Institutional trends in Russia’s oil and gas sectors

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This article analyses Russia’s institutional dynamics in the hydrocarbon sectors. Both the oil and gas sectors have experienced a certain degree of decentralization, which has been accompanied by a weakening role of the State. This comparison aims to demonstrate that Russia’s oil and gas industries are significantly different despite their post-command economy similarities. The opposing institutional trends are related to different centralization–decentralization dynamics, which reflect an ever-changing interrelation between a State and market forces. At the beginning of transition to a market economy, the oil sector was almost entirely privatized and restructured, unlike the gas sector. Since 2003 a market concentration of the oil sector has taken place, with the creation of a national oil company, Rosneft. At the same time, since 2009, the gas monopoly has been under pressure from both domestic and international (mostly European) markets. Likewise, Rosneft has been able to diversify its exports to Asia-Pacific, whereas Gazprom has failed to agree a gas deal with China. Consequently, Rosneft is gaining importance, whereas Gazprom is softening its position in the gas sector, which also creates grounds for (at least a partial) demonopolization of gas exports from Russia.

Introduction

The Russian hydrocarbons sectors are increasing in interest for both potential investors and the energy consuming countries. Russian oil and gas companies now represent the world’s largest reserve owners and they play an increasingly important role in international investment dynamics as well as exerting significant influence upon Russian domestic and foreign policy. However, it is striking that since the breakup of the Soviet Union, Russia’s oil and gas sectors have behaved in opposing ways. In the period of 1992–2003, the Russian oil sector was largely dominated by the markets, while the gas sector remained under a vertically integrated structure. In turn, since 2003 a market concentration of the oil sector has been observed, whereas the gas monopoly has been under pressure from both domestic and international markets. Interestingly, since the transition to a market economy, Russia’s oil and gas sectors have followed divergent pathways, despite a number of common structural features of post-command economy hydrocarbons: strong State influence, top-down market design, dependency on complex pipeline infrastructure for shipment of commodities, high energy intensity and a significant dependency on export revenues. The distinction between the institutional dynamics of the

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two sectors helps to demonstrate important differences within Russia’s energy sector and
their impact on oil and gas supplies to Europe.

Indeed, the opposing trends are related to different centralization–decentralization
dynamics, which reflect an ever-changing interrelation between a State and market
forces. Here, centralization would be defined by growing public intervention in the
sector, whereas decentralization is characterized by a domination of market forces.2
Centralization and decentralization are never absolute, but rather a conceptualization
of the general trend within a sector towards the greater or lesser role of a State’s inter-
vention in a market. The schematization of the centralization–decentralization dynamics
allows for the crafting of significant differences between the institutional settings of the
two sectors. Indeed, Russia’s oil sector has experienced a move from decentralization to
centralization, whereas the gas sector exhibits the opposite trend from centralization to a
relative decentralization.

A practical impact of the opposing centralization–decentralization trends in Russia’s
oil and gas sectors may lead to a further reinforcement of the national oil giant Rosneft,
whereas the gas monopoly Gazprom is losing its position both domestically and abroad.
Considering the high level of securitization3 of the Russia–European natural gas trade, in
contrast to oil,4 this new trend may constitute grounds for the de-politicization of energy
relations between East and West. For instance, decentralizations trends within Russia’s
gas sector are grounds for a discussion of the possible liberalization of the gas exports
from Gazprom’s monopoly. In contrast, Rosneft’s alliance with BP implicitly reinforces
the trust towards Russia’s State-owned oil company. In the meantime, Rosneft is prac-
tically becoming a classical national oil company, like those to have emerged in the
Middle East, China and Latin America. In this context, reinforcement of Rosneft consti-
tutes a challenge for Gazprom’s traditional domination of the political scene of the
country.

Russia’s transition from command to market economy and the impact on
hydrocarbon regulation and management

In order to assess post-Soviet institutional dynamics in Russia, it would be useful to
understand the very nature of command economy institutions in the energy sector. It is
noteworthy that the Russian energy sector displays characteristics specific to State–market
relations, which stem from a command economy, where the State controlled the overall
economic process. Many of the features have remained and therefore the presence of the
State can still be considered to be very important. In particular, post-command economy
legacies can be observed in the formation of hydrocarbon companies as well as in the
regulation of access to energy resources. In other words, the influence of the State stems

1 S Strange, States and Markets (Pinter Publishers 1988).
2 J Hawdon, Emerging Organizational Forms: The Proliferation of Regional Intergovernmental Organizations in the Modern
World-System (Greenwood Press 1996).
from command economy institutional legacies. Nevertheless, important differences between the oil and gas sectors have remained throughout the last two decades.

