Baker Institute Study

Published by the James A. Baker III Institute for Public Policy of Rice University In Conjunction with Carnegie Endowment for International Peace

No. 23



October 2003

U.S.-Russia Energy Summit Executive Seminar:

The Strategic and Geopolitical Implications of Russian Energy Supply, Security, and Pricing

There is great potential for energy cooperation between the United States and Russia, but it will take a lot of work, patience, and perseverance to capitalize on that potential, concluded a two-day seminar, organized by the James A. Baker III Institute for Public Policy of Rice University and the Carnegie Endowment for International Peace.

The "U.S.-Russia Energy Summit Executive Seminar" was held on June 17-18, 2003, at the Carnegie Moscow Center. It focused on the strategic and geopolitical implications of Russian energy supply, security, and pricing, with particular emphasis on areas where U.S. and Russian interests clearly intersect, and possible solutions to remaining divisions. The program was attended by senior Russian and U.S. government officials and by energy industry leaders from both countries. Presenters also included scholars and experts from Russia, Japan, Europe, and the United States. The event was sponsored by the Petroleum Energy Center of Japan, Renaissance Capital, Lehman Brothers, and Baker Botts L.L.P. The Eurasia Programme at the Judge Institute of Management at Cambridge University also participated.

Setting the tone for the session, Alexander Vershbow, U.S. ambassador to Russia, emphasized in opening remarks to the session that energy is an area where there is "a real commonality of interests" between the United States and Russia. As Vershbow noted, "The United States is the world's largest energy consumer and is trying to diversify its

sources of supply. Russia has some of the world's largest deposits of energy resources. So the goal is quite simple: to make sure that Russian oil companies can develop the resources and get their products to markets." He added that "there is a strategic dimension as well. Stronger energy ties, and stronger economic ties more generally, can also strengthen our overall bilateral relationship." This sentiment was later echoed in the remarks of Alfa Group chairman Mikhail Fridman who said that to make the U.S.–Russia relationship "long-lasting, we must set up economic links between businesses in the two countries of a long-term nature."

Still, Ambassador Vershbow warned that a more "inviting" investment climate was necessary to attract needed investment for large projects. "We are concerned that the PSA (production sharing agreement) tax amendments that were passed by the Duma (Russian Parliament) in May didn't do enough to inspire international confidence in the stability and predictability of Russia's investment climate." He stressed that companies require greater transparency in the system and the fair and even application of the rules and regulations at both the local and federal levels. Ambassador Edward Djerejian, director of the Baker Institute, agreed that hurdles to Russia's global energy supply role remain. "Despite genuine progress in reforming the Russian energy sector and encouraging foreign participation, investment climate and reliable access to needed export infrastructure remain

uncertain," Djerejian pointed out. "And not just for foreign firms but for domestic Russian firms as well. Low-hanging fruit has borne strong returns to the Russian industry in recent years. But a stable investment environment that incentivizes rather than discourages major long-term investments in brandnew green-field projects is still needed."

Sustaining Russia's Dramatic Oil Revival

The dramatic impact of the recent revival of previously stagnant Russian oil production rates was an important theme that emerged from the discussion at the seminar. Private Russian energy firms have seen strong success at restoring production to rates of about 8.5 million barrels a day, up from a low of 6 million barrels a day in the late 1990s. The increase comes mainly from rising production in Western Siberia where firms like Yukos–Sibneft, TNK, and Surgutneftegaz have experienced solid growth in operations. This recovery of the oil industry has been a significant contributor to the restoration of growth in the Russian economy.

Analysts told the seminar that Russian oil production could continue to rise dramatically to 10 million barrels a day or more by the end of the decade, but obstacles to investment remain to be removed. Among them are a lack of clearly defined regulatory frameworks and business structures to encourage private sector initiatives and to promote cooperation between the private sector and state entities, especially in the area of pipeline development.

High oil prices and rising export volumes have been the main driving forces behind the country's recent economic growth of 6 percent in the first quarter of 2003. Currently, Russia's oil and gas sector accounts for half of the country's exports, a third of total budget revenues of the federal government and 13 percent of GDP. According to Alfa Bank estimates, a \$1 dollar a barrel drop in the price of oil costs Russia \$2 billion in export revenues and \$1 billion dollars in budget revenues. A \$1 a barrel drop in oil prices translates into a loss of about 0.4 percent decline in Russian GDP per year. Thus, Russia's short-term eco-

nomic health is highly dependent on the energy sector. High oil prices helped Russia register a \$5 billion budget surplus in 2002. But conversely, a drop in oil prices to \$14 dollars a barrel would create budget deficits for the Russian government. A fall below \$10 a barrel would likely eliminate Russian GDP growth altogether.

