

China, Japan and Russia: Towards a New Energy Security Nexus

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1. Defining the Problem

Over the past decade, logistical and bureaucratic barriers between the economies of Northeast Asia have been lowered. New air routes have been opened and the time required for issuing visas reduced. Face-to-face interactions in business and other domains have improved and intellectual and cultural contacts have intensified. An overseas business trip now can be made in three to four days. In recent policy formulations, trade and investment facilitation have helped to take the sting out of the distressing experiences of the past. The examples are numerous, including the ASEAN+3 process, economic engagement between China and the ROK, Japan's deepening trade and investment involvement in China, and the new links between the Koreas. Russia, too, is expanding its ties with its eastern neighbors, including oil shipments and LNG contracts from the Sakhalin projects.

Despite the swift changes that have been seen, the long-term policy future for Northeast Asia is not predetermined and conflict cannot be ruled out. Among the concerns are (1) the growing power of China; (2) China's strained political and security policy dialogues with Japan; (3) the DPRK's nuclear program; and (4) a number of territorial disputes. Yet another source of tension that has recently surfaced is the relationship between China, Japan and Russia concerning new sources of oil supply and pipeline routes.

Energy has much to do with issues stemming from traditional definitions of national security. This paper, however, argues that today, energy mega-projects are presenting us with an opportunity to promote interdependence among Japan, China, Russia and beyond.¹ These three countries would share common benefits if they were to establish a cooperative energy security regime in the subregion.

In the array of possible measures and policies aimed at achieving greater energy security, trilateral cooperation deserves special attention. The subregion of Northeast Asia is part of the problem, due to the growing demand for oil on the part of China, which alone could require net imports

of 10 million barrels per day (Mbd) by 2030, approaching the level of US imports of oil and oil products in 2000. The subregion is also gradually becoming part of the solution, thanks to the progress of the Sakhalin projects and other plans that involve Russia. Building up additional supplies could help to balance the markets. The implementation of these and other mega-projects requires long-term commitments on the part of the countries involved in such projects and could potentially benefit in practical terms from policy support on the part of Japan and the US.

Moreover, Eastern Russia serves as an example of the geopolitical developments that have improved access to resources not only for the economies of Northeast Asia, including Japan, but also for the US. In the long run, Russia, along with the countries of the Middle East, will contribute to the stability of international energy markets, balancing demand with supply.²

Careful policy stewardship will be needed, however, to ensure that such a regime would not be constrained by hot issues and other hurdles, including territorial disputes for instance, which would precipitate paranoia on all sides in the case of a dispute.³ We should try instead to turn to the *prima facie* "Great Game" of energy trade in Northeast Asia, paying attention to the positive tendencies for mutual interdependence, which may facilitate further regional political and economic cooperation.

In this paper, the national circumstances of and strategic changes in China, Japan and Russia are illustrated. The paper attempts to offer an answer to a key question involved in thinking about energy trade in Northeast Asia: "Does the emerging interest on the part of China and Japan in Russian energy entail problems for regional stability, or create an opportunity for greater stability?"

In view of this question, we will first of all argue for an alternative conceptualization of the links between energy and security in the subregion. Secondly, we will provide a brief overview of the growing awareness within China and Japan of their dependence on offshore sources of energy, principally oil. Thirdly, we will suggest policy measures upon which attention could be refocused, helping

¹ The authors dare to use the word "beyond" for two reasons. Firstly, it is posited that trilateral cooperation could be more smoothly pursued by positively sanctioning the participation of the US in Northeast Asia. Secondly, it seems that cooperation in the energy field could be better promoted if it coincided with the prospects for environmental cooperation.

² In about ten years from now, Russia's oil exports to eastern markets could reach 2.5 Mbd, provided that policy responses from importers support these plans. Yet another point highly relevant to Northeast Asia is natural gas, which is an attractive fuel both in terms of uncertainties in the oil market and environmental constraints.