**Formation of hydrocarbon companies**

The institution of companies has been absent from the command economy. All segments of the energy production chain, from upstream to supply, have been submitted to management by State agencies. Considering the scale of the country, important regional institutions were created in order to maintain continuous long-distance production, transport and supply schemes. Therefore, the segments of the hydrocarbon sectors were not attached to any capitalization principle, unlike, for example, State-owned companies in State-capitalist societies. Evaluation of deposits has been defined in accordance with purely geological classifications, which does not take into account direct profitability of production. The pipeline network in the Soviet Union and then in Russia represents the world’s widest network, which has been designed to supply rather than to market the commodities in question. Refineries were attached to a particular supplier region, uninfluenced by any possible market interaction (i.e. getting crude from somewhere else). Distribution of both gas and oil products was organized under a systemic cross-subsidy regime. Therefore, the profitable exports indirectly subsidized domestic capital-intensive investments.

Since the collapse of the Soviet Union, Russia made a commitment to implement significant market reforms, which consisted in commodity price liberalization as well as in large-scale privatization. For this purpose, State agencies were restructured into companies that were subsequently privatized. And, as will be observed later, following the collapse of the USSR, Russia opted for a deep restructuring of the oil sector, whereas the gas sector remained under a vertically integrated monopoly.

The management mentality remained very much that of the State ministries, with a high level of opacity especially in relation to revenue and the various environmental impacts of industrial activity. Non-transparency reinforces political leverage of the State over industry (private or public).

The most interesting example is the Russian gas company, Gazprom, which has been functioning under a regime of ‘natural monopoly’. In this case, the term ‘natural monopoly’ signifies a sector where competition is restricted. Indeed, the entire gas sector was thereby defined as a natural monopoly and not only its transport segment. Such an approach actually means that the natural gas sector in general represents a segment of the economy, where competition is unnecessary.

Last but not least, the supply logic of the command economy required large-scale pipeline development. Both the oil and the gas pipeline networks are the world’s longest, with average shipments of 2,000 km and subsequent significant transportation losses. Pipeline networks were managed by a Ministry responsible for oil and gas construction (Minneftegazstroy), which was further restructured into a State-owned company. Considering that the pipeline business remained unprofitable, it was also exempted from any possible privatization. At the same time, the geographical direction of the pipelines determined the potential export lines. As most of the pipelines were built
westwards, Russian companies found themselves in the position of locked suppliers to Europe. Therefore, diversification towards Asian markets has been an important business priority for Russian energy undertakings.

**Licences and access to upstream**

A number of interesting studies have been issued regarding access to Russia’s upstream. One of the main issues is that the Soviet classification of upstream reserves was based on a geological analysis of deposits. Deposits were separated into four groups in accordance with the geological capability to extract them. This impacted on the very definition of property rights for the deposits, which were not defined in accordance with the market value of the reserve. Russia does not recognize a licence to be a property right, so licences can therefore easily be revoked. The institution of licence allocation and revocation in Russia clearly differs from the international situation, where a court ruling is necessary to terminate a relationship with a licensee. The system of allocation of strategic reserves to Gazprom reflects this particular attitude towards property rights.

Later, in 2009, Russia introduced the Strategic Sector Law, which in effect allows a large exemption from the National Regime in the upstream sectors. Russia’s recent Strategic Sector Law places important restrictions on the rights of both foreign companies and Russian companies with any foreign investment (State-owned companies Gazprom and Rosneft are exempted), regardless of the size of the investment, to what are termed ‘subsoil blocks of federal significance’. Amendments to the Russian Subsoil Law provide criteria to determine whether a particular subsoil block is deemed to be a subsoil block of federal significance. These criteria include the type of reserves, the volume of certain reserves as registered on the State balance and the location of the subsoil block. Decisions granting rights to deposits of federal significance are taken solely by the Russian government. If a subsoil user, who is a foreign investor or a Russian legal entity with foreign equity investment, makes a discovery of a deposit that is deemed to be of federal significance, the government may refuse to grant the right to use the deposit for exploration and production or, if the licence is a combined licence, it may terminate the right to use the deposit for exploration and production, on the grounds of a threat to national defence and security.

This issue of access to upstream resources clearly demonstrates that the issue of control over natural resources has remained an important strategic issue, elevated to the level of national defence. Alongside the post-ministerial structure of companies, the institutional structure of both the oil and gas sectors has subsequently been characterized by a strong State involvement. However, important differences between the oil and gas sectors need to be outlined in order to better understand the mid-term perspectives of both sectors.

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Although the State has played an important role in both cases, the interrelation between political and market powers have been different.

**The oil sector’s institutional dynamics**

The decentralization of the oil sector was witnessed almost immediately following the dissolution of the USSR in 1992. The oil sector was unbundled from production, supply and transport, and newly emerging regional oil companies were largely privatized. Pipeline capacity management remained the key segment for successful domestic markets and exports. Although a State monopoly was maintained, private pipelines have been possible under Russia’s legislation. Oil product markets in Russia remained under a vertically integrated framework, which stimulates the price without stimulating efficiency. Below, the decentralization–centralization dynamics of Russia’s oil sector are demonstrated.

