

BAKER INSTITUTE STUDY

PUBLISHED BY THE JAMES A. BAKER III INSTITUTE FOR PUBLIC POLICY OF RICE UNIVERSITY



OCTOBER 2004

THE ENERGY DIMENSION IN RUSSIAN GLOBAL STRATEGY

Russia is entering a potentially historic moment of opportunity as a world energy superpower. The attacks of September 11th, the subsequent “war on terror,” and the U.S. invasion of Iraq have dramatically reshaped oil geopolitics, fostering new alliances and straining old ones. The open-ended U.S. occupation of an Arab country in the heart of the Middle East marks a decisive break with past U.S. policy toward the region. The U.S. declaration of the doctrine of preventative war may be even more far-reaching in its consequences. These revolutionary policies could have dramatic – if still emerging – implications for the geopolitics of oil.

Oil markets have witnessed record price volatility over the past year, in part in response to uncertainty about the continued availability of vital supplies from the Middle East. This has created an opening for Russia to step in as the world’s most important energy provider – a goal aspired to by Russia’s President Vladimir Putin, elected to a second term in March 2004. During Putin’s presidency, Russia has responded to this circumstance by initiating high level energy cooperation dialogues with important oil consuming countries, including the U.S., China, Japan and the E.U., and by commencing a breathtaking reorganization of its industry at home. The outcome of these efforts, however, remains to be seen, as political, bureaucratic, commercial and regulatory barriers continue to plague Moscow’s ability to deliver the goods. At stake could be Russia’s return to superpower status, as well as the stability of the world energy supply. How Russia manages the future of its energy sector will have bearing on both, and choices made in the next year or two will matter tremendously as to whether Russia can become a global supplier of major consequence - rather than remain an important, but limited regional European energy supplier - or whether the Russian industry will lose some of the momentum seen over the past three to four years and tread water, passively free riding off high world prices.

Russian oil production and exports have increased rapidly since 1999, and these gains are a major element in the international oil market supply. Oil supplies from outside the Organization of Petroleum Exporting Countries (non-OPEC) grew by 700,000 barrels a day (b/d) to 48.8 million b/d in 2003, supported by increases from the former Soviet Union (FSU), especially from Russia itself. The dramatic rise in Russian production was critical in offsetting declines in production in the U.S. and other mature basins. In fact, non-OPEC production outside the FSU actually declined over the course of 2003 by 200,000 b/d to 38.4 million b/d, instead of increasing, as had been the norm throughout the late 1980s and 1990s. FSU output rose by 900,000 b/d in 2003, supported by strong growth in the Russian sector. Projections for 2004 anticipate non-OPEC production outside the FSU to be flat while Russian and Caspian oil production will again register gains of about 900,000 b/d, based on continued increases in Russian output as well as an oil export boost from Kazakhstan with the ramp-up of shipments on the Caspian Pipeline Consortium (CPC) pipeline.

Oil markets have risen dramatically in recent months, responding to OPEC production restraint agreements, unexpected supply disruptions and fears of terrorist attacks on energy facilities. Without the contribution from increasing Russian and Caspian oil production, the supply-demand picture in international oil markets would have been even more unstable. Forecasts for 2005 vary, but most analysts agree that non-OPEC production outside the FSU is unlikely to make major gains, leaving oil markets dependent on the policies of OPEC and Russia to meet growing oil demand.

International oil companies have been cautious about increasing exploration budgets in non-OPEC areas due to pressure from shareholders to provide short-term returns on share prices and dividends, as well as slow response to the possibility that oil prices will remain high for a prolonged period of time. Incremental oil from Azerbaijan is expected in late 2005, after the inauguration of the long awaited Baku-Ceyhan line, and some new production will be coming on line in Kazakhstan, West Africa, Canada, Mexico and elsewhere in non-OPEC. With output declines anticipated in the North Sea, Egypt and possibly the U.S., it is likely that the level of growth in non-OPEC production will hinge greatly on the policies inside Russia.

Given Russia's huge resource base and the current high international oil prices, the potential for continued strong oil production growth in Russia is real. Russian oil exports could grow by over 2 million b/d by 2008, relative to 2003 levels, based on available resources and project cash flow. This increase could be obtained mainly from production areas currently controlled by Lukoil, Yukos, TNK, and to a lesser extent Sugutneftegas (see working paper by Gordon).