³ An exemplary type of regime is defined by Stephen Krasner as "principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given issue-area." "Structural Causes and Regime Consequences: Regimes as an Intervening Variable", *International Organization*, 36 (3): 185-205.

decision-makers in each country ultimately to find more feasible ways to protect national energy security interests. Finally, we will review some basic steps taken by Russia in reaching out to energy markets in Northeast Asia.

2. A New Perspective

China's growing dependence on offshore sources of energy, particularly oil, is already a decade-old phenomenon. In 1993, China became a net oil importer. Due to the rapid growth of its economy, energy demand has been accelerating. In 2003, the volume of China's imports of crude oil and products exceeded 100 million tons (Mt), an increase of more than 30% on the previous year. In 2004, China's imports of crude oil alone surpassed 100 Mt. Some predict that China's import dependency for crude oil will increase from 30% in 2000 to as much as 62% in 2020.⁴

In November 2002, speaking at the Chinese Communist Party's Sixteenth Plenum, President Jiang Zemin outlined China's development goal of quadrupling GDP in 2020 based on 2000 levels. Accelerating economic development inevitably implies a higher demand for energy. The "Medium- and Long-Term Energy Development Program From 2004 to 2020", adopted by China's State Council at the end of June 2004, reaffirms the high importance of energy security and the need to diversify sources of energy supply and build a system of national oil stockpiles.⁵

2.1 China's energy vulnerability

China's imports are growing fast, making it the second largest importer globally and the largest importer in Asia. The average annual growth rate of primary energy demand during 2000-2030 will be 2.7%, surpassing the global average, which is estimated at 1.7%.⁶ The average annual growth rate of oil demand in China in the same period will be 3.0%, or almost twice as fast as the expansion in world oil demand. The rapidly growing number of motor vehicles, including privately owned cars, makes China the second-largest importer of oil after the US. Some are of the view that strong demand for oil on the part of China was among the reasons behind higher oil prices. From 2000, China accounted for two-fifths of total growth in world oil demand and in 2003 its oil consumption exceeded that of Japan. China also leads in oil product demand and imports in Asia. Demand for oil is expected to reach 12 million barrels per day (Mbd) in 2030, exceeding by 2.5 times the level of 2000. China would then account for 10% of the world's total estimated demand, compared with 6.5% in 2000. With regard to natural gas, the average annual growth rate in China over these three decades will be 5.5%, expanding more than twice as fast as the world average.

The 2003-2004, however, saw a number of developments that were powerful reminders of the country's economic vulnerability when it comes to oil

supplies from overseas sources. In January-February 2003, China's imports of crude oil rose by 78% on the same period of 2002. Payments for oil imports accounted for the first month-to-month trade deficit in six years. In the absence of strategic oil stockpiling capacity, the pending US invasion of Iraq led Chinese oil companies into panic buying oil on the world market. When crude oil prices fell after the invasion began, the external dimension of China's energy security attracted much discussion among economic policymakers and the public at large.

It was little surprise that energy security became a prominent issue for debate among the deputies of the National People's Congress and the Chinese People's Political Consultation Congress, both of which were convened in March 2003. Summaries of views aired in the two congresses focused on reducing the level of dependency on offshore sources of oil. Policy proposals included the establishment of a national strategic oil stockpiling system, further development of the coal industry, diversification through building up the country's nuclear power capacity, promotion of hydropower generation and clean energy, and the relaxation of government policies for the purpose of enlisting private capital to finance the development of oil fields, both on land and in China's territorial waters. Obviously, such proposals were informed by a desire to reduce China's dependence on external sources of energy.

Energy security has also become a topic for discussion in the public domain. This was in part due to relaxed government controls on the media reporting of international affairs, beginning with coverage of the war in Iraq. More importantly, the new national leadership champions the notion of 'governing for the people'. Energy became one of those issues upon which concerns about the wellbeing of the average Chinese and the energy security of the nation as a whole were focused. The intensity of media coverage about energy-related developments – both domestic and overseas – became unprecedented. As is true in many other societies, such discussions are conducive to society-based initiatives for energy conservation but at the same time can complicate effective implementation of well-intended national policies.

