By Andreas Goldthau

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USSIA IS BACK on the international stage. After a decade of eroding political and economic power, the domestic economy flourishes and, as state budget revenues grow, so do egos in the Kremlin and Russia's global aspirations. The Russian resurrection is mainly attributed to high oil prices, which

have enabled the country to overcome the 1998 meltdown, to maintain an average rate of economic growth of 6.7 percent for the past decade, and to build a \$1 trillion economy, the basis of its new strength. At the same time, Russia's energy policy has become the subject of increasing controversy. Western observers regard energy as the Kremlin's major foreign policy tool, as countries like Ukraine or Georgia have come recently and painfully to learn. Fears have emerged that a looming Sino-Russian alliance, glued together by oil and gas deals, could challenge existing power structures —

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and U.S. dominance — on the international scene. In other words, as conventional wisdom reckons, the Western world is faced with a "corporate Russia" which is economically fueled by oil and gas, steered by a semi-authoritarian government with a clear geopolitical agenda, able to lubricate political alliances by oil and gas deals, and equipped with a foreign policy arm called Gazprom.

These common perceptions of Russia are understandable at first sight. Russia owns 26.6 per cent of the world's proven gas reserves, and 6.2 per cent of the world's proven oil reserves. In 2005, the country accounted for 21.6 per cent of global gas production and for 12.1 per cent of global crude oil production.1 In that respect, Russia could in fact be perceived an "energy superpower." However, conventional wisdom is wrong on five counts. First, Russian energy is not primarily about geopolitics. Its rhetoric to the contrary, the Kremlin does not dispose of an effective "energy weapon." Second, the rationale behind Russia's recent "gas disputes" with its neighbors is to a large extent profit maximization, rather than punishing renegade governments in the neighboring Commonwealth of Independent States (CIS). Third, Moscow will not subordinate its economic interests in the name of a geostrategic Sino-Russian alliance. Fourth, Russia will have a hard time retaining the status of an "energy superpower" as it risks running out of gas instead. Finally, Russia is less reliant on oil and gas than assumed, at least as regards the drivers of its recent economic success story. In a nutshell: Western excitement about the Russian "Energy Inc." appears to be caused largely by a well crafted piece of Russian PR.

By examining the five greatest "myths" of Russian energy, this article challenges some of the key assumptions underlying Western policy towards Russia. It reveals the limits of the prevalent argumentative lines on Russian energy, and offers an alternative explanation for some recent Russian policy choices. Finally, it draws some conclusions on foreign policy implications for the U.S. and the Western world.

Myth 1: Russia has an energy weapon

Russian oil and gas as a "weapon." The Russian market is dominated by ten vertically integrated oil companies, which control 95 percent of Russia's crude production and more than 80 percent of its refining capacity. While the Russian state now controls a significantly higher share of the domestic oil industry than it did during the 1990s, state-controlled companies at present make up only around 25 percent of the country's oil production and around 16 percent of its refining capacity, thanks to a series of takeovers of private companies by state-owned Rosneft and

^{1 &}quot;Statistical Review of World Energy," British Petroleum (2006).

Gazprom.² The domestic Russian oil market is fairly competitive, with prices determined by world markets and by the taxation policies of the Russian government.

From these few facts, three simple considerations can be deduced. First, given that the Russian state does not hold a majority in domestic oil production despite recent takeovers, the Kremlin is able to "steer" the oil industry for political purposes only indirectly, i.e., via tax incentives, export regimes, pipeline access, predetermined auctions on new fields, and the like. While these are by no means negligible instruments, they hardly render Russian oil an effective foreign policy tool. Second, Russian oil companies - state- or nonstate-controlled - trade their oil on a global market. Unless a majority of Russian crude is bound in bilateral contracts, a rather unlikely scenario in the foreseeable future, Russian oil companies do not have great leverage over individual consumers. Whenever Russia decides to cut oil supply to a consuming country, it will have no major effect, as the targeted country can purchase the shortfall on the spot market and circumvent the "blockade" (unless all producer countries, i.e., OPEC, decide collectively to block oil supply to their customers — which is unlikely to happen, especially if a non-OPEC member pushes for it). In case of some Central European countries like Slovakia, where the existing pipeline infrastructure does not allow replacing Russian crude oil in the short run, potential cut-offs can be largely absorbed by using alternative transport routes such as railroads.

