas has been replacing coal to an increasing extent) and more and more interest in the use of renewable energy seen among EU member states. The EU's energy and climate policy is also an important, albeit not a key, factor. The EU's plan to reduce CO2 emissions and coal usage envisages an increase in demand for natural gas.

However, the decrease in consumption abated in 2011–2013 in Europe. In 2011, gas consumption fell by 10% in comparison to the preceding year, in 2012 – by 2% year-on-year, and in 2013 –by only 1.4%[21]. Long-term forecasts are also very optimistic for suppliers; it is expected that the share of natural gas in electric-

[20] In 2003–2010, Qatar's LNG exports to Europe grew almost 17 times.

[21] 'Drop in 2013 EU gas demand emphasises need for swift change' http://www.eurogas.org/uploads/media/Eurogas_Press_Release_-_Drop_in_2013_EU_gas_demand_emphasises_need_for_swift_change.pdf (accessed on: 21 March 2014).

ity production in the EU will grow from 25% in 2010 to 28% in 2035 in the base scenario (up to 33% in the case where EU climate policy guidelines are rapidly implemented). Furthermore, the overall level of demand for gas in the EU is expected to grow from 486.6 bcm in 2010 to 523.2 bcm in 2035 in the base scenario (up to 585.4 bcm in the case where EU climate policy guidelines are rapidly implemented)[22].

The decrease in demand for Russian gas in the EU has for Russia been a palpable consequence of the changes on the EU market. Gazprom had consistently maintained its position on the EU gas market, one basic manifestation of which was Europe's continuing dependence on Russian gas imports[23]. Russian gas supplies reached their peak (173.8 bcm) in 2007. Since then, demand for Russian gas in Europe has been falling on a regular basis. One of the main reasons for this fall was the regular increase in LNG's share in total gas imports to Europe seen in the second half of the 2000s. Furthermore, a few other factors played an important role: the slow economic growth in EU countries, the improvement of energy efficiency in European countries combined with the policy of diversification of energy sources, and the increase in unconventional gas production, including shale (mainly USA)[24].

Russian gas supplies increased in 2011 (imports from Africa fell due to the Arab Spring) and in 2013 (164.24 bcm jointly EU with Turkey), which in turn was mainly an effect of the unusually cold winter in the 2012/2013 season, a temporary decrease in supplies from Norway and the redirection of larger LNG batches (in particular, gas from Qatar) to Asian markets. Pessimistic forecasts regarding European own production and the decrease in LNG supplies to the European market over the past few years are viewed in Russia as an opportunity to regularly increase its gas supplies to the EU, both via the pipeline system and in liquefied form.

22 'Eurogas, Long term Outlook for Gasto 2035', October 2013, http://www.eurogas.org/uploads/media/Eurogas_Brochure_Long-Term_Outlook_for_gas_to_2035.pdf; World Energy Outlook 2013, page 103.

23 Until 1974, the share of imports from the Soviet Union accounted for less than 10% of total gas imports to Europe. In late 1970s, it was 25%, in the 1980s it was 40%, in the 1990s – 50%, reaching a record-high level of 60% in 2007. S. V. Zhukov (ed.), 'Глобализация рынка природного газа: возможности и вызовы для России', IMEMO RAN, Moscow 2010, pages 68-87.

24 'Экспорт российского газа: ограничения и перспективы', Центр макроэкономического анализа и краткосрочного пргнозирования, http://www.forecast.ru/_ARCHIVE/Analitics/Resources/Gas/GasTrade_13.04.24-1.pdf (accessed on: 12 May 2014).

2.2. The evolution of the gas trade rules

The **gas trade rules** on the European market have also been evolving. Long-term contracts, with a price formula based on prices of oil and petroleum products, were the predominant way of ensuring gas supplies to Europe in the past few decades. Since oil prices were high in 2002–2008, gas prices increased significantly. As a consequence of oversupply of gas seen since 2009, what was the predominant indexation model started to be replaced with a hybrid model: part of supplies are indexed on the basis of oil and a basket of petroleum products, and part is oriented to prices on spot markets as part of gas hubs, both real (physical) and virtual. Furthermore, short-term contracts are used more and more frequently for ensuring gas supplies. A significant increase in gas trade on spot markets has been seen over the past six years: from 15% in 2008 to over 50% in 2013, and even up to above 70% in North-Western Europe[25].

A consistent increase in gas trade as part of gas hubs is a novelty in Europe (in the first half of 2013, turnovers as part of the three continental gas hubs: TTF in Holland and Gaspool and NCG in Germany grew year-on-year by 27%, 23% and 22%, respectively)[26]. The creation of gas hubs has also contributed to the emergence of new gas exchanges in Europe. Spot contracts and futures can be contracted on the key energy exchanges (ICE, APX-ENDEX, EEX, EPEX Spot,NBP, TTF, PEG Nord and PEG Sud, and NCG).

The ever higher significance of spot contracts poses a serious challenge to Russia. Long-term contracts for gas supply and transit are Gazprom's preferred option, since they usually include clauses which are beneficial for it, such as the 'take or pay' clause, which was a standard in contracts signed with European recipients in 2005–2010[27].

Another challenge for Russia is the increasing significance of spot mechanisms in determining the price formula in contracts concluded by other key suppliers of gas to the EU market. One example is Norway, the second most important

[25] 'Paying the piper. Gazprom and European gas markets', *The Economist*, 4 January 2014, http://www.economist.com/news/business/21592639-european-efforts-reduce-russian-state-owned-companys-sway-over-gas-prices-have-been (accessed on: 10 January 2014).

[26] Quarterly Report on European Gas Markets, DG Energy, Vol. 6, Issue 2, http://ec.europa.eu/energy/observatory/gas/doc/20130814_q2_quarterly_report_on_european_gas_markets.pdf

[27] Thus concerns both gas supply and gas transit contracts.

exporter of gas to the EU market. Norway has essentially modified its trade policy; at present, Statoil supplies almost 50% of gas to EU recipients at spot prices[28].

The evolution of the situation on the European gas market, seen since the beginning of the new century, one consequence of which has been a change in the contracting practice[29], has encouraged Gazprom's key clients to assume a more assertive stance during negotiations and force Gazprom to modify its contracts with them. The modifications include: gas price discounts, and even demands to cancel the 'take or pay' formula in contracts made by Italy's ENI[30].

As a consequence of the market changes, European recipients began using arbitration proceedings at Stockholm and Vienna arbitration courts as a means of forcing Gazprom to make price concessions[31]. The award passed by the Vienna arbitration court in October 2012, which was unfavourable for Gazprom, has had a special impact. Gazprom lost the suit it had brought in September 2011 against the Czech company RWE Transgas. Gazprom claimed that its Czech contractor had to pay US$500 million for receiving less gas than contracted in 2008–2011. This decision set a precedent – it was the first time when the court ruled that a unilateral waiver of the 'take or pay' clause did not constitute breach of contract. One indirect consequence of the arbitration proceedings is the reinforcement of European gas companies' negotiating position, which insist that the long-term contracts signed with Gazprom, and especially the provisions concerning the price policy, need to be revised. The unfavourable court decisions have undermined Gazprom's position in other arbitration cases

[28] Nerijus Adomaitis, 'Norway challenges Russia with new European gas pricing in Europe', http://www.reuters.com/article/2012/11/20/statoil-wintershall-idUSL5E8MKoW320121120 (accessed on: 20 August 2013).

[29] In 2003, the European Commission, Gazprom and ENI settled to remove market division and destination clauses from gas contracts. In turn, in 2005, destination clauses were left out of Gazprom's contracts with OMV.

[30] 'От Газпрома требуют отменить принцип Take or Pay', http://news.eizvestia.com/news_abroad/full/ot-gazproma-trebuyut-otmenit-princip-take-or-pay (accessed on: 25 October 2013).

[31] For example, the proceedings initiated in December 2010 by RWE Transgas at the Vienna arbitration court concerning change of the price formula (the decision passed in June 2013 was unfavourable to Gazprom); the proceedings initiated by PGNiG in February 2012 at the Stockholm arbitration court concerning change of the price formula (the request for arbitration was withdrawn after a price discount was granted in November 2012); proceedings initiated upon request from Lithuania submitted to the Stockholm arbitration court, in which Lithuania demanded it should be given back the money overpaid for Russian gas in 2004–2012 (the suit is likely to be withdrawn since Lithuania was granted a discount in May 2014).

brought by European companies and also in talks concerning renegotiation of the gas contracts already in force. In turn, the more flexible interpretation of the 'take or pay' clause – one of the pillars of Gazprom's contract policy – adopted by the European customers may make it more difficult for the Russian company to defend its stance during the antitrust proceedings launched by the European Commission in September 2012 (the European Commission is considering whether the 'take or pay' clause complies with EU competition principles).

II. THE RUSSIAN STRATEGY IN RESPONSE TO THE CHANGES TAKING PLACE ON THE EUROPEAN GAS MARKET

One of the strategic goals as part of Russian energy policy is to maintain, and if possible reinforce, its position as a gas supplier to Europe. Emphasising more often than before the significance of expansion on Asian markets and the activation in the liquefied natural gas sector is an essential revision of this policy. As a consequence of this, Russia is expected to gradually change its position from a dominant regional supplier (Europe) into that of a 'rotating' regional producer, capable of supplying gas not only to Europe but also to Asian markets[32].

On the one hand, Moscow wants to maintain the market for the gas supplied by Gazprom, and on the other to keep the prices at a sufficiently high level to ensure that expected profits are generated. Furthermore, the certainty of imports is viewed as a guarantee of cost-effectiveness of investments in Russian gas fields, especially those located in the Yamal Peninsula or Eastern Siberia, where production must start if Russia wants to comply with its existing and planned contractual obligations.

The tools which are expected to help Russia achieve its strategic goal are: maintaining control of the transit routes, diversification of gas export routes combined with marginalizing the transit countries' role and investing in European assets which are strictly connected with the gas sector, including those from the power sector (it has declared an interest in investing in European gas power plants)[33].

Russia has reacted to the changes taking place on the European gas market dichotomously: offensively and defensively.