**The oil sector unbundling and fragmentation 1992–2001**

In 1992 Russia’s oil production and supply were unbundled from the transport sector, the majority of which was privatized. Privatization was, however, opaque and clearly directed by the Ministry of Heat and Energy, directed by M. Lapoukhin. The latter favoured the emergence of regional mid-sized private companies. Subsequently, a large number of companies emerged: Lukoil, Yukos, Sibneft, Sidanko, Onako, East Siberian Co, Tatneft, Rusneft, Bashneft, Surgutneftegaz and TNK. The only State-owned company, Rosneft, represented an average of only 15 per cent of the national oil production output during the 1990s.

In addition, there were about 12 smaller private companies, holding insignificant shares of national oil production. These small companies appeared to be unable to attract credits and foreign capital and their investment capacities have therefore decreased sharply. Hence, oil production decreased significantly as well: in 1998 it represented about 59 per cent of its 1990 level. In the meantime, Russian GDP lost about 40 per cent between 1991 and 1998.8 The oil product supply market has been liberalized since the early 1990s; however, most of the firms have kept a vertically integrated relationship between the field and a refinery. At the same time, domestic oil product prices increased significantly and were not subject to any national cross-subsidy policies.

Only since 1999 has an increase in oil exploration and production been observed, alongside a trend towards acquisitions and mergers. Hence, one can claim that a process of centralization in the oil sector has started to take shape since the 1999–2003 period. In particular, the private companies Lukoil, Sibneft, TNK and Yukos started to evolve towards national majors with an average of a 20–25% share of national oil production. Rosneft lagged behind until the takeover of Yukos in 2004. Indeed, with the oil price increases, which have occurred since the late 1990s, a process of consolidation of oil assets has started to take place.

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8 Cf TEK statistics and data provided by the Ministry of Energy (2003) for the ‘Energy Strategy up to 2020’. 
Centralization process since 2001

Russia’s success story in the oil sector has been reflected by Yukos. In 2001, Yukos successfully purchased the Lithuanian refinery Majeiku Nafta and made itself sole crude supplier to the refinery. Moreover, Yukos accelerated its international acquisitions. Last but not least, Yukos made agreements with ExxonMobil on upstream development and with China on crude supplies. This led to an important disagreement with Russia’s authorities, who were keen to maintain control over both production and exports. In practice, Yukos would allow ExxonMobil to export oil directly to China, bypassing even the oil pipeline operator Transneft (see below). Hence, following accusations of tax evasion by the Russian authorities, a daughter company of Yukos, Yugoneftegansk, was taken over by the Baikal group and then resold to Rosneft in 2004. It could be demonstrated that the takeover of Yugoneftegansk by Rosneft had a positive effect on the production rate of the former as it increased from 900 thousand barrels per day (bpd) in 2003 to 1400 thousand bpd in 2007. However, international shareholders of Yukos are currently suing Rosneft in an international investment arbitration and are claiming an expected revenue loss of about US$ 100 because of the creeping expropriation. The case is still pending and represents a serious challenge for Rosneft’s international reputation.

Real consolidation of Rosneft continued rather after 2010, when the company started to make agreements with international companies, including the aforementioned ExxonMobil. Indeed, since the takeover of Yugoneftegansk, Rosneft controlled more than 30 per cent of national oil production and became one of the world leaders in oil reserves (although under Soviet classification). In addition, Rosneft’s international agreements with multinational oil companies aim rather at reinforcing its legitimacy before international investors.

The main target of Rosneft has been TNK-BP. In the early 2000s, a dynamic regional company TNK acquired two medium-sized companies (Onako and Sidanko) and hence became an important national player. In turn, the dynamic company was under close scrutiny by a multinational giant, BP, which proposed a consortium, later named as TNK-BP. Created in 2001, the Anglo-Russian company represented the most innovative and the fastest growing Russian oil company. In turn, Russian assets remained the largest in relative terms for BP. The company TNK-BP existed until 2012 in the context of a permanent divide between British and Russian shareholders. In 2011, BP concluded an agreement with Rosneft to explore Russian Arctic seas oil, which was vetoed by their Russian partners from TNK. A significant legal conflict led to the Rosneft-BP agreement on the Arctic being blocked. In order to break the deadlock, Rosneft concluded an asset swap agreement with BP and purchased TNK’s shareholders’ interests. Hence, since 2012 Rosneft has become by far the largest oil producer and supplier in Russia, controlling almost a half of national oil production.