TNK corporate analyst Tatiana Magarshak showed in a detailed presentation that Russia's oil production could reach more than 12 million barrels a day by 2012, based on published plans of the country's major oil companies. This estimate included oil from fields that those companies already possess (regions primarily of Western Siberia) as well as 500,000 barrels a day of output from the Timan–Pechora region and the Verkhnechonskoye and Talakanskoye fields in Eastern Siberia. Such forecasts would be dependent on transportation capacity being expanded to allow this increase to materialize. Significant amounts of crude still exit the country by railroad.

According to Magarshak, Russian domestic demand for refined products has been satisfied by processing of 2.2 million to 2.4 million barrels a day of crude oil, according to presentations at the seminar. The Russian government has expressed interest in having more oil exit the country as refined products, but the industry must take into account tightening specifications and falling demand for fuel oil both inside Russia and in the European Union (EU). To stay competitive, Russian refineries will have to enhance conversion ratios to minimize the amount of fuel oil produced and maximize output of more desirable products such as diesel fuel and gasoline as well as improve the quality of manufactured products in line with EU standards. Such modernization of refineries will require about \$9-10 billion to be invested in the Russian downstream sector over the next 10 years.

THE CHALLENGE OF EXPORT ROUTES

The current Russian state pipeline system, controlled by government-owned monopoly Transneft, is operating at near capacity, with certain key trunk lines

operating above nameplate capacity through the use of special additives (drag reduction agents or DRAs) that can boost flow rates. There was disagreement among seminar participants as to whether Transneft would be able to expand its capacity adequately on its own, or whether the privatization of the pipeline system would provide quicker and more dependable solutions. Transneft has announced significant expansion plans but, as several analysts noted, private industry is not satisfied with the nature and timing of the lines on its blueprints. Russian energy officials addressing the conference countered that the continuation of the Transneft monopoly is the most effective option to ensure that the full potential of existing pipelines can be utilized before new ones are built.

Russian officials at the conference argued that only the government could be relied on to protect public interest in the development of the country's oil reserves. To do this, one official asserted, supply for the Russian refining system has to be favored over higher crude oil exports: "Today, Russia has 260 million tons of refining capacity, and we refine only 190 million. The overall task is just to put the full load on the capabilities, which means development of territories, development of the social sphere, creation of new jobs, social stability in the first place, which is the task of any government That's a complex problem not only for the state, but it also lies within the interests of the oil companies. [They must] not just grab a piece of cake but think of how to increase and make the whole process of development, processing, and refining more efficient."

While acknowledging that export constraints are a big problem, energy analyst Adam Landes of Renaissance Capital predicted that Transneft would remain prominent because of the company's increasing transparency and because of plans to increase its capacity. Landes told the seminar that Transneft's crude oil export capability will rise from about 3.5 million b/d currently to 6 million b/d by the end of 2004 as it completes phase 2 of the Baltic Pipeline System (BPS), the Butinge expansion, an Adria project, and other debottlenecking and bypass programs. But other major projects will be needed if Russia is to

avoid having pipeline capacity constrain its potential and if Transneft is to meet its goal of doubling its export capacity by 2010.

Renaissance Capital forecasted last year that Russia was entering a "substantive" and "lengthy" rise in production that mainly would be underpinned by West Siberia alone. "The Russian oils have displayed some formidable competitive advantages through primarily two factors: their costs bar tax are much lower than anywhere else; and secondly, the reinvestment requirement to add another barrel has been formidably low," Landes stated, noting that the free cash flow generated by the Russian oil companies from 1997 to 2001 was \$3.90 per barrel of oil equivalent compared to \$3.04 a barrel generated by the five international supermajors over the same period. Landes conceded, however, that Russia could not continue to grow its market share globally unless it could "resolve the export access issue," which he believed would happen in a rapid fashion. He noted that Transneft was going to launch a domestic bond issue in a sign of change for the state firm, which previously had no need for external funding.

Isabel Gorst, prominent writer and commentator on the Russian oil scene, agreed that Transneft was under pressure to change its ways to meet the new demands of the Russian oil industry. "Until the last two years when production started to rise, most of the new building projects Transneft undertook weren't really to increase capacity. They were to enhance its control," Gorst explained. She described how Transneft focused on three or four projects in the late 1990s, all designed to bypass problem regions. These included the Baltic pipeline to Primorsk, which was being built in the late 1990s and allows Russian oil to reach Northern Europe without going across Latvia. In addition, a bypass was created around the Ukraine, and another important bypass was built to allow Azerbaijan oil to enter the Russian export system and avoid the Chechnya republic, which, Gorst noted, "was, at that point, completely a war zone."

