REFORMING THE RUSSIAN GAS SECTOR: HOW TO DEAL WITH A STATE MONOPOLY

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Abstract

Russia has the largest natural gas reserves in the world. Its proven reserves account for about one-quarter of the world total, it is also the largest natural gas producer and exporter. Notwithstanding Russia's abundance in gas, the challenges currently faced by the gas sector and its major player, the state-owned Gazprom, are many and considerable. However, despite some developments in recent years, real structural reforms have never been implemented. Therefore, the thesis sets out to define the obstacles to reform by examining present major sector challenges regarding pricing, investment and monopoly issues and by defining what considerations (state or corporate interests) are imperative on these three levels. Based on the analysis of at what points the state and Gazprom policies coincide or confront, the paper aims at identifying at what level some reform efforts are likely to succeed.

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INTRODUCTION

Russia has the largest natural gas reserves in the world. Its proven reserves account for about one-quarter of the world total (World Energy Outlook 2008, 294); it is also the largest natural gas producer and exporter. Despite the impressive size and potential of the industry, increasingly, concerns are being expressed about the future sustainability of the sector in its present form.

Gazprom it is responsible for 83% of total gas production in Russia (Gazprom Q&A 2009); it owns and regulates the Unified Gas Supply System, the largest gas transmission system on the globe; the company also sells more than half of the total amount of produced gas on the internal market, so it is possible to say that domestic gas market is virtually Gazprom's market. The most important moment is the price that the company gets for its gas. Pricing is a particularly sensitive issue for the domestic gas sector as economy relies heavily on subsidies in the form of cheap gas provided by Gazprom. Gas exports to Europe turn into profits for Gazprom making up the largest part of Gazprom's gross proceeds - 82 percent as shown by the 2008 operating results (Gazprom Considers Pricing Policy for Natural Gas and Oil Products Supplied to Russian Consumers in Crisis Environment October 29 2009). For this reason, oftentimes Gazprom is referred to be stuck between its largest market in terms of volume, for which it actually loses money, and its largest market in value (Europe) (Victor 2008: 6). In some ways Gazprom represents explicitly state interests. Politically reasoned, most of the extracted gas is sold to domestic users as gas prices for them remain at artificially low levels. However this and other contradictory and at first sight irrational policy, for a profit-oriented company, continue to emerge and persist.

Natural gas represents a pillar of the state economic policy with Gazprom being the biggest market in terms of sales, industrial energy consumption, thus making it the center of widely discussed attempts for domestic gas market reform (see e.g. Ahrend and Tompson (2004) and

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Stern (2005)). Despite some developments in recent years, real structural developments (unbundling of Gazprom) have never been implemented, on the contrary, the government moved on to foster control over the company. In 2005, the firm was nominally privatized, with 51% shares being currently state-owned and the Russian state taking part in Gazprom's decisions on a political, strategic, and economic grounds (Sagen, Tsyagankova 2006: 4). At the same time, though Gazprom is considered to be leveraged by the state, there is a high extent of interdependence, for instance: Gazprom exports to Europe are a tremendously significant source of earnings to the state budget (estimations are around 20-25% in recent years) and a way to cover losses from sales at domestic market. Such a relationship may indicate that the gas sector is ruled by often contradictory incentives, political and economic.

Such a picture of the Russian gas industry prompts the first question: Does the current gas sector model of confluence of state policy and corporate strategy permit to introduce reform to the sector or is it an obstacle to any veritable reform efforts? Following the first question, the second research question the study sets is: If any reform at all is possible at present, then what kind of reform is likely to be implemented in the Russian gas sector?

In order to answer the first question, the study examines what considerations (state or corporate interests) are imperative on different levels, that is at investment policy, price-setting, and monopoly issue (access to pipelines and sales) levels. Based on analysis of at what points the state and Gazprom policies coincide or contradict each other, the thesis aims to identify at what level and what kind of development is possible.

The paper is structured as follows. It will start with the introduction of natural monopoly concept and overview of traditional ways of dealing with natural monopolies in utility sector as the paper builds around the preliminary assumption that Gazprom is a typical example of natural monopolies, retained from the Soviet times, and therefore its problems could be potentially resolved with traditional tools of tackling them. The second chapter will provide

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the comprehensive analysis of the Russian gas sector. The last chapter presents analysis of traditional reform approaches while identifying their likelihood to be put in practice in the Russian gas sector context. The final part will elaborate and conclude on findings of the study.

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CHAPTER 1 – REFORM OF NATURAL MONOPOLY - A THEORETICAL OVERVIEW

1.1 The Concept of Natural Monopoly

It is generally accepted that there exists a monopoly over the Russian gas industry. Consequently, it grew to be a widely diffused opinion that Gazprom, the biggest structural element of the industry, is a natural monopoly. Therefore, this study adopts a natural monopoly approach to the reform of the Russian gas sector as a basic analytical framework in order to exemplify the common specifics and deficiencies that arise from natural monopolies and identify common practices in dealing with them. In this view, this section will first introduce the concept of natural monopoly and then proceed with the discussion of the approaches to its regulation and alternative 'remedies' for dealing with natural monopoly problem. Finally, this paper will discuss their applicability in the Russian context.

Utilities such as natural gas, electricity, common-carrier transportation services, water supply, and telephone industry were traditionally in state or municipal property and constituted the so-called natural monopoly segment of the economy. The reasons given for the emergence and existence of natural monopolies are as follows:

1. Under the traditional approach, *economies of scale* due to *specific technology of production* is a main defining characteristic of a natural monopoly.

According to the neoclassical tradition, the natural monopoly has got fairy broad interpretation being viewed as an extreme form of imperfect competition, in which there are markets where competition is undesirable and even impossible.[1]The natural monopoly arises and exists when economies of scale are so great that one firm can supply the entire market, with lower costs per unit of output and thus with minimum social cost than competing firms would (Joksow 2005: 17-18; Butyrkin 2003: 3).

[1] For example, this position is described in detail in a work by with *S. Fischer, R Dornbusch*, R *Schmalensee. Economics. 1998 p. 203-204, 772*

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In other words, ownership of small scale is considered to be less efficient, as it would not be profitable for new firms to compete. Also, public is considered to be better off having only one firm (DiLorenzo: 43). This argument is particularly pertinent to the topic under discussion - the Russian gas sector - the price of building and maintaining another nationwide set of gas pipelines, competing with the existing Unified Gas Supply System, would be too high as such delivery services have high fixed costs.

2. Another feature intrinsic to the natural monopoly industry is the existence of high barriers for entry of new firms which "naturally" hinder competition in this sphere (Gorokhova 2007: 45). The "height" of such barriers depends on the volume of investment needed to set up an infrastructure network. This infrastructure investment is always less attractive to investors than other sectors of the economy, which is mainly explained by long payback periods, high risk levels, prolonged term of depreciation of fixed capital (Gorodetskii, Pavlenko 2001: 51-52).

3. The next characteristic that distinguishes the natural from simple monopoly is inelastic demand for its goods. This argument together with the rationale for absence of competition due to specific technology of production, are both reflected in the definition of natural monopoly given in the Russian legislation (Law on Natural Monopolies 1995, Article 3). Because of the product's uniqueness, buyers lack close alternatives for it, and thus have to buy it from the monopolist at the prices that it dictates. This inelasticity potentially allows to generate a monopoly profit, which does not come from increase in efficiency, but from monopolistic overpricing. And, apparently, such specific serves as a rationale for direct state regulation (Deryabina 2006: 104)

4. Some definitions of the natural monopoly put forward the importance of social welfare, considerations of economic benefits for the state and the population, as well as national security. A number of works devoted to the corporate structure of economies and the

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peculiarities of corporate governance in large companies highlight the crucial role of natural monopolies as a guarantor of social and economic development of the state and society (Crook 2000: 270). The factor of great social importance can only be applied to limited number of goods and services. Some firms can be protected from competition on the strength of political motives to guarantee stable profitability of services important from the public interest perspective. This argument speaking in favor of the need to maintain a natural monopoly is especially popular among Russian specialists writing about natural monopolies in Russia, and this feature is considered to be one of the essential roles of a natural monopoly with regard to the Russian gas giant Gazprom (Malinnikova 1998: 516-535). Much attention and sensitivity on the part of the state having the gas sector as a natural monopoly could be explained by this very attribute. In Russia natural monopolies have been treated as strategic sectors of economy (Gorokhova 2007: 47). After the collapse of the Soviet Union they were least affected by the decline in production. They have provided for a significant part of the GDP; this has been particularly so in case of Gazprom. Some experts argue that deterioration of production and economic performance of these sectors would have contributed to the deepening crisis in the economy and deterioration of social welfare. They have always been major budget revenue generating industries (Malinnikova 1998: 516-535).