The capacity for Russian companies to expand their exports varies substantially, and Tatneft and Surgutneftegas are likely to struggle even to maintain current export levels. Russia's major oil companies vary considerably in their ability to fund capital investment programs from internally generated capital flows. For several leading companies, such as TNK, Sibneft and Lukoil, capital demands are projected to rise dramatically relative to capital inflows (see working paper by Gordon).

The situation for Yukos is more complicated still. The company must cope with the arrest of major shareholders and its controversial chairman Michael Khordorkovsky and with the financial consequences of having to pay off massive billion dollar tax arrears (see working paper by Poussenkova).

Yukos close to doubled its crude oil production between 1999 and 2003, reaching 1.62 million b/d last year. The company also recorded a 21% increase in crude oil exports in 2003, making it the largest producer and exporter last year among the Russian majors (see working paper by Koyama). Continued strong gains for the company in the coming year are very unlikely, and the precedents set by the Russian government's prosecution of the cases against Yukos management raise questions about whether the country's overall export growth can be sustained. The recent Kremlin announcement of plans for a far-reaching reorganization of the Russian industry could dampen the level of increase seen in Russian supplies into next year and beyond by disrupting speedy implementation of plans to remove export infrastructure constraints and causing a slowdown in capital expenditures and project implementation (see working paper by Olcott).

Sustainable growth in oil exports hinges squarely on the successful removal of at least two of the three key transport bottlenecks that continue to drive the development of the Russian oil industry. One of these bottlenecks is the absence of a major pipeline outlet linking east Siberian oil with the Asian market. Fixing the other two, requires the development of a major Barents Sea outlet to deliver crude oil to ocean going transport in ultra large tankers and the addition of pipeline routes from the Black Sea to the Mediterranean that will by-pass the Bosphorus bottleneck to tanker trade (see working paper by Gordon). Without the development of this infrastructure, Russian production may fail to meet robust projections.

Eliminating these bottlenecks is critical if President Putin is to meet his declared, ambitious target of doubling GDP by 2010. In his annual speech to the nation on May 26th 2004, Putin pinpointed five pipeline projects that could help Russia diversify as well as grow its oil exports. These included :

- expansion of the Baltic pipeline to Primorsk on the Gulf of Finland,
- construction of a new line from West Siberia to the northwest coast of the Barents Sea,
- initiation of a route out of East Siberia,
- construction of a bypass skirting Turkey's congested Bosphorus Strait,
- connection of the Druzhba pipeline to Europe by reversing the Adria line to terminate at the deep water Omisalj terminal on the Croatian Adriatic.

In his public statement, President Putin demanded that the government speed up studies and approvals of new export pipeline proposals and chided the government for being tardy in its selection of new pipeline routes. He reminded decision makers that, in setting pipeline priorities, they should be guided by broad state interests rather than the desires of individual companies, and he drew attention to key aspects of state pipeline policy that laid out the framework for the multi-billion dollar projects that will likely be launched in the next year or so (see working paper by Gorst).

Today, the fate of export infrastructure development rests squarely with Transneft, the Russian state pipeline monopoly. Transneft is still perceived by many experts to represent the single largest impediment to reforming the Russian oil sector to operate according to market principles and to allowing Russia to achieve the full potential of its bountiful energy resources. Statist policies inhibit local producers from directly resolving export capacity constraints, with political, rather than commercial factors, ruling the day on pipeline expansion strategies. At the same time, however, Transneft's record of achievement is impressive, and the firm has been praised by Russian and Western investment analysts alike. Projects they undertake are generally completed on time and within budget. In spite of the difficult operating environment in Russia and years of deferring maintenance, the system has operated in a reliable manner (see working paper by Gorst).

In the beginning of this second term, President Putin moved quickly to end speculation that private investors might be permitted to own independent pipelines. Both the President and his new Prime Minister, Mikhail Fradkov, have stressed that state control over the nation's oil and natural gas pipelines will remain a cornerstone of government energy policy and be a key tool for containing the economic and political influence of Russia's powerful and rich private oil and gas producers for years to come. Financial demands could force some measure of reform of Transneft and compromise in the way pipelines are structured, constructed and operated, but the state will remain at the helm of the all important transport network (see working paper by Gorst).