Gorst and others added that the construction of new infrastructure has become a major battleground between the private oil majors such as Yukos and TNK and the Russian government. Analysts told the seminar that the Russian majors argue that they can move faster and export more than Transneft's meager staterun budget can allow it to do. But the Kremlin has been deeply reluctant to give up the financial benefits and political influence that controlling the country's geopolitically important export flows affords, according to Amy Myers Jaffe, Wallace Wilson Fellow for Energy Studies at the Baker Institute. Nonetheless, the Russian government has given indications that it may give privately owned companies more of a say in the process. While that does not likely mean private ownership of export facilities, it could lead to preferred pipeline access or lower tariffs for those companies that pitch in with private funding, according to Gorst.

Still, analysts agreed that if the energy sector is to remain comparably strong in the future—especially in the face of a drop in world oil prices—it will have to boost its production and export capacity even more than it has in the past few years. The overwhelming majority of speakers agreed that Russia must diversify its oil exports beyond the European market—which is unlikely to show significant growth as an oil consumer in the coming decades—and reach out to new markets, particularly in Asia and the United States.

Both the United States and Russia agree that enhancing the possibility of rapid exploitation of energy resources is an important priority and common strategic goal that will benefit the economy of both countries. But there are divisions in American and Russian attitudes regarding how to achieve this energy expansion. The core of Russia's oil production comes from giant oil fields in Western Siberia. But future resource development will include new, more remote areas such as the Timon–Pichora, East Siberia, the north Caspian Sea and the Russia Far East. Development of these resources is critical to the outlook for Russia's energy sector but faces technical, economic, and bureaucratic hurdles, according to presenters at the seminar.

Analysts noted that the \$2.5 to \$4 billion pipeline and deepwater port project to the northern coast at Murmansk would be critical to facilitating Russian

oil shipments to the United States. Mikhail Khodorkovsky, chairman of the board of Yukos, one of four private Russian oil companies conducting a feasibility study on the Murmansk project, noted that Yukos hoped that the Murmansk route to America "will allow us to lay claim to 10 percent of the American market for oil, about 2 million barrels a day."

Khodorkovsky also is eager to reach the Chinese market, as well as that of Japan. He told the seminar that he favors shipping oil from Yukos's vast reserves in East Siberia through a line from Angarsk in Northern Russia to Daqing in Northeastern China rather than by the longer route to the Pacific port of Nakhodka.

Yukos and China National Petroleum Corp. (CNPC) signed on May 28 a general agreement outlining terms for the export over 25 years of up to 600,000 barrels a day of oil via a pipeline from Angarsk to Daqing, with a final agreement originally promised for September 2003. Yukos has said it is prepared to pay for most of the \$2 billion line.

Transneft and Rosneft have expressed support for the construction of a longer, more expensive route across Eastern Siberia to the Pacific Port of Nakhodka that would allow shipments to Japan, South Korea, and possibly the U.S. West Coast. While noting that the Nakhodka route might incur losses at its initial stage, advocates for the longer pipeline warn against the China route that would allow CNPC to dictate purchase terms because it would be the line's sole buyer. The Nakhodka route, by contrast, would allow Eastern Siberian crude exporters to capture the pricing of the international market, Edward Morse, executive adviser for Hetco, told the seminar. Yukos officials countered that existing pipeline connections between Daqing and Dalian would allow for shipments on to Northeast Asia, if a buyer were not available for Russian crude at Daqing. Proposals also exist to build both lines to Asia or to construct a compromise route that would fork at the Chinese border to serve both destinations.

Khodorkovsky defended Yukos's commitment to the China route during his seminar presentation. "If we look at a map that shows China as well, we will see

that shipping oil along this route, in addition to guarantees from the largest oil company in China, in addition to our forecasts for the growth in consumption in China, in addition to the fact that this share of oil will be only 10 percent of Chinese consumption, there is—beyond all this—one other simple factor: that if we do not find a consumer in the refineries of Daqing in Manchuria, beyond that there's an existing pipeline system where you can get to the port of Dalian, and that is closer and you can load any size tankers in Dalien and transport to Japan if you want." He noted that Russia would need to discover two billion tons of reserves, versus 600 million currently delineated, to justify building both lines. Optimistic scenarios for the region show output in the region rising no higher than 1.6 million barrels a day by 2020.