In recent years, the concept of natural monopoly in its classic treatment has been criticized with indication of the need for a more narrow definition. It should be noted that natural monopoly does not inevitably coincide with the industry as contrasted with the initial definition. And therefore the natural monopoly problem is limited to some of its parts but not to the whole firm. As a consequence, the issue of regulation does not coextend through the industry (Helm, Kay, Thompson 1989: 7). There is no pure group of monopolies while most regulated industries represent a combination of natural-monopoly and natural-competition elements (Shepherd 1990: 498). Given that there is state regulation in place and it is

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apparently unavoidable, competition can be introduced, but it is not easy to define the proper extent of regulation in respect to complex industries (i.e. what parts are to be regulated and on what terms). But on the whole, problems of restructuring and reforming the natural monopolies are associated with their infrastructure component (Gorokhova 2007: 46; Gorodetskii and Pavlenko 2001: 137-138). It has been suggested to limit natural monopoly only to transportation networks whereas such elements of the industrial production infrastructure as generating, producer, service and operator companies using the networks and terminals for the production of goods and services may be regarded as a sector where it is possible to introduce competition (Karpov 2008: 84; Gorodetskii Pavlenko 2001: 51). However, it is often the case that a firm with natural monopoly characteristics takes over all characteristics of a true monopoly in the end (definition of natural monopoly, energy dictionary). As a result, *artificial* type of monopoly emerges when the single dominant company establishes barriers to prevent competition from rivals or is protected from entry by some statutory provisions. Such an argument could be applied and is useful when analyzing the situation and reform process in the Russian gas sector. Speaking of energy sector in general, except for electricity and gas grids, it is argued that its considerable part can be referred to artificial monopoly; there is in fact little proof that natural monopoly exists in electricity generation, extraction and delivery of oil and coal and gas distribution (Helm, Kay, Thompson 1989: 7). For that reason, these parts of industry, natural and so-called artificial monopolies, require different regulatory remedies. In short, natural monopoly is tackled by direct regulatory price controls, rate of return and output, while potentially competitive segments are addressed with competition policy aimed at diminishing barriers to entry (Depoorter 1999: 505-511).

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1.2 State Regulation

Natural monopoly concept poses dilemma for public policy-makers. From economies of scale argument, a single firm is a more efficient supplier in the market and more effective in production. Thus, social welfare is better achieved by a single firm supplier. At the same time, its privileged position and the absence of competition present a concern that the company has the potential and incentive to abuse its exclusive power to maximize profits (Depoorter 1999: 498). For this reason, it was traditionally thought that such situation requires certain control measures on the part of the state in order to achieve maximization of social welfare, which is to say, to balance the interests of consumers and regulated entities (Waterson 1988: 62). Above all, considerations of ensuring allocative efficiency and greater distributional equity provide rationale for government intervention in natural monopoly's activities. Another objective of state regulation is to create incentives for increased consumption of a certain regulated good using price constraints. A fourth reason is to develop confidence in the stability of the business environment, especially in a politically dynamic one (Bradburd 1995: 248). It is important to note that for those purposes all regulation models envision setting up an independent regulatory commission. It should also be stressed that independence of such an entity is of crucial importance as their decisions often involve contradictory interests of different groups (Butyrkin 2003: 6).

1.2.1 Methods of regulation

Regulation by state and federal agencies traditionally encompasses control on entry and pricing (Berg, Tschirhart: 291; Waterson 1988: 26)

Pricing. In essence, pricing schemes for products of natural monopoly created by monopoly power aim to reduce the losses to society, and at the same time, not undermine the efficiency and sustainability of production (Deryabina 2006: 108; Butyrkin 2003: 7).

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From imperfect competition viewpoint, price control to be effective should be guided by the following principles: first of all, it is necessary that natural monopoly prices are very close to the level of marginal costs; secondly, normal rate of return needs to be ensured; and third, their production needs to be efficient (Fischer, Dornbusch, Schmalensee 1995: 265). In accordance with these objectives, regulating authorities have to maintain such a level of prices for natural monopoly products, which will be both close to marginal cost and at the same time will receive sufficient revenues for costs recovery. In the Russian natural monopoly sector, like in many other countries, two-part tariff system is being employed which consists of a fixed fee for providing service and a variable fee for each unit of service. Another possible method to cover the average costs for the industry while maintaining a socially acceptable tariffs for certain groups of consumers is cross-subsidization. In the Russian gas sector this practice is still used whereby it provides good residential customers with lower rates and compensates them with higher tariffs for industrial users. However, the cross-subsidization may hamper further development of not only the regulated monopoly but the whole economy as it is not possible to constantly solve the profitability problem of power, railroad industries as well as gas sector at the expense of industrial users (Deryabina 2006: 108).

The alarming fact about cross-subsidization is that it creates economic inefficiencies by giving wrong price signals about incremental costs to supported loss-making industries (Depoorter 1999: 505). High dependence of the subsidized consumers on such a structure of economy makes the whole system, to say the least, vulnerable to great instability in case of any disruptions, when the firm will no longer be able to derive revenues from the market. In the best case, prices for all consumers will have to be increased, or, in the worst case, this could lead to the economy disruption. *Given the Russian economy's heavy dependence on gas supplies (from the Gazprom monopol)y, and still existing practice of cross-subsidization, the*

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consequences of significant financial disruptions in profits from lucrative export market could be detrimental for subsidized enterprises as well as households. In theory, economic regulation is necessary to balance the interests of consumers (in a form of affordable prices) and regulated entities (e.g. financial performance, attractive to lenders and new investors); determine fair tariffs for different consumers categories; encourage an enterprise to reduce costs and excessive employment; improve service and efficiency of investment; and create conditions to encourage competition (Butyrkin 2003: 4).

According to article four of the Russian law on natural monopolies, the state regulates natural monopoly activities in the following fields: transportation of oil and oil products via trunklines; transportation of gas via pipelines; transmission services of electric and heating energy; railway transportation; services of transport terminals, ports and airports; services of public electrical and postal services. On the basis of this official document, it can be concluded that accepted/best standards of natural monopolies regulation got fixed in the Russian law and therefore the Russian state complies with them (norms entrenched in Russian laws correspond to accepted standards of nm regulation). The Federal law on natural monopolies adopted by the State Duma in 1995 states that the government established federal executive bodies which are to regulate and control activities of natural monopolies like Gazprom.

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1.2.2 Alternatives to Regulation - Ways of Loosening Control

At present, existence of competition is viewed as a criterion of the economy's functional effectiveness (Kamynina Lapynin 2007). The centerpiece of all reform options is their split into industrial and infrastructure parts. Positive effects of introducing elements of competition are expected primarily due to overcoming the so-called price discrimination.

Reform of natural monopolies in most countries involves *deregulation* which denotes replacement of state controls with effective competition. The critique of political, economic and institutional aspects of regulation served as a driving force behind the development of deregulation options. Some theorists even argued that regulation does more harm than good (i.e. Posner 1999). In recent decades many countries were searching for methods of regulation that would enable to introduce elements of competition, differentiation of methods of state control and partial privatization.

Privatization means shifting ownership from public to private. *Liberalization* implies reducing/loosening or abolishing control on entry into area of traditional monopoly's domination[2].

1.3 Traditional (Anglo-Saxon) Model of Utility Industries' Reform

In addition to the theoretical overview of natural monopoly, the following section lays the principles of the gas sector reform (as part of natural monopolies' transformation with regard to network energy industries) which was considered essential to overall success or failure of economic reforms which Russia embarked on in its transition to a market economy after the disintegration of the Soviet Union. The energy policy reform approach, which was put on the agenda by mostly foreign financial institutions, like OECD, IMF, and the World Bank, represented the competition-oriented, liberal concept of the reform that significantly relied on experiences of the US and the UK (Hirschhausen, Engerer 1998: 1116).

The traditional concept of the Energy Utility reform can be summarized in the following main principles:

Energy price reform: entails increase in price levels in order to cover operation costs and support investment. Prices for household and industrial users are to be raised to correspond to

[2] For more information, see Waterson 1988: 122-123.