Over the past decade, Transneft has funded pipeline projects from cash flow gained by imposing facility surcharges to their tariffs, supplemented by limited borrowing. But the ambitious new pipelines under discussion could cost up to \$20 billion. Relying on a combination of state funds and far higher transport tariffs and taxes may not be economically realistic. Outside investors, be they Russian or international oil majors, bankers or foreign governments, will inevitably seek some commercial guarantees in exchange for capital. Such strings might not be acceptable to the increasingly statist Russian government (see working paper by Gorst).

As one would expect, Transneft has no interest in relinquishing its monopoly position. There was a brief period between 2001 and 2003, prior to the arrest of Yukos' founder Mikhail Khordorkovsky, when Russian producers, egged on by potential foreign partners, attempted to force changes in Russian pipeline policy. With mountains of cash building up on the back of high oil prices, several major Russian companies offered to spend their own capital to expand the Russian pipeline network including construction of a huge export system to Murmansk on the Barents Sea. In exchange, they wanted sweeping changes in the way the Russian pipeline system was run including preferential access to lines, the introduction of quality banking and even, possibly equity ownership of pipelines. They were careful to acknowledge that Transneft would have a role – as operator – of any new lines they financed, but stopped short of saying they would turn ownership over to the state monopoly (see working paper by Gorst).

Of the oil magnates, Khordorkovsky argued most vigorously for change. Yukos had initiated debate regarding pipeline policy reform even before discussion of the Murmansk project came to the fore. Its proposal to build an oil pipeline to Daqing broke the taboo by advocating private pipeline ownership and strayed dangerously into the foreign policy arena by racing ahead of government to promote a close oil alliance between Russia and China (see working paper by Gorst). Moreover, when Khordorkovsky began negotiating the possible sale of a strategic minority block of shares with American firms ExxonMobil and ChevronTexaco, he was setting the stage for East Siberian producers, backed by strong Western partners, to displace the federal government in export pipeline decision-making (see working paper by Olcott).

The arrest of Khordorkovsky and other Yukos shareholders, and the subsequent business crisis within the Yukos' empire, will likely persuade other Russian business magnates from confronting the Kremlin head on for some time, especially given the ways in which Putin has strengthened the power of the presidency over the last two years (see working paper by Olcott).

The Yukos scandal has hardened government determination to exert state control over the oil sector and to use the country's courts and legislature to drain capital away from over powerful oil oligarchs. At least in the short term, Russian oil producers may well draw the conclusion that they have little choice but to help fund pipeline projects that in turn, will benefit their operations with or without access to equity stakes (see working paper by Gorst).

Foreign investors, who so far have a relatively small stake in Russian's upstream production, could try to drive a harder bargain. Given Russia's geographical, political, economic and social peculiarities, their room for maneuver may be limited. While high oil prices may, on the one hand, have strengthened the urgency for the construction of expensive new Russian oil pipelines, they may also have emboldened the Kremlin's confidence and inclination to run the oil industry on its own terms (see working paper by Gorst).

The pivotal role for Russian oil in the world energy market has become a matter of utmost importance for Russian foreign policy. Russia's plentiful resources are critical to the country's economic recovery and to its reemergence as an important world actor on the geopolitical stage. Russia's growing activity in world oil markets provides an opportunity to establish itself as a great oil power, in some measure compensating for the blow to international status suffered with the fall of the Soviet Union. Put simply, oil may become for Russia, what nuclear status was to the USSR. Russia, traditionally a marginal, albeit important, oil and gas supplier to Europe, has the possibilities to emerge on the global stage as a vigorous energy supplier, trading in all major markets of the world. Just as oil enhanced the geopolitical status of Saudi Arabia in the aftermath of the 1970s oil crises, Russia, with its broader industrial base and prior superpower experience, is in an excellent position to utilize energy exports to reestablish its global position (see working paper by Gorst).

Russia is being actively courted by Europe, China, Japan, and the United States to serve as a reliable supplier of oil, providing badly needed alternative supplies to Middle East exports. This could give Russia important new levers to exercise its international influence. Some, like South Korea, even see direct geopolitical benefit from relying on Russian supplies. One interesting role for Russian energy is as a potential vehicle for tempering the conflict on its peninsula with an energy-short North Korea (see working paper by Ivanov).