Third, and related, the Russian state may well initiate further renationalizations of oil assets and expand state control over the oil industry in the future. But such moves will only diminish the performance of the Russian oil sector and reduce output growth rates, as similar experience in other countries has shown. Yet they will not affect oil markets as such, nor are they likely to render oil an effective foreign policy tool.

That leaves gas. True, Russia holds the world's largest gas reserves, and it has emerged as the most important supplier country to Western and Central Europe, where it covers up to 100 percent of imports for some countries. And, true, this dependence will become even more pronounced in the near future, when depleted European resources need to be compensated by higher imports — also from Russia. Despite this apparent dependence of European gas customers, however, there is no real case for an "energy weapon" for two reasons, both of which lie in the nature of the gas market. First, since exploration of gas fields and pipeline construction are extremely expensive and time-consuming, producers and consumers engage in long-term contracts that usually cover 20 years or more and entail destination clauses prohibiting secondary trading. Based on these take-or-pay contracts, the producer is able to invest in a multibillion-dollar project, as there is a constant and reliable return on investment. The consumer enjoys a guaranteed supply

² See, among others, Yulia Woodruff, "Russian Oil Industry Between State and Market," Fundamentals of the Global Oil and Gas Industry, Petroleum Economist Publications (2006).

for several decades, thus reducing uncertainty and costs. Second, gas is a regional play, as it is almost exclusively transported via pipelines.³ Hence, if either the producer or the consumer wants to opt for exit and start dealing with an alternative contractual partner, he has to make a high additional investment, i.e., build a new pipeline. Given extremely high upfront costs, it becomes very costly for either involved party to leave an established bilateral contractual gas relation. A quick look at the dense pipeline grid connecting Europe and Russia reveals that neither side can be interested in dumping all the money each have invested; nor do they have a real choice.

Russia does not have the option to sell its gas to, say, China, since the existing infrastructure is insufficient, at least in the short run. Nor can the Europeans simply turn away from their Russian provider. In other words, both sides are mutually dependent, from the very moment they have committed to a contract. What follows from the structural logic of the gas market is that there is only a limited possibility for Russia to use natural gas as a foreign policy instrument and unilaterally cut gas supplies to a consuming country without significantly and immediately affecting its own budget revenues. This does not look like an attractive move for a country whose largest share of federal budget income stems from hydrocarbon sales.

This is qualified somewhat with respect to small purchasers like Moldova or Georgia, where a cut in gas supplies hurts the affected country much more than the implied loss of revenues hurts Russia. This asymmetry provides Russia with a certain amount of leverage in the short run. As the past has shown, however, attempts to exploit this asymmetry have not caused major policy change in the affected countries. A strong limitation for Russia to make use of the asymmetry lies in the fact that many smaller purchasers are at the same time transit countries. This implies that a cut in gas supplies always affects the consumers on Western European markets — a market Gazprom aims at serving reliably, and which it has already severely threatened by the cutting of supplies to Ukraine.

Myth 2: Gazprom is instrumental in the Kremlin's foreign policy agenda

HE TRUTH IS: Gazprom and the Kremlin are intertwined, but the interests of both entities do not necessarily coincide. A case in point would be the recent gas disputes with Russia's "near abroad" (the 14 former Soviet republics that had declared their independence by the time the Soviet Union broke up at the end of 1991), which are to a large extent triggered by a regulated Russian home market, forcing Gazprom to

³ Liquefied Natural Gas (LNG), commonly regarded as a panacea for European energy security, will not provide a real alternative at short sight, mainly due to prohibitively high up-front costs.

adopt aggressive pricing strategies with foreign markets.

