

**Institutional Constraints on European Energy Security vis-à-vis
Russia: the Limits of Contract Law in International Relations**

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Introduction

The gas shortage that struck Eastern Europe in the winter of 2008 brought into focus a question that the European Union has been reluctant to address: how best to deal with the Russian Federation's near-monopoly on European gas supplies? This is hardly a simple question to answer, as it presupposes a number of debatable assumptions. The first of those defines Russia as a clear-cut monopolist in EU gas markets. Another interprets this predominance as a threat to policy flexibility within the EU, especially with respect to the states along Russia's periphery. A third is that the burden of energy security rests disproportionately on Russian-controlled infrastructure, industrial policy and corporate strategy. The overarching concern for the EU is the possibility that the institutions it developed to guarantee energy security have become outmoded, allowing bargaining power to shift strongly in Russia's favour. This paper attempts to examine the shortcomings of EU legislation and treaties in resolving current conflicts between European and Russian energy policy. Following an analysis of the issues, I evaluate possible solutions and put forward a number of recommendations to assist the development of a more comprehensive treaty.

Following the end of the Cold War, the bulk of commercial interaction between the EU and Russia has been predicated on two major policy instruments: the agreement on Partnership and Cooperation (PCA) and the Energy Charter Treaty (ECT). The former pertains to EU-Russian commercial affairs exclusively, while the latter provides a framework of cooperation between the EU and energy suppliers across the world. Both instruments attempt to regulate commercial relations on the basis of the rule of law, which for the most part is derived from the provisions of the General

Agreement on Tariffs and Trade (GATT), later replaced by the laws of the World Trade Organization (WTO).

Given the strategic implications of failing to maintain energy supply security, it should not come as much of a surprise that both sides have only selectively complied with the rules they had previously agreed upon. While Russia has been promised access to European energy markets, the EU has dragged its feet on putting this into practice. Similarly, under the Putin administration, Russia has routinely attempted to stymie foreign (usually EU/US/Japanese) development of its as yet-untapped gas fields in the Northeast. Rather than reflecting minor hiccups in commercial relations, these examples are in fact indicative of fundamental differences in the definition of 'energy security' used by the two parties.

For the EU, energy security is most explicitly defined in its 'Green Paper' of 2001. Rather than focusing on energy independence, it seeks to reduce the risks of dependence on foreign suppliers by emphasizing the need for availability, affordability and sustainability. This definition is inferred from the following excerpt:

The European Union's long-term strategy for energy supply security must be geared to ensuring, for the well-being of its citizens and the proper functioning of the economy, the uninterrupted physical availability of energy products on the market, at a price which is affordable for all consumers (private and industrial), while respecting environmental concerns and looking towards sustainable development, as enshrined in Articles 2 and 6 of the Treaty on European Union.¹

The Russian definition is laid out in the Kremlin Resolution 1234-r of 2003, which provides strategic guidelines for the country's energy sector through 2020. It is similar to the EU version in that it largely avoids political subtext, focusing instead on the maintenance of supply for domestic customers, the reduction of costs through the

¹ European Commission (EC), Directorate General of Energy and Transport (2001), 3.

implementation of better technology and lowering the environmental impact of further development in the sector.²

A more detailed definition would also involve the technical and physical aspects of supply security. Barring minor pipeline incidents in Ukraine in the 1980s, the bulk of actual disruption has occurred at facilities within the end-user countries, usually due to complications associated with the tight balance of demand and supply in recent years.³ From a sustainability standpoint, there is little evidence to suggest that greater reliance on indigenous resources would necessarily boost security, in the way it is defined in the EU.

The logic of the Green Paper is intuitive, as by most measures, the EU is something of a monopsonist for Russian gas exports, while Gazprom, the state-owned gas monopoly, has a lot of ground to cover if its intention is to build a monopoly position in Europe. Gas and electricity consumption accounted for slightly over 44 per cent of overall energy use in the EU-27 in 2006, up from around 39 per cent in 1990.⁴ In 2008, Russian gas constituted 27 per cent of EU consumption, and 36 per cent of its total gas imports.⁵ On the supply side, 63 per cent of Russian gas exports went to Europe, with the remainder going to the Baltic and CIS states⁶ as well as intermittent shipments of liquefied natural gas (LNG) to the US, Japan and South Korea.⁷ While there are clearly risks associated with energy dependency, Russia can hardly be said to be holding all the cards in determining the EU's energy future.

Sources of Conflict

Why exactly is the EU-Russian energy relationship considered strained? On paper, Russia appears to be a reliable supplier, and the

² Northern Maritime Corridor (NMC), 2003, 3.

³ Some of these incidents are described in more detail in Stern (2006a).

⁴ EU Energy and Transport in Figures: Statistical Pocketbook 2009, (2008), 56.

⁵ BP Statistical Review of Energy 2009, author's calculations.