Against this backdrop of the growing international importance of Russian energy, President Vladimir Putin is reasserting government control over his country's natural resources. Putin's policies toward the Russian oil

industry must be viewed in this context. Unlike many prominent reformers who were influential during the administration of Russian President Boris Yeltsin, Putin does not appear to believe that relying on global market forces will provide the economic opportunities and social supports necessary for the Russian people to make a successful transition from communist rule to a modern, European-style economy and political system. Instead, he frequently emphasized during the 2004 electoral campaign that he believes that premature globalization of the Russian economy will lead to greater hardship for the majority of Russian people and that it will lead to the concentration of vast wealth by a relatively limited number of people who have with little or no incentive to reinvest in the Russian economy.

Evidence that Putin believes in the pre-eminent role of the state in natural resources development is found in a candidate of science dissertation he authored on the topic of “Mineral Raw Materials in the Strategy for Development of the Russian Economy” at St. Petersburg’s prestigious State Mining Institute. The treatise focuses on questions of developmental economics and how to introduce western management-style into Russia’s raw material sector (see working paper by Olcott).

In an article summarizing his dissertation, Putin argues that Russia’s natural resource base will not only secure the country’s economic development but will also serve as the guarantor of the country’s international position. Moreover, he states this quite strongly, in a language that should have served as ample warning for the owners and managers of Russia’s privately held oil companies, that under a Putin administration, the state would set the priorities in the oil industry (see working paper by Olcott).

While Putin appears to support the idea of privatized, large oil industry, financial-industrial corporations that, “are able to compete on an equal basis with the West’s transnational corporations,” Putin views their control of Russia’s assets as a form of guardianship, from which the management and “owners” are free to profit. This is not ownership as it is usually construed in the West, where owners have full control of their assets and the authority to determine the direction of their firms’ development.

Putin states this rather clearly: “The state has the right to regulate the process of the acquisition and the use of natural resources, and particularly mineral resources, independent of on whose property they are located; in this regard the state acts in the interests of society as a whole, as well as in the interests of private owners whose interests conflict and who need the help of the state organs of power to achieve a compromise” (see working paper by Olcott).

The state's prosecution of Yukos is consistent with the arguments made in Putin's article. Recent Presidential actions indicate that Putin does not support the sanctity of property awarded in the first years following the collapse of the Soviet Union. In fact, Putin views the ceding of control of this strategic sector to private hands as a costly mistake that must be reversed. "The pro-market euphoria of the first years of economic reform has to gradually give way to a more considered approach, an approach, which assumes the possibility of and recognizes the need for the regulating influence of the state on the economy as a whole and on those developing natural resources in particular. There are many examples of effective state involvement in long-term projects for developing natural resources found in countries with developed market economies."

While Putin does not threaten re-nationalization, it is evident that as early as 1999, he thought that the state needed to overhaul the licensing of natural resource deposits and the industry's tax structure.

As has now become clear, the Russian president believes that a mixed system, with some state and some private ownership of assets, is what is best for Russia. Since early 2004, he has been appointing those who share this view to key positions in the cabinet, the presidential administration and in the state-run sectors of the oil and gas industry. Like Putin, many of these men have a background that includes service in the state security organs (see working paper by Olcott).

This sea change from within the Kremlin is likely to affect the business model for Russian industry. The arrest of Khordorkovsky marked the beginning of a new era characterized by further strengthening of the state's role in the oil sector and the new round in redistribution of petroleum assets. Public opinion was no help to Khordorkovsky. Many Russian industrialists felt alienated and threatened by Yukos' organizational revolution and by Khordorkovsky support for democratic political activists while large portions of Russia's population longed for a return of Soviet-style economic and administrative systems complete with their social guarantees.

The contrast between the rich and the poor is stark in Russia, and the Russian people's nostalgia for the "good old days" is accentuated by the gross mismanagement of the transition to the market economy. All this helps explain why pro-Putin forces successfully utilized the slogan that, "a bunch of oligarchs who grabbed our natural resources are a cause of the current poverty of the Russians" during the 2003 parliamentary elections and the 2004 presidential contest (see working paper by Poussenkova).

The treatment of YUKOS and its executives sent the important message to the business community in general and to the oil sector that, in particular, they needed to be good corporate citizens, national patriots and religious-

ly conscientious taxpayers. The state appears to make a sharp distinction among Russian oil companies, targeting non-conformists and supporting those who follow these “unwritten” rules (see working paper by Poussenkova). In contrast to Khordorkovsky, traditional oil leaders, like Vladimir Bogdanov of Surgutneftegas (SNG), met all the criteria of Vladimir Putin’s formula for business success, including the firm’s penchant to overpay its tax bill to prevent any loophole that could be exploited by federal authorities.