As gas makes up more than half of Russia's primary energy consumption, the domestic Russian gas market is highly politicized.⁴ Gazprom, the gas monopolist, produces about 86 percent of Russian gas and also controls the entire domestic pipeline system. At the same time, it is obliged by federal law to ensure supplies for domestic consumption by households and industry. Russian gas consumption, which has been around 400 billion cubic meters (BCM) during recent years, is projected to continue to rise in all existing forecasts. To date, more than two-thirds of Russia's annually produced 600 BCM is already used in households, industry, transport, heating, and power plants. At the same time, Russia is a highly inefficient user of energy, using

3.2 times more energy per unit of GDP than the EU-25, most of this as gas.⁵ The reason for this consumption pattern lies in Russia's dual pricing system, which is designed to subsidize Russian households and domestic manufacturers. Thus, domestic Russian gas prices are only a faction of prices charged on foreign markets, amounting to only 17 percent of West European gas prices in 2006 — 29 percent when taking into account transit charges.⁶

In order to generate revenues, then, Gazprom has to tap foreign markets. Most of the easily accessible markets, such as those in Western Europe, are highly profitable. In fact, to date, Gazprom earns virtually Russia can't cut gas supplies to a consuming country without significantly affecting its own budget revenues.

all its profits from exports to Western Europe, although this market only accounts for 25 percent of total production. In turn, if accessible foreign markets are not attractive for some reason, Gazprom tries to render them more profitable, and raises prices, if it can. This is what Russia's near abroad has had painfully to learn in recent times. After heavily subsidizing its former Soviet allies throughout the past 15 years, Gazprom has increased gas prices in CIS countries and pushed to equalize prices net of transit fees with those it charges its West European clients. This policy has resulted in several gas disputes with neighbors such as Ukraine and Georgia. It has even hit Belarus, traditionally a strong Russian ally — a fact that presented the Kremlin with considerable problems when forced to explain suddenly raising gas prices on the last remaining pro-Russian government in Central Europe. In case an affected country is unable to pay the new price, Gazprom

⁴ "Word Energy Outlook," International Energy Agency (2004).

⁵ "Sustainable Energy in Russia," Sector Factsheet, European Bank for Reconstruction and Development. Available at http://www.ebrd.com/pubs/factsh/themes/eerus.pdf.

⁶ "Russian Gas," United Bank of Switzerland Investment Research (2006). Available at http://www.ubs.com/investmentresearch.

⁷ Gazprom Annual Financial Report 2006 (2007).

accepts in-kind payments, including shares of national or regional gas providers or pipeline grids — assets it would otherwise have to buy as an integral part of its expansion strategy.

Hence, the recent gas disputes appear to be about profits, not about politics. Indeed, they seem much less part of a geopolitical Kremlin game than the result of a rational strategic move by a company that has to compensate for a loss-generating home market. In that respect, and ironically, it may be that Vladimir Putin's foreign policy is increasingly driven by Gazprom's business interests rather than vice versa. At the bottom line, it is important to regard Gazprom and the Kremlin as two entities which, though deeply interwoven, do not necessarily share identical interests. If both players' interests coincide, as they have in the case of Gazprom's reclaims of Ukraine's \$1.3 billion debt after the Ukrainian elections, the Kremlin might be able to use Gazprom for political reasons. But not necessarily at any occasion it would like to.

Myth 3: The recent Russian economic recovery is due to high energy prices

HE TRUTH IS: What has driven the Russian economic recovery has mainly been a boom in domestic consumption and investment, not energy. Russia has been growing impressively during recent years, at annual growth rates between 6 and 10 percent. The country's GDP hit \$1 trillion in 2006, rendering Russia one of the world's ten largest economies again. True, due to the country's natural endowments, hydrocarbons are a major factor in the Russian economy and in state finance. The export of raw materials, mainly oil, gas, and refined oil products, has soared since the 1990s, accounting for about two-thirds of Russian exports overall in 2006.8 Still, hydrocarbon sales account for a major part of state revenues, just as recent oil price increases have resulted in soaring tax revenues. The total share of government revenues stemming from hydrocarbon sales has more than doubled during the past four years, amounting to almost 40 percent in 2006.9

At the same time, however, oil and gas add less to overall Russian GDP and economic growth than the above figures would suggest. In fact, oil and gas presently contribute only about 20 percent of Russian GDP.¹⁰ Moreover, the energy sector grew below the Russian average during recent

⁸ "Country Analysis Briefs: Russia," Energy Information Agency (2006). Available at: http://www.eia.doe.gov/cabs/russia.html.