However, while energy independence is a desirable goal, to implement policies so inspired would imply massive capital injections. These would require a re-centralization of energy policy decision-making by way of re-establishing a ministerial level bureaucracy. In 1998, the government abolished the Ministry of Energy and put some of its functions under the control of the Ministry of Land and Natural Resources. The idea was to let the market play a larger role in meeting China's energy needs. The new leadership chose to maintain the status quo by setting up a small energy bureau under the restructured State Development and Reform Commission. A State Electricity

⁴ Liu Xinhua, TaiHan, "Zhongguo de shiyou 'anquan ji gi zhanlue xuanze", *Xiandai guoji guanxi no.12*, 2002.

⁵ *Renmin ribao*, 1 July 2004. The State Development and Reform Commission (SDRC) has estimated that, by 2020, gas consumption in China could reach 200 billion cubic meters (Bcm), two-thirds of which would be consumed by power plants and urban users. It has also been estimated that China's gas imports could reach 80 Bcm by 2020 via two main channels: LNG shipments to coastal areas and supplies via pipelines from Russia, Uzbekistan and Kazakhstan.

⁶ *World Energy Outlook 2002* (Paris: International Energy Agency, 2004).

Regulatory Commission was also created to oversee the nation's electricity development policies, but its record of success appears limited. In addition, the de facto fiscal federalism does not augur well for policy coordination countrywide.

2.2 "Competition" for an oil pipeline

Against this background, there were high hopes for the beginning of construction work on the Angarsk-Daqing oil pipeline. The entry of Japan from January 2003 as a party interested in the same sources of oil and a pipeline route to the Pacific coast was perceived as an untimely change of dynamics, at best. It would take a separate research project to provide a full account of the range of Chinese views about the pipeline project and issues originating from the ups and downs of its progression. A few recurrent themes in Chinese reactions to the protracted period of perceived indecision on the part of the Russian government deserve attention.

First of all, the problem was the failure to start construction of the pipeline, which, according to an agreement signed in the presence of the prime ministers in 2001, was designed to transport 20 Mt of crude oil annually beginning in 2005, rising to up to 30 Mt later on for at least 25 years. This was largely the result of the changing dynamics of government-business relationships within Russia. With hindsight, the China National Petroleum Corporation (CNPC) probably overlooked the complexities of domestic politics in the post-Yeltsin era by choosing as its partner the privately owned Yukos rather than one of the state-controlled trio of Gazprom, Rosneft and Transneft.

This seems to have been particularly true when the idea of a pipeline to Nakhodka emerged, promoted by Transneft. At that time, CNPC still pressed on with its plan, presenting the agreement with Yukos as a virtual certainty even when President Hu Jintao visited Russia in May 2003. In light of a number of contributing factors, including the fact that Gazprom had both experience and a share in CNPC's West-East gas pipeline project, it might have been more politically comfortable for Russia had CNPC opted to deal with Gazprom and Rosneft.

Secondly, in January 2003, Japan formally entered the equation, beginning with a visit by the Japanese prime minister to Moscow. In Beijing, this was perceived in the context of continuing difficulties in political ties with Tokyo and therefore further complicated understanding of the geo-strategic implications of the project. Some experts challenged the Russian government to live up to its prior commitments as a necessary manifestation of the rhetoric of 'strategic partnership' that has been so characteristic of bilateral relations in the post-Cold War era. Yet the weight of support on the part of Japan, which was willing to provide funding for the construction of the pipeline, was an undeniable advantage. Meanwhile, analysts felt that it would be both desirable and feasible to see between 20% and 30% of imported oil coming from Russian sources; however, now that the Pacific coast has become a viable

option, CNPC will have to work harder to convince both Russia and Japan that its participation in the project is in their interests as well.