10 The case is listed among the ongoing ECT investment arbitration, cf www.encharter.org.
The move increased the political relevance of Rosneft domestically. Since the purchase of the TNK-BP company, Rosneft has gained a quasi-monopoly in the production segment and is the largest export supplier. Considering that the Director of Rosneft is the third most influential political man in Russia, I. Sechin, Rosneft thus becomes a key player in the access to new fields.

**Access to pipelines**

It is noteworthy that Russia’s oil sector was unbundled between production and supply on the one hand and transport on the other. The unbundling stimulated relatively competitive internal oil and oil product markets. Access to pipelines remained crucial for the long distance shipment of oil from upstream to the export terminals and export pipelines. An average shipment length by Russian pipelines is about 3,000 km. The world’s longest export pipeline (approximately 5,500 km), known as ‘Druzhba’, was inaugurated in 1965. The ‘Druzhba’ network was initially designated to supply East European markets, therefore it has a telescopic structure: the further west it goes, the smaller the diameter of the pipeline, with diminishing capacity:

- The northern Druzhba pipeline has a capacity of about 1.38 mbbl/day at the Russian-Belarus border, which is decreased to 0.7 in the direction of Plock in Poland and 0.4 in the direction of Germany (the former GDR).
- The Southern Druzhba line has a capacity of about 0.5 mbbl/day in the direction of Ukraine, which further decreases in Slovakia (0.22), Czech Republic (0.08), and finally in the other branches (Adria) Hungary and Croatia to 0.2.

The reason for this lies in the fact that the Soviet Union preferred to limit oil supplies to its satellite States in Central and Eastern Europe. Since the collapse of the USSR, Russian oil companies have preferred to orient oil sales to Western Europe and have therefore redirected crude from export pipelines to oil terminals. Significantly, oil exports via ‘Druzhba’ have significantly decreased, whereas oil exports via terminals providing better elasticity for suppliers have increased.

The Post-Soviet pipeline company Transneft inherited the pipeline network located within the Russian Federation. Since 1992, Transneft has been regulated by the Law on Natural Monopolies, which are defined (in Russia) by strategic State enterprises. On these grounds, Transneft was practically exempted from the privatization process. The State (Rosimushestvo) holds 75 per cent of the company, while the rest was attributed to the ‘preferred shares’. Shares of Rosimushetvo cannot be privatized. Access to networks has been organized on a rather competitive pro-rata basis. This means that every company gets a share of exports within the Transneft system in accordance with its level of production. This stimulated large companies to purchase shares of exports from the smaller ones, who did not have the financial capacity to make long distance transactions. This system avoided discrimination against the smaller players and hence stimulated a

decentralized oil sector. In the 1980s a pipeline network was built in Kazakhstan, which holds important production sites in the Northern part of the country. A pipeline from production sites in the Caspian Sea (city of Guriev, which is now Atyrau) to the Volga region was built in order to connect to the ‘Druzhba’ trunk pipelines. Since the dissolution of the USSR and Kazakhstan’s subsequent independence, the Atyrau-Samara pipeline serves to transit Kazakh oil via Russia to the European markets.

Although most of the oil shipment is managed by Transneft, Russian legislation does not prohibit the construction of privately owned pipelines. Indeed, in 1997, a private Caspian Pipeline Consortium (CPC) was set to ship oil from Kazakhstan to the Russian Black Sea coast without passing through Samara. CPC was constructed under a specific agreement between Russia and Kazakhstan to open a joint consortium for pipeline management. It is important to note that once a State negotiates a preferential investment agreement, it must commit to the possibility of a private pipeline. Now, both Kazakhstan and Russia are minority shareholders of the pipeline. Unlike the existing Transneft network, the CPC oil pipeline is considered to be a profit tool, leading to special agreements and strong commercial commitments. At the same time, commercial consortia are operators of these projects. Access to a pipeline is defined by political intergovernmental agreement and implemented by the consortium. Regulated tariffs have been more competitive than the CPC, which experienced difficulties in attracting oil producers to ship the oil.

Since the early 21st century, the Russian authorities have avoided the development of export pipelines owned by private companies. Lukoil proposed the building of a major private export pipeline reaching to the port of Murmansk near the Barents Sea. However, it could not obtain a licence for construction of its own export pipeline. For similar reasons, Yukos would not have been allowed its own export pipeline to China. The difference is that Lukoil adapted to the new political doctrine of export control, whereas Yukos attempted to challenge it. A takeover of Yukos by Rosneft reinforced the doctrine and provided a ground for Transneft to keep control upon oil exports. Likewise, the CPC became the last privately owned pipeline, as the Russian authorities did not favour the development of privately owned pipelines. Only Rosneft was allowed to build a pipeline to China’s Daqinq. The trend towards tightening control over the pipeline shipment has coincided with the acquisitions and mergers process, which has been taking place since the early 2000s.