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the long-run marginal cost structure while subsidies through price regulation should be eliminated (Energy prices fixed at true economic value are believed to encourage allocative efficiency);

- Creation of an energy law which determines the rights and obligations of all energy sector players;

- Commercialization/privatization of energy enterprises as a tool of promoting efficiency and reducing state ownership: for privatization to be effective, main aspects of system for commercial operation (major regulations and pricing) and basic restructuring need to be established;

- Introduction of competition with new sector entrants to be granted an equal access to transportation network;

- Establishment of an efficient system of regulation on the part of independent institutions to prevent monopoly abuse and to control the quality of service.

Based on these principles, a reform program implies a very direct course of corporatization, privatization and competition. It is expected to unbundle and thus create a set of independent enterprises at the level of production and distribution, when it is technically possible, and to expose to competition with each other and new independent gas producers. Transportation network can remain a natural monopoly while being opened for the third-party access. It is expected that under oversight of independent regulatory bodies, competition gets boost. Therefore, this model aims to build competition at gas distribution, extraction and trading levels (Gray 1995: 37; Hirschhausen, Waelde 2001: 95-96; Thompson 2004: 9-11).

1.4 Barriers to reform – political constraints

However, special consideration in this paper should be given to barriers to monopoly reform in its traditional understanding when it is projected onto the Russian gas sector. Previous experience has already proved that not all reform options are applicable in this context. The

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traditional reform approach takes as a premise that *there is* state regulation in place. It may be the case that the best reform choices are not feasible due to political constraints, more specifically, due to high politicization of the industry and the gas monopolist itself.

The whole discussion of applying 'best practices' is largely doomed to come to a standstill for the simple reason that the case of the Russian gas sector may not fall under the classic definition of this phenomenon of natural monopoly.

As some experts point out, there is a core problem of applying the traditional model (i.e. OECD/IMF/World Bank model which is Anglo-North Amer. in nature) in the Russian context (Stern 2005: 187; Hirschhausen, Engerer 1998). Application of the term 'highly regulated' in describing the Russian gas sector is inaccurate as it implies that Gazprom is regulated by Anglo-Saxon style independent agencies (which exist but are granted with nominal regulatory powers). Therefore, Gazprom is not 'highly regulated', but is rather immediately controlled by the government.

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CHAPTER 2 – OVERVIEW AND KEY CHALLENGES OF THE RUSSIAN GAS SECTOR

The following chapter presents the multifaceted and multilevel analysis of the Russian gas sector starting with the overview of the history of the industry, then outlining the Gazprom's stance in the sector and finally providing in-depth description of the current developments within the sector at different levels.

2.1 History of the Russian Gas Industry: 'National Champion' in the Making

The study does not set explaining reasons of reform failure in the gas sector as an ultimate goal of the analysis. However, retrospective look at history of the gas industry allows to better understand current state of affairs in light of its inherited specifics, the complex relationship between Gazprom and the Russian state formed by strategic choices the Russian government made for the gas sector in the past. Also, understanding why reform in the Russian gas sector appears/proved to be so arduous at earlier stage may help to identify the present bottlenecks to feasible reform and ways to deal with them.

Nowadays Russia possesses one-quarter of the world natural gas reserves, it is the global largest gas exporter and producer[3], and it is also only second to the United States in the gas consumption (World Energy Outlook 2008: 295).

However, it was not always so. From the very beginning it is important to note that in most of the Soviet times oil, not gas, was main focus as strategic asset and therefore principal export item to the West until major gas fields were discovered and potential significance of gas was realized (Victor 2008: 9; Stern 2005: 363).

[3] According to the latest estimates, the United States passes Russia as the largest producer (peakoil.net, January 12, 2010)

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The oil crisis of 1973 could be considered as a landmark in Soviet energy policy that made raising gas production a priority in order to take the place of oil (after the oil shock oil price fell by half) and, along with that, increased price for Soviet gas which in its turn provided the USSR with opportunity to create substantial hard currency flows. While oil production showed alarming signs of gradual decrease, gas industry continued to expand. Moreover, within country's fuel balance, only gas achieved the five-year target of 1976 which together with intensive putting into operation of the giant gas fields and building up transcontinental transportation network made gas 'a star performer'(Gustafson 1989: 139).

Although production fell in the 1990s, the decline was not as harsh as for other energy sources and other economic sectors. However, drop in oil production was much more significant than in gas: oil output reduced drastically from 569 mln. tons a year in 1988 to 301 mln. tons in 1996, while gas production downturn was not extreme - from 643 bcm. in 1991 to 571 bcm. in 1997 (Gaddy and Ickes 2005: 570; Victor 2008: 10). Harsh drop in oil output, together with oil price, resulted in near disappearance of oil rents (the Russian oil was in terrible plight and was in a pressing need of restructuring and investment), while natural gas rents continued to flow and maintain the economy. Dramatic economic decline after the collapse of the Soviet Union developed significant gas surplus in the 1990s, which allowed boosting exports outside the CIS. In its turn, this made it possible for Russia to extend its role as the biggest gas exporter and make some additional money for the Russian state (Victor 2008: 10). Gustafson's remark accurately reflects the then state of affairs that the Soviet economy would have been in a big trouble if there had not been natural gas (1989: 137). With the replacement of "Soviet" to "Russian" the statement continues to hold true for the current role of the gas for the industry. Natural gas comprises a considerable share of the state budget and is a pillar of the rest of the economy.

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In the middle of the nineties the budget deficit amounted to 20% of GDP and country was virtually out of cash. At this point, in shares-for-loans privatization scheme state shares in oil companies were sold to Russian private banks for credits to the government. Unlike oil, which was privatized to a large extent and thus generated badly needed investments, the gas sector preserved the state control. The USSR Ministry of the Gas Industry was transformed into Gazprom. Gazprom went through only initial stage of privatization which transformed it into a single entity, a joint-stock company with 40% of shares left in the state control for minimum of three years.[4]

In such a manner, as quite many experts note, the dominant national gas company embedded the Soviet paternalistic economy well into the capitalist age (Kramer 29 December 2008).

In sum, there are a few reasons named for why Gazprom was not split up. They shall be briefly highlighted. The government did not wish to lose grip over the gas industry or establish competition which in turn could lessen its control. Secondly, domestic gas was too cheap and the industry was believed to be too important to the rest of economy for market elements to be introduced. The fact that it was continued to be regarded as one of a few stable industries in an unstable economy, eliminated by default the possibility of risky and radical moves. Even in the aftermath of 1998 financial crisis which badly hit the country, Russian leader agreed to give away only 5% of Gazprom's shares (Victor 2008: 48; Hirschhausen, Waelde: 2001: 94, 101).

Regardless of seeming stagnation in gas industry regulation – in comparison with more dynamic liberalization in some Western and Central European states – some progress has been achieved since 1990s (Some changes to the company's structure have been introduced, but for the most part to Gazprom's liking).

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[4] Established by the Presidential Decree of 1992 and Resolution of the Council of Ministers of February 1993 http://old.gazprom.ru/articles/article4076.shtml

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In 2000-2002 the potential of separation of competitive and monopolistic elements followed by legal unbundling of the company, was much discussed. In 2001 two reform options of Gazprom were brought forward. One of them was proposed by Gazprom itself. The main points are: the structure of the concern is optimal and needs only minor transformations (Gazprom in Questions and Answers 2009). The second option was developed by the Ministry of Economic Development. The main idea is as follows: the restructuring of Gazprom should be implemented in order to separate the monopoly component from the market ones. The transportation system was regarded as a natural monopoly element, while producing, processing and selling natural gas was to be transferred into private hands and develop in a competitive environment. This program was developed with the advice of the IMF. However, it became obvious that the state is not ready to render control over the strategic sector: furthermore, the government expanded its role by becoming the main shareholder in 2005. The concept of legal unbundling was given up in favor of accounting unbundling and functional division (Mitrova 2009: 23).

As a result, the country has got its “national treasure”, the biggest gas company in the world, a company that remained almost unchanged from the Soviet times. Gazprom’s profile and businesses are given closer consideration in the next section.

2.2 Gazprom’s Paradox

When it comes to the Russian gas industry and issue of its reform, the discussion will inevitably and predominantly concern Gazprom. For this reason, in order to fully grasp the challenges the sector faces, it is necessary to first lay out Gazprom’s place in the Russian gas sector and the company’s paradoxical, at a first sight, behavior and intricate relationship with the state.