⁹ "Russian Federation, 2006," Article IV Consultation. Staff Report, IMF Country Report 06/429, 35.

^{10 &}quot;Russian Economic Report, 13," World Bank (2006).

years. The gas sector performed especially poorly.¹¹

Moreover, the initial kick-start of Russian economic recovery did not lie in oil prices but in the 1998 financial crisis: As a consequence of the Russian government's default, the ruble was strongly devalued, which led to greater competitiveness of Russian products abroad, favored domestic over foreign goods, and thus spurred consumption of domestic Russian products. In addition, the rise of oil and gas prices supported economic recovery, as did general improvements in management and technology of private companies, a cut in government spending, and the introduction of a new tax system in 2000. Double-digit annual increases in capital and labor productivity have further contributed to securing a stable Russian growth path.

Finally, while energy revenues are dominant on the income side of the governmental budget, they are far less important in financing governmental expenditures. In fact, as experts have noted, more than half of Russian oil and gas revenues are saved in a "Stabilization Fund." The latter, a lesson learned from the 1998 plunge in oil prices and its devastating effects on state finances, presently contains financial reserves equal to around 9 percent of GDP. 13 Hence, and counter to conventional wisdom, the six-year-long Russian economic growth has mainly domestic roots.

Myth 4: Russia is an energy superpower

HE TRUTH IS: Given heavy and unresolved investment challenges in the Russian oil and gas sector, it is questionable whether Russia will keep its current position on world markets, let alone increase its market share. True, Russian oil and gas reserves are impressive. The country owns nearly 50 trillion cubic meters of proven gas reserves, or 26.6 per cent of the world's total, and proven oil reserves of 75 billion barrels, 6.2 per cent of the world's total. In 2005, Russia accounted for more than one fifth of global gas production and for 12.1 percent of global crude output. While Russian oil reserves will last "only" another 21 years at present production levels, its gas reserves will last another 80.14 Russian oil production is expected to expand from current levels of 9.5 million barrels per day (MBD) to 10 MBD in 2010 and 11 MBD in 2030.15 As for gas, projections differ somewhat according to source. While the Russian government's "ener-

^{11 &}quot;Economic Survey: Russian Federation, 17," OECD (2006), 25.

^{12 &}quot;Economic Survey: Russian Federation, 17" (2006), 24.

^{13 &}quot;Russian Economy: Trends and Perspectives," Monthly Bulletin, Institute for the Economy in Transition (December 2006).

^{14 &}quot;Statistical Review of World Energy" (2006).

^{15 &}quot;Word Energy Outlook" (2006).

gy strategy" defines a possible range of output of 680 to 730 billion cubic meters in 2020, other Russian sources see overall production between 770 and 901 BCM by that year. 16 Western sources project Russian gas production to run between 801 and 850 BCM in 2020, and to hit even 1 trillion BCM by 2030. 17

However, a striking lack of investment makes these existing projections appear highly optimistic. The "giant fields" of Yamburg, Urengoy, and Medvezh'ye, which currently account for more than 60 percent of total Russian production, have started to decline. Production at Zapolyarnoye, a fourth giant field that came on stream in 2001, has recently reached its peak.¹⁸ In order to compensate for declining output from these fields and to meet contractual commitments, Russia urgently needs to make new upstream projects start producing. But as most new fields are smaller than the depleting ones and, in addition, are located in the far north, costs for exploration and production (E&P) are about to rise significantly. The last known giant field of Shtokman, located off-shore in the arctic Barents Sea, is projected to cost \$34 billion until it begins producing in 2013.¹⁹ E&P costs for developing fields on the arctic Yamal Peninsula and on the Ob-Taz shelf will amount to \$25 billion, and yet another \$40 billion in pipeline infrastructure to connect these fields to the existing system.²⁰ On average, the Russian gas sector will have to spend \$17 billion per year through 2030 in E&P projects and in the maintenance of current fields in order to meet domestic demand and to fulfill export commitments.²¹