**Export diversification**

Since the early 2000s, China and Japan have competed for oil supplies from Russia. Both States have seen fast growth in energy demand and therefore wish to see the installation of oil pipelines to the Russian Far East. For Japan, the priority project was the Baikal-Nakhodka pipeline, which terminates at the oil terminal Nakhodka (next to Vladivostok) on the Russian Pacific coast. Importantly, the crude supplied through

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this pipeline would supply Japan and its closest allies in the region (namely, South Korea and Taiwan).

China, which aims at developing a wider refining industry, preferred to import Russian crude directly through a pipeline, without passing through Nakhodka. In particular, China’s refinery in Daqing (North Eastern China) would be the most appropriate place of import.

From the Russian side, the initial idea to ship Russian oil to the Chinese refinery of Daqing came from the Yukos CEO, Khodorkovkslyi. Yukos preferred to build a private pipeline. However, the project was not implemented for a number of political reasons. Indeed, the Russian State did not wish to lose control over oil flows to China via a private pipeline.

In the aftermath of the Yukos take-over by Rosneft in 2004, the pipeline operator Transneft initiated the construction of the Baikal-Nakhodka pipeline, which is designed to connect Eastern Siberia with Russia’s Pacific coast. The pipeline’s capacity is planned to be approximately 50 million metric tons per annum, which is more than 10 per cent of overall Russian oil exports. Strategically, the pipeline allows for the transport of crude to Japan, Korea and even the USA through the Pacific Ocean. As a result, China’s authorities lost the opportunity to construct the Russia-Daqing pipeline. In the meantime, a proportion of oil shipments to China has been managed via the railway network.

However, in 2009 Russia’s State-owned oil-producing company Rosneft decided to forge agreement with China on the construction of a branch pipeline from Baikal-Nakhodka (point in Dzhalinda) to Daqing. A consortium agreement has been concluded, and includes the Russian pipeline operator, Transneft, the oil producing company, Rosneft, as well as PetroChina, from the importer side. The new pipeline capacity is much larger than that of Baikal-Nakhodka.

By 2011, Transneft had not found oil suppliers for the pipeline to Nakhodka. In contrast, Rosneft had been already providing volumes to China’s branch. A question arises in this context: why has Russia’s most strategic pipeline to the terminal Nakhodka on the Pacific been outgrown by the pipeline directed to the Chinese refinery? The reason lies in the availability of both supply from Rosneft and demand from the refinery in Daqing. The pipeline to Daqing got broad support from the Chinese side, not least because China is financing a much larger proportion of the infrastructure: about 72 km are in Russia whereas 927 km are in China. Hence, we have a supplier and a buyer at the same time to implement the agreement. The Baikal-Nakhodka pipeline is, in contrast, financed purely by the pipeline operator Transneft and only after the completion does it need to find suppliers. The company increases tariffs on all shipments through Russian territory in order to finance the pipeline but this strategy does not guarantee that actual shippers will use Nakhodka for their exports.

Capacity limits of the telescope-down pipeline directed towards Europe as well as congestion problems at the Turkish Straits along with the commingled stream operation of Transneft make the Eastern direction attractive for Russian companies. Then, Russia’s

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14 Xinhua, March 2011.
oil diversification strategy has been dependent on the economic rationale, which played in favour of the pipeline to Daqing.

**Dynamics of the gas sector**

The gas sector has followed a very different institutional dynamic. In the mid-nineties, an unbundling of the gas sector would have been an exception worldwide so therefore Russian reformers did not think of unbundling the gas sector. Moreover, a negative experience with the decline in oil production decline prompted the Russian authorities to maintain vertical integration within the gas sector. In the meantime, the gas monopoly Gazprom started to achieve an important political dimension, becoming Russia’s largest undertaking. Nevertheless, since the late 1990s, the international gas markets are being challenged. New contractual relations are emerging alongside more liquid markets. In this context, the Russian production capacities are being challenged due to the higher long-term marginal costs for gas exports. In addition, gas exports are highly dependent on pipelines, which significantly decreases export elasticity compared to the LNG supplies.\(^{15}\)

At the same time, Russia is experiencing challenges in diversifying its gas exports from Europe to Asia.

**Gazprom’s vertical integration**

Once the process of transition from command to market economy started in 1992, a Joint Stock of the gas sector Gazprom was created and proposed for partial privatization. The then head of Gazprom, V. Chernomyrdin, refused to unbundle production from transport and insisted on the vertically integrated structure of the company. Curiously enough, when V. Chernomyrdin later became a Prime Minister, he was responsible for widespread restructuring and privatization reforms in other economic sectors. Nevertheless, he firmly believed that the gas sector should be largely exempted from a restructuring from production, transport and supply. It is noteworthy that since Chernomyrdin’s period in office, Gazprom has been a crucial political player, keeping close ties with Kremlin officials.