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Gazprom holds 70% of Russia's proven reserves and 83% of total gas production, owns major gas processing facilities, owns and manages high-pressure pipelines, wholly owns natural gas storage capacity, and legally retains export monopoly through a subsidiary Gazpromexport Gazprom does not fully own distribution companies. But since the nineties it has gradually obtained 'golden share' in over 70% of gas distribution networks, and keeps control over the main ones (Gazprom in Questions and Answers 2009). As head of the Energy Research Institute of the Russian Academy of Sciences notes, the company is the finest example of an ex-Soviet vertically integrated state-controlled enterprise dominating both downstream and upstream sectors (Mitrova 2009: 23).

The company's grip over the gas sector has strengthened in the past three years even though oil companies and independents have increased their production share. Early in the 2000s, Gazprom embarked on the programme of re-acquiring control of some fields and production companies given up by former executives of the monopolistic concern which resulted in a purchase of big number of stakes in major independent production companies (Stern 2005: 190).

Gazprom targets to go beyond solely gas-related activities and declares its strategic goal as becoming a leading global energy company by entering new markets, expanding the range of business activities and pursuing security of supply (Gazprom in Questions and Answers 2009). And the stated strategy of becoming a multi-energy company is being supported by various acquisitions in electric, oil and coal sectors: a purchase of over 75% of shares in one of the major oil firms Sibneft, initiation of own electricity supplier, move to a joint venture with SUEK (Siberian Coal Energy) (Locatelli 2008: 21).

Moreover, Gazprom's presence expands well into a non-energy sector. For a presumably commercial entity, it is extensively involved in non-core activities which are rather more

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appropriate and normal for a state: it builds up its stakes in construction, media, metallurgical, agricultural and banking spheres, to give only a few examples[5].

In this respect, the remark by former head of the RAO UES, Anatoly Chubais, made in reaction to the announcement of the SUEK deal, appears to be very much to the point:

"The situation does not seem right when Gazprom's business goes well in oil, petrochemical, media, and coal sectors while its business goes wrong with just one minor article – with gas"[6].

(Rubanov, Sivakov, Vinkov 19 February 2007).

The company's profile and activities discussed above prop up the arguments that at the present time there is tendency towards the merge of the state and energy corporations. The situation around Gazprom's businesses clearly indicates that Gazprom, which combines a powerful political lobby with information monopoly in the gas industry and an excess of non-core assets, represents the link between commodity-dependent economies and politics[7] (Svyatenkov 29 March 2007).

According to Western standards, the company in fact has very weak corporate governance as they do not seem to be able to influence Gazprom's investment and other decisions[8]. This may clarify the reasons why Gazprom is accountable to political administration (with the Russian state being an owner of 51% of shares) rather than its shareholders, even though they

[5] Curiously enough, the Russian energy giant, instead of the rejected Belarusian company, is building some facilities for the Winter Olympics in Sochi. Gazprom has its own private army. The company is the single largest owner of agricultural lands in the country, having 2000 cows and 3000 pigs. It is also the owner of a brewery and a sausage factory. It is making investments that have quite an explicit political rationale: in 2005-2006, it expanded media assets by having purchased Izvestia, Komsomolskaya Pravda, the popular Russian newspapers. By 2006, 38% of Gazprom's employees were working in its non-core businesses (the latest data found, Viktor, p 34-35).

[6] Translation by the author

[7] The remark made by President of the National Strategy Institute Mikhail Remizov

[8] While being highly in debt and asking for government bailout as a result of financial crisis and decline in revenues, the company's officials state that Gazprom still intends to pursue its new and costly pipeline projects, which raises questions regarding their efficiency (Grib 9 February 2009; Kramer 29 December 2008).

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have 49% of shares. And most importantly, it is due to the belief that Gazprom's viability as a firm is rooted in its political connections. Therefore, Gazprom's management cannot be regarded as an example of weak control on the part of shareholders; it would be more appropriate to call it "false governance" (Victor 2008: 7). This situation around company's behavior could be accurately described by the following observation:

> "It has many of the attributes of a company, like outside shareholders. It files accounts. It talks to investors. But the economics of what it does have very little resemblance to a profit maximizing firm"[9] (Elder January 13 2009) co. in Huffingpost).

The inherent contradiction of its management In some ways, Gazprom represents explicitly state interests. Politically reasoned, most of the extracted gas is sold to domestic users as gas prices for them remain at artificially low levels which are still not sufficient for cost recovery. In this sense, it does not entirely fit the monopoly pattern as it is out of capacity to set its price and to choose not to supply the domestic market. Arguably, in many respects the company acts not out of profit maximization considerations but rather out of political needs. In some cases the company strikes deals unfavorable in terms of its direct business but apparently sound and important in terms of Russian state geopolitical aspirations (in the near abroad).

Of the recent and eloquent examples in support of the notion is the gas deal reached by Gazprom and Naftogaz Ukraine during the visit of President Medvedev to Ukraine in the end of April 2010. The Russian side agreed to sacrifice 40 billion dollars in revenues in the next 10 years by selling natural gas to Ukraine at 30% discount in exchange for an extended Russian Black Sea Fleet base in the Crimea. The contract was criticized by some Russian experts, who already noted that it was not profitable for the budget, which, according to estimates by the Russian Ministry of Finance, would have to compensate Gazprom about 4 billion dollars annually due to the monopolist's losses. Prime Minister Vladimir Putin admitted that losses for the Russian budget were significant because of the discount, but stressed that Moscow would cope with them.

[9] Statement by co-founder of Firebird Asset Management, a New York-based fund that invests in Russia

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Another example of politically-reasoned policy is long-term contracts on Central Asian gas and oil-linked export prices. Recent changes in the natural gas market, as well as economic crisis, put additional pressure on the company while exposing contradictory nature of its management and uncovering divergences between the political strategies and business goals.

With the European market moving towards gas spot market which turned out to be more flexible and cheaper, Gazprom found itself in an unfavorable position with its long-term 'take-or-pay' contracts and export prices linked to world prices for oil. As a result of falling oil prices, falling exports and production, Gazprom might lose 62 - 91 billion dollars for 2009 which significantly reduces the income of a monopolist (Evplanov 7 July 2009). The company is willing to preserve its dominant position on the European market by advocating the idea of a new formula for calculating gas prices. Moreover, as some experts believe, the company's budget is strongly undermined by acquisition of expensive Central Asian gas that Gazprom is forced to sell at a loss. The turnaround for Gazprom has been devastating to the company's business model. Now, as Andrew Kramer pointed out, the political goals of Gazprom's business in the former Soviet Union will cost the company (May 16 2009).

On the other hand, it is important to emphasize that it is not invariably politics determining Gazprom's behavior, but also the other way around. Gazprom is frequently referred as a quasi-ministry (Grigoryev 2007: 3041), a state within a state that regulates itself. Though formally there is a regulatory body, the Federal Tariff Service, which is in charge of deciding domestic gas prices and transmission tariffs, Gazprom holds the information about the sector and therefore the tariffs and prices are set in consultation with the company (ibid). Also, Gazprom appears to be able to control the adoption of laws concerning the gas industry and therefore block those which could limit its monopoly power. This remark made by the head of the Russian Federal Antimonopoly Service in the reaction to another postponement of adoption of rules of non-discriminatory access serves as an evidence that regulatory bodies

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are in fact have nominal power over decision-making process than the company does: "I have no idea how soon it can be realized. Gazprom hampers the process” (Kozyrev 29 October 2009)[10].

In this case, the regulatory capture theory[11] can be well applied and the so-called regulation becomes a pure theory.

As could be seen from the discussion above, it appears that oftentimes the state turns a blind eye to Gazprom’s monopolistic behavior; however, in return, the company runs policies which contradict its commercial interests but finely embrace political agenda of the state. Such confluence of different goals and interests pursued by stakeholders of the sector seems if not to aggravate the problems in the gas industry and Gazprom in particular, then block adoption of the needed optimal policies. The following section will particularly elaborate on the challenges of the sector.

2.3 Key Challenges of the Sector

Notwithstanding Russia’s abundance in gas and the seeming success and power of Gazprom, the challenges currently faced by the gas sector are many and considerable. The section will elaborate on the current challenges faced at three major dimensions: investment policy, pricing policy, and monopoly issue. This analysis will help to identify what interests – state or corporate– dominate at each level.

