Russie.Nei.Visions n°26

EU Gas Liberalization as a Driver of Gazprom's Strategies?

Catherine Locatelli

February 2008

ifri Russia/NIS Center

Ifri is a research center and a forum for debate on major international political and economic issues. Headed by Thierry de Montbrial since its founding in 1979, Ifri is a non-governemental and a non-profit organization.

As an independant think tank, Ifri sets its own research agenda, publishing its findings regularly for a global audience.

With offices in Paris and Brussels, Ifri stands out as one of the rare French think tanks to have positioned itself at the very heart of European debate. Using an interdisciplinary approach, Ifri brings together political and economic decision-makers, researchers and internationally renowned experts to animate its debates and research activities.

The opinions expressed in this article are the authors' alone and do not reflect the official views of their institutions.

Russia/NIS Center

ISBN

IFRI
27 RUE DE LA PROCESSION
75740 PARIS CEDEX 15 – FRANCE
TEL. : 33 (0)1 40 61 60 00
FAX : 33 (0)1 40 61 60 60
E-MAIL : ifri@ifri.org

IFRI-Bruxelles
RUE MARIE-THERESE, 21
1000 BRUXELLES
TEL. : 32(2) 238 51 10
FAX : 32 (2) 238 51 15
E-MAIL : info.eurifri@ifri.org

WEBSITE **:** www.ifri.org

Russie.Nei.Visions

Russie.Nei.Visions is an electronic collection dedicated to Russia and other new independent states (Belarus, Ukraine, Moldova, Armenia, Georgia, Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan and Kyrgyzstan). Written up by key experts, these policy-oriented papers deal with strategic and political issues as well as economic issues.

This collection guarantees Ifri's quality standards (editing and anonymous peer-review).

If you wish to be notified of upcoming publications, please send an e-mail to: info.russie.nei@ifri.org

Previous issues

– Jakub M. Godzimirski, "High Stakes in the High North: Russian-Norwegian Relations and Their Implications for the EU," *Russie.Nei.Visions*, No. 25, December 2007;

– Dominique Finon, "Russia and the 'Gas-OPEC'. Real or Perceived Threat?," *Russie.Nei.Visions*, No. 24, November 2007;

– Thomas Gomart, "Paris and the EU-Russia Dialogue: A New Impulse with Nicolas Sarkozy?," *Russie.Nei.Visions,* No. 23, October 2007.

Author

Catherine Locatelli is a researcher at LEPII (*Laboratoire d'économie de la production et de l'intégration internationale*, CNRS-University of Grenoble II) working on energy issues in Russia, China, and the Caspian countries. She has authored numerous articles, notably on the reorganization of the Russian hydrocarbon industry and its implications on international energy markets. Her latest publications include: S. Boussena, J. P. Pauwels, C. Locatelli and C. Swartenbroekx, *Le Défi pétrolier : questions actuelles du pétrole et du gaz* [The Petroleum Challenge: Contemporary Oil and Gas Questions], Paris, Vuibert, 2006; D. Finon and C. Locatelli, "L'interdépendance gazière de la Russie et de l'Union européenne. Quel équilibre entre le marché et la géopolitique?" [Gas interdependence of Russia and the European Union. What Balance between Markets and Geopolitics?], *Cahier de Recherche* LEPII, série EPE, No. 41, December 2006; C. Locatelli, "Les stratégies d'internationalisation de Gazprom" [Gazprom's Strategies for Internationalization], *Courrier des pays de l'Est*, No. 1061, May-June 2007.

Contents

Summary

Russia and Gazprom's natural gas strategies on the European market are the result of the uncertainties (volumes, prices) created by the liberalization of the EU natural gas market. The company's policy of asset acquisition, begun at the end of the 1990s, the multiplication of export networks, as well as the desire to preserve long-term contracts while benefiting from new contractual opportunities are all clear illustrations of this strategy. Yet the industrial and commercial strategies that Gazprom may develop cannot discount geopolitical issues. Therefore, Vladimir Putin's desire to place hydrocarbons at the service of his economic and foreign policies, notably by making use of large, internationalized companies owned primarily by the state, remains in the background.

Introduction

Since it developed the huge gas fields of Western Siberia in the 1980s, Russia has gradually become one of Europe's main natural gas suppliers (with 30% of EU-25 consumption in 2006). In the medium- to long-term, its interdependent relationship with the European Union (EU) will be reinforced, given Europe's growing gas needs, Russia's huge reserves, and the infrastructure already in place. Throughout the years, Russia (and previously the Soviet Union) has always been considered a reliable partner, yet various factors have recently come to tarnish this image, calling its reliability as a gas provider into question.

Its squabbles with Ukraine and then Belarus (in 1993-1994 and especially during the 2005-2006 winter) have revealed the fragility of the Russian export system to Europe following the fall of the Soviet Union.[1] In terms of energy exchanges, clearly defined contractual relations (notably in monetary matters) to replace the previous centrally planned ones have yet to be established between the countries of the CIS. Initial judgements of these crises accused Russia and its main gas company, Gazprom, of wanting to limit exports to Europe and, as a consequence, to exert market power. Both the stalling of increased production and the desire to create a gas-OPEC would serve these objectives.[2] They are also suspected of wanting to dominate Europe's entire gas industry via a policy of direct investment in European transportation and distribution companies. The liberalization of the European gas market, and notably the modification of long-term contracts, has inevitably led Gazprom to modify its export strategy to the EU, its main market. New industrial, commercial, and partnership policies are emerging which should mold the future of gas exchanges between the EU and Russia.