The Yukos chief elaborated, "As far as I am concerned, from the economic point of view, the route to China will always, in absolute terms, make more economic sense than a route to Japan. This is why I believe that this part of Eastern Siberia for Japanese consumers really doesn't make sense."

Other Russian industry leaders agree that the China option should be given priority both on the basis of commercial viability and political practicalities. "We believe that the Daqing route will prevail because it is more economically viable. But for Russia, it is a political choice," observed another senior Russian oil industry executive attending the session. "I believe that our geopolitical interests are such that we could find some projects, infrastructure . . . pipelines . . . that would create an impetus for preserving the territorial integrity of Russia." But he added that steep political challenges exist in coping with the Chinese border. "Because if we develop at our growth rate of the past 15 years and China develops at its growth rate of the past 15 years, economic superiority will be so evident that sooner or later, we will see an aggravation of political issues," he explained. In particular, this senior oil figure noted that the "demographic situation" of China creates certain challenges for Sino-Russian relations. "In the Far East regions, we have several million illegal migrants from China," he said. "They are working hard . . . they are learning

Russian . . . this diaspora is successful in business. So Russia needs a clearly articulated policy on China."

Conference participants recognized that a multiplicity of factors would affect the decisions on how to route East Siberian oil. Reference was made to statements made by Russian president Vladimir Putin to reassure Japan as to his support for the Nakhodka routing, as well as to Japanese offers of billions of dollars in soft loans to help finance the pipeline.

Nonetheless, analysts speculated that Russia would continue to pay lip service to both routes while quietly allowing the shorter, dedicated China route to the first priority. The \$6 to \$8 billion Angarask–Nakhodka line would be the longest in the world, nearly three times the length of the Trans-Alaska pipeline, and would have to carry one million barrels per day through very challenging terrain. "The real problem about these projects is who's going to pay for them and who's going to manage them," explained Gorst. "The important thing to realize is it looks now as if the government's going to say that Daging will be done first and then Nakhodka." Gorst then went on to explain that if market conditions drive pipeline construction, "then the Daqing pipeline will be built, and the one to Nakhodka will not, as there has not been enough oil found yet in East Siberia to support both projects. The person who gets there first, which looks like it will be Yukos to Daqing, wins the race." But Gorst added that one way out might be to tie the huge resources of West Siberia into the eastern bound lines. "A pipeline from West Siberia to Angarask already exists. It would add another 2,000 kilometers to the journey to make this connection, pushing up costs. But if Japan offers soft loans for the project, it could be viable. That way you could, possibly, end up with enough oil for the Daqing and Nakhadka lines. But it's best to look at Russia as a whole while discussing pipeline strategies. Draining more oil east from West Siberia might kill off chances of building the western bound Murmansk line."

Clearly, these kinds of plans require significant investment in the sector, including foreign direct investment (FDI) in the billions of dollars. But analysts agreed that attracting sizable investment capital could be difficult.

IMPROVING THE CLIMATE FOR FOREIGN DIRECT INVESTMENT

U.S. government officials and Western oil executives both complained that Russia has not yet done enough to inspire confidence in the openness and predictability of its investment climate. Because of this problem, many potential Western investors still believed that it was important to maintain and strengthen the mechanism of PSAs for foreign investment, something that many Russian businessmen oppose. Some Western seminar participants stressed that there needs to be greater transparency in the issuing of licenses and that foreign investors need better access to projects.

Grant Aldonas, U.S. undersecretary of commerce for international trade, stated that the recent failure of the Russia Duma to address the concerns of foreign investors about the unstable legal and fiscal architecture in place in Russia is "essentially raising serious and substantial hurdles to green-field investment, which in the mid- to long-term perspective, raises risks, lowers the return on investment . . . and ignores the availability of other attractive alternatives in the international oil market."

Aldonas argued that Russia is taking too short term a view of its energy industry. While many of the Russian projects offered high short-term returns for increased investment in production, he questioned their long-term profitability. "These projects are going to decline in value over the long term as other projects come on stream elsewhere in the world." Aldonas warned that current policies were encouraging FDI mainly "through acquisition." Said Aldonas, "What we are likely to see is a movement towards consolidation . . . and acquisitions rather than green-field investment . . . and ultimately, reduced investment in the long-term Russian energy industry."