As for the oil sector, the picture looks similar. As important fields have peaked, development of new fields will have to cover all of Russia's annual oil growth in the next five years. Projected accumulated investment needs range from Russian Ministry of Energy estimates of \$240 billion until 2020 to IEA forecasts of \$400 billion by 2030.²² But while the largely private Russian oil sector can be expected to respond to market signals, the prevalent monopolistic structure of the domestic Russian gas market is susceptible to avoiding necessary investments. At present, Gazprom has only committed

¹⁶ A. Ananenko, A. Kontorovich, V. Kulezhov, O. Yermilov, A. Kozhubaev, V. Livshits, "Russia's Gas Strategy at a Glance," Oil and Gas Vertical. Available at http://www.ngv.ru/article_en.aspx?articleID=22326#16-2006-6_5.

^{17 &}quot;Word Energy Outlook," (2004); "International Energy Outlook," Energy Information Agency (2006).

^{18 &}quot;Russia Energy Survey" (2002); "Russian Gas" (2006).

^{19 &}quot;Russian Gas" (2006).

²⁰ Ananenko et al., "Russia's Gas Strategy."

²¹ The Russian Ministry of Energy forecasts investment needs of \$120-200 billion between 2002 and 2020. V. Ivanov, "Energy Strategy of Russia for up to 2020: Balancing Europe with the Asia-Pacific region," ERINA Report, 53 (2003); the Asia Pacific Energy Research Centre estimates total investment needs between 2004 and 2030 at \$295-401 billion. "APEC Energy Demand and Supply Outlook 2006," Institute of Energy Economics, Tokyo.

²² "Energy Strategy of Russia for up to 2020"; "World Energy Outlook" (2004).

to a total of \$13 billion of capital spending per year through the next years — considerably less than projected needs — and the rest has to come from private companies.²³ Yet, as Gazprom uses its control of the domestic pipeline grid to restrict third party access and prevents independent producers from exporting gas, private gas companies have little incentive to invest in upstream projects. Moreover, as it is a declared part of Gazprom's business strategy to increase acquisitions abroad and to invest outside its core business, considerable parts of the company's capital spending will not flow into gas production or pipelines. Further, recent bids for foreign and domestic companies, such as the \$13 billion takeover of Sibneft, have imposed a heavy debt burden on the company. Despite the fact that many of these bids have been carried out via asset swaps, they have considerably reduced Gazprom's financial scope. Finally, pull-outs of Western companies from promising Russian upstream projects and recently approved laws restricting foreign ownership of oil and natural gas assets deprive Gazprom of foreign capital as well as managerial and technical expertise for developing new fields. Overall, due to heavy underinvestment, the Russian gas balance is at risk of turning negative.

In a nutshell, unless the Russian government adopts a fundamentally different domestic pricing strategy that prompts further investment, triggers significant gains in domestic energy efficiency, and frees supply potentials for exports, Russia will barely be able to maintain its perceived status as an energy superpower. Otherwise, and paradoxically, the country with the world's largest energy reserves may virtually run out of gas.

Myth 5: There is a looming Sino-Russian alliance based on oil and gas

HE TRUTH IS: As Russia and China are primarily strong strategic rivals, especially with respect to Central Asian oil and gas, there will be no long-term strategic alliance based on energy. After decades of strained bilateral relations, and having solved remaining border disputes over territories in Russia's Far East in 2005, Russia and China have improved their relations in recent years. This trend has become obvious in several joint military exercises in 2005 and 2007, in enhanced economic cooperation, and especially in collaboration in the Shanghai Cooperation Organization (SCO), which Moscow and Beijing have managed to render as a vehicle to limit Washington's influence in their common near-abroad. This emerging Sino-Russian alliance has led to concerns. Several observers have suggested that oil is likely to be the glue between Russia, as a major energy

^{23 &}quot;Word Energy Outlook" (2006).

producer, and China, as a rising consumer — enhancing the emerging cooperation and ultimately leading to a geopolitical partnership that challenges U.S. interests and power. Yet, while at first sight they may seem persuasive, these concerns lack substance at the second. In fact, the countries' strategic interests in oil and gas are antithetical, especially with respect to the upcoming "Great Game" over Central Asian energy resources.