Bogdanov came out of the Soviet oil industry and took over as director of SNG in 1984, when he was 32 years old. He minds his own business; he always demonstrated an appropriate “etatist” attitude; he is strong enough to resist hostile take-overs; he seeks to limit Western involvement. Bogdanov was also sufficiently far-sighted to see that the focus on “supporting the domestic producer” and the social sphere would give him a regional, political safe haven as well as a permanent competitive edge, especially in today’s Russia. Though, sometimes he is accused of being old-fashioned in his outlook, it can be argued that his social programs are close to the Western concept of corporate social responsibility à la Russe (see working paper by Poussenkova).

In general, the examples of YUKOS and SNG provide compelling evidence that Western-style production and financial performance in Russia are not sufficient to assess the prospects of success for a company in Russia. To judge a Russian company properly, one must know how it is positioned within Russia’s broader political, social and cultural context, especially now, given the evolving relationship between the state and the private sector, particularly within the natural resources sphere.

A year ago, many investment analysts were publishing disapproving assessments of SNG, comparing it negatively against the performance of YUKOS and Sibneft. Now SNG is likely to inherit some of YUKOS’ assets and its executives are among the few private corporate leaders who seem most immune to prosecution by the Kremlin.

Shifting norms of corporate behavior and changing the criteria of corporate decision-making will give the Russian government the control it has been seeking, over the means of energy production, to use energy in service of its foreign policy goals. So far, internal reorganization has taken priority over moving forward with oil and gas-based diplomacy, but the Kremlin has also signaled that geopolitical goals will play an increasing role in its export strategies, focusing first on tightening its relationships in Europe.

Strengthening Russia's economy and enhancing Russia's participation in world economic relations are first order issues when it comes to foreign policy. Concrete steps are being taken to achieve these goals, including: domestic economic reforms designed to expand retail markets for Russia's products; formation of an integrated economic zone among CIS countries; trade liberalization and tax reform aimed to enhance Russia's position in international financial and economic institutions. Russia is seeking membership in the World Trade Organization (WTO) and has joined the table at the G-8 (see working paper by Sugino).

Speaking about national security in his annual address to the nation in April 2002, Putin told the nation that Russia cannot build a strong nation by confronting other strong countries or world bodies, but rather through cooperation with other countries. Under Putin's administration, Russia's relations with Europe have witnessed a marked improvement, and European investment is being strongly encouraged. New areas of political cooperation include Russia and the E.U. working in tandem to try to counter what they see as American unilateralism (see working paper by Sugino).

Cooperation in energy has already been singled out as an important area of the European and Russian relationship. In October 2000, after repeated meetings among governments and strategists, the E.U.-Russia Summit produced the Strategic Energy Partnership (see working paper by Sugino). The partnership includes a rapid increase in the already substantial Russian natural gas exports to Europe. In 2003, Gazprom supplied European countries with 135 billion cubic meters of gas, and has contracted to increase this supply to 187 bcm/year by 2010.

Energy is also likely to be a key plank to Russia's diplomacy in the East. There are many economic, political and geopolitical drivers that are pressing Moscow to consider exporting energy to Asia, despite the massive capital investment needed to do so. The remoteness of Eastern Russia from the European part of Russia has left the region vulnerable to splintering, threatening Russia's national security on the whole. This has led to debate inside government circles about the best way to enhance economic development in the region whose economic situation has lagged the rest of Russia. There is fear that further emigration from the already unpopulated region could create a potential demographic threat to Russia's sovereignty over the resource-rich region (see working paper by Simonia).

Thus, strategic considerations are pressing Russia to speed up integration processes with the Asia Pacific Region, but so far, no final decision has been taken on the politically charged question of routing for an eastern pipeline export system.

As noted in May 2003, Yukos concluded a long term framework supply contract with China's CNPC to finance a 600,000 b/d pipeline to Daqing in northeast China. Even if Moscow were to approve this pipeline route, it is now highly unlikely that Yukos could fund the project. Whether the beleaguered firm can even participate in the venture now looks highly uncertain. The forced sale of Yukos' main West Siberian producer, Yuganskneftegaz, to meet alleged tax arrears looks imminent and, given the multi-billion dollar size of Yukos' disputed tax bill, the company may have to sell off other assets.