⁶ OAO Gazprom, <<http://eng.gazpromquestions.ru/?id=4#c524>>. Figures are available for 2007 only. Note that the Baltic states (Estonia, Latvia, Lithuania), while EU members, import a negligibly small portion of Russian gas.

⁷ OAO Gazprom, <<http://www.gazprom.com/marketing/usa-apr/>>

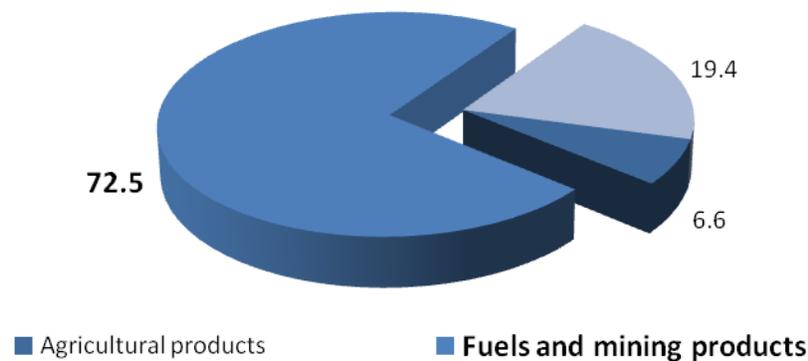
EU a customer in good standing. Beneath this ostensibly benign symbiosis however lie several conflicts of interest that have only recently surfaced. They involve alleged asymmetries in market access and conflicting energy policies caused by haphazard market deregulation (in the EU) and weak property rights (in Russia).

These factors have added a strategic security dimension to relations between the two sides, especially since Russia has embarked upon an ambitious project of state capitalism in the energy sector. That the government should concern itself with the welfare of its leading foreign exchange earner is not surprising, especially since the sector accounts for nearly three quarters of the country's exports (see Figure 1). The signal this sends to European customers however is that future transactions in Russian gas and oil may not occur on a purely commercial footing. Market pressures normally incentivise reliability of supply, investment in infrastructure and the use of a pricing mechanism based on demand and supply. If the state becomes a major supplier however, it may not necessarily face the same limitations on action as corporate entities; its 'shareholders' may not necessarily prioritise profit maximization and its management may not face hard budget constraints.

Here, the term "profit maximization" is used with its economic definition in mind. Profit maximization occurs where a unit of a good is priced at a level equal to the cost of each incremental unit (the marginal cost). This applies to goods facing price-elastic demand, where quantities demanded change in proportion with changes in prices. Note that the demand for fossil fuels may not be elastic in the short term, given that energy is seen as a necessity in most economies and thus demand may not necessarily change in proportion to price changes. To improve market penetration, Gazprom must maintain a multi-pronged, transnational strategy for pipeline control (in transit countries) and security of supply (primarily concerning the bulk purchase of supplies from energy-rich Central Asian states and sub-market rates). It requires the patronage of the state due to the fact that political and economic conditions in these countries are unlikely to be robust enough to

support a property rights regime sufficient to conduct business without arbitrary state intervention.

Figure 1: Composition of Russian Exports (% of total)



Source: *stat.wto.org*. Figures may not sum to 100 due to rounding or incomplete data

Extractive industries make up the bulk of Russia's economic output as well. Given its enormous wealth in oil and gas (largest gas reserves and second-largest crude oil reserves)⁸ and its stormy experience with post-Soviet privatization (two near-catastrophic economic crises within years of each other), it appears logical that control of key industries provides control of the commanding heights of the entire economy. The rationale for this strategy lies within the haphazard restructuring of the economy in the immediate post-Soviet era. The transition to a globalised market economy greatly outpaced the development of institutions to regulate it, resulting in

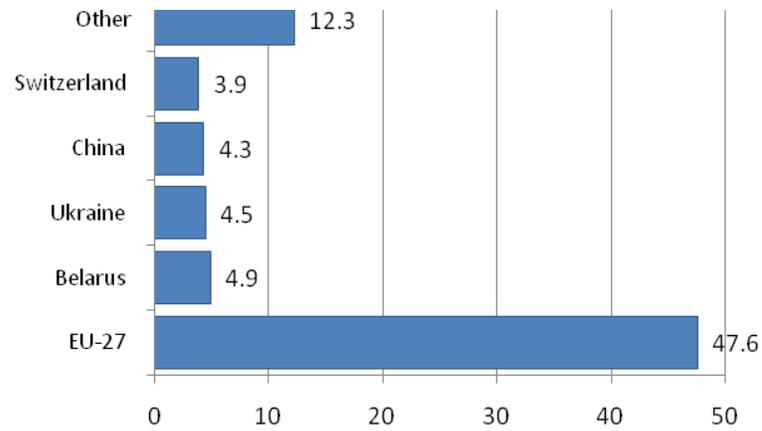
⁸ F Erixon, *"Europe's energy dependency and Russia's Commercial Assertiveness"*. Brussels: European Centre for International Political Economy, 2008, 5.

hyperinflation, rapid de-militarization (and subsequently de-industrialization and unemployment) and distress sales of invaluable industrial and mineral infrastructure. State capitalism theoretically allows the implementation of easier and more transparent systems of tax and foreign exchange collection in profitable industries.

