



Audit of the Conventional Wisdom

Russia: An Energy Superpower?

Carol R. Saivetz

MIT Center for International Studies

As Vladimir Putin nears the end of his second term as Russian president, it is clear that energy exports have become a major component of a resurgent Russia's foreign policy. According to the conventional wisdom, Russia's vast resources make it a superpower to be reckoned with. Not only is it a major supplier of natural gas to the states of the former Soviet Union, it sells oil and natural gas to Europe and it has made new contract commitments for both oil and gas to China. Additionally, as the January 2006 cut-off of gas to Ukraine, the January 2007 oil and gas cut-off to Belarus, and Gazprom's threat (again) to Ukraine in the wake of the September 2007 parliamentary elections indicate, Russia is willing to use its resources for political purposes.

The conventional wisdom continues that none of this is surprising. Putin acceded to the Russian presidency resolved to restore Russia's superpower status and to use energy to that end. The Russian Federation's Energy Strategy, dated August 28, 2003, formally states that Russia's natural resources should be a fundamental element in Moscow's diplomacy and that Russia's position in global energy markets should be strengthened.¹ In his own dissertation, Putin argued that the energy sector should be guided by the state and used to promote Russia's national interests.² And, the rector of the Mining Institute in which Putin wrote his dissertation and currently one of his energy advisors wrote: "In the specific circumstances the world finds itself in today, the most important resources are hydrocarbons . . . They're the main instruments in our hands—particularly Putin's—and our strongest argument in geopolitics."³

Center for International Studies

Massachusetts Institute of Technology
Building E38-200
292 Main Street
Cambridge, MA 02139

T: 617.253.8093
F: 617.253.9330
cis-info@mit.edu

web.mit.edu/cis/
web.mit.edu/cis/acw.html

A Critique of the Conventional Wisdom

Carol R. Saivetz is a research associate at Harvard's Davis Center for Russian and Eurasian Studies and a visiting scholar at MIT's Center for International Studies. From 1995-2005, she was the executive director of the American Association for the Advancement of Slavic Studies. She has written widely on Soviet and now Russian foreign policy issues and is currently working on a book on Putin's foreign policy.

Yet, the conventional wisdom is at best only partially accurate. When Putin and other Russian officials refer to Russia as an energy superpower, they seem to mean a country that possesses a bounty of energy and will use its resources to ensure Moscow's influence on the world's stage. In contrast, the true picture of Russia's energy resources and the attempted politicization of their uses is far more nuanced and complex. Russia's energy policies—resource and infrastructure development and its use of the energy weapon thus far—raise major questions about Russia's energy superpower status.

Energy Blackmail

The January 2006 cut-off of natural gas supplies to Ukraine made headlines. The reporting indicated that Russia was using energy to punish Kyiv for its 2004 Orange Revolution and that Gazprom, the state-owned natural gas company, wanted to gain control of Ukraine's pipeline infrastructure. Energy has been a contentious issue between Moscow and Kyiv since the Soviet collapse, but in December 2005, Gazprom escalated tensions when it demanded that Ukraine pay world market rates for its gas. The government in Kyiv asked for a phased-in rate hike, but Russia instead cut off gas to Ukraine, resulting in serious downstream disruptions. Under intense international pressure, a deal was quickly made: A shadowy intermediary, RusUkrEnergo, would purchase 17 billion cubic meters of gas from Gazprom, at \$230 per thousand cubic meters, blend it with cheaper gas from Turkmenistan, and sell it at a guaranteed price of \$95 per thousand cubic meters. Steady price increases have occurred since then.

The January 2007 stoppages to Belarus began with Gazprom demanding a steep price increase, with steady rises thereafter to world market rates; in addition, Gazprom demanded 50 percent ownership of Belarus's gas pipeline network. As for oil, Russia initiated export duties on oil sold to Belarus. (Prior to January 2007, Russian oil had been piped to Belarus duty free; however, Belarus garnered huge profits by selling refined products to Europe.) Belarus retaliated by charging Russia an export fee and reducing the amount of oil flowing to Poland. Russia then blocked all oil exports. Again under international pressure, oil flowed freely within days.

In both cases, Russia appeared to have made short term gains: most obviously, Gazprom won the price wars. Moreover, many claim that Russia seemingly influenced the outcome of the March 2006 Ukrainian parliamentary elections in which Viktor Yanukovich, the loser during the Orange Revolution, became prime minister. In Belarus, Minsk was forced to recognize Moscow's claim to a large share of the profits from the sale of refined products and to agree to a debt-for-equity swap of part of its pipeline system. What makes the Belarus case so interesting is that Moscow was clearly willing both to risk another disruption of supplies to Western Europe and to endure damage to its prestige in order to gain major control over Belarus.