As regards **offensive action,** Russia has manifested its unwillingness to accept the need to adjust to the changing reality, and has responded most aggressively to the legal and institutional challenges. This has been demonstrated both on the level of political rhetoric and in the legal steps, taken and announced. Moscow is continuing its efforts to maintain and ultimately increase its share in the

[32] Tatiana Mitrova, 'Russian Gas Supplies to Europe', the electronic version of the presentation made in Oslo on 5 June 2013, http://www.eriras.ru/files/Mitrova-European-Gas-Conference-2013-June-5.pdf (accessed on: 10 November 2013).

[33] Manfred Hafner, 'Russian Strategy on Infrastructure and Gas Flows to Europe', POLINARES working paper no. 73, December 2012, page 1.

European gas market through the acquisition of assets which make it possible for it to gain a greater share in gas trade in the EU. Russia has also been consistently pushing through new infrastructural investments aimed at creating more opportunities to transport gas to Europe, thus reducing its dependence on the existing transit routes (including the one running through Ukraine). The Kremlin has intensified its efforts to turn the announced diversification of markets for Russian gas exports (Asian countries, and in particular China) into real action, and has consistently presented these as an alternative to the European market.

On the other hand, **defensive action** has been seen, such as: some economic decisions and legislation changes linked to the operation of the gas market in Russia, and actions taken as part of internal gas policy. All these are proof of a certain evolution of the Russian strategy, suggesting at least a partial adjustment to the changing market reality (price discounts for European gas recipients).

1. The offensive actions

1.1. Criticism of the legal and institutional changes

Russia has reacted highly critically, and in some cases very emotionally, to the legal and institutional changes taking place on the European gas market. Its sharp rhetoric is accompanied by announcements that concrete legal steps to protect Russian interests will be taken.

Russia has responded especially negatively to the regulatory changes made as part of the liberalisation of the EU gas market. **Critical rhetoric with regard to the third energy package** has been heard in the statements of many Russian senior officials, above all, Vladimir Putin. Both the conservative members of the Russian elite (Sergey Ivanov[34] and Sergey Lavrov[35]) and those who are

[34] Sergey Ivanov in an interview for Russia-1 TV channel in December 2012 threatened that the third energy package could cause a decrease in gas supplies to Europe. Source: http://www.oilcapital.ru/industry/188211.html (accessed on: 7 July 2013).

[35] Sergey Lavrov concluded at the end of the European Union–Russia summit in Brussels in December 2012 that the European Union, by introducing the requirements of the third energy package, had breached its obligation with regard to Russia not to worsen the conditions of doing business for Russian companies in the EU. Source: http://www.interfax.ru/business/news.asp?id=282275 (accessed on: 7 July 2013).

seen as holding more liberal views (Arkady Dvorkovich[36]) have spoken out in this context in a sharp tone. Moscow argues in its official statements that the EU regulations are above all anti-Russian. Vladimir Putin has concluded on numerous occasions that the main intention of the third energy package is to force Russia to reduce the prices of gas supplied by Gazprom to the European market, and ultimately to bring about a change in the price formula used in gas contracts[37]. Likewise, the antitrust proceedings launched against Gazprom are viewed by the Russian government and the company's management as an illustration of the politicisation of energy relations between Russia and the EU[38].

Russia has also reacted emotionally to the increasing assertiveness of EU institutions as regards compliance with EU law. One proof of this was Vladimir Putin's reaction to the launch of the antitrust investigation against Gazprom by the European Commission in September 2012. The Russian president passed a special decree one week later. Under this decree, Russian companies were required to receive prior consent from the federal government of the Russian Federation in three cases: (1) disclosure of information concerning their business upon request from authorities of other countries, international organisations and international structures (in addition to the information the disclosure of which is provided under Russian law and information linked to issuing securities); (2) amending contracts concluded by strategic companies (including price changes); (3) sale of foreign assets owned by Russian strategic companies.

President Putin's reaction in the form of a legal measure in fact turned into a political demonstration which was intended as a symmetric response to the European Commission's decision. The Kremlin saw the launch of the antitrust proceedings as a move motivated by strictly political reasons and an attempt from Brussels to force Russia to reduce the prices of gas supplied to Europe and thus protect the interests of EU member states.

36 Arkady Dvorkovich emphasised in an interview on 22 November 2012 that if the new EU regulations gave rise to a higher business risk, Gazprom could reduce the supplies, which would inevitably lead to a rise in gas prices in Europe. Source: http://www.kommersant.ru/doc/2072892 (accessed on: 8 July 2013).

37 Vladimir Putin, 'Россия и меняющийся мир', *Московские новости,* 27 February 2012.

38 'В "Газпроме" считают расследование ЕК против него попыткой давления', http://ria.ru/economy/20130530/940329650.html (accessed on: 8 May 2014); 'Путин назвал антимонопольное расследование «Газпрома» Европейской комиссией «прискорбным»', http://novostiua.net/russia/17884-putin-nazval-antimonopolnoe-rassledovanie-gazproma-evropeyskoy-komissiey-priskorbnym.html (accessed on: 8 May 2014).

The decree did not prevent the European Commission from continuing the proceedings. However, the fact that it was passed revealed Gazprom's lack of readiness to co-operate with representatives of this EU institution and potentially increased the likelihood that the decision would be unfavourable for Gazprom[39]. In the context of the antitrust proceedings, Russia has on the one hand manifested readiness to make concessions, one proof of which are the declarations made by Gazprom's deputy head, Alexander Medvedev, made in early December 2013 in Brussels[40]. On the other hand, it is conceivable that Gazprom is making preparations for a legal confrontation, considering the fact that the proposed changes in the trade policy with regard to Eastern and Central European countries it made in December 2013 were not fully satisfactory to the Directorate-General for Competition[41].

Russia has also employed traditional political measures as part of its efforts to counteract the consequences of the regulatory changes. One proof of this was the Russian proposal to reach a special agreement with the European Union that would comprehensively regulate all contested issues concerning energy co-operation. The draft agreement to this effect was sent to Brussels twice in 2012.

Russia has also made attempts to maintain close energy co-operation with selected EU member states (agreements concerning the construction of South Stream signed with Bulgaria, Hungary, Slovenia, Austria, Italy and Greece; and developing co-operation in the area of nuclear energy, mainly with Hungary, but also with the Czech Republic, Slovakia and Bulgaria). By intensifying bilateral contacts, Russia has been trying to make it more difficult for the European Commission to take cohesive action on behalf of EU member states, thus weakening Brussels' position in negotiations with Moscow.

Another political measure in regular use is making unilateral declarations suggesting that Russia is interested in the implementation of previously

39 Szymon Kardaś, 'Vladimir Putin issues a decree 'in defence' of Gazprom', *OSW Analyses*, 12 September 2012, http://www.osw.waw.pl/en/publikacje/analyses/2012-09-12/vladimir-putin-issues-a-decree-defence-gazprom

40 'EU says Gazprom offers to settle antitrust dispute', http://uk.reuters.com/article/2013/12/04/eu-gazprom-antitrust-idUKL5N0JJ3UU20131204 (accessed on: 4 December 2013).

41 According to a statement made by the European Commissioner for Competition, Joaquín Almunia, Gazprom has not made the expected proposals in connection with the accusation concerning offering unfair prices to gas recipients in Central and Eastern European countries. 'Gazprom fails to satisfy EU in anti-trust case', http://euobserver.com/tickers/123052 (accessed on: 10 February 2014).

considered energy projects. One example of this was President Putin's appeal in April 2013 to the president of Gazprom, Alexey Miller, in which he pointed out the need to revive the project envisaging the construction of the second branch of the Yamal-Europe gas pipeline[42]. Such moves are aimed primarily at provoking political discussions in the countries which the projects concern and at creating a sort of information noise which stresses the difference of opinions between individual EU member states.

1.2. Investments in the gas storage and trade segment

Another constant element in Gazprom's strategy is the **desire to reinforce its position on the EU gas market through supplies to individual customers.** Therefore, Gazprom has been consistently investing in assets in the gas storage and sale segment of the EU market. Russia's transactions are usually based on the asset swap mechanism. One example is the deal struck by Germany's Wintershall and Gazprom on 14 November 2012. As part of this transaction, Wintershall, a subsidiary of BASF, will receive 25% plus one share in blocks IV and V of the Achimov fields (Urengoy) in Western Siberia, whose estimated gas reserves are 274 bcm. Additionally, Wintershall will have the opportunity to increase its share in both blocks to 50%; and gas production is expected to commence there in 2016. In exchange for this, Gazprom will have exclusive control over the gas trade and storage companies which it co-controlled with Wintershall until recently: Wingas GmbH (Wingas) and Wintershall Erdgas Handelshaus GmbH & Co. KG (WIEH), and shared control over Wintershall Noordzee BV (WINZ) and Wintershall Services BV, the two companies whose sole owner is Wintershall and which are involved on a relatively small scale in exploration and production of crude oil and natural gas in the North Sea. Gazprom will also take full control over the OPAL gas pipeline, owned by Wingas, under this deal.

Gazprom was interested in buying the Greek state-owned company DEPA[43], and its unexpected withdrawal from the deal in June 2013 can be interpreted as resulting from the concern that the European Commission will not accept the transaction due to potential non-compliance with regulations on counteracting

[42] In the variant with a so-called *peremychka,* i.e. an intersystem connection running from Belarus via Poland to Slovakia.

[43] Gazprom is interested in this; one proof of this is the large number of negotiation rounds in which the president of Gazprom, Alexey Miller, and the prime minister of Greece, Antonis Samaras, have participated. Gazprom allocated around 900 million euros for the purchase of DEPA.

excessive concentration of assets and the rules of the third energy package. Furthermore, it is conceivable that Gazprom's withdrawal from this privatisation was an element of an informal deal with Azerbaijan. In June 2013, SOCAR as part of the privatisation process won the tender for taking over DESFA, the Greek gas operator, and at the same time made a decision concerning the route of the gas pipeline to be constructed as part of the EU Southern Corridor; by choosing the TAP/TANAP option instead of Nabucco, it thus refrained from competing for the markets on which Russia wants to sell its gas from the South Stream pipeline.

The successfulness of Gazprom's strategy is proven by data illustrating the increase in its gas storage capacity in the EU. In 2006–2010, Gazprom's gas storage capacity rose from 1.4 bcm to 2.6 bcm, to reach almost double the level, i.e. 4.51 bcm in 2010–2013. This was achieved through buying assets, the construction of new storage facilities and renting tanks owned by EU firms. At present, Gazprom uses European gas storage facilities located in Austria, Germany, France, the United Kingdom and Latvia. In 2014, it is also planning to complete the construction of a gas storage facility in Bergemeer, Holland; its total capacity will be around 4.1 bcm. In turn, a gas storage facility is planned to be put into operation in 2016 in Damborice, Czech Republic.

