

KANNAN RAMASWAMY

## GAZPROM: THE EVOLUTION OF A GIANT IN THE GLOBAL OIL AND GAS INDUSTRY

*Today Gazprom is a modern, open, dynamic company. In just the last five years, the amount of tax it pays has more than doubled, and it accounts for nearly 20 percent of the country's budget. Gazprom's capitalisation has reached a new historic high, surpassing the 350 billion dollar mark. It is one of the largest companies in the world.*

*Obviously, the success of the company has been in large part due to intelligent and flexible policies, not only Gazprom's but also those of the government and the state. Such close cooperation is in full accord with the current trends in the global oil and gas industry. Moreover, it provides the company, the industry, and the entire economy with additional opportunities for long-term development. Given Gazprom's strategic importance for Russia, the state will continue to keep the situation under its direct control.*

Vladimir Putin, then-president of Russia,  
Speech Commemorating 15th Anniversary of Gazprom,  
[www.gazprom.ru/eng/articles/article27020.shtml](http://www.gazprom.ru/eng/articles/article27020.shtml).

Alexei Miller had been a key architect in the emergence of Gazprom as a global player. In seven short years, he had been largely responsible for engineering the global rise of the Russian gas superpower that was sure to dominate the industry for decades to come. Gazprom had been launched as a joint stock company in 1993 when the Russian government decided to spin off the administrative arm that was managing gas assets in the country. By early 2008, the company had increased gas reserves to some 4.3 tcm (trillion cubic meters), the largest in the world, had about 22,000 km of gas trunk lines reaching out into Eastern and Central Europe, as well as points along the Caspian Sea, and a market capitalization that had grown 200-fold since inception. Western Europe was increasingly dependent on gas supplied by Gazprom, as were other former Soviet Union countries such as Ukraine and Belarus. It was the largest employer in Russia, the largest exporter, and accounted for roughly 20 percent of the country's tax base—a leviathan by all accounts. Despite Gazprom's dominant position, especially at a time when the world's energy resources were becoming scarce, there were some critical challenges that cast a long shadow over its future. (See Appendix 1 for key statistics on Gazprom, and Appendix 2 for comparisons with competitors.)

The company had been unable to increase its production significantly despite its command over vast reserves. Many Russian analysts believed that without substantial investments in new projects, Gazprom could soon find itself unable to honor its mandatory commitments even to the domestic market. However, many of Gazprom's reserves were located in very challenging environments such as the Arctic shelf and Siberia. These projects required fairly sophisticated levels of technical expertise and huge amounts of capital. In the recent past, the company had, surprisingly, spent much of its capital budget on large acquisitions of new reserves and forays into unrelated sectors of the economy, such as media and banking. It remained to be seen whether the company would have the skills and resources to execute these crucial projects.

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In the global arena, Gazprom was still dependent on western European sales for much of its lucrative overseas revenues. It realized roughly five to ten times the price for its gas in Western Europe compared to its domestic market. However, in the next decade, Europe seemed likely to welcome other suppliers from North Africa, Central Asia, and the Middle East. The competition was also bound to intensify with rapid changes wrought by LNG technology, a technically complex field where Gazprom did not have much experience. These nettlesome issues were sure to undermine the unassailable image that Gazprom was projecting.

## The Genesis of Gazprom

*Gazprom is a mutant. People need to be aware of what kind of animal it is. It doesn't follow business logic or political logic. It's a mixture of a business empire and a presidential administration.*

Russian Analyst Pavel Baev, "How Gazprom Turned Up the Heat on the West," *The Independent*, September 3, 2007.

Gazprom traced its origins to the USSR Ministry of Oil and Gas Industry. In 1989, the Soviet government, under Victor Chernomyrdin, reorganized this administrative arm and named it Gazprom. In 1993, Gazprom was given further autonomy and constituted as a joint stock company by the Boris Yeltsin government.

Russia had chosen to adopt completely different approaches to its assets in the oil sector and gas sector. While it had encouraged foreign investors to participate in the privatization of oil assets, no such invitation was extended with respect to gas assets. The privatization of oil occurred at a particularly trying economic period for Russia and seemed to be a quick way to overcome some of the financial distress. At the end of this process, Russia was left with effective control over the main arterial pipelines that were used to export oil, but the base assets themselves had been sold to Russian and foreign interests. This process allowed those close to the Kremlin to make enormous profits. Many Russian oligarchs, such as Oleg Deripaska, Vladimir Potanin, Roman Abramovich, Mikhail Friedman, and others, built huge empires almost overnight.

In contrast, when it came time to set forth a strategy for gas assets, Russia retained effective control over vast reserves by using Gazprom as the entity responsible for the majority of the country's gas assets. The company was listed on European and U.S. stock exchanges via GDRs (Global Depository Receipts) and ADRs (American Depository Receipts) in 1996. However, the Russian government always held significant control in the company, either financially or politically, alongside private and institutional investors. The chairman of the board had traditionally been a government appointee with management control vested in the hands of a handpicked technocrat. For example, Victor Zubkov, the current chairman of Gazprom, was originally the prime minister of Russia under Vladimir Putin. He relinquished his post to make way for Putin when Putin's term of office as president of Russia expired. Alexei Medvedev, who was elected to succeed Putin as president, was the previous chairman of Gazprom. The nexus between the government and Gazprom had been a source of some advantage for the company both at home and abroad.

Gazprom had managed to marshal very significant land tracts all across Russia bearing rich deposits of gas, and government patronage surely helped it along the way. Combined with a far-reaching network of gas transportation pipelines, Gazprom evolved to become the largest and most widely known Russian company and its most widely known globally. It had the rather unique distinction of being perhaps the only gas company in the world that was permitted to maintain its own standing army, ostensibly for defending its vast reserves and production assets.<sup>1</sup> It employed more than 430,000 people, making it the country's largest single employer in the industrial sector. Representing 20 percent of tax inflows into the Russian exchequer, it was also no doubt one of the Russian government's most favored companies.<sup>2</sup> Over the years, Gazprom had diversified into a host of related and unrelated areas, both of its own volition and also at the prodding of the Russian government. This unwieldy portfolio included significant assets in AB Gazprombank, a significant power in domestic banking; NPF Gazfund, Russia's biggest nongovernmental pension fund; insurance company Sogaz; and a media giant, Gazprom Media.<sup>3</sup>

Organized along global functional lines, by 2008 Gazprom had moved from a geographic approach to managing its assets to a more functional approach. This structure, it was believed, offered the potential for leveraging knowledge assets, especially in the areas of prospecting and development. It also offered the prospect of leveraging some scale economies. Gazprom had developed a two-stage plan to reorganize the company's seven subsidiaries, spread over 11 geographic regions, into six business divisions overseeing production, maintenance, and transportation.

Starting with a stronghold in gas, Gazprom had expanded to other areas within the realm of energy. In 2005, it acquired most of Sibneft, the country's fifth largest oil company, in a buyout that was then the biggest ever in Russian history. Gazprom also had a 10 percent interest in RAO UES, Russia's largest electricity provider, and 25 percent of Mosenergo, Moscow's utility services company. These holdings cemented Gazprom's position as the leading energy company in the country. It was this dominant position combined with opaque relationships with the power brokers in the Kremlin that worried competitors and customers both within and outside Russia. (Appendix 3 shows the holdings portfolio of Gazprom.)

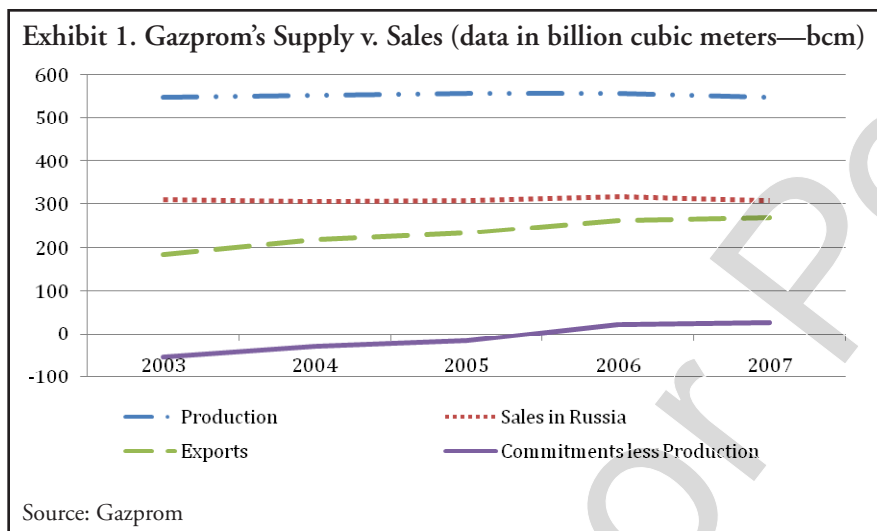
## The Domestic Market for Gas in Russia

Price controls and government supply mandates were two of the most crucial features that had come to characterize the market for energy in Russia. Although Russia was adopting a more modern approach to its enterprises by encouraging their globalization, allowing their listing on foreign exchanges, and helping them forge alliances and joint ventures with western firms, it still had to contend with its legacy under communism when collective good outweighed all else. In the energy sector, this translated into crippling controls on pricing. For example, Gazprom was able to earn only about 20 percent of the revenues in its home market of what it could earn in foreign markets. Russian law mandated that Gazprom sell gas domestically at a controlled price, about \$50/thousand cubic meters (including taxes and excise duties), although the government, despite widespread discontent, was committed to raising the floor prices. The Russian government had committed to wholesale deregulation of gas prices by 2011 when Gazprom would be permitted to charge market-based prices to its industrial customers. However, prices for domestic consumers, who constituted 15.7 percent of Gazprom's sales in 2007, were not expected to be deregulated.