Trying to find its place on the international scene, Russia is today pursuing its development using energy resources, particularly natural gas, notably on European and Asian markets, and possibly North American ones. Meanwhile, increasing state control of the Russian energy sector, against the background of Putin's desire to place the hydrocarbons sector at the service of his foreign policy, no doubt adds to the confusion between the fields of politics, commerce, and energy. Grafted onto Gazprom's industrial strategies are geopolitical stakes, particularly with regard to relations with Russia's "near abroad," and with China and Japan.

Translated from French by Jessica Allevione.

[1] See C.-A. Paillard, "Gazprom, the Fastest Way to Energy Suicide," *Russie.Nei.Visions*, No. 17, March 2007; J. Guillet, "Gazprom as a Predictable Partner. Another Reading of the Russian-Ukrainian and Russian-Belarusian," *Russie.Nei.Visions*, No. 18, March 2007.

[2] D. Finon, "Russia and the "Gas-OPEC". Real or Perceived Threat ?," *Russie.Nei.Visions,* No. 24, November 2007.

None of these interpretations may be rejected outright, yet they must all be considered in light of the Russian market's evolution and the increase in internal demand. First, the liberalization of the European gas market is a sizable challenge for Europe's suppliers—of which Russia leads the pack—it being likely to modify the links that hitherto bound producers and consumers. Gazprom will thus be forced to adapt itself to a more uncertain environment on its main export market, precisely when it needs to tackle a domestic situation, inherited from the planned economy, which limits its room for maneuver. At present Russian gas consumption is close to 400 billion cubic meters (bcm) per year, and without significant increase in prices, the electricity sector alone will increase its consumption by 28 bcm by 2010.[3] Gazprom's strategies remain significantly limited by the particularities of the Russian domestic market and cannot be understood without taking into account the Kremlin's policy and chosen organizational model. Indeed, the latter encourages the emergence of internationalized companies controlled primarily (though not totally) by the state, capable of competing with the energy majors and influence international markets, notably in their capacity to invest. No doubt Gazprom is the most representative example of this evolution.[4]

[3] "Russian Gas Demand Growing Faster than Predicted," *Gas Matters*, January 2007, p. 27.
[4] On this issue, see S. Boussena, J.P. Pauwels, C. Locatelli and C. Swartenbroekx, *Le Défi pétrolier : questions actuelles du pétrole et du gaz* [The Petroleum Challenge: Contemporary Oil and Gas Questions], Paris, Vuibert, 2006, 394 p.

Export Dependency

In 2006, Russian gas exports to Europe excluding the Baltic states totaled 161.5 bcm (of which 137.1 bcm to the EU),[5] representing 61.5% of Russia's total gas exports (see table 1). Nevertheless, individual EU countries do not import the same quantities of Russian gas. Only the Baltic countries, and certain members of the former Comecon[6] such as Hungary, Poland, the Czech Republic, Slovakia, and Bulgaria are in a situation of extreme dependency (close to 90% of their imported gas comes from Russia); at the other end of the scale are countries like Spain, Sweden, Portugal, and Denmark.

Table 1: Russian gas exports to Europe (bcm)

	1995	2001	2002	2003	2004	2006
Austria	6.1	4.9	5.2	6.0	6.0	6.6
Belgium	-	-	-	-	-	3.2
Bulgaria	5.8	3.3	2.8	2.9	3.0	2.7
Czech rep.	8.4	7.5	7.4	7.4	6.8	7.4
Finland	3.6	4.6	4.6	5.1	5.0	4.9
France	12.9	11.2	11.4	11.2	14.0	10.0
Germany	32.2	32.6	32.2	35.0	40.9	34.4
Greece	-	1.5	1.6	1.9	2.2	2.7
Hungary	6.3	8.0	9.1	10.4	9.3	8.8
Italy	14.3	20.2	19.3	19.7	21.6	22.1
Netherlands	-	-	-	-	-	4.7
Poland	7.3	7.5	7.3	7.3	7.8	7.7
Romania	6.2	2.9	3.5	5.1	4.1	5.5
Slovakia	7.4	7.5	7.7	7.3	7.8	7.0
U.K.	-	-	-	-	-	8.7
Total	117.4	126.7	129.4	138.9	149.1	161.5

Sources: Gazprom, *Annual Report*, various years and CEDIGAZ, *Le gaz naturel dans le monde,* Rueil-Malmaison, various years.

Even if they only represent a relatively small percentage of Russia's total gas production (24.6%), these exports are nevertheless a key element of its energy policy. They lie at the heart of the gas company's profitability. Due to current regulation, domestic prices are far lower than those of the European

[5] In Gazprom's statistics, gas exports to the Baltic countries are counted in those of the CIS. In 2006, they reached 2.8 bcm for Lithuania, 1.4 bcm for Latvia, and 0.7 bcm for Estonia.