Table 4. Gas storage facilities in the EU used by Gazprom[44]

Country	Storage facility	Capacity (bcm)	Gazprom's share
Austria	Haidach	4.3	33.3% shares (the right to use 1.7 bcm)
Czech Republic	Damborice	0.456 (in 2018)	50% shares
Holland	Bergemeer[45]	4.1[46]	42% shares (the right to use 1.9 bcm)

[44] In addition to gas storage facilities in EU countries, Gazprom also has one in Banatski Dvor, Serbia. This gas storage has a capacity of around 0.45 billion m^3, and is 51% controlled by Gazprom. 'Газпром удвоит мощности по хранению газа в Европе', http://rbcdaily.ru/industry/562949980275426 (accessed on 20 March 2014); 'Газпром запустил под Калининградом крупного «конкурента» латвийского газохранилища'; http://www.gorod.lv/novosti/206261-gazprom-zapustil-pod-kaliningradom-krupnogo-konkurenta-latviiskogo-gazohranilischa (accessed on: 20 March 2014).

[45] It is expected to be put into operation in 2014.

[46] The full storage capacity will be reached in 2015.

Country	Storage facility	Capacity (bcm)	Gazprom's share
Latvia	Incukalns	4.47	actually in use 2.32 bcm
Germany	Etzel Rehden Jemgum Katarina	1.2 4.4 1.2 0.629	33.3% shares 100% shares 100% shares 50% shares
United Kingdom	Humbly Grove Saltfleetby	0.254 0.750	100% shares 100% shares

Author's calculations based on data published by Gas Infrastructure Europe and the official website of Gazprom

Without relinquishing the price formula used thus far in long-term contracts (according to sources linked to Gazprom, the share of spot prices in the contracts currently in force is around 7%, although this share in the price formula is higher in some contracts), Gazprom will make further attempts at taking over assets that enable gas supplies to individual customers (as was the case with the assets exchange deal with Germany's BASF), thus capitalising on the opportunity to sell gas as part of transactions effected on gas exchanges. Furthermore, while in 2009 the price in Gazprom's long-term contracts was on average around 70% higher than the spot market prices, in 2013 it was only 5–6% higher. In the opinion of Howard Rogers from Oxford Institute for Energy Studies, Gazprom could influence the prices by increasing its share in the spot market[47]. Therefore, it cannot be ruled out that investments in gas storage infrastructure (especially in Germany) and interest in buying shares in gas hubs[48] signify Gazprom's further activity in the European spot markets. One sign of this could also be Gazprom's declared interest in reinforcing its position in the highly liberalised British market.

[47] 'Paying the piper. Gazprom and European gas markets', *The Economist*, 4 January 2014, http://www.economist.com/news/business/21592639-european-efforts-reduce-russian-state-owned-companys-sway-over-gas-prices-have-been (accessed on: 10 January 2014).

[48] The most serious and unsuccessful attempt to acquire shares in a major gas hub concerned the Baumgarten hub in Austria. The deal was blocked by the European Commission in 2011 as part of ownership concentration prevention procedure.

1.3. The pipeline expansion

One of the measures used by Russia to maintain and even strengthen its position on the European market is **increasing the transport capacity by building new pipelines** which are intended to contribute to boosting Russian gas supplies to the European market. The expected growth in demand for gas in Europe has been used as an official reason for this. According to Gazprom's estimates, in 2020 demand will rise by around 80 bcm, and in 2030 in aggregate by around 200 bcm in comparison to 2013[49].

The construction of the South Stream gas pipeline, which was officially inaugurated on 7 December 2012, is a priority project for Russia. The new pipeline consisting of four branches, with a planned target capacity of 63 bcm, will run through the Black Sea, Bulgaria, Serbia, Hungary and Slovenia to Italy, with branches going to Croatia, Macedonia and Bosnia and Herzegovina. Austria recently declared once again its intention to join the project. The representatives of Gazprom and Austria's OMV signed a memorandum to this effect on 29 April 2014 in Moscow, and shareholders of South Stream Austria GmbH signed an agreement envisaging the construction of the Austrian section of South Stream on 24 June 2014 in Vienna[50]. The management of Gazprom are still interested in the further development of the Nord Stream gas pipeline, declaring that its possible third and fourth branches could be used primarily for supplying gas to the British market.

On the one hand, the analysis of gas supplies contracted and the existing available transport capacities suggests that the Russian policy is economically irrational. However, in the longer run, increasing transport capacity may constitute a successful means for partially resolving the legal problems existing in Russia-EU relations. This may also enable Russia to influence the

[49] Elena Khodiakova, 'Газпром снизит цены на газ ради увеличения экспорта', *Ведомости*, 5 June 2013.

[50] According to official information, the Austrian section of South Stream, with a terminal in Baumgarten, is expected to come into operation in 2017, and will make it possible to transmit up to 32 bcm of Russian gas annually (a transport capacity at this level is planned to be achieved in January 2018). '«Газпром» и Австрия отметили актуальность создания альтернативных маршрутов поставок российского газа в Европу', http://www.gazprom.ru/press/news/2014/april/article189329/ (accessed on: 26 April 2014); '„Южный поток" возвращается в Австрию', http://www.gazprom.ru/press/news/2014/april/article189898/ (accessed on: 29 April 2014); 'OMV sees South Stream return', *Argus FSUE*, 1 May 2014, page 5.

level of gas prices on the European spot markets and serve as an instrument for achieving its political goals.

The Russian pipeline policy may turn out successful in the context of counteracting some of the consequences of the implementation of the third energy package. By intensifying the use of the existing branches of Nord Stream or developing it, Gazprom might avoid problems resulting from the need to reserve transport capacity in the transit countries (in particular, in the case of gas transported via Ukraine). The new networks would offer it greater flexibility in the context of a possible redirection of gas supplies to Europe[51], and ultimately an instrument for manipulating the European gas market (the multitude of available options for gas supply to Europe will allow it, as the need may arise, to decrease or increase supplies on the spot markets, thus influencing gas prices)[52]. However, whether it will be able to achieve this goal will depend on the European Commission's consent to the complete[53] exclusion of the OPAL gas pipeline (together with the NEL pipeline, it forms the onshore extension of Nord Stream) from the rules of the third energy package, and especially the third-party access rule[54], as requested by Gazprom.

The new pipelines will also be used to torpedo the plans to build alternative (to Russian) transmission networks. The proposal to build South Stream was correctly seen as Moscow's response to the project envisaging the construction of the Nabucco gas pipeline via which Azerbaijani (and potentially even Iranian) gas could have been supplied to Europe, which was announced in 2003. Thus Azerbaijan's support for the construction of the TAP and TANAP gas pipelines is beneficial to Russia; since these pipelines will constitute only partial competition to its South Stream project. At the same time, it enables Russia to be more

[51] The deputy president of Gazprom, Alexander Medvedev, announced on 2 March 2014 in London that the company intended to reduce the transit of Russian gas via Ukraine this year to 70 bcm (from the level of 86.1 bcm in 2013). 'Ukraine transit cut expected', *Argus FSU Energy*, vol. XIX, 9, 6 March 2014, page 13.

[52] Sadek Boussena, Catherine Locatelli, 'Energy institutional and organizational changes in EU and Russia. Revisiting gas relations', *Economie Du Developpment Durable et De l'Energie*, Octobre 2012, http://lepii.upmf-grenoble.fr/IMG/pdf/CR17-2012_energy-institutional_SB-CL.pdf

[53] At present, Gazprom can use 50% of this pipeline's capacity.

[54] The German regulator passed a decision which was favourable to Gazprom on 18 November 2013. The motion was then notified to the European Commission, which was to make a decision concerning this issue by 10 March 2014 – on that day the European Commission issued a statement that the deadline for the decision was postponed. On 16 July 2014, the European Commission again postponed its decision to this effect sine die. The Russian ministry for energy has announced that it expects the decision to be taken in mid September 2014.

flexible in deciding on the final shape of South Stream[55]. In turn, the continued interest in developing Nord Stream can be viewed as a response to the intensification of EU countries' efforts (especially in the Baltic Sea region) aimed at developing LNG terminals.

Moscow has used the implementation of pipeline projects in co-operation with selected EU member states as a means of strengthening its political influence in Europe. One proof of this is in Russia's relations with the countries engaged in the construction of the South Stream pipeline, especially with Hungary. By demonstrating warm political relations with Budapest and offering it favourable conditions for economic co-operation (not only in the gas sector but also in the nuclear sector) Moscow is presenting itself as an appealing partner who can grant support to those EU member states, especially in Central and Eastern Europe, which are in conflict with the European Commission and some EU member states. Another factor which brings the two countries closer is the attachment to conservative values manifested by their leaders; and this fits in with the trends in domestic and foreign policy set by the Kremlin[56]. The readiness to enhance relations with Russia shown by the countries engaged in South Stream is making it easier for Moscow to pursue its policy based on breaking the unity of EU countries. One direct effect of this policy, which is beneficial to Russia, is the fact that Brussels is unable to adopt a fully cohesive policy with regard to Moscow. The lack of a common stance in the EU on the imposition of really painful sanctions on Russia in connection with the Ukrainian crisis was just one example of this.

1.4. The diversification of the directions in Russian gas exports

Given the mounting regulatory challenges on the European market, representatives of Gazprom have announced they would continue efforts to diversify export markets. They have declared that the rapidly developing Asian markets, and especially the Chinese market, could became an alternative to Europe. The determination manifested by Vladimir Putin, who views the energy expansion in Asia not only in economic but also in geopolitical terms, has a great impact on the effectiveness of the implementation of the Eastern projects.

[55] Judy Dempsey, 'Victory for Russia As the EU's Nabucco Gas Project Collapses', Carnegie Europe, 1 July 2013, http://carnegieeurope.eu/strategiceurope/?fa=52246 (accessed on: 10 September 2013).