Domestic consumption in Russia was increasing significantly at a time when production was declining in three of Gazprom's biggest fields. The West Siberian fields of Urengoy, Yamburg, and Medvezhye had all fallen close to 50 percent below their original production levels. To compensate for these aging fields, Gazprom had set forth a plan to accelerate development of many smaller fields, but it was believed that even with these new fields coming online, there would still be a supply shortfall. Domestic consumption growth was partly attributed to the overall growth of the economy itself. This growth pressure was also accentuated by some of the realities of the local gas distribution system. For example, most buildings designed during the Soviet era did not have the necessary infrastructure to monitor gas usage. Individual meters for customers were unheard of and retrofits almost impossible. Thus, customers did not know how much gas they were using, making it impossible to institute any energy savings plans. To complicate matters further, it was even difficult to get a clear idea of how much they were paying for gas on an individual basis. Payments were possible in a wide range of options from cash to barter arrangements.<sup>4</sup> It was widely believed that Russia was the only country in the world where gas was cheaper than coal, making it difficult to rein in consumption. In keeping with national plans for both rural and urban development, more and more parts of the country were coming under the gas infrastructure. Roughly 62 percent of the homes in Russia had begun to use gas, a 20 percent increase since 1993 when Gazprom was privatized. This trend was expected to continue with the government's ambitious plan to bring the eastern regions of the country under a gas infrastructure.

## Gazprom's Gas Fields—The Crown Jewels

Gazprom controlled the vast majority of Russia's gas resources, a pre-eminent position considering the fact that Russia was also the single largest holder of gas reserves worldwide. Many of the reserves were located in the challenging Siberian regions of the country that were characterized by very short periods that allowed for exploration, followed by long periods of harsh winter conditions. The largest remaining untapped fields were in the Yamal-



Nenets region, onshore as well as offshore. These fields included Shtokman and Bovanenkov, both of which were considered gas giants. Much of the production, about 70 percent of Gazprom's total output, was occurring in the Urengoy, Yamburg, and Medvezhye fields, all of which had seen brighter days with respect to yields.

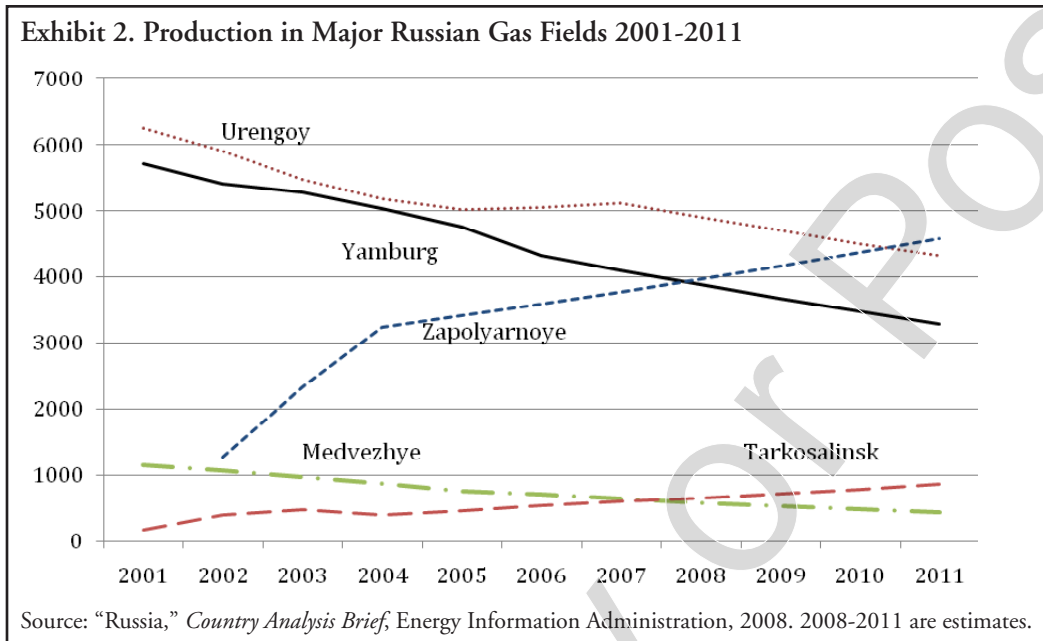
In the near term, Gazprom's four largest fields were expected to suffer production declines of around 50.4 bcm/y.<sup>5</sup> Although there were new fields awaiting investments for commercialization, Gazprom had competing priorities. The last field to come online was the huge Zapolyarnoe field with a yield of about 100 bcm/y. The Yuzhno-Russkoye field was also brought online in late December of 2007. A joint venture with BASF, this field was expected to reach its designed production capacity of 25 bcm by 2011. Despite these new additions, the amount of new gas being brought online was believed to be incapable of stemming Gazprom's production declines. It is worth noting that prior to the Zapolyarnoe and Yuzhno fields coming online, the last previous addition to the capacity had occurred in 1991.

In addition to the new fields, there were three more that had come under Gazprom's sphere of influence. At the behest of the Russian government, Gazprom had obtained a controlling interest in the Sakhalin II project, developed by Shell and its consortium of Japanese partners in 2007. One of the largest of its kind in the world, this project was expected to yield 643 bcm of gas and 173.4 million tons of oil and condensate. The project was in advanced stages of commissioning when Gazprom bought a controlling interest for \$7.45 billion. (Appendix 4 provides a brief history of Sakhalin II and the assumption of control by Gazprom.)

The second major field awaiting development was the massive Shtokman field in the Barents Sea. Gazprom had originally intended to use a consortium of contractors to develop the field instead of partnering with IOCs, who were clamoring for the opportunity. Subsequently, a partnership deal was struck between Gazprom, Total of France, and StatoilHydro of Norway. In a departure from the standard practice of offering the IOC partners an equity stake in the field, Gazprom constituted a wholly owned subsidiary that would hold the lease and title to Shtokman. Total and StatoilHydro would function as contractors to the company and own 25 percent and 24 percent, respectively, of the company's equity, albeit one step removed from the title holder.

The third major field that had emerged was Kovykta, originally discovered in 1987. BP and its partner had held it for a considerable period of time. Alleging production delays at the field, BP and its partner, TNK, were sidelined to make way for Gazprom to take it over. TNK-BP agreed to sell the field to Gazprom in 2007 for between \$700-\$900 million. Analysts had estimated the value of the property at \$3 billion, making the deal a very good one for Gazprom. Kovykta was thought to contain 2 tcm of gas, making it one of the largest fields in the world. However, as of October 2008, the transaction had not been completed. Given the very long-term development horizon and the cost involved, Gazprom had even observed that the property was "worthless."<sup>6</sup>

A confluence of likely scenarios included spiraling domestic demand, a decline in domestic production, ever-increasing costs to bring new capacity on stream, and an increase in prices demanded by FSU (Former Soviet



Union) suppliers that fell within the Gazprom sphere of influence. In assuaging some of the fears expressed by foreign buyers in Western Europe, Alexei Miller had observed, "Our international business ties and our joint projects have turned Gazprom into a global company. We will rigorously abide by all of our long-term contract obligations. The size of our reserves permits us to confidently state that Gazprom is able to meet any solvent consumers' demand for gas, in domestic and foreign markets alike."<sup>7</sup>