[6] Editor's note: Council for Mutual Economic Assistance or Comecon was an economic organization of communist states. Created by Stalin in 1949, it was dissolved with the collapse of the Soviet Union in June 1991.

market. Vast segments of its internal market ensure it minimum profit, or no profit at all, while large cross-subsidies between the industrial and residential sectors continue to this day.[7] In 2006 the regulated wholesale price to industrial consumers averaged US$ 44/thousand cubic meters (tcm), but was far lower for the residential sector. By comparison, the export price to Europe averaged US$ 240/tcm in 2006. The increased prices in Europe, due to the indexation of natural gas to the price of oil—a feature of gas contracts—have widened the gap between domestic and export prices. The lowering of real terms prices within Russia's domestic market has stimulated the Russian authorities' to re-monetize gas exchanges and end the bartering and non-payments that characterized the 1990s.

What is more, hydrocarbon exports are a key factor of Russian economic policy, since they are strongly tied to its overall economic balance. In 2005, profits from the sale of oil and gas represented 35% of total government profit and 50% of the federal budget (and more than 50% of total exports).[8]

In these circumstances, the growth of exports to the EU remains the prime objective of Russia's gas policy in the short- to medium-term. Despite the doomsday scenarios described by certain experts (including a production deficit estimated at 100 bcm by 2010[9]), annual exports to Europe could reach 200 bcm by 2020, according to Russia's 2003 long-term energy strategy.[10]

The Diversification of Russian Gas Exports to Asia and the United States

The liberalization of the European gas market has fueled uncertainty concerning the renewal of long-term contracts. This has led Russia and Gazprom to seek new markets and, as a consequence, to develop a new strategy of export diversification to Asia or even the United States. To take on this challenge would require the implementation of new industrial policies involving important and risky financial commitments. This would require the development of Liquefied Natural Gas (LNG) technology, which, as yet, has not been mastered in Russia, as well as long gas pipelines, stretching from Eastern Siberian gas fields to Asia (China, South Korea, and maybe even

[7] D. Tarr and P. Thomson, "The Merits of Dual Pricing of Russian Natural Gas," *World Economy*, Vol. 27, No. 8, August 2004, p. 1173-1195.
[8] International Monetary Fund, 2006.
[9] This predominantly reflects analyses developed by V. Milov (Institute for Energy Policy), and taken up by the International Energy Agency, but also by A. Riley (*Centre For European Policy Studies*). V. Milov, L. Coburn, I. Danchenko., "Russian Energy Policy 1992-2005," *Eurasian Geography & Economics*, Vol 47, No. 3, 2006, p. 285-313 and A. Riley. "The Coming of the Russian Gas Deficit: Consequences and Solutions," *CEPS, Policy Briefing*, No. 116, October 2006, 8 p.
[10] International Energy Agency, *World Energy Outlook 2004*, Paris, 2004.

Japan with a sub-Pacific gas pipeline).[11] Supplying Asia—outside of possible LNG exports from the Sakhalin-I and Sakhalin-II production sharing agreements (PSAs)—could at first be linked to the development of the Kovytka field (Irkursk region),[12] to be subsequently replaced by the production of fields in the Republic of Sakha (Shayandiskoye, Talakan). The difficulties encountered in rapidly developing the fields of Eastern Siberia could lead Gazprom to consider prioritizing the supplying of Asia from fields in Western Siberia, via the Altay gas pipeline to China (30 to 40 bcm).[13]

Numerous institutional, economic, and financial constraints persist to this day, delaying the implementation of these projects until after 2010 or even 2015. Gazprom's limited involvement in the development of Western Siberian fields, while controlling the monopoly over exports, does not favor rapid production of these fields—even if the special case of Kovytka is slowly being resolved. In addition, the numerous commercial circumstances that would make China a strong importer of Russian gas have yet to come together, for diverse reasons. The geographical distance to be crossed is considerable. Given the location of China's energy consumption, LNG supply (even from Sakhalin) is probably a more competitive solution. The discovery of large gas fields in China means that its increased needs may in part be met by internal gas production. Moreover, the price for gas imported from Russia remains highly controversial in China. It would appear that China is not yet ready to commit to signing long-term contracts with Gazprom.[14]

As a result, the diversification strategies to Asia and the United States can only be long-term, in the sense that they represent a fundamental rupture with Russia's past gas strategy. The importance the European market has for the Russian gas company, as well as its desire to preserve sufficiently attractive sales conditions (notably contractual ones) thus appear evident.

[11] "China focuses on LNG and Central Asian gas pipelines," *Gas Matters*, September 2007, p. 1-7.
[12] To supply China with 20 bcm of gas, and to which 10 bcm to Korea might be added.
[13] Memorandum of Understanding signed between the Russian and Chinese governments in March 2006.
[14] *Petroleum Intelligence Weekly*, 27 March 2006.

Adapting to Market Liberalization

The liberalization of the European gas market has induced (or will induce) a certain number of changes for the traditional suppliers of this zone, changes aimed at securing—or even increasing—their share of the EU market. For Russia, this process of adaptation is formulated around four main axes, some of which are contradictory and contribute to the opacity of the country's gas policy toward Europe.