It would be misleading to define Gazprom as a purely State-owned company. Instead, State control over the sector has been rather recent. Indeed, in the early 1990s, Gazprom was largely privatized, but the State remained the largest relative shareholder with 36 per cent of shares. Foreign (non-Russian) investor participation was then limited to 10 per cent. Therefore, a specific notion of control co-exists with the very specific definition of ‘natural monopoly’. In other words, the State exempts Gazprom from the National Regime for foreign investors in order to keep control over the company. Gazprom maintained a vertically integrated structure from production to supply. However, in 1996 a transmission company, MRG, was established as a main wholesale gas supplier in Russia.\(^{16}\) MRG remains 100 per cent owned by Gazprom and its management remains highly dependent on Gazprom. Retail sales have been concentrated within regional gas


supply companies, which also belong to Gazprom. Since 2007 Gazprom has been attempting to elaborate an electronic trading platform, which would create a ground of a more liquid competitive domestic market. Nevertheless, plans are constantly being postponed in spite of a certain level of decentralization in the sector, which will be described below.

Since the end of the 1990s, State–Gazprom relations have evolved towards higher levels of politicization and a subsequent partial nationalization of Gazprom. Furthermore, with trends in Russia’s political economy demanding higher efficiency, features of competition have also started to emerge within the gas sector. Prices to domestic markets remained under the ‘cost+ approach’, which exempted the sector from any market-based prices. A large-scale connection to natural gas supplies further reinforced a dependency of industrial and residential consumers on the gas supplied by a single supplier. Hence, the issue of price increases within the monopolistic structures of Gazprom became an important political issue and therefore any price reforms were difficult to implement. In this context, Gazprom became both a guarantee supplier and a shipper of the gas in the Russian domestic markets. Gazprom is still very dependent on the political vision of Russian government, which complicates any process towards competitive markets. Subsequently, internal gas markets did not become a competitive segment, similar to the domestic oil product market.

The process of centralization accelerated in the mid-2000s. In 2005 a partial nationalization of Gazprom occurred. The State bought up to 51 per cent of the shares, which led to total governmental control. At the same time, a limitation on foreign investments has been *de jure* abandoned. Nevertheless, Gazprom used its status as an export monopoly and subsequently imposed itself in the large-scale production and sharing agreements of gas exploration in Sakhalin and Kovykhta. On these grounds, it can be stated that Gazprom represents a major input to the whole regulatory structure of the gas sector. Gazprom has been able to impose itself as the key lobbyist of the gas sector and hence could have influenced the legislative trend. Close relations with the political class have also impacted on the company’s legislative preferences. In 2006, Russia legalized the export monopoly. Since 2006, all export of natural gas and even of liquefied natural gas (LNG) has been subject to full monopoly by either Gazprom or its daughter companies. The development of LNG markets has mainly influenced Gazprom’s wish to introduce tighter control over exports. The export monopoly allowed Gazprom to gain control over large-scale upstream gas production and sharing agreements concluded with international majors.

Nevertheless, recent dynamics in the gas sector reflect a growing discrepancy between new economic challenges and the specific post-Soviet institutional structure. Gazprom is becoming the largest investor in capital-intensive projects, which clearly weakens its domestic and international competitiveness. In 2011, Gazprom’s investment plans altogether accounted for $41.4 bln (excluding Gazpromneft and some of Gazprom’s

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subsidiaries). No energy company in the world has ever attained such figures. Apart from new upstream developments in the Yamal region, Gazprom is increasingly involving itself in a power generation business; about 60 per cent of the amount is allocated to the transport segment (new pipelines, modernization and maintenance of existing networks in West Siberia and West Russia).

**Challenges in the domestic markets: trends towards decentralization**

Although all the transport networks, most of domestic supplies and exports are monopolized by Gazprom, the monopoly does not have full control over production. During the two last decades, the share of non-Gazprom production increased from 2 per cent to 20 per cent within the national domestic production. The largest independent gas company Novatek plays an increasingly important role in the gas supplies to the liberalized power sector. Moreover, non-Gazprom production of natural gas is primarily concentrated in the oil companies: Rosneft, Lukoil and TNK-BP. Only Rosneft has 2 trillion cubic metres of gas reserves, with the economic potential to produce up to 50 bcm per annum, or about 10 per cent of total gas production in Russia. After its acquisition of TNK, Rosneft has clearly become the second gas producer in Russia. Although Gazprom maintained its vertically integrated structure, Russian gas regulation includes Third-Party Access, which was introduced back to 1997, one year before the first EU gas. Nevertheless, Gazprom’s daughter company, MRG, usually limited access to the networks either due to available capacities or the different calorific value of the gas produced by independent producers. The most significant restriction to competition lies in tariff structures and access regulation by Russian authorities. Russia does not have an energy regulator, hence all the access issues (ie discrimination, non-transparency about available capacity in networks) lie within the competence of the Federal Antimonopoly Service (FAS). Importantly, the FAS played a significant role in pressuring Gazprom to open up norms for access to networks. Nevertheless, tariff setting is the responsibility of the Federal Tariff Service (FTS), a separate agency from FAS. The FTS tends to establish prices, which reflect the social needs of the country on the one hand and average production costs on the other. Tariffs for supply of gas are set in consultation with Gazprom. Hence, FTS may propose a tariff, which is still uninteresting for independent gas producers, although they can obtain access to the market through the FAS. In any case, FAS is now becoming an important challenger to Gazprom’s domination of the internal market.