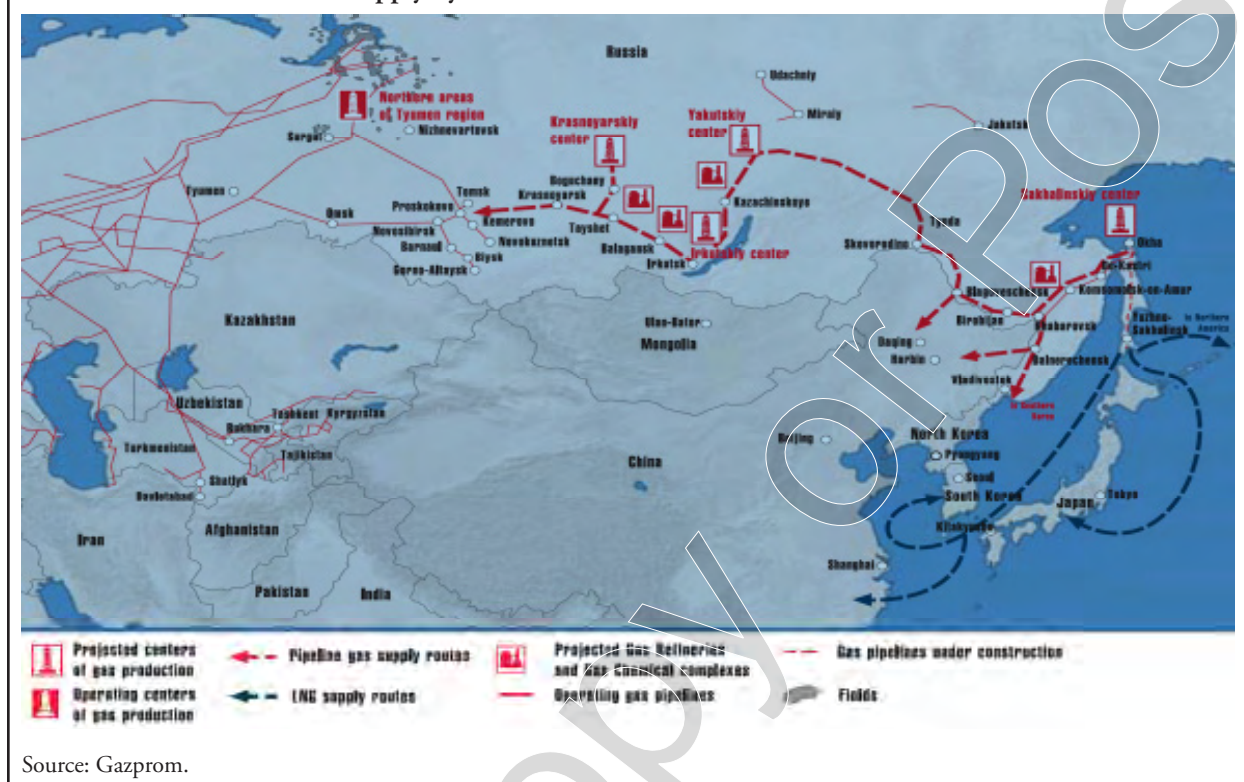
## The Power of the Pipeline

There was perhaps no bigger asset that Gazprom inherited at its creation than the network of pipelines to transport gas. Called the Unified Gas Supply System of Russia (UGSS), the network was the largest in the world, built to withstand challenging environments. It spanned 157,000 km (97,500 miles), enough to circle the world more than 24 times. Although it had achieved a throughput of 717 bcm by 2007, it was already far below the capacity needed. Of this capacity, roughly 22 percent was used to carry gas produced by independent producers, both within and outside Russia—for example, from fields in Central Asia. This network provided Gazprom significant power to dictate the strategy of many independent producers, both local and foreign. Exhibit 3 shows a map of Gazprom's UGSS network.

In the face of rocketing demand and declining gas yields, Gazprom had resorted to importing gas from friendly FSU countries, such as Turkmenistan. While some of the domestic oil producers did indeed have the ability to produce gas from their operations, there was little incentive for them to do so since Gazprom virtually controlled the entire domestic transmission system. The company had been very careful in allowing transmission from other producers, sometimes claiming that specifications of their production were not within the tolerances allowed by its network or that no spare capacity was available. However, it did stand to benefit significantly by tapping other independent producers to transport gas to locations where it could make a trading gain. Most independent producers had to sell to Gazprom at wellhead prices that were below even domestic prices. For example, Lukoil was selling gas under long-term contract from its Yamal-Nenets field to Gazprom at \$22 per thousand cubic meters, when Gazprom itself was charging more than \$36 even in nearby domestic markets. This also had the important benefit of strengthening its supply position by augmenting its own production and making it even more powerful.

The UGSS infrastructure was also a tool of political influence used by the Russian government. This was illustrated most notably in 2006 when Gazprom decided to shut off gas supplies to Ukraine. The shutdown was ostensibly meant to force Ukraine to settle its bills for the gas it had already received, and also to enforce a higher

Exhibit 3. The Unified Gas Supply System of Russia



price for future supplies. Russia had always provided subsidized gas to the FSU republics, but the cost of such a subsidy had risen significantly. The closure of the pipeline coincided with the Orange Revolution in Ukraine when the newly elected democratic government there started moving closer to Western powers. Thus, it was unclear whether political priorities superseded business interests, or vice versa. The effects of this closure continued to linger in the EU countries that were importing Russian gas. Many of these countries were aggressively pursuing alternatives so that they could reduce their dependence on Gazprom supplies.<sup>8</sup> (Appendix 5 provides data on the proportion of market shares controlled by Gazprom in Europe.)

By 2008, there were many serious questions about the continued viability of the transmission network. First, there was the issue of increasing demand on the one hand, and the pipeline capacity bottleneck on the other. It was estimated that by 2020 the network would need additional capacity of 170 bcm, an increase of roughly 24 percent over its installed capacity as of 2008. Second, it was believed that much of the UGSS infrastructure had to be significantly upgraded. It was reported that roughly 60 percent of the pipelines were more than 20 years old,<sup>9</sup> and about 14 percent were being operated well beyond their expected life.<sup>10</sup> Upgrading these assets required very significant investment—around \$2 bn annually. Gazprom was in the process of strengthening the network, although most of its focus was on international transmission. There was feverish activity to build new trunk lines that would enable Gazprom to reach deeper into Europe and ports along the Caspian Sea to tap into export markets.

## The Foray into the Oil Business

The purchase of Sibneft in 2005 was Gazprom's most significant oil investment. While some, including Dmitri Medvedev, the current president of Russia, then chairman of Gazprom, presented the Sibneft acquisition as a fairly common one that occurred in all free markets globally, others believed that there was much more to it. This was seen as a vital piece of Russia's strategy to bring back oil resources that had been privatized. Rosneft, the Russian oil giant, had already acquired Yukos, originally one of Russia's leading oil producers. Yukos had been decimated by a tax charge that many believed was payback for Yukos CEO Mikhail Khodorkhovsky's political

ambitions that crossed Putin's path. Thus, the acquisition of Sibneft by Gazprom, a friendly ally of the government, was considered a good step to effectively rein in a significant part of Russia's oil assets.

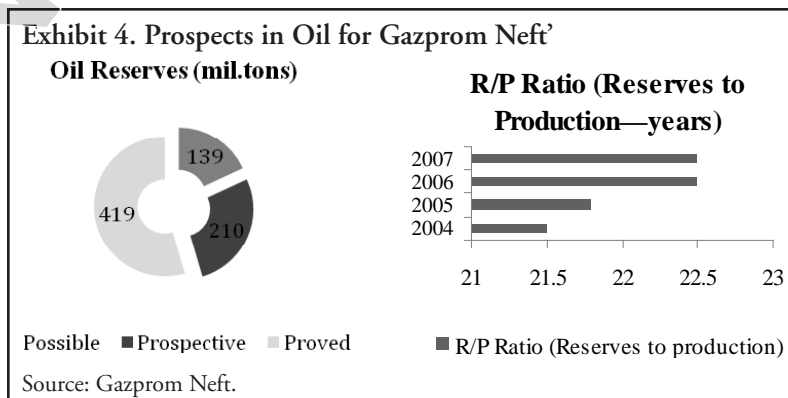
Describing the Sibneft acquisition, Russian Natural Resources Minister Yuri Trutnev said, "On the one hand, this makes Gazprom the world's largest energy company, which positively influences the investment attractiveness of both the firm and also of Russia. On the other hand, the transaction arouses certain fears as to the efficiency of managing the new oil assets and the possibility of monopolizing the market."<sup>11</sup>

Roman Abramovich, who bought the company via a privatization plan in 1995, paid \$100 million for Sibneft. Barely ten years later, Gazprom paid \$13 billion to acquire the company from Abramovich. At the time, Sibneft was the fifth largest oil company in Russia with a production of 650,000 barrels (88,400 tons) a day. The company came with healthy reserves estimated at four billion barrels. It also had a very large refining capacity in Omsk, believed to be among the biggest in Russia. This was indeed a crucial piece of Gazprom's vertical integration strategy in oil, given that the refinery was linked to all its major fields via pipeline networks. The company leveraged this close proximity to its Siberian fields as a source of significant cost advantage over other producers.

Gazprom's oil interests were also consolidated through a joint venture with TNK-BP for a 50 percent interest in Slavneft. Through this venture, Gazprom had access to more refining capacity. There had been rumors of a forced sell-off of TNK-BP's interests in the venture to Gazprom, but this had not materialized. The company also owned a retail network that was strong in Western Siberia, where many of its oil fields were located.

Gazprom intended to leverage its position in the oil business and expand operations to cover parts of Central Asia and beyond. By 2008, it was already operating a small network of retail outlets in Kyrgyzstan. The immediate priorities, however, were related to bringing more of its fields online and increasing its prospecting activities so that it could book more reserves. Its reserves to production ratio stood at 23 years. A significant proportion of the company's projects were considered to be early in the cycle of production development, however. Although mostly limited to Russia, Sibneft's portfolio of exploration leases was quite large. The service operations of its oil business were carried out by 17 service affiliates, all owned by Gazprom. These companies alone employed 20,000 people. They carried out the basic service functions, such as seismic surveys, drilling rigs construction, well drilling, and other related activities. The oil interests ensured synergies in strategic thinking and execution. The service companies were managed as a consolidated entity named Gazprom Neft—Neft'eservice.