Industrial strategies

Today, thanks to considerable resources allowing it to be the world's top producer of natural gas, Russia has an export capacity of 197 bcm[15]. At its disposal are two main export networks: one, via Ukraine (140 bcm), branches off in three directions (Germany, Italy, Greece); the other, via Belarus (Yamal-I, 29 bcm), goes to Germany.[16] If it aims to increase its market share in Europe, Russia must increase its transport capacity via new routes, while seeking to diversify their trajectories. This second objective primarily aims to secure exports to Europe and to avoid transiting only Ukraine or Belarus. The Nord Stream[17] and South Stream gas pipelines[18] (if this latter project is confirmed, it would be a substitute for the previously envisaged Blue Stream-II) represent a means to achieve these objectives. To this may be added (but presumably in a more distant future) Yamal-II, which would double-up Yamal-I.

---

[15] See Annex I.

[16] On top of this is the 16 bcm capacity Blue Stream, a pipeline under the Black Sea to Turkey.

[17] The agreement signed in September 2005 between Gazprom, BASF and E.ON allows the opening of a new export route, the North Transgas, towards North Europe (Germany). For the realization of this gas pipeline Gazprom, BASF and E.ON created a joint venture; Gazprom holds 51% of the shares. Gasunie could equally enter into the consortium by swapping shares in the Balgzag Bacton Line (BBL), a gas pipeline between the Netherlands and the United Kingdom. Nord Stream is expected to come online in 2010. Its final capacity should be 55 bcm in 2013 (22.5 bcm in 2011 and 22.5 bcm in 2013).

[18] Following the agreement signed with Eni (June 2007), the South Stream, with a capacity of 30 bcm should, by 2011, allow Russia to supply gas to Bulgaria directly. From there, it would split into two branches, one going to Romania, Hungary and Slovenia, and the other to Greece and then the South of Italy. This project is a direct competitor to Nabucco, initially considered as a means to reduce Europe's gas dependency on Russia and diversify its supply with Caspian and Iranian gas.

Securing export routes also includes acquiring shares in companies that transport natural gas. Thus, in Belarus, Gazprom has acquired 50% of Beltransgaz in exchange for a moderate increase in gas prices delivered to this country until 2011. This model was also followed in Slovakia, but without success. Gazprom had sought to enter the consortium formed by GDF and Ruhrgas which owned SPP, the company that manages the gas pipeline to European markets. It is also meeting difficulties establishing itself in Ukraine, given the conflictual relationship that Russia has with this country.[19] Ukraine, however, remains an absolute priority for Gazprom. Securing export routes also implies the clarification of contractual relationships between Russia and the countries of the CIS and, as a result, their redefinition in monetary terms, as opposed to the barter system inherited from the Soviet Union. With regard to Ukraine and Belarus, this notably requires differentiating between contracts concerning transit (gas destined for Europe) and contracts strictly concerning supply. It would also require the gradual implementation of market prices for transport tariffs and gas prices. The stakes are high for Gapzrom, since it aims to increase the value of its gas exports. They are also high for Ukraine and Belarus; an increase in the cost of their imports could have important ramifications. It would thus raise the issue of present industrial specialization. As for households, their ability to pay significantly higher energy bills clearly poses a social challenge.

Partnership strategies in the context of Europe's downstream market

Gazprom's strategy to move downstream can be understood as a (classic) response[20] to the uncertainties created by liberalization of prices and volumes. The desire to have direct access to consumers (most probably in wholesale markets) is the manifestation of a strategy intended to cover risks linked to duration and clause modifications in long-term *Take or Pay* contracts, the development of spot markets and short-term transactions, as well as increased competition.[21] Liberalization also tends to change the distribution of income in the natural gas chain, generally making downstream activities more profitable. The aim is to recoup the profit margins of downstream sellers (and

[19] A. Dubien, "The Opacity of Russian-Ukrainian Energy Relations," *Russie.Nei.Visions*, No. 19, May 2007.

[20] Numerous studies have underlined the advantages that a policy of "downstream acquisitions" would represent in a liberalized market for oil and gas producers. Cf. notably O. Eikelan, "Downstream Natural Gas in Europe-High Hopes Dashed for Upstream Oil and Gas Companies," *Energy Policy*, No. 35, 2007, p. 227-237.

[21] By modifying long-term contracts (*Take or Pay*), liberalization introduces uncertainty over prices, as the indexation formula may take into account the price of electricity, coal, but also the spot price, if liquidity is sufficient. It also introduces uncertainty over volumes, due to shorter-term contracts (an important factor in creating competition) and the increase in the number of flexible clauses. It is worth noting that the liberalization of markets and the ban of long-term contracts are two separate things, bound only by the fact that the European Commission considers long-term contract to be detrimental to competition.

possibly compensate for the loss of income in upstream activities resulting from increased competition). Thus it may be worthwhile to develop strategies for the takeover strategies of supplier-distributor companies, or to develop partnerships with traditional supplier-distributor companies.