Aldonas went on to argue that there are limits to the existing architecture and the ability of Russian companies to go global on their own. "If they want to go global, they will do it through hook-up and consolidation, either through acquisition of their assets or through a merger like BP–TNK," he pointed out. He explained that many Russians in the oil industry have shown a tendency to ignore the important fact that international competition produces the very intracorporate efficiencies and management discipline necessary for firms to compete successfully internationally.

To the extent that companies are sheltered from that international competition, "they are not driven to perform at the same level that the international players will be able to succeed at," Aldonas emphasized. "So in some respects, [without international competition,] that golden apple of access to the international marketplace . . . may be always slightly outside their reach."

One business problem other speakers pointed to was the absence of successful examples of global-scale U.S.-Russian business partnerships, with initial experiences mixed at best.

Mikhail Fridman, chairman of Alfa Group, whose oil company, TNK, entered earlier this year into a landmark \$6.75 billion merger deal with British Petroleum, agreed that barriers remain to global-scale U.S.–Russian business cooperation. "There has been a rapid decline in the number of specialists who know the situation in Russia, in Russian politics, and in Russian business This is a significant hindrance to the development of U.S.–Russian relations, business as well as political relations."

Other speakers acknowledged that major cultural differences often hinder business cooperation because both sides are overconfident that they know the best way to proceed. But Fridman noted that BP had shown "great flexibility" in adjusting itself to the unique business conditions of Russia and that this had influenced TNK's alliance with the company.

Seminar participants agreed that enhanced dialogue is indispensable precisely because these types of cultural differences frequently are a stumbling block. While Americans have extensive experience in international development and production technology, they need Russian companies to help them navigate

the shoals of the local business scene, commentators noted.

Western companies partner with Russian ones in order to have access to local assets and then enhance value, energy specialist Edward Chow of the Carnegie Endowment said. But he questioned whether Russian companies truly are interested in FDI. He noted that Russian companies have been able to tap improving cash flow to hire the kind of managerial and technical help that might otherwise have been provided by a Western partner. Thus, he asserted, one of the fundamental questions for the U.S.–Russia commercial energy dialogue "is whether Russian oil companies are really interested in the level playing field."

Despite some lingering wariness, both Russian and Western executives participating in the seminar welcomed the gradual internationalization of the Russian energy sector, including the spread of GAAP accounting standards and the sharing of ideas by an international workforce. "We have depended on a labor force that was predominantly Russian," noted William Berry, executive vice president of ConocoPhillips, which has a successful venture in the Timan–Pichora and Caspian areas. "We feel there is great benefit from cross-pollination of ideas."

Grant Porter, vice chairman of Lehman Brothers, told the seminar that Russian companies increasingly are looking at creating joint ventures with the multinational majors that include some shared international assets as a means to diversify the Russian companies' own risk and to reduce the discount applied to their stock shares because of the exposure of having all their assets inside Russia.

Porter explained that partnership with American companies could provide lower cost capital market alternatives for Russian firms. "There are project financing techniques, such as the type of project finance utilized by Venezuela to buy refineries in the United States, that are actually lower cost than even the corporate cost of debt for Russia today," he noted. Conversely, Porter asserted that Western companies will be attracted to the Russian market primarily because of the low book values and cost base of Russian companies. This has meant that in recent

years, Russian companies have demonstrated a significantly better return on average capital employed than Western companies, showing returns of roughly 21 percent on average capital employed, at a time when Western companies have had difficulty maintaining returns above 8 percent to 14 percent.

Other experts concurred that Russian companies would benefit from internationalizing their assets. "There are many reasons Russian majors would want to spread their portfolios beyond one country," added Edward Chow. "A Russian company might believe that if it were an international company with assets overseas, that will offer a better protection against hostile government action down the road . . . or worries about the liquidity of the Russian stock market."

Edward Morse, executive adviser for Hetco, agreed that the largest Russian companies eventually will find that "playing in one playing field" is not enough and will begin to emerge as international investors to achieve value maximization. As the international role of Russian firms grows, so too will the challenges posed to any Russian government that seeks to maintain its take from the energy sector without providing incentives for FDI. Morse explained: "If the Russian companies do start to move abroad, what will the Russian government do to make sure that whatever revenue it gets from an oil industry that is becoming an expat community is replaced? Russia will have to worry about how it gets foreign investment inside to make sure that its incomes from exploitation of hydrocarbon resources are held steady over time." Morse also noted that reciprocity of investment access was important to both Russia and the United States. To this end, Russia could consider access to international equity investments held by American firms as an important trade-off to gain, possibly as a quid pro quo, for offering more attractive investment conditions inside.