2.3.1 Investment policy

For a long time company’s investment performance has been a matter of primary concern and puzzled many foreign observers as Gazprom was not investing adequately in new deposits despite the looming gas crisis, declining fields and also despite high earnings from export

[10] - the statement well go into the "paradox" section, pointing to the own interests Gazprom has, and that it is not always politics determining Gazprom's actions, but also vice versa. You can give a neatly nuanced picture here

[11] See Posner 1999

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sales (Victor 2008: 6). While the economic crisis and drop in the European demand may have diffused the pressure around Gazprom's capacity to meet future growing demand and thus urgent need to invest in new fields, and while Central Asian gas has so far allowed to delay developing new fields and real reform of the domestic sector, these trends do not take the overall fundamental problem of investment and its timing off the agenda.

Experts say that the slowdown in investments jeopardizes not only the further development of the gas industry, but industrial production on the whole (The Council of Federation, the Parliamentary Round-Up, # 11(89)).

Main operating gas fields are at the stage of declining production. The degree of depletion in 2008 was around 60 - 80% and investments (Morozova 6 October 2009). Even if the issue of new fields development fell by the wayside in the short-term, there is a compelling need of investments in decaying infrastructure: about 70% of high-pressure networks were put into operation before 1985 and about 15% of them were already worn out by 2002 (IEA 2002:118). Transmission system of Russia is operated over 50 years. And depreciation of its fixed assets, according to various estimates, now ranges from 46 to 62.5% (Ruchkin 1 October 2009). Therefore, gas companies, and Gazprom in particular, are facing acute need for major investments in reconstruction and re-equipment of production facilities, gas storage and transportation, exploration, gas supply and processing.

In this light questions are still being asked on the capacity of the national company to face up the considerable financial needs to prevent the increase in accident rate of the worn-out facilities and renew the major gas deposits developed under the Soviet days.

In the fall of 2009 Gazprom's board of directors approved changes to the investment program and budget of the company. The total investment program is to be reduced by 17%. Adjusted capital investments is by 30.9% lower compared with the previous version of the financial plan (ibid) and twice the size smaller than expected under the Russian Energy Strategy.

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However, the gas monopoly decided to increase the amount of funds reserved for long-term investments to 9 billion dollars, that is for the purchase of new assets (Rubanov 5 October 2009).

In a recent study on the shortage of financial investments in the gas industry experts from the Institute of Natural Monopolies in Moscow, note that in the medium term, Gazprom's planned investment will be one and a half times lower than required for the stable development of the sector indicators. Cutback in main investments may lead to significant decrease in levels of production already by 2015. This may result in reduction of the gas share in the country's GDP by half and decline in GDP by at least 3-4 percent (Institute of Natural Monopolies 30 September 2009).

However, the lack of investment is apparently determined not by short-term difficulties, but rather by the strategy of the gas company which managed to accumulate about $ 10 bln of additional debt even in times of favorable environment (Rubanov 5 October 2009). The Russian gas company is already heavily indebted, however, on closer examination its investment strategy seems to be somewhat irrational and obscure from a commercial point of view. For instance, in 2005-2006, the corporation's expenditure on outside purchases was higher than its spending over the past 10 years on bringing new fields on stream. Money has been directed on consolidation of hydrocarbons industries rather than on long-term investments in the gas sector (Victor 2008: 21).

As analysts note, Gazprom would have had enough funds for the development of Yamal[12], if the company had focused its attention on production instead of dispersing its capital on the purchase of numerous assets and capital-intensive projects with questionable profitability. More recently, a monopoly moved the launch of pilot projects in Yamal Peninsula (Rubanov 5 October 2009). Such examples back up the sentiments about Gazprom turning into a parallel

[12] The Yamal peninsula in Arctic Russia contains the biggest gas reserves on the planet

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power system and a tool for state power persons as the structure of Gazprom's business in such cases appears to rest on exploiting national capital (that is mineral resources and infrastructure) as corporate one (Gazprom as a Model of the RF 29 March 2007).

Development of Yamal fields and announced plans of the government to share the resources with external companies touch an important issue of the Russian state policy with regard to investments and represent the case of the Russian state's external investment policy in times of crisis.

Clearly, mineral resources have a fundamental value for the Russian government, just judging from their significance as a budget item. Based on the law on Subsoil Resources, the government has a right to propose the development of conditions for inviting bids and auctions and terms of licenses for the use of mineral resources. In 2008 the bill on foreign investment in strategic industries came into effect that clearly demonstrates the trend towards renationalization. According to the new law, a foreign investor intending to buy a stake of over 50 percent in an enterprise in one of 42 strategic sectors (which include oil and gas) will have to obtain state approval. State-controlled foreign companies will be asked to gain permission to buy more than 25 % of shares in companies of strategic sectors (List of Russia's Strategic Industries May be Shortened 2 June 2008).

The Federal bill also introduced amendments to the law "On the Continental Shelf of the Russian Federation". The government secures the right to distribute sites of the continental shelf of federal importance. Provisions about earlier practiced auctions and competitions were abandoned. In theory, the new law should simplify the procedure of providing sites, which in turn should speed up the beginning of works on the shelf. But the new law imposes restrictions on companies seeking to develop a shelf. It may be only a company registered in Russia where more than 50 percent of shares owned by domestic entities, and the state reserves the right to be able to directly or indirectly control them (excerpts of the law of 18

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July 2008 published in the Russian Newspaper). Obviously, such changes play into hands of the state-controlled Gazprom and Rosneft which are most likely to be receiving rights to develop prospective shelf deposits while foreign companies will be able to participate in their development only as contractors engaging in infrastructure, providing equipment and technologies. Such developments openly confront the principle of introducing competition in potentially competitive industry segments, thus the state itself in such a fashion strengthens the artificial monopoly power of the leading gas company.

In this context, conclusions made by some commentators about economic crisis inducing the Kremlin to relinquish control over part of its strategic assets to foreigners appear to be not correctly reflecting the situation and motives of the Russian state. Apparently, the change in paradigm - move towards liberalization - is not expected. The current situation can rather be explained as an attempt to tackle the crucial challenges that Gazprom is facing in Europe and looks like a major attempt of Gazprom's expansion (giving away its assets in exchange for access to new markets), that is the continuation of its strategy of recent years, and also shows the fundamental shortage of technologies needed to develop gas which is difficult to access (Rubanov 29 October 2009). Control over large objects will not be surrendered to foreign companies, especially since the law prohibits access to strategic gas-producing projects; therefore, foreign companies can only count on the role of junior partners

in the scheme (ibid).

2.3.2. Pricing Scheme

Federal government has considerable legal power over the gas sector. The authorities decide on the main principles of gas pricing by claiming that gas prices must be indexed/linked to their pre-1990 levels (Spanjer 2007: 2891). Natural gas pricing policy has political consequences. Up to this day, natural gas remains the single primary resource for which the price regulation is determined by historical indicators and not by demand and supply

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indicators (Stern 2005).The price level demonstrates the continuing after 1970 policy of promoting the gas use in country's economy. The gasification policy served two main goals: domestic prices were kept low to encourage gas use, and to stimulate considerable investments in building vast infrastructure to supply natural gas countrywide. During 1998 Russian financial crisis, artificially low gas prices were important not only as a social support, but also as a means of facilitating the recovery of production sectors. Up to 2006, the domestic gas policy consisted of controlled and slow increase in regulated prices which were just above the domestic level of inflation along with graduate modification in the institutional structure of the market (Mitrova 2009: 27).

At present, the prices have dual nature giving subsidy to an energy-inefficient economy and Russian households (Under the current wholesale price scheme [13] two customer categories are defined: domestic customers and customers in power companies and industrial sectors, etc. Such differentiation by consumer comes from the practice of cross-subsidies. Rather low residential prices on gas are sustained at the expense of much higher industrial prices. Wholesale prices also depend on geographic zones). In this regard, it can be argued that Gazprom as the only subsidy-providing firm in the market fulfills the social role of natural monopoly.

Wholesale prices are regulated by the state represented by the Federal Tariff Service, which up to 2009, have not provided minimal production profitability. Gazprom supplies most of the regulated sector: but only Gazprom is bound to deliver gas at regulated prices, while independents may sell at market prices. In this sense, the company cannot be referred as natural monopoly in its classical treatment as it does not have power to set the price (Gazprom buys gas from independent producers at regulated prices and sells it already market prices).

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[13] Wholesale gas price components include: wholesale gas price; tariffs for gas transportation through gas distribution networks; fees for supply and sales services

While supplying gas at low rate to the part of domestic customers may be not beneficial to Gazprom, the latter fact seems to be playing into the hands of the monopolist.