Such a policy is not new to Gazprom. Since the end of the 1980s, it has been leaning in this direction, notably with the creation of Wingas (a joint-venture with Wintershall/BASF). Nevertheless, today Gazprom seems to pursue this aim with fresh vigor. On the one hand, Gazprom clearly shows determination to directly own a considerable share of certain EU markets (over 10% of the French and British markets by 2010, with similar objectives for Italy).[22] Above all, this strategy could take on "new forms," beyond the traditional joint-venture with Gazprom's traditional customers: OMV, GDF, SNAM, Eni, etc. In this last case, Gazprom has essentially been in the mindset of cooperation (not competition) with its historical partners, big European companies that were gas importers (examples include Fragaz, created with GDF, Gasum in Finland, or Panrusgas in Hungary, among others). Today's uncertainty resides in the competitive dimension in Gazprom's relations with its traditional clients, which may be induced by the acquisition of shares in European energy companies (if this policy were conducted on a large scale)[23] and the creation of marketing subsidiaries, notably in France and the United Kingdom. To this day, however, there has not yet been a change in partnership strategies with the traditional operators. In the Baltic, Central European and Eastern Europeans countries, however, the policy of share acquisition in the existing companies has accelerated. Gazprom's aim is clearly to reinforce its market in those countries. As far as the rest of the EU is concerned, this strategy remains extremely limited. No major European company has to this day been bought out by Gazprom, even if the possible acquisition of Centrica in the United Kingdom was once raised.

Commercial strategies: long-term contracts versus short-term sales

The desire to maintain, or even increase, its share of the European market, and thus its export volumes, must also include a strategy for spot or short-term sales, such as those conducted on the British spot market. In Gazprom's particular case, this signifies above all the ability to seize favorable sales terms (when the spot price is superior to the contractual price), rather than to

[22] "Gazexport Marketing and Trading Ouvre une Filiale en France," *Enerpresse*, 3 January 2007; "Gazprom and Eni Sign Framework Deal that Sees Gazprom Enter the Italian Market," *Gas Matters*, November 2006, p. 23.
[23] To this day, the only concrete examples, outside of Central and Eastern European countries of the EU, concern Scottish Power, the acquisition of PNG (Pennine Natural Gas, a distributor) in the United Kingdom, and the British transmitter NGSS (Natural Gas Shipping Services), as well as the agreement signed with Eni on EniPower. The controversy that emerged concerned a possible acquisition by Gazprom in Centrica demonstrate just how much this issue is divisive.

organize a large part of its gas sales to Europe in this way. Indeed, the natural gas company remains committed to long-term contracts for the bulk of its exports, as recent negotiations with GDF, E.ON-Ruhrgas, Eni, and OMV have demonstrated.[24] In the Russian context of considerably lower prices, *Take or Pay* contracts are vital to ensure the financing of the investments necessary to begin large-scale production of new gas regions such as Yamal. Indeed, developing these regions cannot be imagined without the guarantee of long-term deliveries to Europe. It is worth noting that long-term contracts are important for all gas suppliers (and not only Gazprom), due to the scale of investments needed to develop fields and infrastructure. They guarantee deliveries and more or less stable and predictable prices, and thus assured income. This allows for the supplier to plan large investments in the development of new gas zones without considerable risk.

The main clauses of the contract signed in November 2006 between GDF and Gazprom are the following. The present contract for 12 bcm per year of Russian gas delivered to GDF will be extended until 2030, to which will be added an additional volume of 2.5 bcm beginning in 2010, when Nord Stream comes online. The agreement will also allow Gazprom to sell 1.5 bcm per year directly to the French market (which GDF should make retroactive).

Any massive intervention by Gazprom on the spot markets or via short-term contracts risks destabilizing this type of contractual relationship.[25] Having recourse to large-scale sales on the spot or short-term market would be liable to change the established equilibrium between a marginal spot market and long-term contracts, which would provoke the consolidation of European spot markets and the coming of age of hubs as reference markets. The increased competition that such a policy would induce carries the risk of dragging spot prices downward and, as a consequence, lead to the renegotiation of contractual prices that are currently indexed on the price of oil.

Long-term contracts versus downstream acquisitions

Similarly, the strategy of downstream acquisitions presents Gazprom with an operational dilemma, namely, whether it should maintain, or even increase, its contractual relations with traditional customers or develop a large-scale policy of gaining direct access to final consumers instead (which would nevertheless require an investment program in Europe's downstream). The second option could destabilize the contractual relations that Gazprom has already

[24] See Annex II.
[25] D. Finon and C. Locatelli, "L'interdépendance gazière de la Russie et de l'Union européenne. Quel équilibre entre le marché et la géopolitique?" [Gas Interdependence of Russia and the European Union. What Balance Between Markets and Geopolitics?], *Cahier de Recherche LEPII*, EPE series, No. 41, December 2006.

established and intends to maintain with historical partners.[26] If this were to happen, Gazprom's partners might be compelled to reduce their contractual commitment and lobby for increased flexibility in contractual clauses, which would go against Gazprom's strategy. Of course, market conditions—a sellers market versus a buyers market, a growing market versus a mature market—will be crucial in determining the behaviors and adaptation strategies of the actors present therein.

Gazprom's policy of downstream acquisition, but also that of operating short-term sales, notably on spot markets, will remain marginal strategies; they will necessarily be limited so long as the gas company's primary aim is the preservation of long-term contracts.[27] Given the situation of its domestic market and its low profitability, long-term contracts remain essential to maintaining Gazprom's capacity to finance long-term investments.

[26] D. Finon and C. Locatelli, "Russian and European Gas Interdependence: Could Contractual Trade Channel Geopolitics?," *Energy Policy*, No. 36, 2008, p. 423-442.
[27] Gazprom online, 2006.

What Room for Maneuver?