However, the process of decentralization is now occurring at the level of export monopoly. Curiously enough, Novatek got its first export contract without losing ownership of its own gas, which might signify an implicit demonopolization of the export business of Gazprom. Moreover, Rosneft has often accused Gazprom of blocking access to networks. A contradiction between the two State-owned companies reflects a non-harmonious approach of the State-owned companies to the regulation of gas exports. Potentially, Rosneft could pretend to have a share of gas exports to Europe. On these grounds, the

18 Data of Troika Dialogue, Moscow, 2008.
Ministry of Energy has already started discussions on the possible opening up of the export monopoly, especially for LNG. Considering Novatek’s export contract, LNG might not be the only object of a partial demonopolization.

**Export policies 1992–2007**

Growing gas demand in Europe since the mid-nineties stimulated Gazprom to increase its exports and to further purchase gas from independent producers (often the oil companies) as well as from Central Asian suppliers.

Table 1 demonstrates serious concerns, which existed at the beginning of 2000s, about the possible insufficiency of Gazprom’s gas to fulfil European long-term gas demand. In turn, this stimulated long-term agreements, which Gazprom has been concluding with the European gas retailers. Gazprom’s export practice contains a package agreement, which includes both supply and transport capacity. With a duration of 15 years, Gazprom’s contracts include rigid take or pay provisions, covering at least 85 per cent of supplied volume. In addition, Gazprom, considered that competition for access to infrastructure should not create a mismatch between a contract for supply and a contract for infrastructure usage. In the long-term contracts concluded between Gazprom and the transit States, capacity is controlled by the gas shipper. For example, Gazprom concluded long-term contracts with Poland, where it controls 100 per cent of transport capacities in the direction of Germany. Consequently, if in the future Poland wants to switch supplier, it would then have to consult with Gazprom. Gazprom’s logic in reinforcing long-term capacity contracts arises from its concern about the potential discrepancy between long-term contracts for supplies and short-term agreements for transport capacity.

Nevertheless, since the early 2000s, growing competition in domestic gas markets has been observed and in addition, the overall landscape of the European gas market has changed. Instead of being in gas deficit, Europe now has a gas surplus, thereby challenging the overall situation of Gazprom. Stagnation of demand is coupled with increased competition from LNG, which complicates the position of traditional long-term suppliers. In addition, growing gas-to-gas competition practically removes the rationale of gas-to-oil price indexation, which was historically used by Gazprom. Consequently, Gazprom’s contracts became subject to potential revision. Major gas companies (Italian Eni, German Eon and Polish PGNIG) have filed arbitration cases against Gazprom in order to challenge the existing long-term agreements and pricing mechanisms.

Table 2 also demonstrates a stagnation of Gazprom’s exports to Europe. It is also remarkable that Gazprom participates in European gas deliveries through its European daughter companies, which are reflected in Table 2 as ‘other deliveries’. Hence, although

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the long-term contracts are now challenged, Russian gas producers are not uninterested to participate in the hubs. And this situation creates a coincidence of interests between European gas companies and Russian independent (read non-Gazprom) producers, as the former would like to see a larger supply choice, whereas the latter wish to get a share in European markets.

Gazprom’s response: diversification in Asia

In this context of decreasing profitability in the direction of Europe, diversification towards Asia seems to have become the key priority for Gazprom. In addition, it should be mentioned that European markets are mature and do not create an opportunity for further demand growth. Nevertheless, supplies via pipelines to Asia bring an important challenge to the region, which is mostly dependant on LNG. A trend towards more liquid LNG markets may then further delay Russia’s gas exports to China.