In the energy sector, this has allowed the state to channel petrodollars into sovereign wealth funds (to avoid a repeat of the currency drought that sank Asian economies in the 1990s) and tax revenues into improving social welfare. Given the high barriers to entry in the energy sector, nationalization may be a more beneficial alternative to an oligopolistic market structure that the state is ill-equipped to regulate effectively. Finally, state ownership may help ameliorate the symptoms of “Dutch Disease” which is common in resource-based economies, by allowing the state to cross-subsidise investment into other industries to help them stay competitive. The term “Dutch Disease” refers to a phenomenon where exchange rate earnings from exports with price-inelastic demand cause an appreciation in the domestic exchange rate, thereby hurting the competitiveness of the economy’s other (price elastic) exports. In extreme cases, this erodes the size of the industry in the home country, leaving the economy dependent on a smaller basket of exports and vulnerable to supply or demand-based shocks.

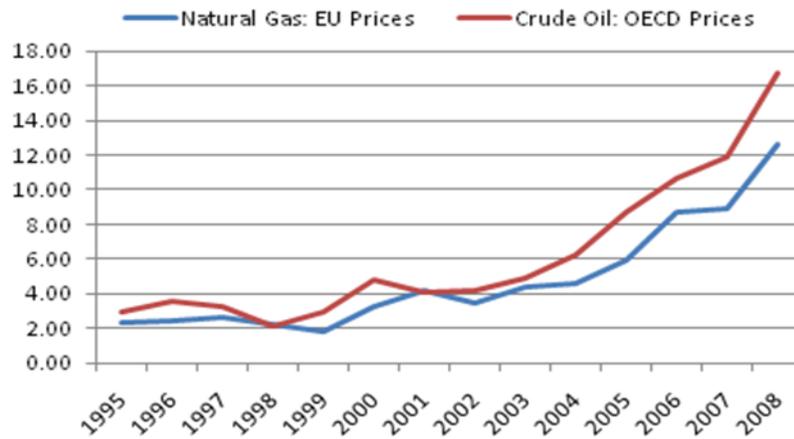
Given Russia’s struggle with democracy since 1991 and the high geopolitical stakes in the age of peak oil (from which Russia has benefited handsomely; see Figure 3), the implementation of state capitalism has aroused understandable suspicions among those who mistake its legitimate aims for unabashed *realpolitik*.

Figure 2: Major Russian Export Markets (% of total exports)



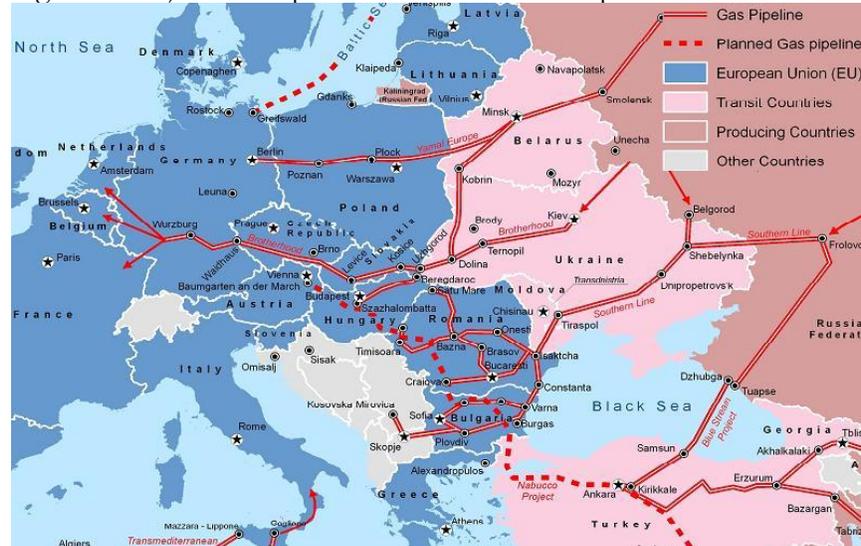
Source: *stat.wto.org*. Figures may not sum to 100 due to rounding or incomplete data

Figure 3: Energy Prices, 1995-2008, US\$/MMBtu



Source: BP Statistical Review of World Energy 2009. Prices are shown as an average of cost, insurance and freight (Cif). USD: United States Dollar. MMBtu: Million British Thermal Unit(s).