Gazprom had built an advantageous position in the petrochemicals segment as well by moving quickly to capitalize on an opportunity that emerged in 2001. Through its banking arm Gazprombank, it was able to gain control of 70 percent of SIBUR Holding, Russia's largest petrochemical company. Gazfond, Russia's largest pension fund, controlled 25 percent, and the rest were in the hands of company management. This move proved to be a crucial one in that it cemented Gazprom's position as a fully integrated company spanning both upstream and downstream segments, including the lucrative petrochemicals segments. Of particular relevance was the dry gas processing facilities that SIBUR operated. Between Gazprom's own gas refineries and those of SIBUR, Gazprom essentially controlled almost the entire gas processing market in the country.



## Global Ambitions: “Near” Abroad and “Far” Abroad

*Global challenges require global efforts for their resolution. For this reason, the sphere of our interests is not limited to the European continent. It is well known that gas production has been steadily dropping in the United States in recent years (by more than 30 billion cubic meters between 2001 and 2006), while Russia over the same period has been able to boost production by 70 billion cubic meters. Gazprom has unique experience, know-how, and modern technologies, and is the world's most advanced company in the field of gas transmission via high-pressure gas pipelines.*

Alexei Miller, Chairman, OAO Gazprom,  
XII St. Petersburg International Economic Forum, June 2008.

Gazprom was conceived within an international context. The breakup of the Soviet Union resulted in a set of self-governing republics that became independent countries in their own right. Although they parted ways with centralized Soviet control, the gas infrastructure that was built to supply many of these former republics was still very much in use. Countries like Turkmenistan, Kazakhstan, and others along the Caspian Sea who were producers used the UGSS operated by Gazprom. Countries such as Belarus and Ukraine were dependent on Russian gas carried through Gazprom pipelines. Referred to as the “near abroad” by Russians, these countries belonged to the Soviet Union. *Near abroad* also signified close links that had been fostered over the decades when they were politically connected to the Soviet Union's sphere of influence. Leveraging these connections was indeed a natural avenue for Gazprom to capitalize on as it set its sights on crafting a global strategy. The first step was essentially to entrench itself in the near abroad so that it could retain crucial transit rights for its pipelines that would eventually target Western European markets while at the same time help monetize gas production in the former Soviet Union countries.

Gazprom also exerted significant influence over those near abroad countries that either did not have energy reserves or were otherwise unable to access them. Countries such as Armenia, Belarus, Moldova, to name a few, were supplied fully by Russia through Gazprom pipelines. These relationships were also a throwback to the Soviet days. The pricing structure for many of these countries was a fraction of free-market prices, thus ensuring that their governments were indeed beholden to Russia in a variety of foreign policy matters.

**Exhibit 5. Russian Gas Supply Prices for Near-Abroad Countries (2008)**

<u>Destination</u>	<u>Price in \$ per thousand cubic meters</u>
Lithuania	280.00
Latvia	280.00
Estonia	280.00
Georgia	230.00
Moldova	191.25
Ukraine	179.50
Belarus	119.00
Armenia	110.00
Western Europe	370.00

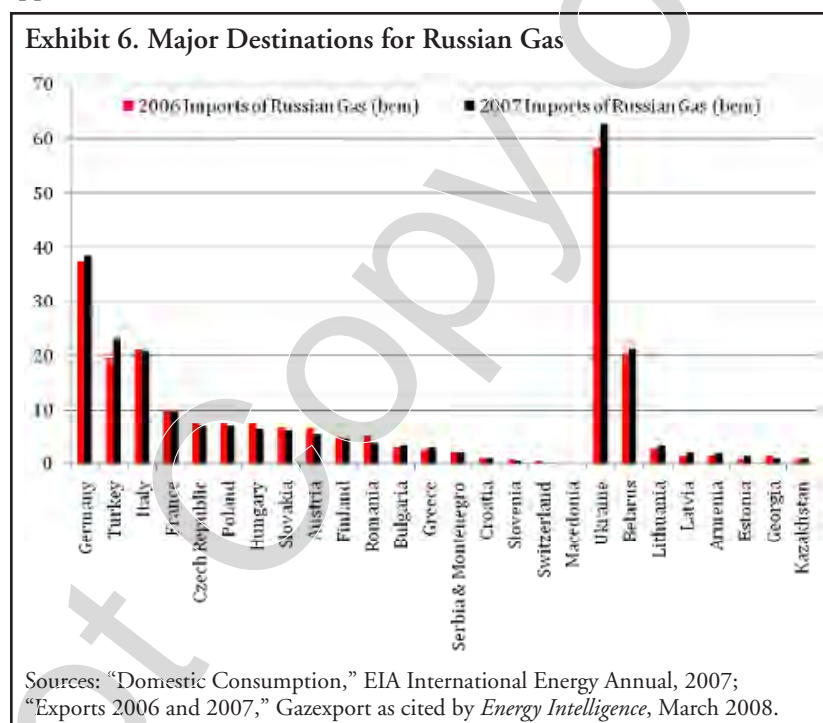
Source: “Russia,” *Country Analysis Brief*, Energy Information Administration, 2008.

Although the near abroad had become Gazprom's fiefdom, there were periodic difficulties in enforcing control over its pipeline networks, especially when the republics involved were being wooed by Western powers that had their own designs. The Baku-Tbilisi-Ceyhan pipeline, from Baku in Azerbaijan to Ceyhan on the Turkish Mediterranean coast, was a prime example of the jostling for influence by major political powers. While Russia wanted to ensure continued control over the near-abroad countries, far-abroad powers were exploring ways in which they could create alternatives to Russian dominance in the region. With the patronage of the Russian government, Gazprom had managed to navigate these choppy waters and maintain its position as either a premier supplier of gas or a partner of choice for producing countries in the region. Many of the countries, such as Macedonia and Belarus, were dependent on Russian supplies for almost 100 percent of their needs. In 2007, Russia exported 191 bcm (billion cubic meters) of natural gas, of which roughly 37 bcm went to the near-abroad countries. Although these countries constituted only 22 percent of Russian gas exports, their importance was far more strategic when it came to ensuring transit access to the more lucrative European markets to the west. For



example, 80 percent of all Russian gas exports had to flow through pipelines located in Ukraine. Thus, while Ukraine itself had no natural gas deposits, its position on the transit route gave it unique leverage that had been used to keep gas prices low in that country.

First, producer countries in the near-abroad region—such as Turkmenistan—did not have alternative routes to monetize their energy reserves. Gazprom, under the auspices of the Russian government, was able to persuade these countries to link to its extensive network as a means of commercializing the gas that they produced. These deals were inked at very low prices, giving Gazprom the ability to sell the same gas to Western European buyers at much higher prices. For example, Turkmenistan signed a 25-year deal with Gazprom at \$44 per thousand cubic meters to be paid in cash and commodities. Gazprom was selling the same gas to Western Europe at three times the price,<sup>12</sup> making an easy transactional profit that would continue for years to come. Second, the augmentation of supplies from the near abroad ensured not just continued Russian control, but also offered Gazprom an easy way to overcome the supply shortfalls it had in its domestic and/or export markets. Within Russia, the government had decreed that Gazprom would be the only legal channel for gas exports, thus giving it a wide berth to articulate a global approach to its business.



## Gazprom in Western Europe

Gazprom was able to leverage the export channels to reach customer markets in countries such as Germany, Italy, France, and Austria. Gazprom's predecessor (the Ministry of Oil and Gas Industry) had been exporting gas to Austria since 1968. By 2008, Gazprom was supplying roughly one third of total gas consumed in Western Europe. For example, Germany was dependent on Russian gas for nearly 39 percent of its consumption, and Italy was dependent to the tune of 31 percent. Starting with an approach of selling gas only at the border of its customer countries, Gazprom had become a participant in the entire delivery chain at the local level in some places. One of the key examples of such vertical integration was the joint venture forged with Wintershall, a German oil and gas company owned by BASF, to create a new venture named Wingas in 1993. Gazprom held 50 percent minus one share in the enterprise. Wingas owned 2,000 km of distribution pipelines in Germany, and Europe's largest underground storage facility. The venture offered Gazprom its first local access in a Western European market. (Appendix 6 shows a schematic of Gazprom pipelines in Europe.)