Beyond the former Soviet states, the two crises highlighted European vulnerabilities to supply disruptions and raised the possibility that Russia might use its resources to influence European policies. Soviet/Russian supply to Europe began in the 1970s and has continued virtually without disruption until two years ago. Currently, 43 percent of European energy consumption is oil, while only 24 percent is gas. Yet, gas utilization will rise as Europe limits its use of coal. Christian Cleutin, director of the EU-Russia Energy Dialogue, estimates that EU's gas requirements will increase by 2020 to approximately 200 million metric tons/year. Of that, 75 percent will be imported, mostly from Russia.⁴ Table 1 indicates the current European dependence.

In addition to increasing its European market share, Gazprom has sought downstream infrastructure investment opportunities in Europe. Concerned, the European Union is looking both to limit the ability of non-EU companies to purchase distribution and refining assets in its territory and to force Russia/Gazprom to open the latter's pipelines to outsiders. In an effort to enhance competitiveness, recent draft regulations mandate separating resources from transmission infrastructure. The proposed rules have strong implications for Gazprom, which could not own controlling stakes in distribution networks and

would have to offer reciprocal access to its domestic pipelines. Press reports at the time of the EU announcement noted that Konstantin Kosachev, head of the Duma's International Affairs Committee, threatened to retaliate against foreign investors.⁵ And most recently, Aleksandr Medvedev, the head of Gazprom Export, threatened that Europe risks a doubling of natural gas prices, if it implements the new legislation.⁶

Even before the discussions about the proposed EU-wide policy, Gazprom executives threatened to shift export eastward toward China. Russia has already signed several deals with China and announced new pipeline projects to supply Beijing's growing market. Over the long-term, such a shift in emphasis is of course possible; however, effecting it in the short- to medium-term is inherently difficult. Vladimir Milov, a Russian energy expert, notes that Russia's limited capacity and technology make it only a regional supplier of energy. He argues that the great distances and high construction costs hinder the development of pipeline infrastructure to China.⁷ In fact, this past summer, Russian officials announced considerable delays in new gas pipeline construction to China, and Moscow and Beijing have been unable to agree on oil prices or oil pipeline routing. Thus, at the present time, the threat to redirect exports is hollow.

How Much Does Russia Have?

Even if Russia were to increase energy, particularly gas, supplies to Europe and successfully complete new oil and gas infrastructure to China, the question remains: can Russia meet all of its export commitments? Most experts estimate that Russia has 60 billion barrels of proven oil reserves, largely located in western Siberia. In the initial post-Soviet period, oil production fell precipitously, but output has steadily increased—during 2005-2006, Russia became the second-largest producer of oil after Saudi Arabia. As exports have grown, Russian domestic consumption of oil has declined. Recent data indicate that Russia exports approximately 4 million barrels per day; of that, almost 1.3 million barrels per day are piped through the Druzhba Pipeline, which traverses Belarus and Ukraine. Due to the multiple crises with these two former Soviet republics, Russia is currently building additional pipelines to bypass Belarus, Ukraine, and the Baltic states, and is considering other projects that would eliminate the need to ship oil from

Novorossiisk through the Bosphorus to Europe. Despite these significant plans to increase export capacity, it is estimated that many mature fields are post-peak and that future production will grow at only between 1.5 to 2.5 percent, derived in large measure from new projects in Sakhalin.⁸

RANK	COUNTRY	IMPORTS (BCF/YEAR)	DOMESTIC NG CONSUMPTION
1	Germany	1,291	43%
2	Italy	824	30%
3	Turkey	630	65%
4	France	406	26%
5	Hungary	294	62%
6	Czech Republic	252	84%
7	Austria	246	70%
8	Poland	226	47%
9	Slovakia	226	108%
10	Finland	148	105%
11	Romania	140	23%
12	Fmr Yugoslavia	134	57%
13	Bulgaria	101	89%
14	Greece	85	96%
15	Switzerland	13	12%
SALES TO BALTIC AND CIS STATES, 2005*			
	Ukraine	2,113	79%
	Belarus	710	100%
	Baltic States	205	100%
	Azerbaijan	120	36%
	Georgia	46	100%
*Includes some re-exports of Central Asian gas. Source: EIA, BP (2006), CIS and E. European Energy Databook, 2006.			