Figure 4: Major Gas Pipelines Toward the European Union



Source: European Commission, MapID: 1485

<http://ec.europa.eu/energy/international/bilateral_cooperation/russia/doc/2009_major_gas_pipelines_towards_the_european_union.pdf>.

Weak Property Rights Regimes and Mutually Detrimental Protectionism

A major source of dispute involves the allegedly unequal market access afforded to EU and Russian investors in each others' economies. Article 65 of the PCA focuses specifically on the energy sector and stresses the need for cooperation on energy policy formulation and implementation. Little has been achieved to that effect in practice, due to the fact that neither the PCA nor the ECT is binding if it conflicts with the constitutional laws of either party. Russian energy firms, Gazprom included, have had considerable difficulties in selling ancillary services like retailing and marketing (definitions of these terms are discussed in the section "Inconsistent Deregulation Efforts in the EU") in the EU as Russia is not a member of the WTO and thus faces tariff barriers in states in which

it has not negotiated bilateral treaties. The logical solution to this would be to acquire existing companies within EU states in order to create a market presence there. But deregulation initiatives in the EU energy sector require Gazprom to unbundle any subsidiaries from its major operations, thus negating the benefit of that tactic. This requirement can be circumvented of the country of origin (Russia) provides reciprocates by allowing foreign companies to pursue a similar ownership structure within its markets.

As mentioned previously, such a compromise is currently not feasible due to its obvious conflict with the Kremlin's strategy of state capitalism. In 2008, new federal laws were introduced to make it more difficult for foreign firms to participate in developing energy resources within the territory of the Russian Federation. Foreign firms looking to take a controlling stake in Russian energy firms must now receive prior approval from both the government and its primary counter-intelligence arm, the Federal Security Service (better known as the FSB). Due to the strategic nature of energy resources, firms with more than 10 per cent foreign ownership will have limited access to high-reserve fields, i.e. those estimated to yield 70m tonnes of oil and/or 50bn cubic metres of gas. Amendments made to the *Federal Law on Subsoil* and *Federal Law on Continental Shelf* have led to new stipulations on licensing usage of fields denoted as having federal significance: a minimum of 50 per cent domestic ownership and five years of experience in Russian continental shelf exploration and production.⁹

While Western energy firms are accustomed to establishing joint ventures in order to operate in Russia, it has become increasingly difficult to secure lucrative part-ownership deals under the Putin administration. Russia's post-USSR economic troubles have made numerous energy majors wary of long-term investments there, with many having entered and pulled out, creating significant logistical and financial hindrances to timely development of oil and

⁹ S. Seliverstov. *"Energy Security of Russia and the EU: Current Legal Problems"*. Paris: Institut Français des Relations Internationales (IFRI), 2009, 17.

gas fields.¹⁰ While the restrictive new hydrocarbon laws may cause chagrin among foreign energy firms, their primary intent appears to be develop greater efficiency in the sector. That said, there have been clear instances of non-transparency and state nepotism in the awarding of gas field development contracts in recent years. The most notorious of these is the Sakhalin-II LNG development contract, which was initially awarded to a fully foreign owned consortium (Royal Dutch Shell plc, Mitsui and Mitsubishi) in the 1990s when the Yeltsin administration was hungry for new sources of FDI. The Putin administration was able to coerce the sale of a 50 per cent stake to Gazprom in 2006 by threatening to scrap the rights to the project entirely on the grounds of environmental non-feasibility.¹¹

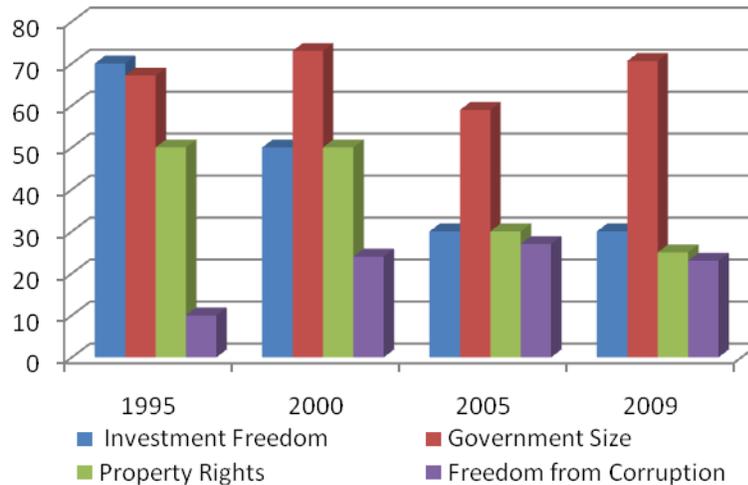
As the chart below shows, Russia's governance and respect for property rights is far from optimal, with foreign investment being a major casualty. A prime example of this was the contracting process for the Shtokman gas field, estimated to have the highest reserves of any offshore field. Five foreign companies were invited to bid for the contract, but the government reversed its decision and awarded a no-bid contract to Gazprom. Embarrassingly, Gazprom was found to be unable to develop the field on its own, and thus two foreign firms were brought in, but only to provide consultative and other ancillary services; no ownership rights were conferred.¹²

¹⁰ Centre for Energy Studies. *"Russia, Energy and the Rule of Law"*. Cambridge: Centre for Energy Studies, Cambridge Judge Business School, 2009, 3.