Gazprom sold its gas primarily on long-term contracts, typically over a 25-year period. These contracts also contained "take-or-pay" clauses that reduced the risks that Gazprom would otherwise have to carry. Going

forward, these contracts seemed to be crucial to Gazprom because Western European buyers were evaluating potential alternatives that had appeared over the horizon. North Africa and the Middle East seemed to be two viable provider regions, but it was premature to determine their viability in the near term. Many of the European oil and gas companies were engaged in alliances and joint ventures with Gazprom as a possible foil to the perceived imbalance in the relationship between the provider and buyers. Companies such as Eni of Italy, E.ON of Germany, and Gaz de France (GDF) were all associated with Gazprom on a range of projects from exploration to pipeline construction. Besides the obvious benefits of an assured market for its gas, Gazprom was focused on Western Europe because of the higher prices it was able to realize there. Three major projects were in various stages of approvals and execution to cement these links. The Blue Stream, Nord Stream, and South Stream projects were primarily pipeline projects that were targeted to carry gas to markets in Western Europe. The company expected to grow its Western European market faster than its domestic and near-abroad markets.

Gazprom had set up operations in the U.K. in 2006 at a time when the relationship between Russia and the U.K. was at a low point following allegations of espionage and murder involving KGB agents and Russian oligarchs domiciled in the U.K. Gazprom had bought a fairly small British gas supply business, Pennine Natural Gas, a company that supplied gas mostly to small- and medium-scale enterprises. By 2008, it had grown its customer base to about 5,000. However, these moves were being watched very closely. The *Wall Street Journal* reported that the EU was seriously contemplating how such moves could be stopped. “Gazprom embodies everything the EU is trying to change—vertically integrated national champion with a monopoly on exports and that owns gas fields and pipelines. In a preemptive move against Gazprom, the EU is mulling a plan to stop such companies from controlling EU distribution networks.”<sup>13</sup> The company did point out that much of the gas that it was selling in the U.K. came from swaps and not from its fields in Siberia, more than 7,000 miles away.

Gazprom also did have its supporters. Reflecting a widespread sentiment among U.K. brokers who had done business with Gazprom, Michael Abbot of Inenco, an energy consulting company, observed, “Gazprom is new to the market, so they’re fleet of foot and innovative.”<sup>14</sup> Building on this U.K. experience, Gazprom intended to move into France, although it believed that the legislative barriers could be more formidable there.

## Going to America: The Very Far Abroad

The promise of America was indeed a strong pull on Gazprom’s global intentions. In 2005, the company had delivered LNG to the Cove Point regasification terminal in Maryland under contract with British Gas and Shell. Although there had been some talk about shipping LNG from its Sakhalin II project with Shell to Baja California, it was unclear whether the plans for exports to the U.S. market would ever take flight. The U.S. was one of the largest consumers of gas by a wide margin, and Gazprom was keen to establish a foothold there. The company was examining several possible avenues to achieve this goal, including acquisitions. Vitaly Vasiliev, the CEO of Gazprom marketing and trading, observed, “We can build organically; we can do it with a partnership to build an outlet for us in the U.S., or the third option would be acquisition.”<sup>15</sup> Gazprom had already signed a deal with a consortium of French and Canadian partners to set up an LNG regasification terminal in Quebec, Canada. The intent was to bring gas from Gazprom’s Shtokman field to North America. It was also in discussions with BP and ConocoPhillips on participating in the Alaskan gas pipeline that had been planned. “It is important that we have a position in the most liquid gas market, which is in Houston for Henry Hub,” said Vasiliev, in describing Gazprom’s desire to anchor its U.S. operations in America’s oil country.<sup>16</sup>

The more Gazprom had pushed into Western markets, the more it realized that it would have to go beyond its delivery-at-the-border approach. Many of the buyers, it found, were trading its gas in markets where price margins were a lot higher, distributing themselves, converting it to electricity, and in general making a lot more money than Gazprom did. In capturing additional value for itself, Gazprom had sought to bolster its own marketing and trading operations. It was with that end in mind that it targeted Houston. It had already captured 8 percent of the wholesale market in the U.K. and 1.5 percent of the retail market as well. Its customer base had doubled in a year. Similar results were expected in France. Success in the U.S. would complete that strategy of capturing value for itself.

## Looking at the Future: An Ambitious Project Portfolio

*Because you are Gazprom, everybody wants to talk to you. There are so many opportunities: the idea is to choose the best.*

Vitaly Vasiliev, quoted in "Russian Unit Heads in New Direction,"  
*Financial Times*, June 11, 2008.

Gazprom appeared to be in an enviable position in mid-2008. However, it was also very apparent that it would have to move quickly to address some strategic priorities methodically. Hostilities had broken out between Russia and Georgia in the disputed region of South Ossetia. The fighting had also spread to Abkhazia, another nearby disputed region on the Black Sea. Although a hasty ceasefire had been called, there was a real danger that the Baku-Tbilisi-Ceyhan (BTC) pipeline could be damaged. The BTC represented the first tangible achievement of Western Europe's desire to seek alternatives to Russian gas. It brought Azeri gas from Baku to the Turkish port city of Ceyhan and well into the sphere of EU influence. Apart from a gentle condemnation of the conflict, Western Europe did not appear to have much to say about Russia's role. Gazprom had won friends through the pipeline after all. Of course, it was also in Gazprom's best interests to help keep those friends.

While the key components of Gazprom's global strategy had focused largely on Europe, eyeing the rise of India and China, Gazprom had started looking East. It had already entered into a joint exploration program with the Gas Authority of India Ltd. (GAIL). It was also prospecting in Vietnam in some of the prime targets for gas deposits. It had cast its net quite wide to also include Venezuela, where it held prospecting licenses. Libya and Nigeria were possibilities as well, and some high-level talks had been conducted at an intergovernmental level. Gazprom had set out an agenda to first capture gas that was being flared in Nigeria, and had also made a statement that it could easily replace Shell in that country should there be a meeting of the minds. These were indeed ominous signs that created concern among EU countries and U.S. IOCs that were among the first to commercialize Nigeria's energy resources. Gazprom had also signed exploration deals with Libya and, in 2007, struck a downstream deal as well. Under terms of the agreement, Libya's National Oil Corporation (NOC) would form an alliance with Gazprom to set up a refining plant in Libya. Gazprom had also offered to buy all Libyan oil and gas exports, an offer that was reportedly well received by the Libyan government.<sup>17</sup> U.S. officials, who feared a loss of control and influence over future energy supplies, also did not welcome this move. U.S. Deputy Assistant Secretary of Eurasian Affairs Matthew Bryza observed, "The monopolist Gazprom is behaving like a monopolist does. It tries to gain control of the market as much as possible and to stifle competition. And that's clearly what's going on."<sup>18</sup>

Gazprom had risen on the wave of success in exploiting gas resources within its own borders and the near-abroad countries. Its future, at least in part, seemed to be tied to that of Central Asia. A significant portion of Gazprom's gas exports came from supplies that it had contracted for in Turkmenistan, Uzbekistan, and Kazakhstan. These three countries accounted for roughly 54.4 bcm/y against Russia's exports of 191 bcm/y. Turkmenistan and Uzbekistan were already exploring other routes to commercialize their gas outside the Central Asia center pipeline that Gazprom operated. Gazprom was developing projects in Tajikistan and Kazakhstan, countries that seemed friendlier than some others. Access and transit rights depended on pricing and the ability to lock in long-term contracts. It remained to be seen whether some of these markets would turn liquid and favor spot trading with the advent of more transportation options. The pricing for gas from these countries had already started to trend upwards.

At home, Gazprom was looking to become far more active in the Yamal-Nenets region, where several new finds had been made. The region comprised 26 fields that had not yet been harnessed, a process that would considerably ease the strains and stresses of declining yields in Russian fields. However, it was estimated that this process would cost roughly \$160 billion to accomplish.<sup>19</sup> It was toward this end that the company had announced its intent to increase capital expenditure by 40 percent in 2009, to \$65 billion. Although this appeared like a fairly steep increase, some analysts opined that the figures were inflated largely by rising service costs rather than true investments. Gazprom planned to spend \$20.4 billion in natural gas production and transportation, of which \$8.7 billion had been earmarked for production in 2008.

On the anvil for Gazprom were some large-scale pipeline projects that had the ability to either solidify its reach or weaken it beyond repair. The Nord Stream and the South Stream projects were two that seemed to have both a strong economic and political dimension. The Nord Stream pipeline was a joint partnership between Gazprom (51 percent), BASF (24.5 percent), and E.ON (24.5 percent). It planned to link production from the Russian gas main at Gyrasovez to the Baltic Sea at Vyborg, and with the gas distribution system of Germany, without transiting any other countries. More than 1,200 km of the pipeline would run under the Baltic Sea. While the first segment was expected to become operational in 2010, it would reach its capacity by 2016. It was estimated to cost around \$7.4 billion. By mid-2008, the project had been delayed by Sweden, a Baltic neighbor, as the government did not appear satisfied with the environmental impact assessment of the project. While this project would certainly help German consumers, it did pose a challenge to the EU because it wanted to speak with one voice regarding gas distribution among EU member states and relationships with Gazprom. The South Stream was a similar venture seeking to establish a direct line between Russia and Italy.

There were additional projects on the drawing board to connect Russia with China via the Eastern route from Sakhalin, and via a Western route from Western Siberia. Gazprom had been exploring the feasibility of these lines with China National Petroleum Corporation (CNPC). The ambitious projects would drain much of Gazprom's capital budgets, leaving very little for augmenting production. Many of its customers felt that while the pipelines to carry the gas might eventually become a reality, there was less certainty about Gazprom's ability to increase its gas production in parallel to keep the pipeline stocked and flowing. This greatly influenced Gazprom's perceptions of energy security.