Russia as a Pivotal Natural Gas Supplier

Seminar presenters concluded that Russian gas was of huge strategic importance to Europe, which is projected to see an increase in natural gas demand of about 3 percent per annum. Currently, the Europeans use 500 billion cubic meters (cm) a year, with usage projected to reach 775 billion cubic meters a year by 2015. Most of the increase in natural gas use is expected to come from the power sector, which is shifting to gas for commercial and environmental reasons even though North Sea production is peaking. According to James Henderson of WoodMackensie Consultants, as UK gas production declines, Russian market share in this expanding European gas scene could rise from 28 percent to 40 percent between 2005 and 2015. Given capacity expansion limitations from other competing suppliers such as Algeria and Norway, WoodMackensie analysis concludes that Russia will be able to compete with the lowest cost supply to Europe.

In 2003, Gazprom will supply European countries with 135 billion cubic meters of gas and has contracted to increase this to 187 bcm/yr by 2010. But, Henderson noted, if optimistic forecasts for increased demand in Europe turn out to be correct, Russia could be called upon to deliver an additional 123 bcm/yr of gas by 2015. Henderson saw this as a daunting task, arguing that to meet this demand, Russia would have to make tremendous investments at the Yamal fields and Shtokmanovskoye, as well as adding more than 90 to 100 billion cubic meters of extra pipeline capacity above and beyond current Gazprom plans for expansion. Otherwise, Europe will be forced to purchase higher cost liquefied natural gas (LNG) from more distant suppliers.

The challenges for improving the production outlook for Russia's world-class gas reserves are manifold. Three big fields—Medvezhye, Yamburg, and Urengoi—account for 83 percent of Gazprom's production at present, and their fields have been declining by a rate of 4–5 percent a year. Academician Anatoly Dmitrievsky, deputy chairman of the Consultative Council of Gazprom, concurred that Medvezhye and Yamburg fields were depleted, with 80 percent and 60 percent of their respective resources already used. In the short run, the decline of gas production from these fields is being compensated for by new production at Zapolyarnoye and other new satellite fields. Eventually, though, production will

have to come from new areas.

Dmitrievsky emphasized that Russia has huge gas resources to develop further, including the Shtokman gas field, which has 3.2 trillion cubic meters of gas and the Yamal Peninsula, which has reserves of 10 trillion cm of proven reserves. In all, there may be 50 trillion cm of usable reserves in the Yamal peninsula alone. Dmitrievsky noted that Yamal fields—Polanenko and Kharasaveiskoye—could yield up to 250 billion cb/yr by 2023, if Gazprom were to begin their development by 2006–2007. There was general agreement that some new production from the Yamal fields will enter into the mix of European exports, but many seminar participants questioned Gazprom's ability to raise the immense capital costs required for the full development of Yamal's resources.

Much of the reason for continued skepticism about Gazprom's capabilities is rooted in concerns about the still largely unreformed state of Russia's gas industry. Russian and American corporate players alike called for Russian domestic gas prices to be increased from their far-below-market levels and for a general liberalization of the gas market. These sentiments were echoed by U.S. government officials. There also was consensus among speakers on the need for reform of Gazprom itself, the partially governmentowned natural gas monopolist, whose management has thus far resisted rapid reform. Without price reform, increased gas production will not become financially attractive to oil companies, who now sometimes prefer to flare the gas released through oil production, rather than try to sell it.

Yukos CEO Mikhail Khodorkovsky said that he was optimistic that the problems faced by oil companies interested in marketing gas could be solved within the next three to five years. Khodorkovsky emphasized though, that under current Russian domestic gas market structures, it didn't make economic sense for the Russian majors to produce associated gas. Therefore, companies reinject gas into their fields, flare it, or limit oil production from fields with high levels of associated gas, squandering potentially commercial supplies that could be developed to supplement Gazprom's business.

Experts participating in the seminar noted that Gazprom is, in fact, undertaking attempts to liberalize the domestic market and is in talks with private oil companies to cooperate in the future to revamp infrastructure. Gazprom's production will rise from 520 bcm/yr in 2002 to 530 bcm/yr in 2003, the first increase in production seen in several years, and the company is targeting production to reach 580 bcm/yr by 2020. Gazprom, according to some, expects that independent producers will be able to provide up to an additional 180 bcm/yr by 2010.