Transneft's preference in the eastern export route debate has always favored an alternative trunkline running over 4,000 kilometers across East Siberia to Nakhodka port on the Pacific coast. An environmental study of a project to build a \$15 billion line from Taishet to Nakhodka is underway and should be finished by end-2004 (see working paper by Gorst).

All the same, government leaders, including President Putin, have been careful not to close off the Daqing route option. It has been pointed out that a branch line from the Nakhodka system could be laid to Daqing. China is still pressing Moscow for assurances on long term energy supplies. Despite high level meetings between the two countries, including a state visit to Beijing by President Putin this October, the Chinese have yet to secure any substantive promise on a pipeline from East Siberia. For Russia, choosing between Daqing and Nakhodka involves deciding and balancing key foreign and domestic policy objectives, economic interests and the role the country is to play on world oil markets (see working papers by Simonia and Gorst).

Looming over the whole eastern pipeline debate, is the key question of how much oil will be found in East Siberia and how expensive it will be to tap. From a producer's point of view, the line to Daqing has some compelling advantages. First and foremost, it would be quicker and cheaper to build than the line to Nakhodka. Yukos has claimed that a 600,000 b/d export line from Angarsk to the Chinese border could be brought onstream within two years, at a cost of about \$2 billion (see working paper by Gorst).

By contrast, the line to Nakhodka would cost over seven times as much as the Daqing line, to extend 4,200 kilometers over extremely difficult terrain, from Taishet in East Siberia to the Pacific, and could not be completed

until 2009, at the earliest. Its capacity would need to be large, around 1 million b/d, to justify such massive investment. Investing in such a large export system will be risky until more is known about the potential and cost of developing East Siberian reserves, and if West Siberian deposits are initially tapped to feed Nakhodka, then this eastern line would drain line fill away from proposed expansions on western routes (see working paper by Gorst).

Nonetheless, Transneft has argued consistently that Nakhodka will better protect the security of Russian oil trade because it offers access to a far wider range of buyers on the Pacific than a line that comes to a dead end in China. Shippers on the Daqing route would be at risk of Chinese buyers trying to renegotiate price or even to refuse supplies. Russia's Gazprom has already experienced a similar problem with its Blue Stream project to Turkey, where slumping demand has left the line greatly underutilized.

The Nakhodka route also scores well on the domestic policy agenda. Construction of such a long system will help stimulate growth in Eastern Russia, strengthening the economic and social wellbeing of the distant and often neglected eastern reaches of the Russian Federation, and at the same time, enhancing security in the region. Finding finance, however, for such a huge export system may be a stumbling block for the project especially since there is no obvious immediate source of oil to fill the line.

Japan has offered to provide soft loans and credit backed equipment supplies. Russia's indecision over which eastern route to pursue may partly be connected to the desire to wring better terms out of the Japanese, but the Russian government does seem to be searching for money for the project. Recently, the Ministry of Energy asked the government to consider tapping the Stabilisation Fund to help pay for the line. According to Minister Viktor Khristenko, the Fund, set up in 2003 to store windfall oil revenues, should be used to support major infrastructure projects. In an effort to improve the economics of the venture, Transneft has devised a scheme involving the combination of pipelines and railroad transport that could bring first oil to Nakhodka within two years of receiving all necessary approvals (see working paper by Gorst).

Asian energy buyers are hopeful that the construction of these eastern routes would eliminate the premium they pay for oil and gas supplies over the prices charged in Western markets. This is not likely to be the case for oil. Analysis shows that it may not be possible to identify enough incremental supplies of Russian, Caspian and non-Saudi Middle East oil, to end Saudi Arabia's ability to impose destination pricing during the next ten years.

Even if Russia were to export more than 2 million b/d to Asia, and all incremental Middle East oil from Iraq and Iran was targeted to flow eastwards, the Saudi share in Asia would drop to 10.7%, slightly above its share of 9.5% in the Atlantic market. With this distribution of market share, Saudi Arabia would still have an incentive to price discriminate between Western and Eastern markets since the demand for its oil in Asia will be more inelastic than in the Atlantic market. Again, it can be expected that Saudi Arabia would fight for a share of the Atlantic market that would permit it to raise the Asian price as high as is consistent with avoiding large additional inflows of more expensive West African or North Sea oil. It would still be in the interests of other Middle East producers to adjust the allocation of their exports between the two markets to accommodate the Saudi strategy and free ride to collect the Asian premium (see working paper by Soligo and Jaffe).