2.3 An alternative conceptualization

On the other hand, there is no cause-and-effect relationship between political ties in Sino-Japanese relations and Japan's pursuit of a Russian pipeline. After all, like China, Japan wants to diversify the sources of its energy supply. Moreover, energy featured as a key commodity in Chinese exports to Japan until the mid-1980s. Since then, Japan has become a key supplier of oil products (aviation fuel, for example) to China. In other words, there continues to be mutual dependence in terms of energy needs. The challenge now facing both governments is to apply wisdom and utilize the competitive setting as an opportunity for trilateral cooperation. What is unfortunate, however, is the current atmosphere in Sino-Japanese diplomacy that has made it difficult – if not impossible – to place the competing interests in the context of developing bilateral ties.

Realistic logic in international relations demonstrates that the competition between China and Japan for Russian oil is a zero-sum game. Moreover, the security postures in the Northeast Asian region remain virtually unchanged since the Cold War era: bilateral alliances and agreements with the US are still important. In this context, China's success in diversifying its sources of oil supply means a strategic gain on several grounds. The Daqing pipeline would indeed serve as a boost to strategic ties with Russia, in addition to aiding the development of China's northeastern provinces, a rustbelt industrial region that has fallen behind the coastal areas. China's gain would then mean a loss for Japan, a country that is struggling to regain the kind of regional prominence that it enjoyed until the burst of the bubble economy. It is therefore not surprising that the Japanese support for a pipeline to the Pacific coast appears strategic, as it serves third destinations, including the US, the ROK and Taiwan. However, such logic fails to pay adequate attention to a number of important issues associated with the search for reduced dependence on oil from the Middle East.

Firstly, China's securing of oil supplies through a pipeline would be conducive to avoiding the same kind of panic buying of oil as was seen in early 2003. This works against the interests of all oil-importing countries, as it pushes up oil prices for all. It is still in the interests of all oil-importing countries, Japan included, for China to have a high degree of confidence in its ability to secure an uninterrupted supply of oil from overseas sources.⁷

Secondly, the economic damage that could be caused by shortages of energy supply to China could be more widespread than expected. There is scope for perceiving economic growth in China that is free from major oil supply interruptions to be in the interests of all China's economic partners.

⁷ Theoretically, China can also avoid panic buying through building strategic oil reserves. The country has just begun to take concrete steps towards constructing such a stockpiling system.

Thirdly, there has been a quiet change in China's handling of military security in the Northeast Asian subregion. It has shifted towards enlisting international collaboration in order to put an end to the DPRK's nuclear weapons program. Although the parties to the international framework for dealing with the DPRK may have differences as to the process and eventual goal of engaging the DPRK, China has demonstrated its willingness to cooperate in a multilateral setting.

Furthermore, the Sakhalin projects may become a significant development in terms of providing a greater range of alternatives for natural gas supply to both Japan and China.⁸ Therefore, an alternative conceptualization of the China-Japan competition for sources of energy requires de-emphasizing the geo-strategic visualization of the pipeline route. Instead, we should begin to ask ourselves:

- What do China, Japan, and Russia each stand to gain from the joint development of oil and gas in Siberia and the Far Eastern region?
- How can China and Japan contribute to fostering overall economic development in those Russian regions that could serve as long-term alternatives in meeting the energy security needs of both countries?

Energy diplomacy has become a central theme in China's pursuit of its overall foreign policy agenda. At the 2004 Conference of the Boao Forum for Asia, Chinese President Hu Jintao outlined China's views regarding international economic cooperation:

It is China's sincere wish to cultivate with its fellow Asian countries an overall and close partnership geared to Asian rejuvenation, a partnership that features equality and mutual trust politically, mutual benefit and win-win [approach] economically, exchange and emulation culturally, and dialogue and cooperation on the security front.... China will work actively to promote the institutional building of all kinds of economic cooperation organizations with a view to consolidating resources, prioritizing the key areas and conducting performance-oriented cooperation.⁹

On June 22, 2004, addressing the opening ceremony of the Asia Cooperation Dialogue (ACD) Third Foreign Ministers' Meeting¹⁰ in Qingdao, Chinese Premier Wen Jiabao stated that, "We stand ready to conduct energy dialogue and to cooperate with other countries in Asia and the world at large on the basis of equality and mutual benefits." Twenty-two participating countries – both oil producers and consumers – approved the "Qingdao

Initiative" on energy cooperation, pledging to stockpile strategic energy reserves and develop a regional energy transportation network.