Russia's recent and successful efforts to enhance control over Central Asian energy by committing Turkmenistan to ship its gas to Western markets via its pipeline grid was not only a blow to U.S. and European efforts to tap energy sources independent from Russian influence; it was also a step toward a fiercer Russian-Chinese competition on regional energy resources. China's recent oil and gas deals with Central Asian countries, in turn, run counter to Russia's strategic goal of monopolizing Central Asian gas. A 30year natural gas deal with Turkmenistan on 30 BCM annually and an oil pipeline project with Kazakhstan on I MBD now provide China with access to the Caspian Sea's rich oil resources. And, most important, these Chinese deals deprive Gazprom of an indispensable fallback: Given looming investment gaps and Gazprom's hostility to independent domestic gas producers, additional purchases from Central Asia are an indispensable factor in Gazprom's business strategy of keeping the overall Russian gas balance positive. In fact, if Gazprom is to cover projected Russian and European demand in 2010, it not only has to meet its entire production target and change access policy to its transport grids in order to allow for a considerable increment of output by other Russian producers; it also has to dispose of the entire Central Asian export potential for re-export to Europe.²⁴

Reflecting this emerging strategic competition, China has recently undermined Russian attempts to make the sco the nucleus of a regional energy organization — in which Moscow would have been the dominant partner. Further, several high-profile energy contracts between Russia and China, including the much debated Altai gas pipeline, have been put on hold. Moreover, after having played China against Japan for years over the planned 1.6 MBD Eastern Oil Pipeline that would connect the Siberian Angarsk oil fields with either the Chinese or the Japanese market, Russia has finally opted for Japan. Finally, given Moscow's efforts to strengthen the state's grip on strategic sectors, Beijing's desire to buy into Russian upstream assets by its state-owned oil companies — a dominant strategy in the country's push for energy supplies and its favored path to improved mutual economic relations — will not materialize.

At the bottom line, then, there is no looming geopolitical "axis" between Russia and China based on oil and gas. Neither Moscow nor Beijing will be willing to subordinate their geoeconomic interests in the name of a geostrategic Sino-Russian alliance. At best, their bilateral relations will be

^{24 &}quot;Russian Gas" (2006).

characterized by classical, if strained, business contracts between an energy producer and an energy consumer — if not by a fierce competition over resources in their common near abroad.

It's about rules, not geopolitics

N SUM, RUSSIA has not become the "Energy Inc." of Western predictions. While it has attributes of a petro-state, the country's economic future will depend much less on energy prices than on its ability to manage unfavorable demographics, contain still-rampant corruption, and improve poor public management. Given the strong growth of the nonresource sectors, Russia's economic future will probably be based on industry and services rather than on oil and gas. And while its government may have a strong geopolitical agenda, that may not be pursued with the help of a state-run gas industry. As a brief look at figures has shown, an effective energy weapon appears to be the Kremlin's wishful thinking rather than reality. Western policy toward Russia, therefore, should be based on thorough analysis of available data rather than on conventional wisdom. Instead of adopting a reflexive geopolitical perspective on Russian energy, Western policymakers should regard it as a commodity that, even if politicized, should be dealt with in terms of regulations on global or regional markets. through the means of dispute settlement mechanisms, and in the frame of investment regimes and trade agreements.

The answer to upcoming challenges stemming from Russian oil and gas will not lie in an "Energy NATO" or an "Energy OSCE," ideas that invoke the Cold War. Instead, Western policies should aim at establishing a framework providing reciprocal benefits for producers and consumers. Agreements like the Energy Charter Treaty (ECT), a legally binding document on rules in investment, transit, and trade of energy, would provide the needed planning security for (Russian) producers and (European) consumers alike. In particular, the ECT's dispute-settlement mechanism would prove helpful in preventing future disagreements from turning into conflicts. Major countries, including Russia and the U.S., have abstained from ratifying the document. Committing them to the ECT would go a long way to enhance energy security.

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