¹¹ Bloomberg News, September 5, 2006, "*Russia Sues to Halt Shell's \$20 Billion Oil Project*" <<http://www.bloomberg.com/apps/news?pid=20601085&sid=aFuUrktb3BjM&refer=europe>>. See also The Economist, April 8, 2009, "Energy in Japan", <http://www.economist.com/businessfinance/displaystory.cfm?story_id=13447453>.

¹² Details of the deal are discussed in The Jamestown Foundation (2007) <http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=32871>.

Figure 4: Russia's Institutional Index (Maximum Value: 100)



Source: Index of Freedom, The Heritage Foundation and the Wall Street Journal

The latest example of state intransigence occurred in 2008 with TNK-BP, an oil company with a 50-50 ownership structure between British Petroleum and AlfaAccessRenova (AAR), a consortium of Russian investors. AAR was unsatisfied with the BP-appointed leadership of the joint venture (due to BP's stated focus on long-term investment rather than short-term output growth and share price gains), and turned to the state for arbitration, bypassing the board of directors and the local courts. Following the intervention of Russian tax and immigration authorities, a settlement was reached where the existing leadership was replaced by a Russian speaker with local experience.¹³ In the interest of fairness, Russia has insisted that the new leadership be jointly approved by both parties. That said, its involvement has provided it with considerable leverage in the form of a negotiated initial public offering (IPO) that could

¹³ The Economist, "Back to Business", September 4, 2008, <http://www.economist.com/businessfinance/displaystory.cfm?story_id=12073704>.

open up 20 per cent of company equity to the general public and in particular, the deep pockets of Russian state giants like Rosneft.¹⁴

The benefits of this sort of economic nationalism have yet to appear. Erixon notes that Gazprom has yet to bring a major gas field on stream. He argues that inefficiency in a monopoly is more likely to occur when the firm can rely on the state to pass legislation favourable to its operations and detrimental to those of its competitors (a phenomenon known as regulatory capture).¹⁵ This is already evident in the gas sector; in 2004, Russia's Federal Energy Commission ordered independent gas distributors (which control a mere 10 per cent of the low-pressure distribution network) to surrender the mark-up revenue (calculated as the difference between the price of purchasing gas off the high-pressure transmission pipeline and the sale price to the end-user) to Gazprom.¹⁶ By depriving the distributors of a legitimate source of income, Gazprom is effectively eliminating its competitors by making it impossible to turn a profit.

Moreover, non-transparent practices encourage managerial inefficiency and outright corruption in the conduct of fiduciary duties. This can make it difficult for investors and stakeholders to hold poor performers to account. This may be one of the reasons why the largely privatised coal sector has shown greater productivity than the largely state-owned gas sector (see Table 1). The effect of kickbacks on productive efficiency is perhaps most evident in the construction of the Blue Stream pipeline through the Black Sea, which has cost three times as much per kilometer on the Russian side of the border than on Turkish territory.¹⁷

¹⁴ Dow Jones Online Financial News, "TNK-BP Peace Deal Paves Way for Multi-Billion Dollar IPO", September 4, 2008, <<http://www.efinancialnews.com/homepage/content/2451698597>>.

¹⁵ Erixon, "Europe's energy dependency and Russia's Commercial Assertiveness", 2008, 8.

¹⁶ A. Heinrich, "Independent Gas Producers in Russia". *Kices Working Papers*, 6 (1-42).

¹⁷ A. Aslund, "Russia Energy and the European Union: Perspectives on Gazprom". *Speech before the European People's Party, European Parliament, Brussels, May 15, 2008*, 5 (1-6). Brussels: Peter G. Peterson Institute for International Economics.

Table 1: Russian Coal and Gas Industries: Output Growth Rate Comparisons

	1999	2000	2001	2002	2003	2004	2005	2006	2007	1998-2007 Output Growth	Avg. YOY Growth Rate			
Coal Production (mn short tons)	7.55%	2.20%	-	-	8.17%	0.74%	9.25%	0.61%	10.23%	43.49%	8.11%			
Gas Production (bn cubic feet)	-	-	-	0.20%	0.93%	0.58%	2.51%	3.53%	2.84%	1.06%	2.40%	-0.44%	10.53%	1.13%

Source: US Department of Energy, Energy Information Administration, author's calculations.