## Storm Clouds over the Horizon

Gazprom had indeed become a major force to contend with on the world scene by 2008. It seemed to be poised to become a premier player in some areas, but in many ways these were both the best of times and the worst of times. There were several critical issues that had to be sorted out, both internally and externally.

In late 2007, Gazprom had clearly signaled its intent to use the production of gas from the Sakhalin I project owned by a consortium of partners that included ExxonMobil, Russia's Rosneft, Japan's Sakhalin Oil and Gas Development Company, and India's ONGC Videsh. Gazprom had unveiled its Eastern Strategy calling for gas fields in that region to contribute 30 percent of all Russian energy exports, a ten-fold increase, by 2030. The major point of concern was the mandate that Gazprom had been given by the Russian government to gasify the Russian Far East. Gazprom expected help to come from two sources: Kovytko and Sakhalin. Under the watchful eyes of the Russian government, TNK-BP was engulfed in a crisis over its Kovytko fields. The government alleged that the project was set back because of undue delays, thus limiting the prospects of a fair return to the Russians anytime soon. This gave the government the leverage to inject Gazprom into the equation as a potential buyout partner for Kovytko. TNK-BP appeared willing to go along, although progress was slow and protracted. BP contended that the fields had become uneconomical because the government had decreed that it could sell its output only in the domestic market where prices were controlled. Along similar lines, it was quite possible that ExxonMobil and its partners in the Sakhalin I project would also be called upon to sell gas domestically. It appeared that ExxonMobil would not entertain such a stipulation because the economics of the project would be in jeopardy, given the paltry prices that prevailed in the Russian Far East.

The EU was unhappy over the turn of events over the last decade that had seen the rise of Gazprom as the key gas supplier to Western Europe. The precarious dependence seemed to be accentuated by the fact that Gazprom seemed able to strike separate deals with EU countries and also venture forward with integration into distribution systems in some of these countries. The EU wanted to bring Russia under the rules of its energy charter so that Gazprom would not exercise undue leverage, given its pre-eminent position as a supplier to Western Europe. Fifty-one countries had signed the charter in 1990 as a prelude to energy cooperation in Europe. Russia had refused to sign on given obvious differences.

Gazprom had become quite dependent on its European portfolio just as its customers had become reliant on Gazprom for stable supplies. (See Appendix 7 for an analysis of Gazprom sales and destinations.) Thus, diversifying away its dependence seemed an urgent priority. Money for expansion and diversification projects

was sure to be in short supply. By early October 2008, the global financial crisis that was rocking key markets had begun impacting Russia as well. The price of oil had dropped from its highs of \$146 per barrel to below \$70 dollars, drying up potential sources of capital funds for many of the energy companies such as Gazprom. In 2007, Gazprom already had a debt load of \$61 billion, of which \$21 billion was short term. (See Appendices VIII to XI for data on Gazprom's finances.) With local sources of capital drying up, it appeared that Gazprom would be forced to seek capital in foreign markets, a proposition that would be far more expensive.

The stance with European and U.S. IOCs had also become quite hardened. Medvedev, in an interview with the *Financial Times*, had remarked, "Gazprom's strategy calls for the formation of complete-cycle 'production-sales' transnational chains. Therefore, while discussing the possibility of access for foreign partners to the development of our reserves, we want to understand what the deal will give Gazprom from the point of view of the development of our production chain abroad. We do not need assets as such; we need a synergy with existing business and enhanced positions of a global player in the energy market."<sup>20</sup> Eni of Italy had been a notable partner for Gazprom, and had shown a willingness to join hands with the company under these terms of complementary access to reserves and markets. It had signed on as a key partner on the South Stream project to carry Russian gas to Italy. Gazprom had also been promised downstream participation in the domestic Italian market, plus a variety of other projects under the aegis of Eni, such as in Libya and, jointly, in Venezuela.

In the middle of a frigid winter in early 2009, Gazprom once again shut off gas supplies to Ukraine. Citing the very same reasons of low prices and unpaid bills, Prime Minister Putin personally ordered the shutoff. Western European nations were up in arms because of the uncertainty surrounding continued supplies of gas, especially because of the importance of Ukraine in the transit routes. This once again demonstrated the unreliability of Russia as a supplier, they said. Buyers who argued that Gazprom had violated their contracts were contemplating legal action. In turn, Gazprom used the occasion to underscore the need for immediate action on the Nord Stream pipeline that would bypass Ukraine. Tensions flared on all sides before a resolution was hastily crafted. Ukraine would pay off unpaid bills and agree to higher gas prices. The effect of this sudden closure left Western European buyers deeply disturbed because they believed this could happen all over again, and they might eventually suffer the consequences of a loss in supply.

Would Gazprom ever be a reliable partner? Would it ever be able to realize its full potential in the global gas business? With declining prices on the horizon, the once rosy future now seemed a bit hazy. Alexei Miller had much to contemplate as he thought about the challenges ahead. He did appear positively ebullient despite the formidable tasks that lay ahead. In an interview with the *Financial Times*, Miller had observed, "We think the price of oil will reach \$250 per barrel in 2009. The competition for resources is growing and the tendency is very noticeable."<sup>21</sup> Whether this was indeed a realistic possibility or just wishful thinking, only time would tell.

## Notes

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### Appendix 1. Gazprom Key Statistics

	<u>2007</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>
Share of global natural gas proved reserves %	16.30	16.02	16.10	15.77	15.93
Share of Russian national gas reserves %	62.3	62.4	61.0	60.5	58.3
Share of global natural gas production %	17.37	18.05	18.52	18.59	19.02
Share of Russian national natural gas production %	84.27	84.72	86.61	87.33	88.29
Pipeline infrastructure ('000 Km)	545	514	485	463	428
Size of retail customer network (million homes)	25.9	26.1	25.6	25.1	22.8
Total Natural Gas Reserves tcm	20.82	20.73	20.66	20.9	18.5
Gas condensate reserves (million tons)	686.1	658.99	692.60	654.4	588.2
Crude oil (million tons)	1132.5	1066.48	1231.7	235.96	132.5

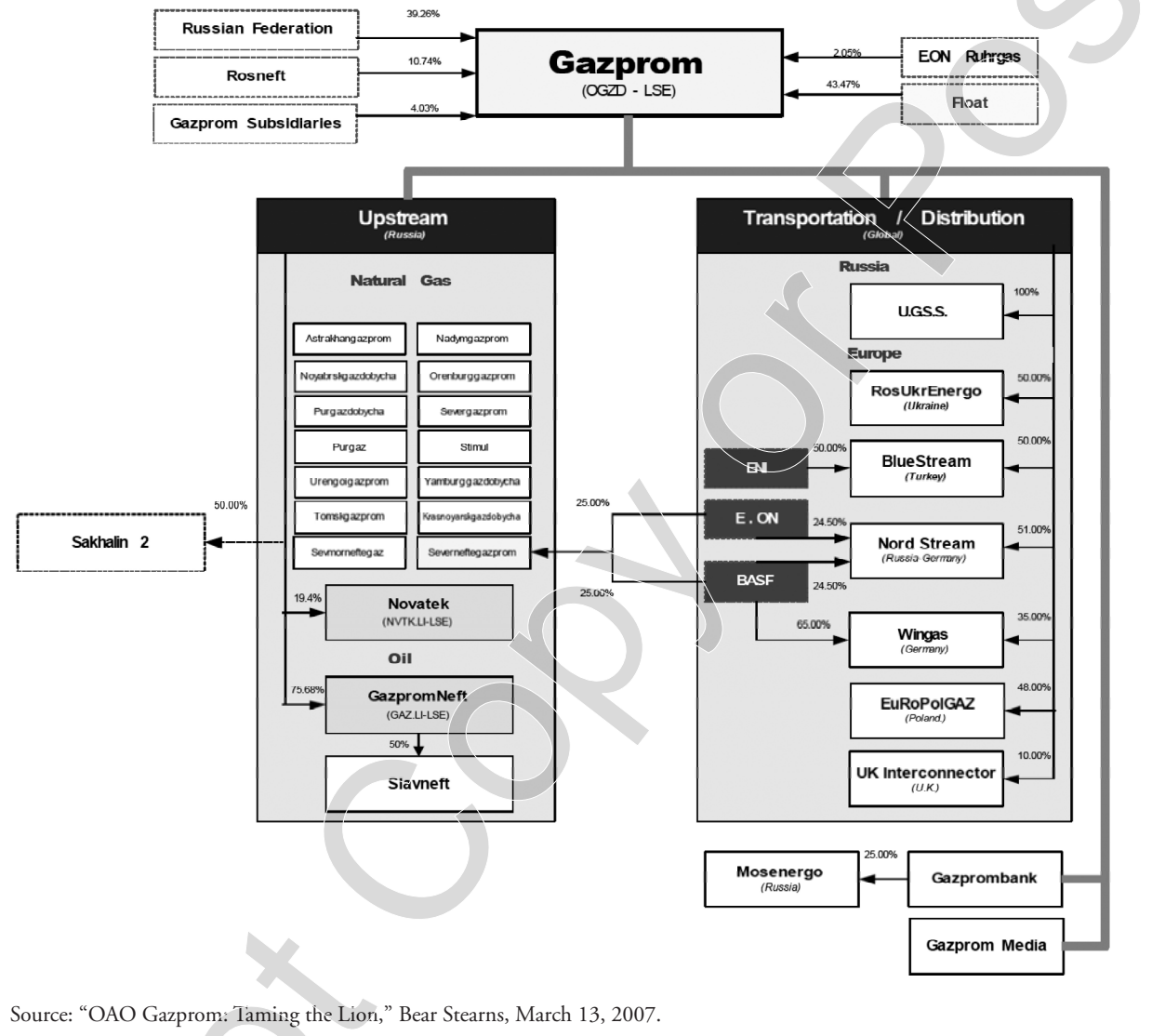
Source: "Gazprom: What is the Nature of Monopoly's Income Growth?" Bloomberg and Veles Capital, July 11, 2008.