Thus, Asian buyers may have to consider other means than simply to diversify suppliers to eliminate the Asian premium. Saudi Arabia's largest oil purchasers, who have refineries in more than one destination, could try to refuse to accept destination pricing. Given the importance of Saudi Arabia as an oil supplier, this might be hard to implement.

Since it is unlikely that Saudi Arabia's market power will be reduced solely from purchases of increased supplies of non-Saudi oil in the Asian market given the limitation on the expected available incremental volumes, effort must focus on both purchasing these additional supplies and simultaneously reducing demand for oil. Japan has been very successful in the past in limiting its rise in oil use. Other Asian countries could follow this path. Among the policy options that can be pursued to limit the rise in oil use are: 1) increasing energy efficiency; 2) increasing substitutability between oil and other fuels – including the conversion of gas to liquids; 3) developing clean coal technology and more advanced nuclear technology to reduce the environmental handicaps that these fuels possess; and 4) aggressively promoting alternative energy sources – such as wind and solar energy (see working paper by Soligo and Jaffe).

Accelerating the adoption of gas/diesel electric hybrid technology in the transportation sector will also reduce the incremental growth in oil demand. This is a longer run strategy since vehicle stocks take many years to be replaced. The process would be hastened if China, which will experience a rapid increase in vehicle stocks over the next decade, were to adopt hybrid technology now before a stock of conventional vehicles has been built up. A combination of such oil conservation measures and efforts to bring more oil from Russia and the Caspian region to Asia, could seriously undermine Saudi Aramco's power to maintain the Asian premium (see working paper by Soligo and Jaffe).

Under a scenario where all incremental exports from the FSU and non-Saudi Middle East, between 2000 and 2010, were to go to the Asian market, Saudi Arabian exports to Asia would fall to 2.8 million b/d. A reduction in consumption of 1 million b/d in the 26.2 million b/d 2010 forecast would reduce the Saudi Arabian share in the Asian market to only 7.1% - below its share in the Atlantic market. Once the Saudi share in the Asian market approaches that in the Atlantic market, the primary basis for discrimination would be eliminated. Gas to liquids technology is likely to allow Qatar to export an additional 800,000 barrels a day of liquid fuels by 2010, for example, leaving open the possibility that use of unconventional fuels and demand management policies, combined with increased purchases from Russia and Iraq, might be enough to dent Saudi Arabia's ability to maintain the Asian premium (see working paper by Soligo and Jaffe).

While it is possible that a combination of policies to reduce the rate of growth in demand and increase non-Saudi Asian supplies might end the Asian premium, it should be stressed that the window for action is very small, and that the time required to build the necessary pipeline infrastructure and implement the policies to contain demand may be too long to be effective. The increase in Russia exports may not be sustainable over the longer term and therefore, several strategies will need to be combined to eliminate the Asian premium on a more permanent basis.

Based on commercial, economic factors, Russia is positioned to be the major force in the global gas market, but will have difficulty acting monopolistically due to alternative LNG supplies that will be available from the Middle East, Australia and Indonesia. Still, Russia's cost advantages could mean that Russian pipeline gas exports to European and Asian markets could be larger volumes than total LNG exports from Qatar, Nigeria and Australia. Opportunities will also exist for Russia to sell LNG to the U.S. market, which is likely to be the premium market in terms of LNG prices by the next decade. If political constraints, however, block the development of pipeline routes from East Siberia, Northeast Asia will be more dependent on LNG supply and will have to compete with the U.S. for available exports. In this case, LNG prices in Northeast Asia will be higher. For example, under a reference case scenario where all needed gas export capacity gets built, the LNG price to Japan would average just over \$4.00 per million btu in 2010 and \$4.75 mbtu in 2020. If pipeline supplies from East Siberia do not materialize, LNG prices to Japan would average over \$4.20 mbtu by 2010 and \$5.00 mbtu by 2020 (see working paper by Hartley and Medlock).

CONCLUSION

In conclusion, while Russia can be expected to become a larger, more powerful player in the global energy market, it is by no means assured that the Kremlin will see its primary role as a moderator of global prices. This year, Moscow has shown that its domestic political agenda is far more important to the Kremlin's decision making than consideration of what impact imposing that agenda might have on world oil price trends. News that Yukos onerous tax bill might disrupt the company's ability to maintain high export rates sent international oil prices soaring last summer but brought virtually no policy adjustments from the Kremlin despite appeals from China and the West.