As the large fields that began production under the Soviet Union (Urengoy, Yamburg, Medvezhe) reach maturity, Gazprom faces major decisions concerning the future development of its production. Is it reasonable to predict strong growth in Russian production in the years to come? If yes, then at what rate? Until 2010-2011, production at the "satellites" of the super-giant fields (Zapolarnoye, Pestovoye, Tarkosalinkoye) should compensate for their decline in production. Thus, by 2015, the previously discovered and partly developed fields of Nadym-Pur-Taz (Western Siberia) should just maintain Gazprom's production.

Beyond this date, the number of scenarios increases. New provinces will need to be developed in order to ensure the growth of gas production, first and foremost the Yamal province, or the Barents Sea (with Shtokman). Gazprom's endless hesitation concerning which fields to develop in priority, Shtokman[28] versus Bovanenkov (Yamal province), concerning the development of LNG (to the United States) or all-natural gas (to Europe) of fields such as Shtokman, are manifest of the lively debates within Gazprom's management. They also reflect different visions within Gazprom of the gas industry's development.[29] The massive use of Central Asian gas—according to the agreements signed in 2007, Russia could import 80 bcm of Turkmen gas by 2010, versus 50 bcm today—currently resolves this dilemma. This option allows Russia to supply itself with cheap gas in order to honor its contractual engagements as well as its domestic demand, while postponing the investments necessary to the development of new zones. In 2006, Gazprom supplied 550 bcm of Russia's total gas production of 656 bcm, Russian oil companies and "independent gas companies" (Novatek, Northgaz, Itera) supplying the difference (58 bcm and 47 bcm respectively). Despite the uncertainties manifest in its investment policy, the company maintains that it wants to produce 570 bcm of gas in 2010 and 670 bcm in 2020, by which time total production should reach 900 bcm, according to the Russian Ministry of Economic Development and Commerce. This would represent strong growth compared to Gazprom's previous estimates.[30]

Gazprom strategic choices are contingent on three variables. Firstly, the liberalization of the European gas market makes it necessary for its traditional suppliers to define new industrial strategies. Gazprom believes that

[28] The agreement signed in July 2007 with Total for developing Shtokman seems to pave the way for an exclusive development of this field, even if for now, officially, a 15 bcm production is expected as early as 2011 from Yamal (Bovanenko field).
[29] "Russia's Gas Supply Commitments – Is there Enough for Everyone?," *Gas Matters*, July 2007, p. 2.
[30] Previous estimates by Gazprom aimed at producing 550-570 bcm in 2010 and 580-590 bcm in 2020.

liberalization, if it leads to the negotiation of shorter-term contracts, diminishes its guarantee of markets and prices (due to increased competition), justifying the postponement of investments in fields intended to supply the European market. Gazprom is thus tempted to make the development of Yamal conditional upon the signing of long-term contracts. Another argument to explain Gazprom's wait-and-see attitude to field development is, that in the event of a more significant spot market, Gazprom could be seeking to exert market power by reducing supplies. Given the current state of the European gas market, as well as its foreseeable evolution, this last explanation does not seem predominant, especially since Gazprom has little interest in bolstering spot markets so long as its interest in long-term contracts persists.

The second factor to take into account is that Russia's domestic demand will increase (by about 20% by 2010, according to the Ministry of the Economy and Finance). Nevertheless, significant room for maneuver exists: rationing consumers, in accordance with the current negotiation practices between Gazprom and large categories of consumers, even if the rules (notably contractual ones) are not clearly established.[31] Such a rationale, which requires quantitative management of the Russian gas market, is also manifest in the government's policy of substituting gas with coal for electricity production, and confirmed by Gazprom's investments in the electricity and coal sectors.[32]

Yet another option would consist of large price increases, which the authorities are more or less explicitly considering.[33] The aim would be to see the Russian domestic price on a par with those of Europe (minus excise duties, exportation taxes and transportation costs) beginning in 2011 for the industrial sector.[34] Given the strong social impact this may have, increases for residential customers would be smaller and their introduction deferred. Making good on such a reduction of price differences would be made all the more difficult in the context of a strong increase of the gas price on European markets, as a result of it being indexed on the price of oil. In both cases, such developments would allow a more moderate increase in demand, and possibly even trigger a significant decrease of energy intensity, if prices continue to increase substantially.[35] Such price increases would make foreign markets less attractive, thus diminishing the necessity to export in order to balance the books—both at the level of the Russian state and in terms of Gazprom's own budgetary balance. These various factors could cast doubt on the necessity of a significant increase in Russian gas production.

---

[31] R. Ahrend and W. Tompson, "Russia's Gas Sector: The Endless Wait for Reform?," OECD Economics Department, *Working Paper*, No. 402, Paris, 2004, p. 7.

[32] Gazprom holds 12% of the national electric company RAO-UES. In February 2007, Gazprom created, with the coal company *Siberian Coal Energy* (SUEK), a joint-venture aimed at consolidating their assets in the electricity sector.

[33] "Russia Starts to Reform its Internal Gas Market," *Gas Matters*, October 2007, p. 13-17.

[34] The calendar of regulated price increases for natural gas, adopted on 30 November 2006, forecasts a 15% increase in 2007 and 25% in 2008. In 2009, industries may see two 13% increases, and in 2010 a 13% and then a 12%.