[56] Szymon Kardaś, Andrzej Sadecki, 'Russian-Hungarian nuclear agreement' *OSW Analyses*, 15 January 2014, http://www.osw.waw.pl/en/publikacje/analyses/2014-01-15/russian-hungarian-nuclear-agreement

The signing of the Russian-Chinese gas contract in Shanghai on 21 May 2014 - after more than ten years of negotiations[57] - represents what is in fact only a moderate success on the part of Gazprom. Firstly, the volume of supplies envisaged under the contract (38 bcm as the ultimate level) is incomparable to the exports to the European market (EU and Turkey - 164.24 bcm in 2013). Although the significance of the Chinese market may increase if Russian LNG projects are carried out (additionally around 40 bcm of gas in the optimal version and around 82 bcm in the most optimistic scenario), but this would require acceleration of work and obtaining guarantees for the investments to enable the projects to reach maximum capacities, which appears to be quite unrealistic now. Given the aforementioned facts, it is difficult to treat the expansion of gas supply to Asia as a genuine alternative to Europe; the European market will remain the key outlet for Russian gas exported via pipelines.

Secondly, Russia may also find it difficult to gain the expected market position in China or other Asian countries. While in Europe Russia already has a well-established position as a gas supplier resulting from decades of co-operation, it will have to fight for an equivalent status on the Chinese market (or other Asian markets) and face bitter competition with such major exporters of liquefied natural gas as Australia, Qatar and possibly also with the USA within a few years' time. Thirdly, this contract is important for Russia mainly for political reasons. The future diversification of gas export routes will be used by Russia as an instrument during negotiations with the EU. However, since it is impossible for gas supplies to be rerouted from Europe to Asia, the effectiveness of this instrument appears to be limited.

1.5. Torpedoing the plans for shale gas extraction in the EU

Seeing the attempts taken by some EU countries to implement shale gas extraction plans and thus improve their independence in the energy sector, Russia has become engaged in 'anti-shale' lobbying, employing both economic

[57] First of all, it is unclear whether this contract will bring Gazprom expected long-term economic benefits. The gas price ranging between US$350 and US$390 per 1000 m^3, given the high costs of the field operation and the development of production and transport infrastructure may mean that the supplies will be made on the verge of profitability. The Shanghai contract have not definitely closed the negotiation process, since no binding agreement on the gas pipeline construction has been signed and not all financial aspects of this projects have been arranged as yet. For more, see: Szymon Kardaś, 'The eastern 'partnership of gas: Gazprom and CNPC strike a deal on gas supplies to China', *OSW Commentary*, 16 June 2014, http://www.osw.waw.pl/sites/default/files/commentary_139_1.pdf

(overly high production costs, lesser competitiveness of shale gas as compared to gas purchased from conventional sources) and environmental arguments (claiming that the use of the hydraulic fracturing method will have a major detrimental impact on the natural environment). This has been manifested through both the official documentation of Gazprom (resolutions by the board of directors and annual statements on the company's operation) and through public announcements by its management (for example, the open letter published by the deputy president of Gazprom, Alexander Medvedev in the Polish daily newspaper *Gazeta Wyborcza* in February 2014).

Russia is also engaged – usually via its European business partners, hired consulting firms or political forces from EU countries which are favourably disposed to Moscow – in intensive lobbying against shale gas extraction in EU member states. One proof of this has been the informal support granted by Russia to the anti-shale campaign in Bulgaria. As a result, Bulgaria passed a law in January 2012 imposing a complete ban on the use of hydraulic fracturing technologies for exploration and production of shale gas and oil[58]. The Socialist Party (which is traditionally favourably disposed to Russia) played a key role in passing this law, and the protest campaigns preceding the passing of this law were most likely inspired by the OverGas firm, a Bulgarian trade partner of Gazprom[59]. Another example is the activity of the lobbying firm GPlus Europe, with which GazpromExport has co-operated since 2007. This firm's official task is to improve Gazprom's image. However, the media have suggested on numerous occasions that it is also engaged in intensive lobbying for the Russian company, and in particular against initiatives which could put at stake Gazprom's position in the EU (shale gas projects and the construction of LNG terminals in countries heavily dependent on Russian gas supplies)[60]. European energy companies are also becoming Gazprom's 'allies' in the anti-shale campaign. The intensive gas co-operation of German and French companies with Gazprom is one of the major factors which contribute to blocking legal solutions that would enable the implementation of shale projects in France and Germany[61].

[58] For more, see: Tomasz Dąborowski, 'Bulgaria is no longer interested in shale gas', *EastWeek*, 25 January 2012, http://www.osw.waw.pl/en/publikacje/analyses/2012-01-25/bulgaria-no-longer-interested-shale-gas

[59] John Daly, 'Russia Behind Bulgarian Anti-Fracking Protests?', 4 February 2012, http://oilprice.com/Energy/Natural-Gas/Russia-Behind-Bulgarian-Anti-Fracking-Protests.html (accessed on: 10 May 2014).

[60] Robert Zubrin, 'Putin's Anti-Fracking Campaign', 5 May 2014, http://www.nationalreview.com/article/377201/putins-anti-fracking-campaign-robert-zubrin (accessed on: 12 May 2014).

[61] Keith C. Smith, 'Unconventional Gas and European Security: Politics and Foreign Policy of

2. The defensive actions

2.1. Changes in the Russian gas sector

The changes in regional gas markets, including those seen over the past few years in the EU, have triggered a certain evolution in the Russian government's approach towards issues regarding the organisation of their domestic gas sector. President elect Vladimir Putin stated during a session of the State Duma (Russian parliament) in April 2012 that the changes on the global markets, and in particular the shale revolution in the USA (an upsurge in shale gas output from 81 bcm in 2008 to 240 bcm in 2012) could change the global energy market, and these new challenges needed to be addressed by Russian energy firms[62]. Putin has spoken in a similar spirit during the meetings of the presidential Commission for Strategic Development of the Fuel and Energy Sector and Environmental Security. Russia became concerned not only because of hurt ambition (the hard to accept loss of status as the world's largest gas power due to the shale revolution in the USA) but also for strictly economic reasons (the fall in gas exports to Europe)[63].

The evolution of the Russian approach has been signified for example by the restrictions imposed on Gazprom's export monopoly and plans for further liberalisation of the Russian gas market, which also provide for the restructuring of Gazprom.

The liberalisation of gas export rules regarding LNG came into effect on 1 December 2013, mainly owing to intensive lobbying from Gazprom's competitors: Rosneft and Novatek[64]. Notwithstanding the individual interests of these two companies, one of the main reasons why Vladimir Putin backed this concept was the rapid development of the LNG market on both a global and regional scale, including in Europe, which Russia views as its strategic market. While initially the liberalisation was intended to cover only the LNG exported to South-Eastern

Fracking in Europe', Centre for Strategic and International Studies, http://www.usubc.org/site/files/Unconventional_Gas_and_European_Security.pdf (accessed on: 8 May 2014).

62 Javier Blas, 'Russia faces challenge to gas supremacy', *Financial Times*, 17 April 2012.

63 The stenographic records of the commission's meetings are published on the official website of the President of the Russian Federation: http://state.kremlin.ru/commission/29/news (accessed on: 13 December 2014).

64 For more on the regulation itself and its consequences, see: Szymon Kardaś, 'A feigned liberalisation: Russia is restricting Gazprom's monopoly on exports', *OSW Commentary*, 28 November 2013, http://www.osw.waw.pl/sites/default/files/commentary_121_0.pdf

Asia, the decision was ultimately made not to impose any geographic restrictions, and thus the way to exporting LNG to the EU market was opened.

The suggestion to deepen the process of liberalisation of the Russian gas market is heard more and more often in public discussions, both within the sector[65] and among government circles[66]. The CEO of Rosneft, Igor Sechin, appealed for the right to export gas via the pipeline system to the so-called independent producers (the dominant companies being Novatek and Rosneft) during the meeting of the presidential Commission for Strategic Development of the Fuel and Energy Sector and Environmental Security on 4 June in Astrakhan, which was attended by Vladimir Putin. This proposal concerned the output of the gas fields located in Eastern Siberia and the Far East to be sold to South-Eastern Asian markets (in particular, to China). Vladimir Putin, who had previously criticised the idea of demonopolisation of gas exports via the pipeline system on numerous occasions (at present, this right is vested only in Gazprom), did not express his open objection this time, which should be interpreted as a change in his stance; and this practically presupposes that Sechin's idea will be put into practice. The amendments to the Main Statements of the Energy Strategy of Russia for the period up to 2035 published on 23 January 2014 on the website of the Ministry of Energy of the Russian Federation[67] is another sign indicating

[65] In January 2014, ITAR-TASS agency published a report on its website suggesting that Rosneft had put forward a motion for a deepened demonopolisation of the gas sector to the government of the Russian Federation. In its first stage, the domestic and export gas prices would be gradually aligned, and all Russian gas firms would be granted equal access to the gas pipeline network and would be allowed to export gas using the pipeline system as a pilot project. Establishing a separate – in organisational and legal terms – entity that will be put in charge of managing the gas transport infrastructure would be a key element of the second stage. A state-controlled company would ensure fair access to the gas network to all participants of the Russian market. The second stage would also cover further development of the gas trade system using the exchange mechanism and vesting all market participants with the right to export gas using the pipeline system. 'Роснефть предложила план отмены монополии Газпрома на экспорт газа', http://itar-tass.com/ekonomika/926789, (accessed on: 30 January 2014).

[66] According to unofficial opinions of decision-makers from the Russian Ministry of Energy, if OPAL and NEL and South Stream are not excluded from the third energy package, it is possible that other Russian firms, Gazprom's competitors, will be given access to the pipelines. This would in fact mean demonopolisation of Russian exports. This solution has never been put forward officially. However, apparently, this option is being considered unofficially. The idea to split Gazprom into two companies, which would be put in charge of gas production and transport, which was suggested some time ago, is also being mentioned. A source of the Russian newspaper *Kommersant* at the Presidential Administration has confirmed that the Gazprom split issue has been brought to a high level. 'Роснефть готовится к разделению Газпрома', *Коммерсантъ*, 19 April 2013.

[67] The final version of the amended Energy Strategy of Russia for the period up to 2035 is to

that Gazprom's position is very likely to be further reduced. According to this document, the main goals of Russian energy policy in the coming years should include stimulating the development of the so-called independent gas producers, providing all gas market participants with equal access to the transport infrastructure operated by Gazprom and ending the process of unbundling the various, mutually competing, kinds of activity being conducted as part of the state-owned company Gazprom[68] (this ambiguous formula is interpreted partly as a suggestion to unbundle production from transport and entrust two separate entities, in organisational and legal terms, with these tasks).