### Appendix 2. Gazprom and Competitors—Financial Comparisons

<u>Company</u>	<u>Country</u>	<u>Market Cap.</u> <u>Mn \$</u>	<u>P/E ratio</u>	<u>ROE%</u>	<u>ROA%</u>	<u>ROIC%</u>
Gazprom	Russia	317,462	11.60	15.30	9.70	13.20
Lukoil	Russia	77,869	6.66	25.67	17.63	22.46
Gazprom Neft	Russia	35,607	9.55	40.69	26.98	33.44
Surgutneftegas	Russia	41,176	10.86	9.83	9.15	9.71
TNK-BP	Russia	33,912	5.01	73.96	31.86	60.87
Rosneft	Russia	112,447	14.03	51.13	21.16	29.45
Novatek	Russia	26,112	24.18	25.04	19.90	23.62
PetroChina	China	389,842	10.75	22.06	15.07	20.44
Petrobras	Brazil	250,332	14.66	20.35	9.74	16.07
BP	UK	200,450	8.53	23.39	9.19	18.64
Chevron Texaco	USA	194,242	10.30	25.60	13.28	23.11
ConocoPhillips	USA	135,273	8.34	13.86	6.94	11.33
ExxonMobil	USA	445,468	10.96	34.47	17.61	32.47
Royal Dutch Shell	Netherlands	238,571	7.20	27.28	12.41	23.75
GLOBAL MEAN			9.26	27.98	13.15	24.38

Source: "Gazprom: What is the Nature of Monopoly's Income Growth?" Bloomberg and Veles Capital, July 11, 2008.

Appendix 3. The Portfolio of Ownership and Holdings of OAO Gazprom



Source: "OAO Gazprom: Taming the Lion," Bear Stearns, March 13, 2007.



#### Appendix 4. The Sakhalin II Saga

The Sakhalin fields in the Russian Far East were opened for development through PSA arrangements in the early 1990s to reach the booming economies in the Asia Pacific region. There were six different Sakhalin projects created for this purpose. Much of the gas in this region is found under deep water several miles beyond the Sakhalin Island coast. Thus, Russia did not have either the technology or the capital outlays needed to bring the gas to market. Realizing these critical shortcomings, the country opened bids for allotting acreages to international oil companies such as ExxonMobil, Shell, and others.

In May 1991, just before the collapse of the Soviet Union, Marathon, McDermott, and Mitsui were awarded a contract to examine the feasibility of producing gas and crude oil from two fields off the Northeastern coast of Sakhalin. In 1992, Royal Dutch Shell and Mitsubishi joined the consortium as partners to establish the Sakhalin Energy Investment Company (SEIC), and signed a Production Sharing Agreement (PSA) with the Russian government in 1994 to produce both crude oil and gas from the fields they had leased. It was then estimated that the region comprised 4.6 billion barrels of crude and 24 tcf of natural gas. This marked the point at which Shell played out a series of strategies to gain a stronger foothold in the project and consolidate its ownership interests. McDermott sold out its share (20 percent) to Shell, and subsequently Shell was able to convince Marathon to also sell them its share. These negotiations were protracted but did serve Shell's intent to gain a majority position in SEIC. By December 2000, Shell had a 55 percent share of the project with Mitsui and Mitsubishi evenly splitting the remaining equity. The Sakhalin II projects were covered by a PSA that established the following broad conditions:

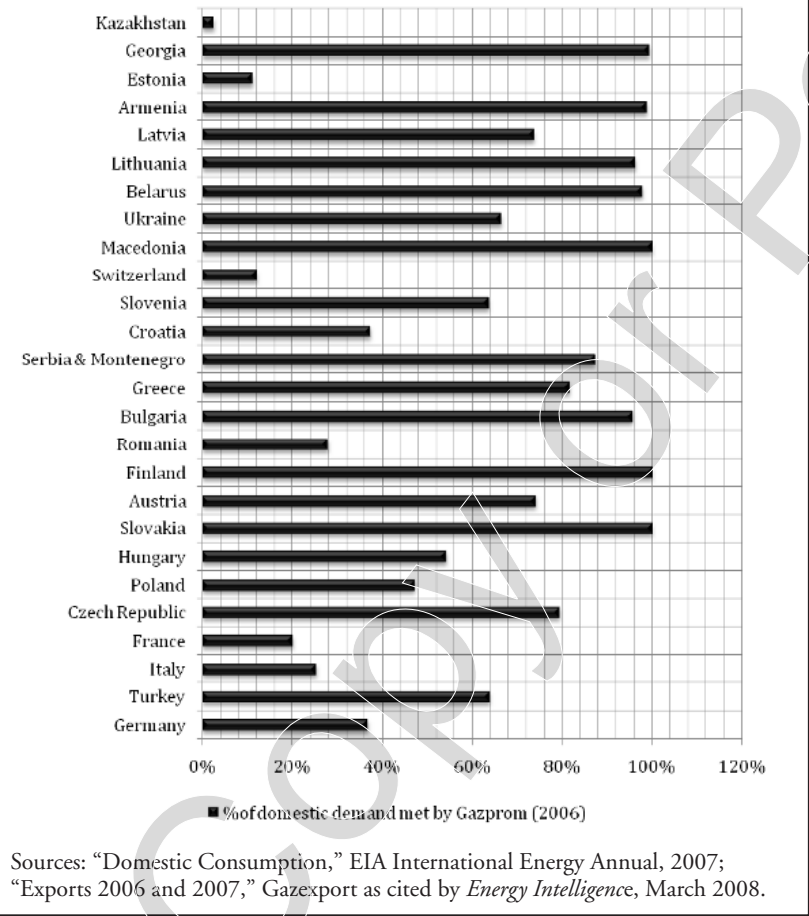
- SEIC would have the right to 100 percent cost recovery before allocating profits to the federal and provincial governments
- Best effort to achieve 70 percent Russian content measured in labor and materials
- 6 percent royalty on oil and gas produced for the life of the project
- Exemption from VAT, customs duties, and certain road taxes
- Title on assets held by SEIC until full cost recovery has been obtained, after which it would be transferred to the Russian government. SEIC would retain the rights to exclusive use for as long as it is viable.

The first phase, Russia's first offshore oil project, involved development of the Piltun oil field. This \$1.9 billion project came online in 1999 and produced oil for six months of the year. The other half of the year, the platforms were frozen solid and hence could not produce. The second phase of the project was by far more expensive and complex. Expected to cost \$10 billion, the project was expected to bring gas from the Lunscoe field off the northeastern coast of the island, which would be piped to land and then delivered by a pipeline running the entire length of the island to an LNG terminal at the southern end.

The project ran into trouble almost from the beginning. The political climate in the country had changed, and the Russian parliament was unwilling to resolve conflicting laws that impacted the project. Public sentiment had also turned against foreign investors. The Putin government was recentralizing power at the federal level with distinct nationalistic overtones. Four of the Sakhalin projects were mothballed, and future PSAs became almost impossible to obtain. Around this time, Gazprom appeared keenly interested in joining the consortium, a prospect that it had not found very appealing when Shell had approached the company earlier. The Russian government also filed charges of environmental non-compliance, and a failure to follow local content and employment guidelines. By that time, project costs had doubled to \$20 billion. The project was also faced with external pressures since ExxonMobil and partners appeared to be ahead of the race in their Sakhalin I venture close by. Long-term contracts with Japanese and Korean buyers were delayed because of the uncertainties surrounding the project, thus making it difficult for SEIC to capture the value of its first mover advantage over Sakhalin I.

In 2005, Shell and its partners agreed to a new deal that allowed Gazprom to take a majority stake in the project. Shell agreed to continue as the operator. Gazprom paid roughly \$7.5 billion for a 50 percent stake plus one share in the project. The Russian government decided to drop all charges. As of early 2008, the project had yet to come online.