U.S. hopes that Russia might be a savior to the inherent problems of relying too heavily on Middle East oil could prove optimistic in terms of the pace at which new Russian export infrastructure can be rolled out or even naive in terms of Russia's ultimate goals for its oil diplomacy. Russian oil executives and government analysts have broached the idea that Russia should establish a strategic oil reserve managed by the government that could be tapped to ameliorate destabilizing price fluctuations (see working paper by Ivanov). The idea, however, is not one that has received the serious attention of Russia's top leaders. Instead, diplomatic visits with Saudi Arabia have been initiated, perhaps as a hedge against the possibility that major oil consumers like China and the U.S. could develop closer ties (see working paper by Stoll).

Ultimately, the Russian government's move away from private control of national energy resources is not good news for consuming countries. A fully privatized and increasingly efficient oil and gas sector would have eliminated the likelihood of Russian cooperation with OPEC and probably raised the chances for a rapid development of resources and exports. The balance between state and private sector ownership that Russian President Vladimir Putin seems to be opting for increases the possibility that either Russia's oil and gas development could become subject to crippling bureaucratic or political barriers, as well as the risk that the Russian government might use its ample energy supplies as a lever in its international relations.

The response to these two possible scenarios must be a more measured and concerted effort by oil consuming nations to establish energy policies that do not depend on influencing outcomes inside oil producing countries. Indeed, the consistent growth in U.S. oil imports is an overwhelming factor in global oil markets – one, which

official Washington refuses to recognize despite criticism from its allies in Europe and Japan. U.S. net imports rose from 6.79 million b/d in 1991 to 10.2 million b/d in 2000. Global oil trade, that is the amount of oil that is exported from one country to another, rose from 33.3 million b/d to 42.6 million b/d over that same period. This means that America's rising oil imports alone have represented over one third of the increase in oil traded worldwide over the past ten years, and over 50% of OPEC's output gains, between the years 1991 to 2000, wound up in the United States. Current U.S. oil demand is about 20 million b/d, of which only 40% is produced domestically. In light of this reality, American politicians talk about "energy independence" or "breaking OPEC" or even finding a less dramatic alternative to the U.S.-Saudi "special relationship" through a shaky alliance with Russia - rather than through permanent, domestic political policies well inside our control - seems dubious at best.

Ironically, the U.S. is so busy managing the diplomacy of its relationships with oil suppliers that we have failed to give highest priority to the international relationships where common interest may be the strongest – those with other major oil consuming nations.

The U.S. and other industrial countries can do a great deal more – and indeed, in the years ahead they hopefully will do much more – to enhance the institutional mechanisms that favor markets over political intervention by producers. The U.S. needs to show leadership by looking seriously at ways to bring the rules of global oil trade and investment in harmony with the rules governing trade in manufactures and services. This would mean building on open trade and investment within the IEA and discriminating actively against those countries that do not permit foreign investment in their energy resources and that limit their exports to manipulate prices. This is a tough policy, but one that is essential to the future stability of oil markets. Liberalization and open access for investment in all international energy resources would mean their timely development rather than today's worrisome delays. Without global norms across the oil world, the world experiences capital and politically-constrained limitations of supply that cripples the global economy today and perpetuates poverty in the energy poor countries of Africa and Asia. The fate of the European energy charter, with regards to foreign investment in Russia, could serve as a shining example to other still-closed countries, were it able to be implemented. Europe makes a mistake to plan dramatic increases in Russian energy imports without insisting on compliance to open trade and investment rules.

Finally, the U.S. should become a leader in the pursuit of international coalitions to develop alternative energy technologies. The Bush administration has already initiated joint international research efforts for clean coal

and carbon management technologies, hydrogen, and fusion research. This effort should be strengthened and expanded to include solar-derived energy, energy efficiency technologies including better automotive designs, and other emerging alternative energy technologies that could help the industrialized countries and emerging economies like China and India reduce reliance on oil. Just as nuclear power has limited the economic impact of oil price shocks in Japan, France and the U.S., so renewable energy and new energy technologies could reduce the vulnerability of the world economy to future disruptions in oil resources development and supply.

This study was made possible by the generous support of the Petroleum Energy Center of Japan, Renaissance Capital, Baker Botts L.L.P., Lehman Brothers and the Baker Institute Energy Forum.