Further liberalisation is also becoming more likely as the so-called independent gas producers are consistently gaining significance. These are, above all, Novatek and Rosneft, which are making efforts to strengthen their position at home and on foreign markets. These two companies have announced that their gas output by 2020 will increase to 115–120 bcm and 100 bcm, respectively. Although Rosneft demands at present to be given the opportunity to export gas to the Chinese market, it is very likely that the process of demonopolisation of gas exports as part of the pipeline system will also cover gas supplies to the European market in the longer run. This will be an effect of not only lobbying from the so-called independent gas producers (above all, Novatek, one proof of which are the words of Gennady Timchenko, who announced during the international economic forum in Saint Petersburg that his company was ready to supply gas to Europe through the pipeline system) but also of a strategic decision taken by the Russian government in response to Gazprom's decreasing efficiency and mounting challenges (above all, regulatory) on the European market[69].

2.2. Overcoming backwardness in the LNG sector

One consequence of the development of the liquefied natural gas market on the global scale (including the promising opportunities for the development of regasification infrastructure in Europe and Asia) is Russia's more active engagement in the LNG sector. Over the past year or so, Russian energy companies

be presented to the government by the minister for energy on 1 October 2014, http://www.energy-experts.ru/news13094.html (accessed on: 12 May 2014).

68 'Основные положения проекта энергетической стратегии России на период до 2035 года', http://minenergo.gov.ru/documents/razrabotka/17481.html (accessed on: 23 January 2014).

69 Szymon Kardaś, 'The creeping 'de-Gazpromisation' of Russian exports', *OSW Analyses*, 11 June 2014, http://www.osw.waw.pl/en/publikacje/analyses/2014-06-11/creeping-de-gazpromisation-russian-exports

have demonstrated high determination as regards the implementation of **LNG projects in an attempt to catch up with other countries active in this sector** (Australia, New Zealand and Qatar, to be followed soon by the USA and Canada). Interest has been demonstrated by both gas (Gazprom and Novatek) and oil firms (Rosneft). Although Asian markets (China, Japan and South Korea) are planned to be the main destinations for exports, the final version of the act liberalising the rules of LNG exports suggests that Russian firms attach similar significance to Europe as an export destination. This has been confirmed by both the guidelines adopted as part of the LNG projects in progress (Novatek, Total and CNPC as part of the Yamal-LNG project or Gazprom's plans to build a gas liquefying plant in Leningrad Oblast and LNG infrastructure in Kaliningrad Oblast) and the contracts concluded thus far (Novatek signed a contract envisaging LNG supplies to Spain on 23 November 2013). A specification of planned and existing projects is provided in Table 5.

Table 5. The specification of existing and planned Russian LNG projects

Project name	Key shareholder from Russia	Launch date	Production capacity (bcm) Initial / ultimate
Sakhalin-2	Gazprom	2012	15 / 20.7
Vladivostok-LNG	Gazprom	2018	6.9 / 20.7
Baltic-LNG	Gazprom	2020	4.1 / 4.1
Sakhalin-1	Rosneft	2018	6.9 / 13.8
Yamal-LNG	Novatek	2017	7.6 / 22.8
Total			40.5 / 82.1

Author's calculations

Considering the current trends and the development potential of the European liquefied natural gas market, it is very likely that the LNG sector will become a new vital area of Russian activity in Europe in the longer run. This has been suggested, for example, in the official reasons given for the gas export liberalisation act concerning LNG (the rapidly developing LNG market in the EU) and the official moves and statements from Novatek. On 1 November 2013, one day after the bill had been approved by the government, Novatek announced that it had signed a 25-year contract with Spain's largest importer of liquefied

natural gas, Gas Natural Fenosa, and has since then declared interest in more extensive LNG exports to Europe.

By demonopolising gas exports, which have been traditionally associated with the Gazprom brand, which is less and less useful in both political and economic terms, and by providing Gazprom's competitors with access to export infrastructure, Russia is making an attempt to maintain its position on this strategic market. The increasingly likely extension of export liberalisation rules to gas supplied via pipelines, albeit disadvantageous to Gazprom, may bring tangible benefits to the Russian gas market as a whole. A complete demonopolisation of Russian gas exports and access to pipeline infrastructure guaranteed to other, competitive, Russian gas firms, combined with restructuring of Gazprom, might on the one hand contribute to resolving the legal problems in gas relations between Russia and the EU (the possible split of Gazprom into separate companies in charge of gas production, transit and exports would match the liberalisation changes taking place in EU countries). On the other hand, the demonopolisation would make it easier for Russia to retain its present position in Europe, which it views as a strategic market (Russia exports gas not only via the pipeline system but also in the form of LNG, carried out by both Gazprom and other so-called independent gas producers).

2.3. Price discounts for EU customers and the restricted modification of the contract policy

In an attempt to counteract the negative consequences of the falling demand for Russian gas, and given the oversupply of natural gas in Europe, Gazprom has been forced to partly revise its price policy. One proof of this has been **the reduction of gas prices** as part of supplies to selected European customers (the list of entities which have been granted discounts is provided in Table 6). The discounts offered by Gazprom to its European recipients cost US$2.7 billion in 2012 (according to Gazprom's sources, US$3.2 billion[70]), and US$4.7 billion in 2013.

[70] http://www.bloomberg.com/news/2013-06-04/gazprom-cuts-2013-gas-export-price-forecast-amid-contract-talks.html

Table 6. Gas price discounts granted by Gazprom to European customers (estimated data)

Country	Company	Discount date	Size
Austria	Econgas	17 January 2012 10 December 2013	10–15% 10–15%
Czech Republic	RWE Transgas	Arbitration proceedings launched in 2011	The court passed a decision unfavourable to Gazprom in June 2013[71]
France	GDF Suez	17 January 2012	10–15%
Greece[72]	DEPA	February 2014	15 %
Holland	Shell Europe Gas Terra	June 2011	Modification of the price formula (45% of the price is oriented to spot market prices)
Lithuania	Lietuvos Dujos	Arbitration proceedings launched in October 2012 A deal on price discount announced in May 2014	around 20% (as announced by Lietuvos Dujos)[73]

71 The size of this price discount has not been revealed. 'Arbitration Court Rules In RWE's Favor In Gas Pricing Dispute With Gazprom', 27 June 2013, http://www.rttnews.com/2142717/arbitration-court-rules-in-rwe-s-favor-in-gas-pricing-dispute-with-gazprom.aspx (accessed on: 7 May 2014).

72 DEPA initially insisted on a 20% discount (from the present level of US$460 per 1000 m3 to US$370 per 1000 m3). In turn, the Russian side at the beginning agreed to reduce the price to US$389-399 per 1000 m3, i.e. by around 13%. DEPA was one of the first companies to have succeeded in obtaining a price discount in negotiations with Gazprom back in 2011; 'Греция настаивает на большем', Коммерсантъ, 13 February 2014, http://www.kommersant.ru/doc/2406797

73 According to reports, the discount has been granted within the timeframe from 1 July 2014 to 31 December 2015, and the discounted price will be US$370 per 1000 m3. 'Литва договорилась с Газпромом о снижении цены на газ', http://1prime.ru/gas/20140508/784473530.html (accessed on: 8 May 2014).

74 'E.On подал новый арбитражный иск к Газпрому', Ведомости, 4 July 2014, http://www.vedomosti.ru/companies/news/28582871/eon-podal-novyj-arbitrazhnyj-isk-k-gazpromu#ixzz37RZDc8xX (accessed on: 10 July 2014).

75 The contract provides for supplies of 1.5 billion m3 of Russian gas annually until 2021. 'Russia, Serbia Sign Long-Term Gas Supply Deal', http://en.ria.ru/business/20130327/180283903/Russia-Serbia-Sign-Long-Term-Gas-Supply-Deal.html (accessed on: 8 June 2014).

Country	Company	Discount date	Size
Germany	WinGas GmbH	17 January 2012	10–15%
	E.ON	July 2012 (preceded by the launch of arbitration proceedings)	10%
		April 2014 – arbitration proceedings concerning a further price discount were launched[74]	–
	RWE	June 2013 (as a consequence of arbitration proceedings)	15%
Poland	PGNiG	November 2012 (preceded by arbitration proceedings)	10–15%
Serbia	Srbijagas	27 March 2013	13%[75]
Slovakia	SPP	17 January 2012 April 2014	10–15% 10–15% the modification of the 'take or pay' formula
Italy	Sinergie Italiane	17 January 2012	10–15%
	Eni	2010	15%
		2012	15% (probably) US$1.15 billion annually
		23 May 2014	change in the price formula and the introduction of less strict 'take or pay' rule
	Edison	22 July 2011 (preceded by the launch of arbitration proceedings in 2010)	change in the price formula and the introduction of less strict 'take or pay' rule

Author's calculations based on information published in the Russian dailies *Ведомости and Коммерсантъ* and in specialist energy portals

Most of the discounts have been granted as a consequence of business negotiations and on the basis of the price revision clauses included in the contracts. Although the average price of Russian gas has fallen across the entire EU (in 2013, it was US$402 per 1000 m^3 as compared to US$ 416.8 per 1000 m^3 in 2012)[76],

[76] Data made public by GazpromExport at the end of December 2013 http://www.vestifinance.ru/articles/37532 (accessed on: 13 June 2014).

the countries which have benefited most from the conciliatory stance taken by the Russian company are those from Western Europe. In the case of Central European countries, which are heavily dependent on Russian supplies, the discounts have been granted on a selective basis, often under threat of or following the launch of arbitration proceedings, most of which ended disadvantageously to Gazprom[77]. The 'division' of European clients into those who can be treated on preferential terms and those who can be discriminated against is also evident when one compares the prices paid for Russian gas by Western European and Central European states (Table 7).