Russia holds the world's largest reserves of natural gas, approximately 1680 trillion cubic feet, and it is also the largest exporter. Lacking liquefaction technology, Russia exports all of its natural gas through pressurized pipelines. Production has remained relatively flat overall, increasing by only 1-2 percent per year; moreover, Gazprom has invested little in new fields and its three largest fields, which produce 70 percent of output, have suffered annual decreased production.⁹ Company officials are hopeful that new fields, such as the recently acquired stake in Sakhalin II and the Shtokman fields, will bolster production.

Thus far the discussion has not centered on domestic consumption and supplies, which are crucial factors in judging Russia's ability to meet its forward contracts. Currently, more than half of Russia's energy consumption is gas; however, domestic gas prices are effectively subsidized. The government acknowledges that prices will increase, but Putin has declared that even at peak

they will equal no more than two-thirds of international prices. Low prices do not promote conservation: in 2006, experts estimated that by 2010 domestic gas consumption would rise by 24 billion cubic meters (bcm), or by 6-7 percent per year.¹⁰ Herman Gref, minister of economic development, predicted likely domestic shortages of 5-6 bcm. In comments on October 31, 2006, he noted that "Russia is encountering some real restrictions on economic growth due to a shortage of energy resources." These forecasts were seconded by ministry predictions that output would grow by only 0.9 percent in 2007 and 0.6 percent in 2008.¹¹

Estimates vary regarding the extent of Gazprom's gas deficit, but most analysts agree that Gazprom will need both to develop new fields and to import gas from Central Asia in order to meet its contractual obligations. With regard to new fields, the story of the Shtokman fields is illustrative. The fields hold 3.7 trillion cubic meters of gas, but the location north of the Arctic Circle renders

them technologically challenging. A year ago, Gazprom withdrew the international tender for the fields, opting instead to develop them by itself. At the time, the decision seemed congruent with other actions to ensure state ownership of energy resources, but it also indicated that Gazprom had decided to rely on new pipelines instead of liquefaction technology. Gazprom apparently rethought its position and in July 2007 reopened the tender, ultimately awarding 25 percent to the French company, Total, and more recently an additional 24 percent to Norway's StatoilHydro. According to Russian press accounts, these new agreements represent open acknowledgment that Gazprom lacked the ability and technological know-how to develop the fields on its own.¹² It can also be seen as recognition that export via new pipelines, instead of in liquid form, would limit the market for the gas from Shtokman.

Russia has been aggressive in trying to lock up long-term Central Asian commitments—especially from Turkmenistan. For the moment, Russia and Gazprom control Turkmenistan's exports, mostly through Soviet era pipelines, and Turkmenistan will export about 2.1 to 2.5 billion cubic feet to Gazprom in 2007.¹³ In May 2007, it seemed that Gazprom and Russia had secured their goal: the new Turkmen president, Gurbanguly Berdimukhammedov, along with his Kazakh and Russian counterparts, announced a new gas pipeline along the Caspian coast to connect with the Gazprom grid. And in mid-October, at a Caspian Sea summit, Russia made a bid to limit the abilities of the other Caspian littoral states to export via non-Russian pipelines.¹⁴

Gazprom's plan, however, may be thwarted by the apparent determination of the new Turkmen government to explore export options. Evidence indicates that the tripartite agreement to build the pipeline along the Caspian shore from Turkmenistan through Kazakhstan to Russia is stalled, if not dead. Prior to the October 2007 Caspian summit in Teheran, the British minister of state for energy, Malcolm Wicks, traveled to Turkmenistan to explore new energy agreements and Berdimukhammedov visited the U.S. and held meetings with several Western energy company officials. The Turkmen president has announced renewed interest in the U.S.-proposed trans-Caspian gas pipeline, a project rejected by the mercurial late President Saparmurat Niyazov, and is moving forward on a deal with China for the construction of a pipeline east. Interviews in October in Ashgabat, the capital, suggest that the Turkmen government will announce a significant deal with a major Western energy company in the near future.¹⁵ In mid-November, the Times of London leaked a report that the U.K. and Turkmenistan had signed what one official called a "protocol of intentions" to allow British companies to operate in the Turkmen energy sector.¹⁶ Although the size of Turkmenistan's reserves is uncertain, it seems increasingly probable that there will be less gas available for Gazprom in the future.

Is Russia an Energy Superpower?

That Russia is destined to remain a major energy supplier to its immediate neighbors and to the rest of the world is not at issue. What is an issue, however, is whether Russia's resource develop-

ment strategy is adequate to meet future demand. As argued, Russia has not invested in refurbishing gas infrastructure and seems to be relying on new finds such as Sakhalin and Shtokman to bolster supplies. Yet work on Shtokman has not begun. It is also clear that Turkmenistan is no longer willing to be a source of cheap gas for Gazprom.