2.3.2.1 Unified gas pricing

Although the government and the company both agree on the need for higher domestic prices, their price change philosophies (as well as views over speed of reform) differ. Initially, the government was in favor of a continuation of past pricing scheme and gradual increase in prices surpassing inflation. Thus Gazprom supported liberalization of gas prices for industrial customers (Brief Write-up on Russian Gas).

At the end of 2006, pricing policy started to change. The government made a decision to put regulated wholesale prices up for industrial users, thus allowing Gazprom to provide a limited share of gas at market-based prices, with a goal to achieve parity with netback from exports to Europe by 2011, and also to increase the deregulated share of the market (Mitrova: 36, Gazprom in Questions and Answers 2009, Meeting of the RF Government on November 30, 2006). However, it is important to stress the fact that the Russian government specified that supplies at wholesale prices from 2011 would affect all customers of Gazprom but the residential (Decree on Improving State Regulation of Gas Prices May 28 2007).

This pricing model can hardly be viewed as liberalization but rather as a regulated shift to higher prices; a move towards marketization of the sector.

But this policy has brought about some financial results: if up till 2009 losses at the domestic market Gazprom covered with excess returns from exports (82% gross revenues) during the meeting of investors in February 2010 the gas concern for the first time ever reported profits gained at the domestic market in the previous year (According to Interfax, citing the deputy chairman of Gazprom Andrey Kruglov). The profit for the period amounted to 70 billion rubles. However, Gazprom asserts that such a level of sales is still substantially below the one that can ensure effective development of the Russian gas business. According to an analysis

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from the investment company Univer Capital, in 2008, the cost of 1 thousand of cubic meters was 50 dollars, while gas production itself was around 48 dollars. where Gazprom was mainly spending on transportation and operation of the transport system (Topalov February 5 2010). Therefore, it is natural that the company supported the plan about the new price formula and advocated for all prices to reach the equal profitability. In the words of the Gazprom CEO Alexei Miller, the continued disparity in prices and lacking of inter-fuel competition in the domestic market greatly limits the process of economic modernization (27 October 2009).

As of fall 2009, Gazprom took notice of the information that it had already signed long-term gas supply contracts with the majority of industrial users stipulating the use of market-based price formula from 2011 (Gazprom Considers Pricing Policy for Natural Gas and Oil Products Supplied to Russian Consumers in Crisis Environment 29 October 2009)

Despite the fact that the gas concern repeatedly insisted on the Government's earlier decisions of transition to market parity to be implemented within the stipulated timeframe, for several times, the government corrected and postponed their final date of entering into force.

Up to date, achieving parity with export prices has been put off at least till 2013 or even 2014-2015[14]. In particular, in January 2010 it was declared that a three-year state budget did not encompass a mechanism of transition to equal prices, and amendments to this article were not planned.

However, Gaprom still received concessions on determining gas prices. As one source in the Ministry of Economic Development reported, government specialized agencies were discussing the possibility of introducing a new mechanism for determining the wholesale prices. If it is to be introduced, the Federal Tariff Service will not set a maximum growth rate of wholesale prices for fuel, its price will be calculated using a formula based on the cost of gas exports. According to experts, such a scheme would be more fair – more flexible, market-

[14] forecasts vary depending on different analysts and statements made by different ministries

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based and less prescriptive – though would bring less profits to the gas monopolist (Nazarova 18 January 2010). As this example prompts, it is the state, not the regulatory authorities, have a final word over the price levels, thus directly exercising power over Gazprom, though the state policy is rather inconsistent and contradicting at times when it tries to accommodate the commercial interests of the company, as well as a pragmatic need to fill in the coffers, and social obligations of the state.

In the context of the government's changes in the price policy, the concern had to correct its plans, too. Just a few months after it was insisting on implementing decision on market prices in accordance with the earlier agreed schedule, Gazprom declared plans to enter the equal profitability of domestic gas prices with export ones in 2014 during the meeting with its investors. It must be said that the government regulation of prices and tariffs make the state company generally inflexible in terms of ability to compete with independent producers on offering better payment terms or price to customers. The recent example of Novatek winning the contract to supply a state-controlled power enterprise OGK-1 which usually was buying gas from Gazprom, proves the case (Kefferputz: 2009). This also means that the company does not entirely fit the definition of a natural monopoly as a provider of goods at lower costs; independent producers are now starting to have this advantage.

2.3.2.2 Transmission Tariffs for Independent Producers

For producers not affiliated to the Gazprom Group, the rate of gas transmission through the UGSS is also determined by the Federal Service for Tariffs. After gaining access to the monopolist's system, the producers are required to pay the government-regulated tariff.

Before 2006 a single rate per 1,000 m3/100 km was applied. The setting system was characterized by the unofficial methodology for determining rates. Tariffs were based on consolidated cost data of gas transportation enterprises affiliated with Gazprom and therefore were questioned by independent producing companies and industry watchers (Brief Write-up

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on Russian Gas). From 2006 on, new methodology is employed under which the tariff consists of two components: a charge for transporting 1000 m3 per 100 km and a charge for utilizing gas main pipelines, which is determined depending on where gas enters and exits the system (Gazprom in Questions and Answers 2009). But again, Gazprom complains that the tariff does not cover the company's costs on maintaining and modernization of the gas supply system (ibid) demanding from the government more tangible rate increases instead of annual directive change.

2.3.3 Gazprom's Monopoly

Arguably, the /main stumbling block to development of free and competitive market/ in the Russian gas market is Gazprom's monopoly over the Unified Gas Supply System (UGSS) of Russia.

2.3.3.1 Domestic Monopoly

Gas Transmission Network is the system of trunk pipelines of the Unified Gas Supply System of Russia (UGSS). It is the main gas pipeline system in the Russian Federation, providing transportation of produced and processed gas from producing areas to consumers within the country, and Gazprom is currently a single operator of the entire system of 157 thousand km long. The concern asserts that due to centralized management of the UGSS, the system has a significant reliability and is able to supply gas without interruptions even during seasonal peak demand (Gazprom in Questions and Answers 2009). Such position is being supported by the Federal Law on Gas Supply dated March 1999 stating that only single gas supply system ensures reliable gas supply, safe and sustainable operation of facilities. Liquidation of the company - the owner of the system, that is Gazprom, - can be initiated only in accordance with Federal Law (Federal Law on Gas Supply, Article 14 on indivisibility of the unified gas supply system). Equal access to the Gazprom pipes is one of the main challenges of the industry. As a subject of natural monopoly, OAO Gazprom holds a dominant position in the

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market for gas transportation within the network. Independent companies produce about 14-16 percent of the total volume and arguably could produce more if not the restrictions on access to the system.

Formally, independent producers are being provided with access to the transportation system of Gazprom since 1999. Access to it is regulated by the Federal Law on Gas Supply in Russia and by provision about access of independent companies to the gas transmission system (GTS) of Gazprom. Under the current legislation, the owner of GTS must ensure non-discriminatory access to any company conducting business in Russia, to free capacities of gas transportation and distribution networks. However, Gazprom is within its rights to provide access to independent producers to the GTS only if there is spare capacity for the expectable period of gas supply (Federal Law on Gas Supply in the Russian Federation). Also, the article 10 of the Law on Protection of Competition prohibits actions on the part of a market participant with dominant position which result or may result in prevention, restriction or elimination of competition or infringement of interests of others (FAS will consider antimonopoly case by complain by Rosneft against Gazprom 28 October 2009).

It should be noted that though the rate of gas transmission via pipelines of Gazprom for independent companies is determined by the RF Federal Service for Tariffs, Gazprom's supply planning is ruled by the Gazprom Gas Resource Allocation Guidelines, which deal with production by independent gas producers and gas exports (Gazprom in Questions and Answers 2009). Put it in a nutshell, it is Gazprom who decides on access to its trunklines and how much gas can be transported and supplied and to which customers.

Theoretically, the Russian system of regulation was formed in compliance with international experience; however, as could be seen from the case above, it has its own specifics. Under regulation just one method is understood: Price or tariff setting, whereas regulation of service quality, monitoring of compliance with the rules of market behavior, licensing, provision of

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access to infrastructure for other producers are insufficiently institutionalized (Zotov, Gallyamova: 84). As in case of the mentioned in the first chapter common practices of regulation, methods of regulation of natural monopolies indicated in the Russian state official documents, also include price regulation through setting tariffs or setting their limit levels; identification of users who are subject to mandatory supply of the good produced by the natural monopoly, given the need to protect the rights and interests of citizens and national security considerations (Federal Law on Natural Monopolies, Article 6). However, regulatory bodies in Russia are not insulated from the state and therefore its political and economic interests. At the present time, the legal framework and, most importantly, its implementation do not allow unrestricted access for independents to the Gazprom pipelines. Ensuring access for independents to transmission networks should not be limited to development and improvement of formal acts that regulate the terms of access.