Table 7. The average annual gas price for individual EU member states

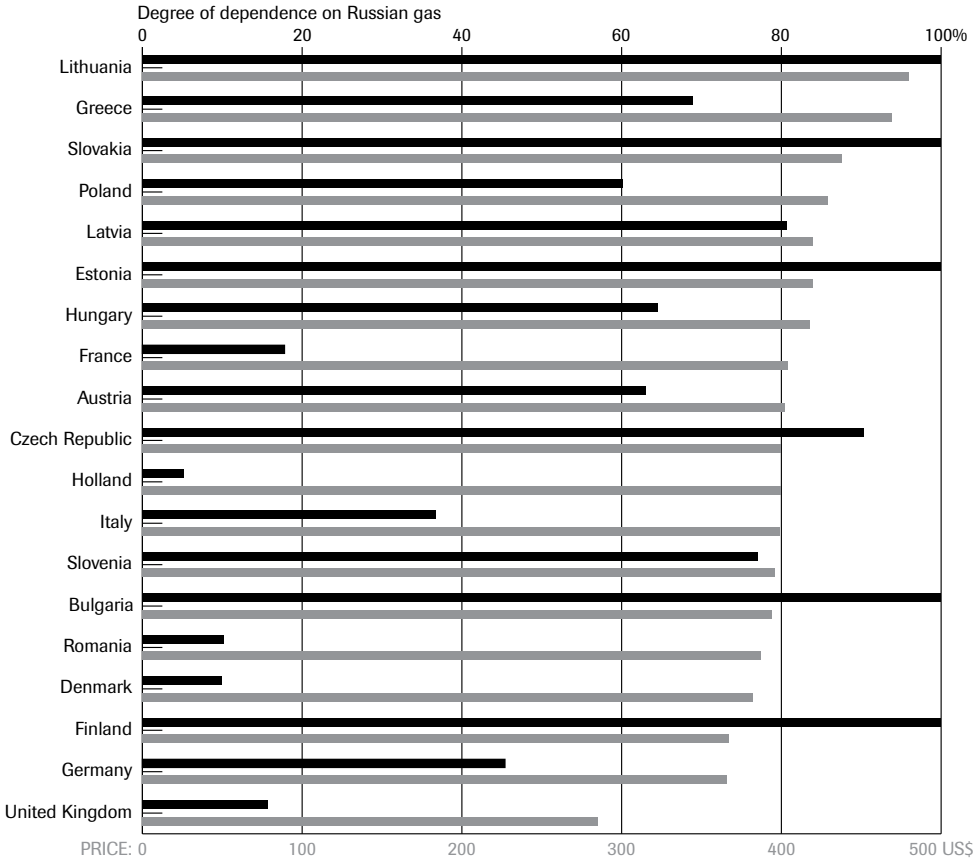
Country	Average annual gas price (US$)		
	2011	2012	2013
Lithuania	397	520	480
Greece	414	475	469
Slovakia	333	428	438
Poland	420	433	429
Latvia	397	440	420
Estonia	397	440	420
Hungary	383	416	418
France	399	398	404
Austria	387	394	402
Czech Republic	419	500	400

[77] Arbitration proceedings were launched, for example, by Poland's PGNiG in February 2012 in order to be granted a price discount. Finally, a business compromise was reached in November 2012, and the Polish side withdrew its petition to the Stockholm Court of Arbitration. Another example is provided by the proceedings initiated by Gazprom against the Czech company RWE Transgaz, demanding payment for gas untaken in 2008–2011. The arbitration court in Vienna ruled in favour of the Czech company and ruled that, given the situation on the market, RWE Transgaz had reasonably refused to comply with the 'take or pay' clause.

Country	Average annual gas price (US$)		
	2011	2012	2013
Holland	366	346	400
Italy	410	438	399
Slovenia	377	400	396
Bulgaria	356	435	394
Romania	390	424	387
Denmark	480	394	382
Finland	358	373	367
Germany	379	353	366
United Kingdom	-	313	285
Average annual gas price for EU customers	392.3	416.8	402
Average annual gas price for European customers (including non-EU member states)	398.8	421	387

Source: James Henderson, Simon Pirani (ed.), 'The Russian Gas Matrix: How Markets are Driving Change', Oxford University Press 2014.

Chart 2. The degree of EU countries' dependence on Russian supplies, and gas prices for each of the recipients



Source: www.eurogas.org, James Henderson, Simon Pirani (red.), The Russian Gas Matrix: How Markets are Driving Change, Oxford University Press 2014.

While Gazprom is ready to offer temporary discounts to selected customers, in principle, with a few exceptions[78], **it is not willing to accept proposals to change the price formula** which envisage that gas prices will no longer be based on the prices of crude oil and petroleum products and instead be referenced to spot market prices. Gazprom's representatives have argued that the volatility of prices on the spot markets adversely affects the certainty of

[78] One example is the modification of the price formula in contracts with recipients from North-Western Europe, above all with Holland's Gas Terra (in autumn 2011, 45% of the price formula was based on spot market prices). On average, Gazprom accepts the share of spot market prices in the basket on which the final price is based at a level ranging between 15% and 25%. 'Spot Price Insurgency', http://www.naturalgaseurope.com/spot-gas-pricing-versus-oil-linked-contracts (accessed on: 10 January 2014).

business relations between the gas supplier and the customer and, more importantly, gives no guarantee that adequate income will be generated, while a significant part of this income is allocated for investments in the Russian upstream sector.

However, it is very likely that the rapid development of the spot markets will force Gazprom to adjust its trade policy. The evolution of the market situation will make European gas importers more assertive, and they will become bolder in questioning the contracting policy employed by the Russian company thus far. Representatives of Italy's Eni announced back in autumn 2012 that they would insist on the cancellation of the 'take or pay' clause or a change in the rules of gas price indexation, where the prices will no longer be based on crude oil and petroleum product prices but instead on the spot market prices. The deal signed with Gazprom in May 2014 provides that spot market prices will be taken into account in the price formula with regard to the entire amount of gas contracted[79]. The outcome of the antitrust investigation may also force Gazprom to modify its contract policy. According to press reports, the greater part of the European Commission's reservations concern precisely the price policy adopted by Gazprom. The European Commission expects that Gazprom should as part of its obligations offer more flexible contracting terms: a choice between the spot formula and a formula based on oil and petroleum product prices[80].

2.4. The partial adjustment to the EU's market liberalising regulations

Gazprom, jointly with its European partners, has also taken limited steps to adjust to the new regulations liberalising the EU gas market. One example of this is the restructuring of Wingas GmbH & Co. KG (a joint venture of Gazprom and Germany's Wintershall) which was finalised in May 2012. As a consequence of this move, a holding named Wintershall & Gazprom Beteiligungs-GmbH & Co. KG has been established and separate entities operating as part of this holding have been put in charge of the various segments of the natural gas market: Wingas GmbH will be responsible for gas trading, while GASCADE

[79] 'Клиенты Газпрома добиваются смягчения условий', Ведомости, 15 October 2012, http://www.vedomosti.ru/companies/news/4998891/ne_beri_i_ne_plati (accessed on: 8 May 2014); 'Газпром согласился увеличить зависимость от спотового рынка газа', *Ведомости,* 4 July 2014, http://www.vedomosti.ru/companies/news/28561971/gazprom-narushil-tabu (accessed on: 10 July 2014).

[80] 'Газпром и ЕК не находят согласия по вопросу цен на газ для Восточной Европы', 10 February 2014, http://www.oilcapital.ru/industry/230896.html (accessed on: 7 May 2014).

Gastransport GmbH, OPAL Gastransport GmbH and NEL Gastransport GmbH will be in charge of gas transport (independent transmission operators) with Astora GmbH & Co KG (a subsidiary of Wingas GmbH) operating in the gas storage segment.[81].

Another example is the change of Gazprom's situation in Lithuania. The Lithuanian government has decided to implement the gas directive which provides for the strictest unbundling model, i.e. ownership unbundling. Gazprom, which along with Germany's E.ON and the Lithuanian government co-owned the Lithuanian gas company, Lietuvos Dujos, has been forced to agree to its unbundling in compliance with the guidelines of the EU's third energy package (complete ownership separation). The Lithuanian prime minister announced on 17 June that Gazprom had sold its shares in two Lithuanian state-controlled companies in the gas sector (blocks of 37.1% shares each) – Lietuvos Dujos (gas distribution) and Amber Grid (transmission and infrastructure development) for a price of around 120.7 million euros. Three entities operating in three different areas (transport, distribution and infrastructure development) are expected to be formed out of Lietuvos Dujos by the end of 2014[82].

Gazprom's long-standing resistance to actions taken by the Lithuanian government had to be discontinued when its previous ally, the German company E.ON Ruhrgas, withdrew from the Lithuanian market and agreed to sell its shares in Lithuanian companies. Lithuania thus became the first EU member state to have forced Gazprom to adjust to the least favourable variant of unbundling envisaged under the regulations of the so-called third energy package[83].

[81] Data as provided on the official website of Wintershall & Gazprom Beteiligungs-GmbH & Co. KG http://www.w-und-g.com/home.html (accessed on: 10.07.2013).

[82] Lithuania sets gas unbundling deadline for October 2014, http://www.reuters.com/article/2011/10/28/lithuania-gas-unbundling-idUSL5E7LS0YQ20111028

[83] For more see: Joanna Hyndle-Hussein, 'Gazprom sells off its assets in Lithuania', *OSW Analyses* 25 June 2014, http://www.osw.waw.pl/en/publikacje/analyses/2014-06-25/gazprom-sells-its-assets-lithuania

III. SCENARIOS FOR THE DEVELOPMENT OF GAS RELATIONS BETWEEN RUSSIA AND THE EU

The tension seen over the past few years in Russia-EU gas relations is likely to continue rising in the coming years due to the complexity of existing legal problems, the political crisis linked to the situation in Ukraine and its implications for Russia-Ukraine-EU relations, the trends on the European gas market and the difference in the interests of individual EU member states in relations with Russia as regards the energy sector.

1. Possible resolutions to the legal problems in Russia-EU relations

A political compromise on gas issues between Russia and the European Union is not completely ruled out but, given the differences in approaches adopted by the two sides, it will be extremely difficult to reach. The EU (and especially the European Commission) have made attempts over the past few years to show a strong determination in making sure that its member states and all entities operating on its internal market comply with EU energy law. Liberalisation aimed at improving competitiveness on the EU market and also the desire to transfer the rules resulting from EU law to third countries are the key elements of this law. In turn, Gazprom is guided by the vertical integration logic (one entity in control of production, transmission and sales), definitely prefers long-term contracts and supports restrictions in access to its fields for foreign entities, and this contradicts the assumptions of the project aimed at building the internal energy market in the EU[84].