There is also the question of whether the networks of supply will be solely commercial or whether these ties will be politicized. As states such as Armenia and Moldova have succumbed to Gazprom's pressures, there are signs that other states are moving cautiously to develop non-Russian options. In January 2007, Gazprom demanded huge price increases from Azerbaijan and Georgia. Azerbaijan, which used to import Russian gas despite its own vast resources, declined a Gazprom price increase and sped up the development of its own infrastructure. It also cut oil exports via the Russian-owned pipeline to Novorossiisk. Simultaneously, an agreement among Georgia, Azerbaijan, and Turkey gave Georgia additional gas from the Shah Deniz field in order to make up for the shortfall. Other gas-rich states also seem ready to assist Georgia. At a March 2007 meeting between Georgian President Mikhail Saakashvili and his Kazakh counterpart, Nursultan Nazarbaev, it was announced that Kazakhstan was considering building a refinery in Georgia.

Kazakhstan has pursued a measured policy, careful not to alienate Russia. Its first major export pipeline was the Caspian Pipeline Consortium project which carries Kazakh oil across Russia to Novorossiisk. Recently, in addition to the support for Georgia, Kazakhstan has announced plans to develop a new oil terminal in Kuryk. The \$3 billion project, to be funded by Chevron, Exxon, LUKArco, and others, will facilitate oil shipments across the Caspian. These future trans-Caspian shipments will fill the Baku-Tbilisi-Ceyhan pipeline—the first completed non-Russian export route. This fall, Kazakhstan and China signed an agreement extending an already existing pipeline to the Caspian in order to increase volumes of oil flowing to China. Finally, both Kazakhstan and Azerbaijan rejected a Russian proposal at the October Caspian summit that would have blocked trans-Caspian pipeline construction.

As for Europe, the crises with transit states Ukraine and Belarus alerted the EU to the dangers of over-reliance on Russia for oil and gas supplies. For its part, Gazprom and Rosneft, the state-owned oil company, are hoping to reassure Europe by constructing new pipelines, most notably Nordstream, to bypass the recalcitrant ex-Soviet republics. But this reassurance is diminished by Gazprom's acquisition (or attempted acquisition) of European pipeline and refining assets. The picture is made even more complicated by the reality that no matter how much President Putin berates the Europeans,¹⁷ Gazprom and Europe are co-dependent. Analysts estimate that over 80 percent of Russia's oil exports and almost all of its gas exports go to Europe.¹⁸ Thus, nearly all of the petro-dollar windfall of the past few years is derived from the European market. Moreover, Gazprom is Russia's largest earner of hard currency and its tax revenues contribute one-quarter of Russia's tax coffers. Prospectively, what is in question is Gazprom's use of those rev-

The Audit of Conventional Wisdom

In this series of essays, MIT's Center for International Studies tours the horizon of conventional wisdoms that define U.S. foreign policy, and put them to the test of data and history. By subjecting particularly well-accepted ideas to close scrutiny, our aim is to re-engage policy and opinion leaders on topics that are too easily passing such scrutiny. We hope that this will lead to further debate and inquiries, with a result we can all agree on: better foreign policies that lead to a more peaceful and prosperous world. Authors in this series are available to the press and policy community. Contact: Michelle Nhuch (NHUCH@mit.edu, 617.253.1965)

Center for International Studies

Massachusetts Institute of Technology
Building E38-200
292 Main Street
Cambridge, MA 02139

T: 617.253.8093
F: 617.253.9330
cis-info@mit.edu

web.mit.edu/cis/
web.mit.edu/cis/acw.html

enues. Gazprom's attempts to snap up assets in Europe indicate that it is not using its huge revenues to invest in green fields and to refurbish decaying pipelines. This leaves Gazprom dependent on cheap gas from Central Asia, especially from Turkmenistan. Second, even if Gazprom were to invest more wisely, would those revenues go to develop fields and infrastructure to supply the European market or would they go to developing sources in eastern Siberia and infrastructure to feed the growing Asian markets? A wise investment strategy—one that would increase export capacity and develop new fields in both eastern and western Siberia—requires a steady revenue stream. In effect this means that should Europe successfully find new suppliers, the money available to the Russian state to build new pipelines would be limited. Putin implicitly acknowledged this by repeatedly calling for security of demand, and as noted earlier, Aleksandr Medvedev has threatened huge price increases.