Boris Fyodorov, a nonexecutive director of Gazprom who represents interests of minority shareholders on the board of Gazprom and serves on the board RAO UES, also predicted that the regulated domestic gas prices would eventually have to "creep up to a level that will be sustainable and profitable to anybody who is in the gas business." Independent producers, he said, would have to become a more important source of gas supply. Fyodorov argued that it would be infeasible for Gazprom to raise all the capital necessary to maximize production, "I don't think, with the current financial situation, in the next three to five years, Gazprom will have \$50 to \$60 billion in cash of its own—even with a better borrowing capacity and better ratings." Should this prove to be the case, Fyodorov continued, then clearly "others will be making this investment and are willing to fill this gap." Fyodorov added that once the electricity sector was privatized, it also would become politically less expedient for the Russian government to subsidize gas prices. "If all generation of electricity is in private hands, how can you politically explain giving subsidies to private companies?" he noted.

While acknowledging the importance of Russia's recent steps to raise regulated gas tariffs for domestic gas, Ambassador Vershbow said the Russian government would have to allow gas prices to trade at market levels to further encourage natural gas production by the Russian private sector energy firms. Moreover, Vershbow emphasized, failure to reform its gas sector would lead to other negative consequences for Russia. "The fact that domestic gas prices in Russia are set well below their economic level has become an issue in

Russia's accession to the World Trade Organization," he noted.

RUSSIA'S GLOBAL ENERGY SUPPLY POTENTIAL

There was general agreement that the further international economic integration of Russia would be advantageous for Russia and for the other industrialized countries. The critical role of Russian gas exports to Europe, the potential for Russia to become a major oil exporter to the United States and Asia, and the increasingly vital role Russian oil exports to oil market stability, all raise the profile of Russia's global importance in energy geopolitics. Energy issues have opened the door for greater cooperation with Western powers such as the United States, Japan, and the EU as well as provided a basis for dialogue with China on contentious border issues.

They also create an as-yet-unrealized basis for cooperation in the Caspian region. But participants also underscored that while American and Russian suspicions of each other's intentions in the Caspian region remain, they are no longer a major obstruction relations between the two great powers. Nonetheless, as seminar discussions made clear, questions of routing for the export of Caspian energy remain an area with considerable divergence of views. Such differences remain despite the obvious synergies of strategic commonality on the great importance of stability of that region to both U.S. and Russian national security interests, analysts noted. Most participants-Russian and American-agreed that the maximum flow of energy exports from the Caspian region would serve to underpin regional stability if transparent business practices necessary for economic development were advanced.

While Russian officials continued to place their priority on the integration of Russian and other Caspian energy resources, U.S. counterparts continue to emphasize private-sector involvement in the region and enhanced competition among Caspian transport routes as the linchpin for development. U.S. ambassador Steven Mann, senior adviser, Caspian Basin Energy Diplomacy, pointed out that current U.S. pol-

icy is an outgrowth of problems in the commercial relationships between Russian state export monopolies Transneft and Gazprom and the Caspian producers. "Our policy arises out of the fact that the economic conditions that Transneft and Gazprom have created have given a powerful push toward the development of alternative pipelines," Mann stated. "Our policy is not an anti-Russian policy. It is an anti-monopoly policy." Ambassador Mann noted that Turkmenistan rejected the Transcaspian gas pipeline project, which proposed a price for Turkmen gas of \$53 per 1,000 cubic meters, and was left with "no good alternatives" to selling its gas to Gazprom for two-thirds that price.

Deputy Foreign Minister of the Russian Federation Viktor Kaluzhny disagreed with this characterization of Transneft and Gazprom, maintaining that both recognized the complexity of being international actors, as both were vulnerable to the will of transit countries like Ukraine, Bulgaria, and Poland. "I'd like the issue of "monopolism" to be considered objectively. Because today, each of us is a monopolist in his own family, in his country, as a citizen, he is also a monopolist," Kaluzhny warned. "But this concept must be treated very, very carefully, in a balanced way, and it should not be politicized."

The Bush administration supports the idea of shipping Kazakhstan's oil through the Aktau–Baku–Tbilisi–Ceyhan system—a move not welcomed by Russia because it would divert oil from Russian pipes. Russia also objected to the U.S. push for the South Caucasus gas pipeline project that will take gas from the Shah Deniz field in Azerbaijan to Turkey, while the U.S. indicated concern about a new proposal between Gazprom and Georgia, which Ambassador Mann said would undercut the South Caucasus gas project. Both sides lamented the poor progress of the Caspian Pipeline Consortium, whose initial difficulties had led the U.S. toward embracing a multiple pipeline policy.