[35] According to J. Stern, a significant price reform would produce a 1% decrease in demand per year between 2010 and 2020. If this scenario is materialized, Russian gas demand would then be 10 bcm less than its 2003 consumption. J. Stern, *The Future of Russian Gas and Gazprom.* Oxford Institute for Energy Studies, 2005, p. 55. Such a development would change the issue of bringing new fields online considerably, and thus the pace of Russia's production growth.

Gazprom's profile in the medium-term ?

Gazprom's move downstream and its strategy with regard to the European market are part of a larger process, namely, the effort to reorganize the whole of the hydrocarbon sector according to the Kremlin's guiding principles.

The link between hydrocarbon companies

The creation of hydrocarbon companies (oil and gas) aimed at ending the system inherited from central planning (with relatively independent gas and oil sectors) is an important aspect of this overall reorganization. With production of 0.92 million barrels per day (mb/day) in 2006, Gazprom has become an important actor in the Russian oil industry, thanks to its purchase of 75.7% of Sibneft, Russia's fifth largest oil company.[36] In terms of production, it has thus placed itself directly behind the main oil companies that are LUKOIL, Rosneft, TNK-BP and Surgutneftegaz. Partnership agreements and the creation of joint ventures with Rosneft and LUKOIL in 2006 have furthered this process. Present throughout the hydrocarbon chain, these notably foresee the common exploitation of fields, as well as the sale of natural gas produced by oil companies to Gazprom.

Such developments go hand-in-hand with Gazprom's uncontested reinforcement of its position as the preeminent company in the natural gas sector. The company now enjoys a monopoly over the exportation of natural gas and LNG throughout Russian territory (aside from the two Production Sharing Agreements of Sakhalin-I and Sakhalin-II). Its acquisition of shares in large "independent" gas companies (Novatek, Northgaz and Itera) and its regaining control over the Kovytka field to the detriment of TNK-BP have strengthened its hold over Russia's gas business.

[36] At the same time, Gazprom also became the owner of 36.3% of Slavneft.

The creation of companies owned primarily by the state

The whole "organizational model" of business property rights and the conditions by which resources are distributed have today been fundamentally redefined in favor of increased state participation. This does not involve the complete re-nationalization of the industry, but rather a new form of public-private, hybrid governance. In spite of the opacity of its shareholder base, with a capital primarily owned by the state (51%), Gazprom illustrates this hybrid nature. Gazprom has also become a majority stakeholder (51%) in the consortium which operates the Sakhalin-II PSA. In such a context, the role of international oil companies in the development of hydrocarbons in Russia is not forbidden, but can only be limited. The recent agreement, signed by Gazprom with Total and StatoilHydro for the development of Shtokman seemed to confirm this, even if the modalities of contractual relationship are far from being clearly determined.[37] On the one hand, Gazprom maintains that it is the sole proprietor (100%) of the field's reserves and production, while at the same time Total would be in a position to secure a percentage of reserves in exchange for its investment.[38]

Gazprom's internationalization

The internationalization of Gazprom rests on three principal rationales. The first consists in attempting to vertically integrate into Europe's downstream gas market, notably via a policy of investing directly in European companies. The second aim is to "globalize" gas exports in order to establish itself in new markets (other than Europe). The markets that are explicitly sought are the United States (with the pre-requirement of developing an LNG capacity), and Asia, particularly China. Lastly, as for any international oil and gas company, it is crucial for Gazprom to increase and diversify its reserves base, in order to maintain a diversified portfolio of activities. Gazprom's investment policy in Central Asia, be it for the development of hydrocarbon fields (the signing of PSAs or the creation of joint ventures with local firms) or the development of gas pipelines, specifically pursues this objective.

[37] This agreement is not in the framework of a PSA but in the creation of a company made up of Gazprom (51%), Total (25%), and StatoilHydro (24%), which would own production infrastructure for 25 years.
[38] Gazprom Online, 2007; "Statoil Fits the Bill for Shtokman," *Petroleum Intelligence Weekly*, 5 November 2007, p. 4-5.

Conclusion

The liberalization of the EU's natural gas market has a direct influence on Gazprom's behavior. Its acquisitions in transportation networks (notably in the CIS) and, more generally, in European companies, reflect the desire to have direct access to European consumers, and thus to preserve its market share. Its commercial strategy to diversify its contractual portfolio while having recourse to spot markets and short-term contracts is also indicative of its strategy of adapting to the European market's liberalization. It shows the beginning of the gas company's internationalization, in accordance with the oil and gas policy of Vladimir Putin, who has sought to endow Russia with energy companies able to compete with the majors.

Today these developments remain marginal strategies, however. This will probably remain so as long as Gazprom remains attached to long-term contracts and to the current setup of Russia's domestic market. Indeed, the low profitability of this market (due to administered prices) explains in large part Gazprom's attachment to long-term contracts. These are necessary in order to finance the investments required to develop new fields. As a consequence, the growth of Russian gas production will not be independent of the institutional modifications of its principal export market, the EU.

Thus understood, the EU Commission's third gas directive's call for *patrimonial unbundling*[39]—which de facto forbids the downstream integration of gas suppliers—could have serious consequences, and push Russia to seek diversification of its exports on a larger scale. The possibility, envisaged by the EU, to negotiate on a case-by-case basis the participation of upstream suppliers in European companies in exchange for access to certain gas fields could be a compromise. It seems that this rationale has already begun to be implemented by European companies.