Inconsistent Deregulation Efforts in the EU

In recent years, the European Commission (EC) has drawn up legislation intended to increase competition and choice for electricity and gas by breaking the vertically integrated structure of energy procurement and supply (ownership, transmission, generation and distribution). But progress on this front has been hindered by the existing economics of the industry, which has created a potentially dangerous institutional inertia that favours the creation of 'national champions' (thereby maintaining a concentrated market structure) and has prevented the EU from dealing with Gazprom with one voice.

Market liberalization initiatives in the European gas sector were nearly non-existent before 1980.¹⁸ The power and gas sectors were considered to be natural monopolies, or industries where competition would replicate generation and transmission infrastructure at substantial cost. Such replication would prevent any one firm from ever achieving the minimum efficient scale of production (where the marginal cost of production is lowest), because that would be at an output level greater than customer demand (a level that no firm facing competitors would wish to approach). A competitive market therefore would ultimately lead to

¹⁸ R. Green, "EU Regulation and Competition Policy among the Energy Utilities". *50 Years of the Treaty: Institute for Energy Research and Policy, University of Birmingham*, 7, (pp. 1-24), 2007. Birmingham.

higher average prices for end-users than what would have been the case had a single supplier been allowed to operate a monopoly.

A natural monopoly is however distinct from a simple monopoly, which is not Pareto-efficient. In economics, an outcome is *Pareto-efficient* if one or more parties can accrue benefits in excess of the status quo only at the expense of another party. A simple monopoly does not achieve Pareto-efficient outcomes due to its creation of dead-weight losses (DWL): its market position allows it to maximize profits at lower output levels and higher prices, than what might be possible in a competitive market. In contrast, the DWLs created by a natural monopoly are theoretically lower than those of a simple monopoly as well as a competitive market, since as mentioned, the minimum efficient scale of production is larger than the size of the market, and thus there is theoretically no limit to the economies of scale that can be achieved (i.e. average costs continue to fall even as output rises).

That said, spurring competition in gas markets is theoretically easier than in electricity markets, which require some degree of centralised coordination. Electricity flows must always be balanced by demand across the network, so as to prevent outages or surges. This is generally conducted by a system operator that depends on accurate and timely information about grid capacity, integrity and reserve power availability in order to ensure maximum consumer utility. Without a robust institutional structure governing utility behaviour, the operator's job can be complicated within a system of diffuse infrastructure ownership, where multiple competitors have incentives to limit transparency regarding their operations.

Gas markets are also theoretically easier to regulate as the commodity must be physically 'pushed' through pipelines to meet demand. Imbalances between supply and demand can be corrected by adjusting the pressure within the system. That said, it is always preferable to have an even flow within pipelines so as to reduce the average cost of transmission and extract maximum yield from the source. An additional logistical luxury for gas markets is the availability of storage systems (salt caverns, depleted fields, liquefied natural gas (LNG) silos), which allow conservation (at a price) during

off-peak periods. Finally, the gas industry is better positioned to achieve pan-European competitiveness as several countries already have high-capacity cross-border pipelines due to their dependency on imports.¹⁹

Efforts to increase competition have been stymied by the high costs of entry. The substantial investments required to develop cross-country pipelines and bring gas fields online have necessitated the negotiation of long-term contracts with buyers in order to create a steady stream of revenue, thus giving existing and future creditors a reliable timeline regarding the recoupment of sunk costs. The lengths of these contracts (which often include high minimum purchase volumes) shrink penetration opportunities for new entrants and create a market structure characterised by a handful of dominant firms.

The EC has attempted to remedy these problems by introducing sweeping legislation targeted at encouraging competition, breaking vertical integration and preventing anti-competitive collusion. A perfectly vertically integrated utility would control the following supply points:

- (1) Downstream assets:
 - a. Exploration and extraction
 - b. Processing/refining
- (2) Upstream assets:
 - a. Transmission (high-pressure pipeline transportation to bulk-volume customers, e.g. industrial users, power stations)
 - b. Distribution (low-pressure transportation to small/medium customers and to siphon gas out of pipelines during off-peak hours)
- (3) Storage (necessary for smoothing the flow of gas, as discussed)

¹⁹ Ibid, 4.

- (4) Retailing and Marketing (Provision of services related to the stages of production and distribution listed above, such as billing, pricing, logistical management, financial hedging, etc.)

The EC Directive 96/92/EC²⁰ adopted in 1996 created a formal blueprint for coordinating competition in electricity markets; while Directive 98/30/EC²¹ tended to the natural gas market. The directives offered largely similar policies to regulate the power and gas markets; any qualified utility would be allowed to undertake third-party access (TPA) to the national grid; for this privilege, market entrants would be charged tariffs imposed by the grid owner or by a government-appointed body in the member state in which the transaction occurred. Barriers to entry in gas markets remained higher nonetheless since the directive did not require managerial separation between storage, transmission and distribution, or the establishment of a formal system operator. The latter was crucially important in implementing a single buyer market structure (which was an option in the electricity directive, but not in gas), in which a central organization bought all generation and distributed it to retailers through a tendering process. The single-buyer model, while unused in power markets, could have been useful in coordinating cross-EU distribution of Russian gas (as well as from other foreign sources) by allowing the EU considerable leverage in price negotiations through its monopsony power. In its absence, individual member states have negotiated separate bilateral deals with Gazprom, complicating progress on strengthening the ECT and PCA by creating a divided front. I return to this matter in the following section.