It is obvious that even the most efficient regulatory framework, in the absence of mechanisms and authorities to ensure its implementation, cannot compel the owner and operator of gas transportation system not to discriminate against other market players.

Each year and quarter Mezhregiongaz informs Gazprom about gas volumes supplied during a preceding year (quarter). Moreover,

Complaint filed by Rosneft against Gazprom, September 2009

In the statement OAO Rosneft indicated that in April-August 2009, Gazprom was illegally restricting the gas acceptance to its gas transportation system, justifying it with the actual curtailment of gas demand in the Russian Federation. In the meantime, all the gas produced by OAO Rosneft was contracted and distributed among consumers. As a result, Rosneft had to flare unrealized associated gas and pay a fine for violating environmental laws (Forbes Russia 29 October 2009).

FAS of Russia initiated a case on the basis of statements by Rosneft in violation of requirements of the antimonopoly legislation by restricting admission to the gas transmission system (GTS)/on limiting competition (Federal Antimonopoly Service 28 October, 2009). The first hearing was to held on 2 December, 2009. The penalty was estimated to be in the range of 0.7 to 10.6 bln. rubles (Forbes Russia, 28 October 2009).

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Mezhregiongaz collects consumers' requests for the coming year. Gas is allocated according to the data provided. Gazprom also claims that it provides extra gas volumes to its customers but only in case of spare capacity of the system and in case other domestic and export commitments allow to do so.

In every way Gazprom denies restricting access to its pipes for independents. Gazprom claims that it is interested in the development of the gas market and increase in production by independent producers. The company continuously asserts that it complies with all the bids for access, as well as requests for extra volumes from its customers, except those cases when it is not possible out of technical reasons, such as limited capacity in the UGSS (Gazprom in Questions and Answers 2009). However in practice independents still report abuse on the part of the operator, though to a lesser extent in recent years.

But if previously Gazprom explained its denial of access by overload of the system, now according to the statement made by head of department of control over fuel and energy complex at FAS during the conference of Russian Union of Industrialists and Entrepreneurs, the monopolist reportedly openly prevents independents from implementing long-term contracts already concluded between them and their customers. Independent gas producers complained to the Federal Monopoly Service arguing that under different pretexts the monopoly was not just limiting their access to the transmission system, but also predisposing/inclining consumers to conclude new contracts to buy gas directly from Gazprom (Gazprom Has Again Blocked the Pipe 1 June 2009). [15]

Rights of non-discriminatory access to Gazprom's pipes are under discussion for a long time. In summer 2008 FAS developed and submitted to the Government and the Ministry of Justice a draft decree that aims to facilitate the access of independent gas producers to the Gazprom system of gas supply. The document was approved by the Ministry of Energy, Ministry of

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[15] TransNafta case: beginning of 2009, for the fisrt time FAS penalized Gazprom.

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Economic Development of the Russian Federation, Federal Tariff Service, but met with Gazprom's opposition. FAS proposed to oblige Gazprom to disclose all information on free capacity (for up to five years and five years in advance) on a regular basis and provide access to the trunklines to all independent gas producers. According to the document, Gazprom is required to meet all the bids by the independent producers. However, it only applies to long-term contracts of at least a year. In case if volumes of long-term bids exceed the available spare capacity, then each company would receive a proportional quota (Free Economic Zone 6 August 2008).

Released capacity which independent producers can claim for, amounts to 12-15 percent. Experts note that this is not enough. For the competitive market the capacity should be at least 25 percent. Gas monopoly has not spoken out sharply against non-discriminatory access, but neither has it tried to assist with establishing such rules. Experts note that the procedure itself is rather long because the internal coordination will take a long time (FEZ 05 August 2008).

For abuse of dominance, Gazprom could face a fine of 1 to 15% of yearly revenues in the relevant market. In June 2009 the head of the Russian Federal Antimonopoly Service Igor Artemyev announced that the bill might have been signed by the end of the current year noting that the work on the document had been frozen due to the economic crisis (FST Confirmed Tariffs Increase for the Gas Importation 18 December 2009).

However, there are doubts that the monopoly will be penalized for new complaints. Every time each individual case will be considered, but in times of crisis, it will be easier for Gazprom to gain justification for its actions. Not only gas production falls but also its purchase, and economic interests of Gazprom are taken into account. This example shows the privileged position the company enjoys, thus stat by its allowance of such behavior sonly increases abuse power of the monopolist. As practice in other countries shows, natural monopolies can work (even if state-owned) but then there has to be a very strong state with a

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very clear strategic view and an ability to sometimes address the negative aspects of monopoly instead of compensating them – and this is exactly opposite from what can be observed in the Russian example. In any case, the bill on the equal access has not been yet agreed with the Government, which gives advantages to the monopolist.

Previous experience of independents indicates that fighting with Gazprom is troublesome. And therefore doubts can be raised whether a complaint coming even from a significant industry actor like Rosneft will make a difference. In this context, news about the government postponing once again consideration of the adoption of rules of non-discriminatory access to gas transportation system of Gazprom come as no surprise. This case arguably demonstrates contradictions and lack of conformity within the state itself, between different groupings and ministries.

2.3.3.2 Export Monopoly

The issue of Gazprom's monopoly over the transportation system intertwines with its monopoly over exports, and in actual fact monopoly over exports result from the company's monopoly over UGSS.

Till 2006 exports were in de-facto monopoly of Gazprom, but with the federal law "On Gas Export" that came into force in July 2006[16], it became de-jure. Gazprom got an exclusive right on exports of gas from all variety of hydrocarbon fields in Russia and delivered in a gaseous or liquid state. Moreover, according to the law, only the owner of the system has a right to issue licenses for gas export (Draft of Federal Law "On Gas Exports").

The law introducers made reliability of supply under a single operator the leading idea of the bill arguing that its development was based on the need to protect the economic and foreign policy interests of the Russian Federation, the implementation of international commitments on export of gas, to ensure federal budget revenues and to maintain the energy balance of the

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[16] On 5th July 2006 The Lower House of the Russian parliament passed the bill making Gazprom a sole exporter

Russian Federation" As stated in the explanatory memorandum to the bill, a single operator will eliminate the competition of Russian suppliers abroad, and this, in turn, may lead to "considerable reduction in export gas prices". In turn, interests of suppliers and the state will be "optimally" ensured, because currently, as State Duma deputies asserted, the regulation of gas exports was completely removed from the sphere of state control (Lobbying campaign "Adoption of the Law" "On Gas exports").

Arguably, formalization of this norm in law gave significant support to Gazprom. The law consolidated the existing trend of development of the Russian gas industry and gave new impetus to Gazprom to gain direct control over independent producers.

Furthermore, adoption of the Law, as it later turned out, affected not only the independent gas producers, but oil companies even to a greater extent. Gazprom managed to take over their exports of liquefied petroleum gas (LPG) used for household needs and gas condensate.

Since then, as the Law was passed, Gazprom opposes any change since exports are the source of income for Gazexport, which can serve the oil companies earning on commissions. Moreover, the situation was specific in a way that none of the specialized agencies wanted to participate in a conflict.

The need to adjust the law became apparent with the crisis with exports of LPG during the autumn of 2006. Then it was decided on making amendments to the law by excluding LPG from its jurisdiction in May 2009.

This may be an additional consideration but the law may also carry out another goal. It can potentially be a powerful tool in case of settling controversial situations with independent producers. While the bill was still considered, the deputy general director Sergey Ezhov brought the example of conflict situation between Gazprom and Russian-British TNK-BP with regard to Kovykta development. He admitted that the changes might apply to Kovykta deposits. The independent producer would not be able to build its own export pipeline while it

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was a big deposit and it was sensible to develop it with export perspective. After the law is in place, the Russian state-owned company will de-facto secure the field for its own. Of course the plans by TNK-BP to build its own export channel were rather speculative, but actually there were such plans. The same rationale could possibly be applied to any other conflict situation of a similar kind.