The announcement of the outcome of the European Commission's antitrust proceedings against Gazprom could signify a breakthrough moment. If it is found that the Russian company has violated EU competition rules, the Russian rhetoric will likely sharpen and the EU will continue to be accused of attempting to politicise the gas relations. It is very likely that, in addition to critical announcements from Russian politicians, Moscow will attempt to contest the decisions using all available legal means.

On the other hand, another significant blemish on Gazprom's reputation might accelerate the implementation of the strategy involving 'rebranding' Russia's

[84] Sadek Boussena, Catherine Locatelli, 'Energy institutional and organizational changes in EU and Russia. Revisiting gas relations', *Economie Du Developpment Durable et De l'Energie*, Octobre 2012, http://lepii.upmf-grenoble.fr/IMG/pdf/CR17-2012_energy-institutional_SB-CL.pdf

gas presence in Europe under the Kremlin's supervision. Another factor which makes this scenario more likely is the intensifying competition seen between Gazprom and the so-called independent gas producers in Russia, Rosneft and Novatek.

If the antitrust proceedings are concluded with a ruling unfavourable to Russia, the process of building a symmetric energy inter-dependence between the EU and Russia would be reinforced. Firstly, Moscow would find it more difficult to continue its policy of dividing its clients into privileged groups (like Italy, Germany and France, with regard to whom Gazprom has applied a conciliatory contracting policy, with lower prices and negotiations concerning the partial use of spot indexation in contracts) and those which it can discriminate against (mainly Central European countries, which heavily depend on Russian gas and have suffered from unfair contracting practices used by Gazprom). Secondly, the key European gas buyers (Italy and Germany) would become more assertive, questioning ever more frequently the contracting policy adopted thus far by Russia (the expected rejection of the 'take or pay' clause and, at least partially, replacement of gas price indexation based on oil prices with indexation based on spot prices), thus forcing Gazprom to make further concessions. Thirdly, the Central European EU member states would certainly become more determined to implement fully the liberalisation rules applicable in the EU and to make their respective competition protection authorities act in a more decisive fashion.

2. The implications of the Ukrainian crisis for Russia–EU gas relations

The Ukrainian crisis is another important factor that will add to the tension in Russia–EU gas relations. The political instability in Ukraine caused by Kyiv's initial withdrawal from signing the Association Agreement with the EU during the Eastern Partnership summit in Vilnius, further deepened by Russian acts of sabotage against the new government in Kyiv after the overthrow of President Viktor Yanukovych, might result in a revision of the rules of co-operation between Moscow and Brussels.

The Kremlin has capitalised on the Ukrainian crisis to present Ukraine to its EU partners once again as an unreliable trade partner. One proof of this was the letter addressed by President Putin on April 10th 2014 to the leaders of eighteen European countries claiming that Ukraine owed a huge debt for Russian gas supplies (according to Moscow's estimates, it stood at US$35.4 billion). Putin

has appealed to European countries to hold urgent consultations concerning gas issues. He has also threatened that unless the Ukrainian debt problem is resolved, prepayments will be introduced in Russian-Ukrainian settlements. This in turn may mean that Ukraine will illegally receive the gas meant to be supplied to customers in the EU, in the case of it being unable to pay its dues.

However, the trilateral EU-Russia-Ukraine gas talks initiated on 2 May 2014 in Warsaw have been fruitless. As a consequence, Gazprom introduced the mechanism of prepayments in gas settlements with Naftogaz on 16 June 2014 and at the same time withheld gas supplies to Ukraine until Ukraine paid its current debt for the gas supplied from Russia (almost US$4.5 billion for gas supplies in November and December 2013 and in April and May 2014)[85].

Various actions taken by Russia signify its readiness to aggravate its gas dispute with Ukraine, including: a letter from President Putin; gas supply cuts; statements from representatives of the Russian political and business elite, including the head of the Russian mission to the EU, Vladimir Chizhov and the president of Gazprom, Alexey Miller. Moscow hopes that its non-resumption of gas supplies to Ukraine will force Kyiv to start using the gas exported via Ukraine to recipients in the EU for its own needs. Thus the Russian-Ukrainian gas crisis will be used by Russia to make the EUchange its stance on Russian infrastructural projects under development in Europe. Above all, Russia wants the European Commission to pass a decision approving the use of the OPAL gas pipeline at 100% of its capacity and to receive political support for the South Stream. The latter would mean EU institutions refraining from questioning the compliance with EU law of the organisational and legal actions taken by Russia in co-operation with those EU member states which are engaged in the project. If the Russian infrastructural projects were excluded from the regulations of the so called third energy package, this would not cause any systemic changes in the EU, but the significance of these regulations would de facto be undermined. Furthermore, Russia would feel encouraged to continue its efforts to reach a political agreement with Brussels that would regulate the rules of cross-border co-operation in the energy sector.

[85] For more on the Russian-Ukrainian gas dispute see: Szymon Kardaś, Wojciech Konończuk, 'Russia and Ukraine's 'cold gas war'', *OSW Analyses*, 25 June 2014, http://www.osw.waw.pl/en/publikacje/analyses/2014-06-25/russia-and-ukraines-cold-gas-war

3. The limited possibilities of change in supplies on the EU gas market

Russia's assertiveness will strengthen as the present trends on the European gas supply market continue, especially the decrease in LNG supplies to the EU market, the constant reduction in Europe's own production and the growing supply of Russian gas, all of which have been evident over the past few years.

Furthermore, Azerbaijan, Turkmenistan, Iraq and Iran might join the potential group of pipeline gas suppliers to Europe. As a consequence of this, gas supplies to Europe could rise up to as much as 50 bcm (as part of the Southern Corridor around 10 bcm could be supplied from Azerbaijan, 10 bcm from Iran[86] and potentially up to 30 bcm from Iraq)[87]. However, given the slow progress in the implementation of the infrastructural pipeline projects supported by the EU (the construction of the Southern Gas Corridor project, although it was finally approved in June 2013, will be completed no sooner than 2018), any alternative to Russian pipeline gas supplies seems to be rather unrealistic, at least within the next three or four years.

The development of infrastructure which enables imports of liquefied natural gas might play a key role in the diversification of gas supply sources. The regasification capacity in EU member states almost tripled in the 2000s (reaching 185.46 bcm in 2014), and is planned to be developed further until 2020. In the optimistic scenario, this may mean increasing import capacity to around 400 bcm; while in the pessimistic scenario, it will be possible to import around 378 bcm of gas annually[88]. Israel, Cyprus and Mozambique could potentially become new sources of LNG supplies to the EU market.

However, the possibility of importing liquefied natural gas from the USA has been considered especially intensively in Europe over the past few months. In the opinion of certain sections among the European elite, this source could be viewed as an alternative to Russian supplies. Regardless of the political

[86] According to forecasts, it will be able to export even 30-35 billion m^3 of gas in 2020. 'Иран готов соперничать с Россией за поставки газа в Европу', *Ведомости*, 12 August 2014, http://www.vedomosti.ru/politics/news/32013951/gazovyj-sopernik-rossii#ixzz3BOR8LYiT

[87] Aleksey Khazbiyev, 'Никаких компромиссов', *Эксперт*, no. 5 (884), 27 January 2014, http://expert.ru/expert/2014/05/nikakih-kompromissov/?subscribe (accessed on: 7 April 2014).

[88] My own calculations based on data published by Gas Infrastructure Europe http://www.gie.eu.com/ (accessed on: 2 April 2014).

declarations made by President Barack Obama, it will be impossible to supply liquefied natural gas from the USA to Europe within the next three or four years. This is a matter of legal (US companies are required to obtain export licences), technical (the first LNG export terminals will be ready in 2015 and 2017, and most of them only by around 2020), and often purely economic aspects. A comparison of gas production and consumption forecasts in the US indicates that potential major exports of liquefied natural gas from the USA would not materialise before around 2020. When analysing the US data concerning gas consumption and domestic gas output, one should note that the quantities of gas produced in the USA that could be allocated for exports will be well below the maximum export capacity of US LNG terminals (provided that all projects have been carried through): the production surplus in 2020 will reach around 15 bcm, and terminal export capacity around 268.2 bcm. Furthermore, since gas prices are higher on the Asian market, exports to such countries as Japan, South Korea and China may turn out to be more appealing than exports to Europe[89].

4. The lack of cohesion in EU member states' energy policy with regard to Russia

Russia will also benefit from differences in the energy policies adopted by individual EU member states and uncertainty about the strategy of action the new European Commission will take following the elections to the European Parliament on 25 May 2014. Some of the EU member states, regardless of the deteriorating political climate in Russia–EU relations, do not intend to withdraw from developing their intensive and comprehensive economic co-operation

[89] In 2013, the average price of US gas stood at US$133.6 per 1000 m^3, i.e. it grew by around 34.8% in comparison to the preceding year. The average price of liquefied natural gas supplied to Japan from Indonesia reached around US$627.2 per 1000 m^3. For comparison, the price of Russian gas on the border with Germany was US$402 per 1000 m^3, and the spot market prices were as follows: on France's Powernext – US$377 per 1000 m^3 (up 11.8% in comparison to 2012) and on Germany's EEX – US$368 per 1000 m^3 (up 9.3% in comparison to 2012). With the price at US$133.6 per 1000 m^3 (US$3.73 per MMBtu), the total cost of LNG supplied to Europe (liquefaction, transport, regasification) would reach around US$296.43 per 1000 m^3. The forecast for 2014 indicates that the average annual price at Henry Hub will be US$4.44 per MMBtu, i.e. US$160.5 per 1000 m^3. Then the total cost of gas supplied to Europe would reach US$328.9 per 1000 m^3. However, at present (data for January-June 2014), the Henry Hub price is US$4,9 per MMBtu, i.e. US$177.5 per 1000 m^3, which in the case of exports to Europe would give the total cost of US$347.4 per 1000 m^3. Furthermore, if the USA started exporting gas to Europe, the price at Henry Hub would certainly increase, and thus the final price of US gas on the European market would go up. Considering the price discounts offered by Gazprom over the past few months, it might turn out that US gas could be less competitive than Russian gas.

with Moscow. Examples of this include: the statement from representatives of Bulgaria, who have declared full support for the implementation of the South Stream project; Hungary's policy targeted at intensifying energy co-operation not only in the gas sector but also in the nuclear sector (preliminary agreements concerning the development of the Hungarian nuclear power plant in Paks was signed in January 2014); the unclear stance taken by Bratislava in negotiations with Kyiv concerning the possibility of carrying out reversed gas supplies from the EU to Ukraine (the lack of Slovakia's political will is probably an effect of its fear of deterioration of relations with Gazprom). The lack of a joint stance is also evident in the case of Germany, Russia's key partner in energy relations with the EU. Chancellor Angela Merkel's critical rhetoric contrasts with hints from representatives of German business, suggesting that the mutually beneficial co-operation needs to be continued.