The second series of directives were adopted in 2003 and largely unified the regulatory structures of power and gas; System

²⁰ The full text of the directive can be located at: <http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=en&numdoc=31996L0092&model=guichett>.

²¹ The full text of the Directive can be located at: <<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31998L0030:EN:HTML>>.

operators were mandated at every stage of gas production and distribution. Both ownership and management were required to be unbundled from the other stages of the production process, i.e. companies could not simultaneously own pipelines and distribution facilities, or distribution and storage, etc. TPA rules remained unchanged, though companies investing in costly new infrastructure could request temporary exemption in order to recoup the cost of investment.

There have been considerable lags in the effective implementation of the new rules, particularly since a number of member states were satisfied with the status quo and had attempted to delay passing the legislation into national law. In late 2004, warning notices were served to no less than 18 member states for failure to comply with the new rules.

Existing and Future Legal Challenges

The policies adopted by both parties in response to the imbalances within the relationship contain a number of mutually destructive consequences. Given the state's unimpressive performance in managing the energy sector, the Kremlin's hostility to foreign investment threatens to muzzle output growth through under-investment and corruption, just as demand from the EU and the domestic market is trending rapidly upward. Gazprom's plans to develop pipelines to serve the Chinese market and diversify its customer base will be severely hindered without considerable assistance from either Chinese or Western firms, neither of which is likely to be welcomed by the state. The delay faced by the EC in implementing a regulatory regime that engenders greater competition has restricted the EU's ability to negotiate with Russia with one voice.

What the EU wants is reasonable certainty of supply security from Gazprom and a level playing field for the gas sector at home. What Russia wants is greater access to EU markets, tapping the burgeoning demand in China, bringing new fields online and

increasing energy efficiency at home.²² Some of these goals are clearly conflicting; supply diversification in Europe means bypassing Russian gas by developing pipelines to bring in gas and LNG from North Africa and eventually, the Caspian basin and Central Asia (which currently sell gas to Russia at very favourable prices). Additionally, requiring Gazprom and other companies to unbundle their operations reduces the incentive to invest in new fields, particularly if European demand is set to fall with alternative sources of supply.

That said, some of these objectives are also compatible. Competition for Caspian gas from Europe and China will force Gazprom to raise the prices paid to its suppliers. This in turn will make the transition to market prices in the domestic sector an economic inevitability, rather than a political inconvenience that can be pushed back indefinitely. With higher global market prices for gas, Gazprom will have the necessary incentive to invest in giant new fields in its own backyard (likely to be in Tyumen region to the east of Moscow, but also in the Yamal peninsula in Siberia) to serve both European and Chinese demand. Given that a consensus has largely been reached on Gazprom's inability to tap these fields without foreign assistance or without considerable delays,²³ the firm can choose to cooperate with the energy majors and rebuild its technical and logistical credibility, or watch as Chinese and Western firms flock to develop Central Asian reserves instead.

The original PCA expired in late 2007 and negotiations are ongoing to establish a new one. While the legal framework of WTO regulations has satisfactorily resolved disputes in certain cases, its

²²Due to the subsidised price of gas, the Russian economy uses five times more gas to create a dollar of GDP than Italy (Aslund, "Russia Energy and the European Union", 2008, 4)

²³J. Stern, J. "The New Security Environment for European Gas: Worsening Geopolitics and Increasing Global Competition for LNG". Oxford Institute for Energy Studies, 2006a, 8; Centre for European Reform, "Russia, Energy and the Rule of Law". Cambridge: Centre for Energy Studies, Cambridge Judge Business School, 2008, 6; and P. Noel, "Beyond Dependence: How To Deal With Russian Gas.". *ECFR Policy Brief*, 2008, 5 (1-18).

failure to settle long-standing disagreements over agricultural subsidies for example, shows that its hands are tied when it comes to protectionism in politically strategic industries. That is not to say that the existing legal structure cannot be worked with: the EC struck a major blow against industry collusion by successfully prosecuting anticompetitive 'destination' clauses in gas contracts designed by Gazprom as well as other large European utilities. These clauses limit the number of markets within which gas sold by the producer can be re-sold by a distributor. At first glance, this appears to reduce the value of the gas to the buyer, but when all major contracts are designed with non-overlapping geographic segmentation in mind, they essentially force distributors to act collusively by not entering each other's markets. This raises the producer surplus for the distributor (i.e., he receives a higher price than what he would be willing to sell it at in a competitive market) and allows the producer to collect a premium on the price for providing this advantage. The EC's actions were able to halt Gazprom's practice of such clauses in several major European economies between 2003 and 2005.²⁴ That said, given that the PCA and ECT both require significant reform to be legally enforceable on a broader scale, some intermediate steps can be taken to help negotiations move forward.