[39] Editor's note: "Patrimonial separation," advocated by the EU Commission in the framework of the opening up of the energy market to competition, assumes the breaking up of groups that include both electric generation plants and distribution networks (such as EDF, or the German companies E.ON and RWE). Brussels foresees competition remaining on the EU agenda so long as the "new entrants" are excluded from existing networks by current monopolies.

Annex I. Gazprom in the Russian Gas Industry

With a production of 556 bcm in 2006, Gazprom supplies 85% of Russia's gas production, and holds 29.1 trillion cubic meters of proven gas reserves, or 61% of Russia's total proven reserves (47.7 trillion cubic meters). The company, successor to the Ministry of the Gas Industry of the Soviet Union, is a financial holding company with a monopoly on the transport and export of natural gas from Russia. It is 51% owned by the Russian state (compared to 38% in the 1990s). The state's rise in the gas company's capital has come hand-in-hand with the liberalization and harmonizing of its stock. Previously, there was a separation between stock that could be held and exchanged on the Russian market, and those held and exchanged by foreign investors via ADRs (American Deposit Receipts), quoted on foreign stock markets. Since the middle of the 1990s, the company has become increasingly interested in local distribution networks, having acquired stock in these local companies in exchange for the annulment of their gas debts.[40]

Gazprom wholly owns six main production companies (including Urengoygazprom and Yamburggazodobycha). Its production is for the most part (93%) situated in the region of Nadym-Pur-Taz (Western Siberia), and is notably structured around three super-giants (thus named because of their reserves superior to 1000 bcm): Urengoy (producing 125 bcm/y), Yamburg (producing 128 bcm/y) and Medvezhe (producing 20.5 bcm/y). Together, these three fields produce 42.6% of Russia's entire production (and 49.9% of Gazprom's). Gazprom's increased production in the medium-term is today the subject of significant debate. According to its own estimates, its production should be stable until 2010. It is only after 2015 that it should increase, to reach 580-590 bcm in 2020.

The importance of Gazprom within the gas sector has increased in the past two years, in spite of increased production from “independents” and oil companies. In the beginning of the 2000s, the gas company has applied itself to the task of regaining control of certain fields or production companies that had been given up by Gazprom's former management, notably Purgaz (Itera) and Severneftegazprom.[41] This move was followed by the acquisition of significant numbers of shares in the main independent producing companies.

Today, Gazprom aims to go further, and transform itself into a multi-energy company. It is with this objective in mind that the company’s different acquisitions in the oil, coal and electric industries have been made. The

[40] IEA, *World Energy Outlook 2004*.
[41] J. Stern, 2005, *op. cit.* [35], p. 190.

acquisition of a majority of Russia's fifth-largest oil company (75.7% of Sibneft in 2005) marked the beginning of Gazprom's genuine diversification into the oil industry. In this transaction, the company also acquired 36.3% of Slavneft. The strategy is mirrored in Russia’s electric sector, with an integration policy resulting in the purchase of shares during this industry’s privatization and liberalization. In December 2006, the gas company created its own electricity supplier (Mezhregionnenergosbyt). One of the more recent developments is Gazprom's announcement of the creation of a joint venture with Siberian Coal Energy (SUEK), aimed at uniting their electricity assets. Gazprom holds 12% of the national electric company RAO-UES. SUEK, for its part, holds controlling stakes in more than 20 regional electric companies. Moreover, Gazprom's industrial empire is not limited to the energy sector. It is also present in banking, media, agriculture, and construction sectors, to name only a few examples.

Annex II. Principal Long-Term Contracts Signed between Gazprom and National Gas Operators, 2006-2007

- Signing of a protocol (in 2006) with E.ON-Ruhrgas with regard to the importation of 400 bcm between 2006 and 2036. Concerns the extension of the present contract until 2012, an agreement of a new contract for nearly 100 bcm beginning in 2010.

- signing (October 2006) of a 20-year by contract with OMV for 7.5 bcm per year, as an extension of the present contract. Twenty-five percent will be commercialized by two companies, Centrex and Gwh, respectively controlled at 50% and 100% by Russian interests, including Gazprom.

- Renewal with Eni of Russian gas contracts. The signed agreements seek to define a partnership involving asset swaps with Gazprom: 10% participation in EniPower in exchange for shares in a gas field, as well as the creation of a common marketing company in exchange for a share of a gas field.

- Signing with GDF (November 2006) of a contract extending the present one with Gazprom for 12 bcm/y until 2030, which will be added an additional 2.5 bcm per year beginning in 2010, when Nord Stream comes online. The agreement reached will also allow Gazprom to sell 1.5 bcm per year directly on the French market.

- Signing with the Danish company DONG of delivery contract of 1 bcm per year over 20 years.

- Negotiation with Greece of an extension of the present long-term contract until 2040.

Source: D. Finon, C. Locatelli, "L'interdépendance gazière de la Russie et de l'Union européenne. Quel équilibre entre le marché et la géopolitique ?" [Gas Interdependence of Russia and the European Union. What Balance between Markets and Geopolitics*?], Cahier de Recherche LEPII*, EPE series, No. 41, December 2006, 35 p.