The lack of unity seen in the approaches adopted in the policies of individual EU member states makes it very unlikely that new effective mechanisms reducing the level of dependence on Russia will be developed. The European Commission in its conclusions during the summit of the heads of state or governments on 26–27 June 2014 declared the readiness to build an energy union, albeit it did not go as far as the concept put forward by Poland in April 2014 (one of the key ideas in the Polish concept was that EU member states should buy gas from Russia together until energy dependence on Russia has been significantly reduced). Russia has responded critically to the concepts put forward on the part of the EU (the Russian minister for energy, Alexander Novak, branded the idea to buy gas together as a return to the Soviet economy), and will stick to its policy of developing bilateral relations in the energy sector, hoping that it will thus successfully neutralise actions at the entire community level initiated by EU institutions.

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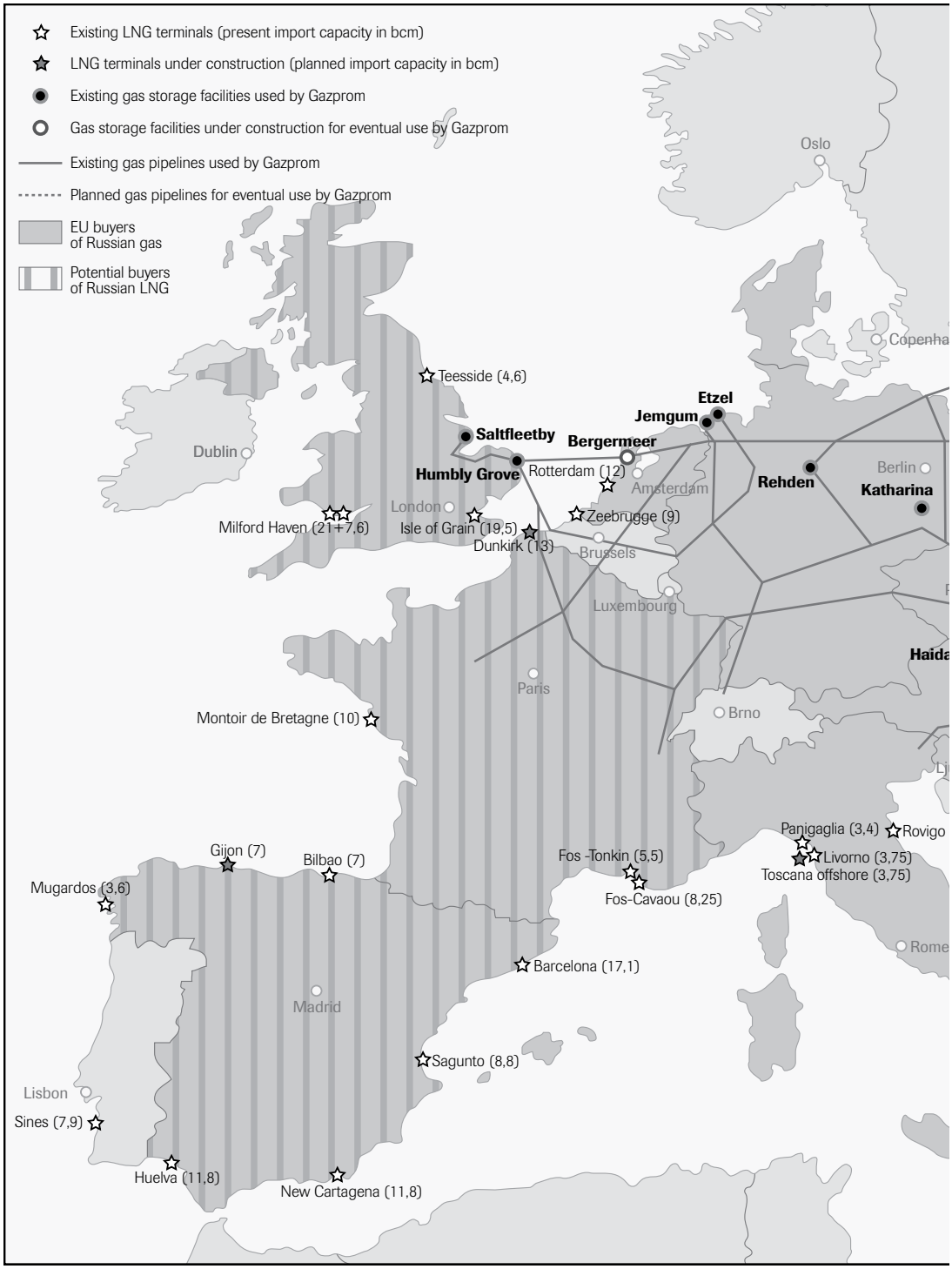
Russia, being aware of these conditions and the volatility of trends on the European gas market, will attempt to continue its dichotomous policy, taking in parallel offensive and defensive actions, albeit the offensive moves will prevail. The criticism of regulatory changes will be accompanied on the one hand by the determination to uphold the traditional strategic goals of external gas policy (the diversification of transit routes and investments in assets) and, on the other hand, by a partial adjustment to the changing reality (for example, developing LNG projects, reducing gas prices, amending trade contracts and increasing sales on the spot markets).

The mutual dependence of Russia and Europe in the energy sector is set to continue in the short and medium term. However, given the differences in the Russian and European approaches, it is unlikely to undergo a transformation, in the manner called for by the president of the European Commission, José Manuel Barroso, from a "inter-dependence out of necessity into a inter-dependence by choice"[90]. Bilateral relations will continue to resemble those of a tug of war, where each party, capitalising on its benefits, will try to pull the rival towards its own side. However, there is plenty to indicate that a definitive winner in this war is unlikely to emerge anytime soon.

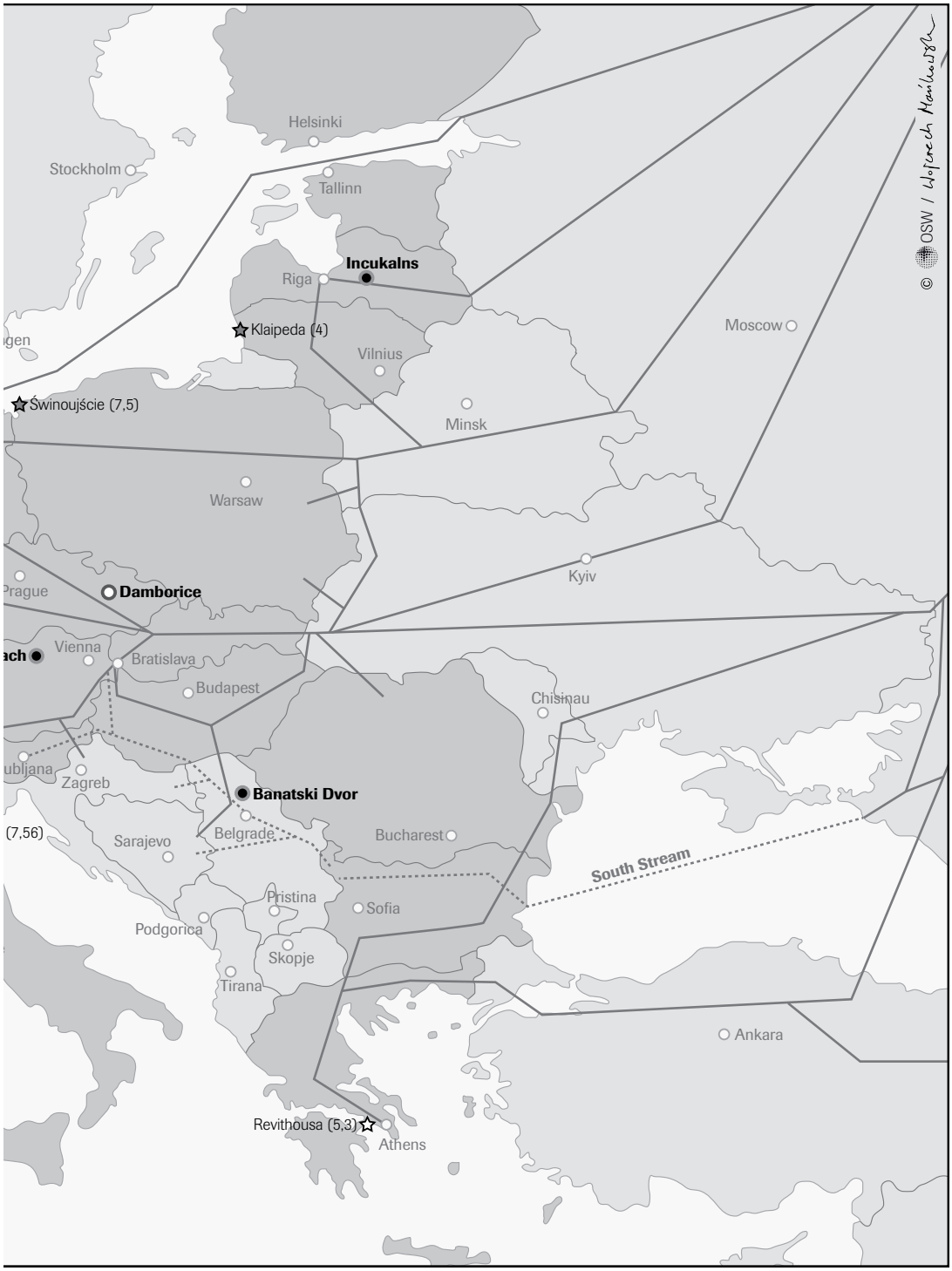
SZYMON KARDAŚ

[90] The statement made by José Manuel Barroso during the press conference at the conclusion of the European Union – Russia summit on 21 December 2012 in Brussels.

LNG terminals in the EU, and EU gas infrastructure used by Gazprom



Source: http://www.gazprom.com/f/posts/38/422682/ugs-facilities-abroad-en.jpg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Warsaw
Kyiv
Prague
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