The first should be to allow Russia considerable latitude to deal with the energy majors with regards to exploration and production projects on Russian soil. While the economic repercussions for breaches of contract law (and for poor property rights regimes in general) tend to be severe in most economic systems, the energy sector is unique in the sense that windfall revenues during times of high commodity prices, coupled with low elasticity of demand for such products mean that private firms can profit even in highly uncertain environments. While private firms have every right to seek legal recourse in instances of malfeasance, history is not on their side: governments from the Persian Gulf to

²⁴ See Case COMP/38.307, (Germany), COMP/38.085 (Austria) and COMP/38.308 (Netherlands) available at: http://ec.europa.eu/competition/antitrust/cases/index/by_nr_76.html.

South America have exercised eminent domain powers at natural resource deposits, largely without problems.

The enforcement of business law is difficult at best when paired against national interest. It may ultimately be best to allow the energy majors to fend for themselves; given energy demand in Europe and emerging Asian markets, the profit motive may be sufficient to get more Russian fields online, which is the EU's most crucial concern. Additionally, Russia will be more willing to cooperate with the EU on a mutually beneficial redraft of the ECT and PCA if it perceives that the EU is not interfering in internal Russian matters. This may also present an opportunity to legally obligate Gazprom to unbundle its operations inside the EU, which would then be more palatable to the Kremlin. If this can be achieved, then Gazprom's sway over its Western European allies is effectively broken, as its proposed 'hubs' for gas distribution in Germany and Belgium become less lucrative for the host countries, making it easier to break ranks when the EC votes on a new PCA. These 'hubs' allow the host country to gain revenue from storage and transit of Russian gas. In return, Gazprom receives access to the host country's transmission infrastructure, allowing them to sell more gas directly to Western Europe without running afoul of antitrust authorities.²⁵

Central, Eastern and Southern (CES) European countries will still remain heavily dependent on Gazprom for their supply needs and may not wish to upset the existing balance. To assuage their fears, the EU should consider extending electricity and gas network interconnections to countries in the region. As part of a longer-term diversification strategy, the EU should look towards developing liquefied natural gas (LNG) supplies from the Middle East and North Africa. The CES countries are well placed to serve as storage and transmission hubs for LNG; establishing such facilities there provides them with a handsome incentive to vote with the EU on a unified energy security policy.

²⁵ I. Osipov, I. "*Gazprom Expansion Into EU Utilities Sector*". Calgary: Center for Applied Business Research in Energy and Environment (CABREE), University of Alberta School of Business, 2007, 13.

Russia should not suffer disproportionately from these policies. While LNG diversification and unbundling does constrain its market power, its current production levels are insufficient to serve future European needs, let alone those of other markets. These policies free up more gas for domestic use, simplifying the process of gas price liberalization. Gazprom may well be willing to comply with unbundling in Western Europe now that antitrust regulation has created a more even playing field for new entrants. Should there be obstructionism from Moscow however, the EU has a major trump card in the form of the proposed Nabucco natural gas pipeline. Estimated to go online in 2014, the pipeline will carry Azerbaijani and Turkmen gas through Turkey and into Central Europe, bypassing Russia entirely. While there were doubts as to whether such a scheme could work, given the unstable political climate in the transit countries, the success of the recently constructed Baku-Tbilisi-Ceyhan (BTC) crude pipeline in the region has largely erased such fears.

Conclusion

The analysis and policy recommendations in this paper are not intended to support or undermine any particular political agenda. It attempts to examine the nature of a largely economic and institutional problem and suggest market-based solutions congruent with the existing institutions among both parties. The fact of the matter is that the status quo regarding energy security is unsustainable as long as mutual distrust continues to rule economic relations. This paper has focused on three main themes: how the structure of the European gas sector impedes competition, how restrictions on foreign investment have throttled Russia's production potential and how the existing documents governing energy relations and security have failed to deal with these problems. The paper has also identified looming issues that will become more apparent in future within a geographically disparate supply chain, such as transit fees and political instability. In this period of diplomatic tensions and economic gloom, it is not feasible to prescribe solutions that go beyond the current institutional paradigm; I have thus attempted to put forward ideas

that allow both parties to play their best hand. It should be emphasised that the policies prescribed here are only intended to tide matters over until a more exhaustive PCA and ECT can be drawn up. The ultimate purpose of this study is to encourage the development of a more level playing field, as it was exactly this institutional disequilibrium that created the problem in the first place.

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