Although the U.S. and Russia do appear to agree that maximizing exports from Russia and the Caspian is an important goal, the bilateral dialogue has yet to lead to coordinated discussion on how new Russian routes to Murmansk and to the Adriatic might affect the outflow possibilities for Caspian oil. This is the case despite the fact that new Russian routes could be a source of synergies and lessened political tensions between Moscow and Washington. Such efforts are clouded, also, by disagreement among top energy analysts about the potential of the oil market to absorb rising volumes from the Caspian Basin and Russia over time.

Western analysts discussed at the seminar expected trends in the oil market. Some respected analysts forecast that oil demand will grow by more than 4 million barrels a day between 2002 and 2005, or roughly 1.3 million b/d a year, with about 60 percent of that growth coming from China and elsewhere in Asia. Non-OPEC supply, including production rises from Russia and the Caspian Basin, is expected to total 3 million b/d over the same period, noted Adam Sieminski of Deutsche Bank. "So you can immediately see the problem," Sieminsky explained to the seminar. "That leaves OPEC with one million barrels a day that they can have as growth over the period to 2005. Iraq alone could take up to 1 million b/d, as could Algeria and Nigeria together."

Sieminski noted that OPEC would want Saudi Arabia to cut its production to make room for increases by other OPEC members, but it remains to be seen how much the kingdom will be willing to sacrifice of market share to defend prices. Saudi Arabia also has made clear in public statements that it will not look on passively if Russia continues to grab market share away from the OPEC, and any Russian government will have to move cautiously to avoid stimulating a price war among major oil producers, Western analysts told the seminar. This pressure will be increased by 2007 and beyond, if Iraq is able to make significant headway in achieving some large-scale expansion of its production capacity. "The internal management of OPEC's market share is probably not going to be a serious issue until 2006–2007," predicted Sieminski.

Concluding Thoughts

Edward Morse returned to the question of U.S. and Russian relationships with OPEC in his presentation on oil geopolitics and Russia. He noted that the U.S. has had difficulty putting together a coherent approach to energy security in general and that this has affected its ability to forge a strong bilateral energy relationship with Russia. He said that U.S. visions for how it would like its relations with Saudi Arabia, Iraq, and Russia and with other major consuming countries had not been well articulated. Still, he said that inertia could wind up being less important than the Russian response. "What Moscow wants could matter a great deal," argued Morse. "Moscow can side with the Organization of Petroleum Exporting Countries. It can side with the industrialized countries of the West. It can side with emerging markets like China. It can take a regional approach in Europe. It can take a global approach and very much determine what Russia's energy role will be into the future."

Most seminar participants seemed convinced that despite genuine progress in reforming the Russian energy sector and encouraging foreign participation, Russia's investment climate and reliable access to needed export infrastructure remain uncertain-not just for foreign firms but even for domestic players as well. Low-hanging fruit has borne strong returns to the Russian industry in recent years but a stable investment environment that incentivizes major long-term investment in brand new, sizable "green-field" projects is still sorely needed if Russia is to rise to the global energy power it has the natural endowment to be. This is true not just for American investment in Russia. It will be true even to continue to attract the capital of Russian private firms who will equally be tempted to invest elsewhere if Russia's investment climate does not offer stable returns.

Russia's reserves are so great and its potential so large that Russia must look beyond short-term considerations that peg foreign energy firms simply as industrial rivals to domestic Russian companies. Such thinking will not necessarily lead to optimum policies. The new generation of Russian oil majors, in providing the most profitable opportunities and highest rates of return to shareholders, will—in time—be forced to internationalize their businesses to enhance returns and diversify risk. Down the road, international strategic alliances could become an important element promoting Russian industries' global position.

Seminar participants were virtually unanimous that improved cooperation on energy issues was in both U.S. and Russian interests. But there also was a widely shared view that differences must still be bridged for a sustained partnership to develop in this area.

"The U.S.–Russian relationship on the energy side went from a period of hype and grand promises to a period of strain," observed Edward Morse. Striking a note that evoked great agreement from those assembled, Morse criticized those analysts who are arguing that despite the visible commonality of certain strategic interests, U.S. and Russian interests diverge when it comes to oil. "Those troubled by the current U.S.–Russian relationship exaggerate the tensions that have been fostered by differing views regarding direct foreign investment in Russia and liberalization, as well as the problems Russia's statist orientation poses for the kind of private-sector initiatives that the United States was pushing," Morse explained.

"Objectively, I think there is much scope for a special U.S.-Russian tie," Morse said in opposition to the more critical opinion. "However, the question to me is whether either or both governments have the vision that's required to implement such a strategic partnership."

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