The bottom line is that Russia possesses huge amounts of oil and natural gas, but the legacies of poor investment decisions and neglect of infrastructure hamper its export capacity. Russia may want to use its energy clout, but its neighbors and customers further afield are increasingly wary of its political ambitions. Thus, Russia is indeed an energy colossus, but it is a giant with limited reach and standing on only one foot.

footnotes

- 1 See discussion in Michael Fredholm, "Gazprom in Crisis: Putin's Quest for State Planning and Russia's Growing Natural Gas Deficit," Conflict Studies Research Center, Oct. 2006. <http://www.defac.ac.uk/colleges/csrc>. See also, "The Energy Strategy of Russia for the Period up to 2020," Decree # 1234R, Aug. 28, 2003.
- 2 See the discussion in Harley Balzer, "Vladimir Putin's Academic Writings and Russian National Resources Policy," *Problems of Post-Communism*, January/February (2006), pp. 48-54.
- 3 Stephen Boykewich, "The Man with the Plan for Russia Inc.," *Moscow Times.com*, June 6, 2006, accessed at <http://www.themoscowtimes.com/stories/2006/06/06/002.html>.
- 4 Andrew Monaghan, "Russia and the Security of Europe's Energy Supplies: Security in Diversity?" Conflict Studies Research Center, January 2007: <http://www.defac.ac.uk/colleges/csrc>.
- 5 Sarah Leitner, "EU's Tough Energy Plans Prompt Moscow Concerns," *Financial Times*, September 20, 2007, available at <http://www.ft.com/cms/s/0/78dcf396-6712-11dc-a218-0000779fd2ac.html>.
- 6 Catherine Bolton, "Gazprom Chief Warns Brussels on Price Rise Risk," *Financial Times*, Nov. 21, 2007, p. 2.
- 7 Milov notes further that China will import between 20-25 billion cubic meters of natural gas, but liquefied natural gas from Sakhalin II, for example, has been fully contracted to Japan, the US, and Korea. Vladimir Milov, "Neo-Con Plans and the Sober Reality," *Russia in Global Affairs*, Vol. 4, No. 4 (2006), p. 125, 128.
- 8 Energy Information Agency, "Country Analysis Brief/Russia," updated April 2007, www.eia.doe.gov/cabs/Russia.
- 9 Energy Information Agency, "Country Analysis Brief/Russia."
- 10 Fredholm, "Gazprom in Crisis..." p. 9
- 11 Elena Shishkunova, "Herman Gref: Soon the Whole Economy will Start to Cough," *Izvestia*, Nov. 2, 2006, p. 7. http://site.securities.com.ezp1.harvard.edu/doc.html?pc=RU&doc_id=118087458, and Fredholm, "Gazprom in Crisis..." p. 9.
- 12 See, for example, Oksana Gavshina, "Western Companies to be Permitted to Develop Shtokman," *Gazeta*, July 10, 2007, p. 12.
- 13 Energy Information Agency brief on the Caspian Region, available at www.eia.doe.gov, updated Jan. 2007.
- 14 The five Caspian littoral states have met repeatedly to settle bilateral disputes and to agree a demarcation scheme for the inland sea. By all accounts the most recent meeting, at the heads of state level, was the most productive to date. Nonetheless, there is still no agreement on the sectoral division of the sea. At the meeting, Russia made a bid, rebuffed by Azerbaijan and Kazakhstan, to block trans-Caspian pipelines.
- 15 Discussions with western officials in Ashgabat, Turkmenistan, Oct. 2007.
- 16 Robin Pagnamenta, "UK Secures Energy Deal with Regime in Turkmenistan," *Times*, Nov. 6, 2007, accessed at timesonline.co.uk.
- 17 "Putin Snipes at EU on Access to Assets," *Moscow Times*, Oct. 29, 2007, p. 2, accessed at www.themoscowtimes.com.
- 18 Although somewhat outdated, the estimates contained in Fiona Hill's Brookings paper are illustrative. See Fiona Hill, "Beyond Co-Dependency: European Reliance on Russian Energy," *The Brookings Institution, US-Europe Analysis Series*, July, 2005, available at www.brookings.edu.



MIT CENTER FOR INTERNATIONAL STUDIES

December 2007

Audit of the Conventional Wisdom

Russia: An Energy Superpower?

Carol R. Saivetz

MIT Center for International Studies

PSB 07-0xxxxxxxxxxxxxx

Massachusetts Institute of Technology
Building E38-200
292 Main Street
Cambridge, MA 02139

MIT CENTER FOR INTERNATIONAL STUDIES