According to the Federal Anti-Monopoly Service, it has repeatedly tried to weaken Gazprom's monopoly over exports and has been elaborating on a mechanism to allow independent producers to take part in exports or gain part of revenues from export sales. However even if 10 percent of exports had gone to independents at that time, the concern could have lost about 2.2 billion dollars in 2007 (FAS to Curtail Gazprom Export 20 April 2007).

It may be concluded that Gazprom as an exports monopolist is a long player unless it has support of the Kremlin/Administration, and the current leadership suggests that it does: in September 2009 during the Investment Forum "Russia Calls" Prime-Minister Mr. Putin stated that monopoly over exports would be preserved in the short-term, although it may change over time (Monopoly On Export Will be Retained in the Nearest Future 29 September 2009).

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CHAPTER 3 – EVALUATIONS OF REFORM OPTIONS

The analysis of the state of affairs in the Russian gas sector presented in the chapter two accentuated a few key peculiarities which certainly must be taken into account when evaluating the reform trajectories. They can be summarized as follows:

- Gazprom is not a natural monopoly in its classical treatment and the state is not a regulator in its classical understanding, but rather the biggest stakeholder nourishing its monopolistic grip;
- Political and commercial goals are mutually influential and intertwined and sometimes run contrary to each other thus complicating the decision-making process: Decisions made by Gazprom and with regard to the gas sector development are influenced by politics, as well as political decisions are oftentimes affected by Gazprom strategic needs;
- The role of the gas sector for the rest of the Russian economy and the State budget persists to be significant.

In consideration of these factors, the current chapter provides the analysis of energy policy reform options, outlined in the first chapter, and their probability to be realized in the current gas sector realm.

3.1 Domestic price increase

The Russian state has ambivalent motives regarding the bringing up the domestic prices. Raise in internal prices for industrial users is already taking place in the Russian domestic market. As could be seen from the analysis carried out in chapter two, this is the area where

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the change is real as interests of both the state and Gazprom, if not fully coincide, then at least are represented. If in future prices reach the European level, for the company this would mean a main opportunity boost its revenues, and for the government this would translate into revenues in taxes and contribute to gradual reduction of the gas share in the energy balance (Victor 2008: 39; Mitrova 2008: 77). However, increase in price levels for industrial users is more of a natural evolution and pragmatic decision out of revenue considerations than a genuine move towards liberalization. It will be very challenging for market prices to evolve while Gazprom is a dominant player in the market (Stern 2005: 177) with the state itself supporting its monopolistic role. At this point, the discussion on price liberalization reaches a virtual dead end as the latter (Gazprom as supplier of households) cannot be doubted. The prices for residential users will remain untouched and will continue to be regulated for the considerable period of time. Though for the gas concern, as allegedly a business entity, it is not a beneficial situation, but after all, as a director of gas research at the Oxford Institute for Energy Studies J. Stern points out, Gazprom was initially a state creature (2005: 187), and from the beginning this relationship of the state versus Gazprom has seen *deep penetration of politics into energy business*. The Russian state in its social safety policy relies heavily on gas as a main subsidy and therefore increase in residential prices would seriously undermine the state's energy-intensive economy and welfare (Spanjer 2007: 2894; Grigoryev 2007: 343).

3.2 Structural reform

A split-up of Gazprom's production and exports is by no means on the agenda while the state budget earns big profits from gas exports. This issue closely interwines with ***exports liberalization:*** Some experts see desirable to give up the monopoly on gas exports and instead introduce some competition rather than having a single national champion. However, any actions that threat to jeopardize profits from the European market earned by the Russian state and Gazrom, are to be declined (IEA 2002: 121). The significant restructuring reform

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(ownership unbundling) or allowing competition on exports level would mean a drastic fall in export prices due to emerging competition, and, as a consequence, sharp cutbacks in the Budget earnings. If revenues from exports to Europe are to significantly shrink, then the restructuring would be theoretically feasible and favorable for Russia. But if this change ever takes place, then it may occur only under severe external pressure and not in the foreseeable future. Another factor that comes into play at this very moment is Gazprom's political influence which keeps the state from splitting the company (Tsyagankova 2010: 913). Gazprom is not interested in its weakened position on a foreign market, as well as the state, in a role of a major shareholder, is not attracted by this perspective.

3.3 Separating the infrastructure

Gazprom's actual monopolistic power is mainly rooted in its ownership and regulation of the pipeline network. Therefore, as advised by many specialists, this natural monopoly element needed to be extracted out of its ownership (Ahrend Tompson: 17). While this may be the first optimal solution (but not achievable in the short-term perspective as it will meet opposition by Gazprom, and again, the reform will get bogged down in governmental agencies), at the heart of the issue lies ensuring better access to the pipelines for the independents which also implies improvements in common carriage policy and transparent tariff system (Grigoryev 2007: 3043).

3.4 Third-party access to the pipeline

Until very recently, it was not in economic interest of Gazprom to allow other companies to enter the UGSS. And since economic interests of the monopolist are oftentimes recognized as an analogue of public interests of the country, such access was not beneficial for Russia on the whole as this would be a hindrance to tackling socially significant tasks (according to the monopolist's stance). In other words, this represents the paradigm of the contemporary

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Russian monopoly that formed in early 90's under conditions of the state paternalism and persists to exist.

The odds are that on the domestic level there exists the chance of improvement out of the monopolist's pragmatic considerations: since in its Growth Strategy Gazprom envisages the increase of its export capacities and diversification of its businesses (Gaining Momentum, Gazprom's Investor's Day) and since its own level of production has seized (while independent's production has seen a significant rise since 1990's), it starts to realize the need to fill the gap in supply in the domestic market.

In conclusion, it must be said that a series of private informal conversations with Russian state officials and Russian energy sector specialists[17] have backed the following argument about the future of the Russian gas sector: no radical reform is expected unless there is a real political change in a sense that energy would to have to be viewed in a different way as it is at the moment. The Russian state traditionally sees monopoly as the basis for overall transformation and very personal and financial interests in that, "because authorities believe that big money should be controlled by the state" (former Economy Minister under Boris N. Yeltsin Yasin for Business week)[18]. Therefore, efficiency may be not of first priority, but as critics admit, rather political and financial considerations overweigh. Thus, the policy recommendations of the World Bank, OECD and others who argue for unbundling and liberalization of the Russian gas industry, although maybe being economically logical and attractive, may not take into account the intertwined interests and agendas in the sector and thus are not necessarily applicable to the Russian context.

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[17] The informal conversations were carried out by the author but eventually were not included in the present study as a tool of research

[18] Bush 20 December 2004

CONCLUSION

The paper departed from the premise of an existing natural monopoly over the sector. However, theory of natural monopoly is not able to explain the failure to reform the Russian gas sector despite significant structural changes in the major industry sectors in other countries and therefore the reform methods, traditionally applied to natural monopolies, will not succeed in the Russian reality. By analyzing the Russian gas sector, the thesis aimed at defining the real obstacles to the reform by looking at correlation of state and Gazprom interests and stances on three key levels: investment policy, price-setting, and Gazprom's monopoly over the transmission network. The examination of the sectoral major challenges revealed that Gazprom could be hardly named an ordinary gas monopoly in its classical treatment and the state, in its turn, a classical regulator; on the opposite, the state, as a major stakeholder, oftentimes increases the monopoly grip. The business "organizational model" has been overhauled in favor of higher state involvement which resulted in a new form of private-public, *hybrid governance*. Gazprom serves as an example of such hybrid nature (Locatelli 2008: 18). The study proves that not only the state examines power over Gazprom and decides on developments in the gas sector, but the company itself does have a real influence over the decision-making process. The confusion of long- and short-term interests may prompt the state to pursue goals (like aiming for higher profits from the gas exports and at the same time making Gazprom delivering political and social goals) which at the end aggravate the opaque practices in the sector making introduction of reform measures very challenging.

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This may potentially lead to weakening of economy because of the confluence of politics and economics – but this is yet to be realized by the current Administration.

Therefore, no essential reform is expected unless there is a real political change in a sense that energy will seize to be seen as ‘a cushion’ for the rest of economy and generator of major budget revenues. If revenues from exports to Europe are to significantly shrink, then the restructuring would be theoretically feasible in Russia. But if this change ever takes place, then it may occur only under severe external pressure and not in the near future.

The current research may serve as a basis for further studies on how the confluence of state and business could be resolved on each level examined in the thesis, in order to elaborate on the detailed policy recommendations on the matter.

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