Table 1. Earlier forecast for supply–demand trends in Europe

| Russian gas exports 1.9.2000 (outside the Community of Independent States (CIS)): | Current EU demand: 338 bcm |
| Production: 550 bcm | Dependency rate: 40% |

| Russian production estimates | EU demand and dependency estimates: |
| Official estimate for 2003: 655 bcm, for 2020: 700 bcm per year. | EU official estimate for 2020: from 479 to 697 bcm, and the dependency rate increases to 60%. |
| | US Energy Information Administration: 773 bcm per year. |
| | Eurogas: 518 bcm |
| | Decrease in EU gas production by 30% by 2020: from 204 to 140 bcm at that time, long-term contracts: Russian gas imports increase from the current 50 to 75 bcm in 2020, Norwegian from 33 to 66, Algerian from 35 to 45. The EU would face a large gas deficit. |

Source: Fortum (Helsinki), 2000.

Table 2. Gazprom’s exports to Europe 2007–2011

| | 2007 | 2008 | 2009 | 2010 | 2011 |
| Exports in bcm | 153 | 160 | 148 | 139 | 150 |
| Other deliveries (hubs) | 16 | 8 | 7 | 10 | 9 |
| Price in USD per MMBTU | 7.6 | 11.6 | 7.3 | 8.5 | 10.8 |

Source: Gazprom Germania (presented in Tallinn 2012).
Since the mid-2000s, Russia’s Gazprom and China’s CNPC have been negotiating the possibility of a gas pipeline from Siberia to China. Nevertheless, negotiations are currently stuck due to the price issue. Although details of negotiations remain confidential, it is commonly known that Gazprom would like to have an agreement on sustainable volumes and elevated price, which the Chinese counterpart is not yet ready to conclude. This is particularly difficult in the context of the falling LNG prices.

It was only in early 2011 that China and Russia came to an agreement on the political level, leaving (as usual) details to be agreed by the gas operators. In general terms, Russia is ready to supply up to 60 bcm (more than a third of exports to the EU) to China. Success of the pipeline largely depends on the willingness of the gas operators to implement the political agreement.23

Consequently, Gazprom did not win an option to export gas to China, whereas its positions in Europe are being weakened. In turn, this creates a long-term issue for Gazprom on its adaptation to the most profitable markets in Europe. The picture depicted is the opposite to that of Rosneft, which enabled Asian exports of oil. Hence, Gazprom remained dependent on European markets and is increasingly forced to consider market changes in its western direction of exports.

Conclusion

Russian institutional dynamics demonstrate a trend where the oil sector is progressively grouped within an emerging national oil company, whereas the former ministerial structure of Gazprom is challenged in both domestic and external markets.

The national oil company concept is rather different from the former Ministry institutions. In spite of initial difficulties in Russia’s oil sector related to the production decline in the 1990s, Rosneft is now becoming the most profitable undertaking in Russia’s business landscape. Its merger with TNK reinforces both its domestic and international positions. Moreover, the centralization of the oil sector has accelerated Rosneft’s interest in exporting gas to the world markets. Rosneft has been successful in export diversification to Asia. Export diversification to the Asia-Pacific is a policy priority for Russia in the mid-term period. At the same time, short-term economic profitability, coupled with significant capacity restrictions in exports to Europe have enabled pipeline construction to Asia to be reinforced. Moreover, the pipeline to Daqing has gained in importance, competing with the one to Nakhodka. Indeed, China’s oil hunger creates a stable ground for Russia’s supply. Although the pending Yukos arbitration represents a serious challenge to Rosneft’s reputation, international companies are still keen to conclude agreements with the Russian giant. Indeed, the recent swap with BP reinforced Rosneft’s international reputation. At the same time, a weakening of Gazprom’s position can be observed, and can be defined as a process of (albeit far from absolute) decentralization of the sector. Challenges in the gas markets reflect two opposite priorities, which often co-exist in the gas markets: an efficiency-driven push for competition and

23 Xinhua, March 2011.
a long-term stability required for the pay-back of the supply chain. This duality reflects the transition process in Europe and Russia. The Russian gas sector is kept within the logic of supply stability within Gazprom. Competition is viewed as a partial substitute, which helps to ensure gas supplies at the domestic level. As far as strategic supplies for exports are concerned, Gazprom prefers to keep a monopoly. Nevertheless, it is challenged by both European undertakings and domestic competitors, who wish to see the demonopolization of Gazprom’s exports. In this context, Rosneft might become an important challenger for Gazprom’s export monopoly, although nothing changes in terms of the State ownership upon export. The difficult situation for Gazprom also changes governmental priorities regarding support of Gazprom’s exclusivity on gas exports. Recently Novatek concluded its first long-term export agreement, whereas the government is seeking ways to liberalize LNG exports.

In turn, it can be concluded that too high a decentralization of the oil sector stimulated the competitive centralization of Rosneft. At the same time, the over-politicization and over-centralization of Gazprom leads to a relative decrease of its former power. It could thus be argued that decentralization of Gazprom’s power in Russian and international markets would rather diminish the level of politicization in Europe towards Russian supplies. At the same, the strategic importance of Gazprom will certainly not explicitly affect its legal and political status in Russia.