**Appendix 5. Gazprom's Share of Domestic Consumption in European Markets**



## Appendix 6. Russia's European Network Access



Source: U.S. Department of Energy, Energy Information Administration, "Russia," *Country Analysis Brief*, April 2007, p. 11, [www.eia.doe.gov/emeu/cabs/Russia/pdf.pdf](http://www.eia.doe.gov/emeu/cabs/Russia/pdf.pdf) (August 20, 2007).

**Appendix 7. Gazprom's Sales Structure 2003-2007**  
(in Million Russian Rubles)

	<u>2007</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>
<i>Gas Sales</i>					
Russian Federation	399,452	357,274	311,336	252,552	207,056
Former Soviet Union	273,550	243,133	131,393	88,440	58,945
Far Abroad	1,161,549	1,149,582	850,017	607,695	567,855
<i>Gross Sales of Gas</i>	1,834,551	1,749,989	1,292,746	948,687	833,856
<i>Refined Products</i>					
Russian Federation	268,278	233,044	123,565		
Former Soviet Union	42,181	29,776	14,414		
Far Abroad	181,979	172,165	64,891		
<i>Total Sales of Refined Products</i>	492,438	434,985	202,870		
<i>Crude Oil and Condensate</i>					
Russian Federation	31,024	26,737	17,376		
Former Soviet Union	19,586	19,213	4,793		
Far Abroad	117,148	125,759	30,422		
<i>Total Crude oil and condensate sales</i>	167,758	171,709	52,591	122,248	92,180
<i>Gas Transportation</i>					
Russian Federation	41,252	34,468			
Former Soviet Union	488	32			
<i>Total Transportation Revenues</i>	41,740	34,500	65,559	29,027	28,226
<b>TOTAL SALES</b>	2,390,467	2,152,111	1,383,545	976,776	954,262
Gas	76.74%	81.31%	93.43%	97.12%	87.38%
Refined Products	20.60%	20.21%	14.66%		
Crude oil & Condensate	7.01%	7.98%	3.80%	12.50%	9.65%
Gas Transportation	1.75%	1.60%	4.73%	2.97%	2.96%

Source: Gazprom Annual Reports, 2003-2007.

**Destination Analysis**

	<u>2007</u>	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>
<i>Gas Sales</i>					
Russian Federation %	21.77	20.42	24.08	26.62	24.83
Former Soviet Union %	14.91	13.89	10.16	9.32	7.07
Far Abroad %	63.32	65.69	65.75	64.06	68.10
<i>Refined Products</i>					
Russian Federation %	54.48	53.58	60.91		
Former Soviet Union %	8.57	6.85	7.11		
Far Abroad %	36.95	39.58	31.99		
<i>Crude Oil and Condensate</i>					
Russian Federation %	18.49	15.57	33.04		
Former Soviet Union %	11.68	11.19	9.11		
Far Abroad %	69.83	73.24	57.85		

Source: Author's analysis.

**Appendix 8. Gazprom's Balance Sheet 2003-2007**  
(in Million Russian rubles)

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
<i>Current Assets</i>					
Cash and cash equivalents	71396	106157	146866	269224	279109
Restricted Cash	33743	16861	18040	12356	12025
Short term financial assets	57069	40428	79001	106574	113911
A/c receivables and prepayments	234929	316709	394659	662040	697464
Inventories	111330	130400	169121	207459	245406
VAT recoverable	85909	94863	145484	140305	122558
Other current assets	6086	21262	48282	84347	95944
	<b>485159</b>	<b>726680</b>	<b>1001453</b>	<b>1482305</b>	<b>1566417</b>
<i>Non-Current Assets</i>					
Property, plant and Equipment	1973781	2183084	2791011	3034968	3490477
Investment in associated firms	58939	81783	233782	318142	670403
Long term accounts receivables	93769	6302	179187	251123	402382
Available For-Sale long term financial assets	8178	28710	67847	150874	256210
Other non-current assets	28958	39230	65814	72513	406667
	<b>2163625</b>	<b>2479109</b>	<b>3337641</b>	<b>3827620</b>	<b>5226139</b>
<i>Total Assets</i>	<b>2764087</b>	<b>3205789</b>	<b>4339094</b>	<b>5309925</b>	<b>6792556</b>
<i>Current Liabilities</i>					
Accounts payables and accrued charges	124273	174433	219983	398126	485466
Taxes payable	103799	84977	104817	68380	73563
Short-term borrowings	170622	156172	180959	290705	504070
Short-term promissory notes payable	27433	20845	20710	102859	21455
	<b>426127</b>	<b>436427</b>	<b>526469</b>	<b>860070</b>	<b>1084554</b>
<i>Non-Current Liabilities</i>					
Long term borrowings	303755	427086	741849	668343	981406
Long term promissory notes payable	13715	11640	10639	17186	3555
Restructured tax liabilities	6111	1829	1128	822	0
Provisions for liabilities and charges	34880	44275	83794	119578	79213
Deferred tax liabilities	96823	137062	251868	275508	308353
Other non-current liabilities	12573	9446	4613	18598	22376
	<b>468037</b>	<b>631338</b>	<b>1093891</b>	<b>1100035</b>	<b>1394905</b>
<i>Total Liabilities</i>	<b>894164</b>	<b>1067765</b>	<b>1620360</b>	<b>1960105</b>	<b>2479459</b>
<i>Equity</i>					
Share capital	325194	325194	325194	325194	325194
Treasury Shares	-33889	-41586	-19504	-41801	-20801
Retained earnings and reserves	1563825	1808865	2270277	2905065	3646396
	<b>1855130</b>	<b>2092473</b>	<b>2576417</b>	<b>3188458</b>	<b>3950789</b>
Minority interest	14793	45551	142317	161362	362308
<i>Total Equity</i>	<b>1869923</b>	<b>2138024</b>	<b>2718734</b>	<b>3349820</b>	<b>4313097</b>
<i>Total Liability and Equity</i>	<b>2764087</b>	<b>3205789</b>	<b>4339094</b>	<b>5309925</b>	<b>6792556</b>

Source: Gazprom's IFRS Consolidated Financial Statements, 2003-2007.

**Appendix 9. Gazprom's Income Statement, 2003-2007**  
(in Million Russian Rubles)

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Sales	819753	976776	1383545	2152111	2390467
Less Operating Expenses	563415	714165	929561	1363923	1688689
<b>Operating Profit</b>	<b>226338</b>	<b>262611</b>	<b>453984</b>	<b>788188</b>	<b>701778</b>
Gain from sale of interest in a subsidiary	..	..	..	..	50853
Gain from change in fair value of call option	..	..	..	..	50738
Deconsolidation of NPF-Gazfund	..	..	..	..	44692
Finance Income	74866	69332	53890	97923	159380
Less Finance Expense	72725	53482	69926	65220	132573
Share of income from jointly controlled entities	3478	8151	11782	26363	24234
Gains from sale of available for sale financial assets	5017	5018	385	8811	25102
<b>Profit before profit tax</b>	<b>236974</b>	<b>291630</b>	<b>450115</b>	<b>856065</b>	<b>924204</b>
Current profit tax expense	42368	57949	118028	213844	218266
Deferred profit tax expense	32449	21939	16156	5760	10953
Profit tax expense	74817	79888	134184	219604	229219
<b>Profit for the period</b>	<b>162157</b>	<b>211742</b>	<b>315931</b>	<b>636461</b>	<b>694985</b>
<b>Attributable to</b>					
Equity holders of OAO Gazprom	159095	209449	311125	613345	658038
Minority Interests	3062	2293	4806	23116	36947
	162157	211742	315931	636461	694985
<b>Diluted earnings per share of OAO Gazprom</b> (Russian Rubles)	<b>8.02</b>	<b>10.44</b>	<b>14.55</b>	<b>26.90</b>	<b>28.07</b>

Source: Gazprom's IFRS Consolidated Financial Statements from 2003 to 2007.

**Appendix 10. Operating Expenses Structure**  
(Selected elements only. In Million Russian Rubles)

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Purchased Oil and Gas	25,666	66,546	87,723	280,062	382,054
Staff Costs	100,122	122,853	168,076	199,588	248,894
Transit Fees for Gas and Refined Products	108,711	103,853	110,863	156,489	152,093
Social Expenses	11,724	13,335	15,674	18,563	16,343
Research and Development	6,083	5,845	6,544	13,123	15,486

Source: Gazprom Annual Reports, 2003-2007. Appendix 11. Gazprom's Financial Ratios 2003-2007.

**Appendix 11. Gazprom's Financial Ratios 2003-2007**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
Return on equity %	7.60	8.70	6.08	9.40	9.11
Return on assets %	5.65	6.41	4.79	7.55	6.90
Return on sales %	26.59	23.85	29.09	30.87	27.41
Debt to capital ratio %	22.40	23.70	20.23	16.90	23.39
P/E for domestic market	6.30	11.29	22.65	20.83	23.61
P/E for external market	12.67	14.49	24.06	20.83	23.61
Market capitalization \$ billion	26.99	54.24	91.13	239.33	259.00

Source: Gazprom in figures, 2003-2007.