On the other hand, the Japanese government has identified Russia as an "important partner in view of supply source diversification" and referred to the Sakhalin oil and gas projects and the Pacific pipeline as a "reinforcement" of the diplomatic and economic relationship.¹¹ Again in 2004, the government of Japan came close to the central premise of this paper, stating that:

"Geographical proximity obviously matters significantly in supply-demand relations and trading of energy resources. It is also quite natural that a nation would try to cooperate with neighboring nations facing a similar energy situation. In my view, European integration in the form of the European Union is a case in point. I understand that the EU-Russian Energy Partnership and the EU-Mediterranean Energy Partnership are part of the process of energy cooperation between the EU and the surrounding regions."¹²

Moreover, in late 2002, the Ministry of Economy, Trade and Industry announced plans for significantly raising the share of natural gas in the primary energy supply towards 2020, in line with the average for OECD countries, which also indicated the possibility of constructing a gas pipeline between Sakhalin and Honshu.¹³ On April 12, 2004, METI presented a concept for an "Asian Energy Partnership" that should serve as a major pillar of Japan's international energy strategy up to 2030.

3. An Emerging Policy Agenda

Securing a sovereign state's access to energy resources is a very sensitive issue that could ignite patriotism to an unnecessary degree. However, given that the degree of economic interconnectedness among Japan, China and the ROK is deepening rapidly, we need to avoid the causes of distrust through dialogue. As energy-importing countries, Japan, China and the ROK already discuss energy security issues within the ASEAN+3 framework.

3.1 A multilateral approach?

The creation of a similar regime and institution could be relevant in the context of Northeast Asia. Dependence on the Middle East as a source of oil supply on the part of these three biggest importers of energy resources is at a very high level. Moreover, Japan, China and the ROK still do not yet rely on competitive oil pricing, similar to

⁸ See the Agency for Natural Resources and Energy, *Energy and Resources Today 4: Natural Gas* available at: <http://www.enecho.meti.go.jp/english/energy/lng/examination.html>

⁹ Speech by President Hu Jintao of China at the Opening Ceremony of the Boao Forum for Asia 2004 Annual Conference, Boao, 24 April 2004.

¹⁰ The ACD Foreign Ministers' Meeting is an informal, non-institutionalized forum for dialogue and consultation, established in 2002.

¹¹ *Global Energy Strategy Towards 2030* [Focused on the Relationships with Asian Consuming Countries], April 2004, Agency for Natural Resources and Energy, p. 15.

¹² Shoichi Nakagawa, Minister of Economy, Trade and Industry, "Achievements of the Osaka IEF and the International Energy Situation Since Then", 9th International Energy Forum, Amsterdam, May 22, 2004, p.3.

¹³ *Energy and Resources Today / Natural Gas*. 4-2. Examination of Policies Concerning Natural Gas, Agency for Natural Resources and Energy <http://www.enecho.meti.go.jp/english/energy/lng/examination.html>

the mechanisms employed by Europe and North America. A shift to competitive pricing requires the diversification of sources of supply. By encouraging energy exports from Russia, the energy-importing economies of Northeast Asia could reduce the so-called “Asian premium” imposed through current crude oil and LNG supply practices.

In April 2004, the Japanese Agency for Natural Resources and Energy published a report on its “Global Energy Strategy Towards 2030”. The Ministry of Economy, Trade and Industry (METI) also presented a concept for an “Asian Energy Partnership” that should serve as a major pillar of Japan’s international energy strategy. This concept is aimed at developing cooperation by Asian countries in tackling common energy challenges, covering the following areas:

- Energy security, through a strengthened oil stockpile program in Asia, while also seeking a future cooperative emergency response scheme to supplement measures taken by the IEA.
- Market reforms – particularly for oil and natural gas – through nurturing spot and futures markets for oil and LNG; trade and investment liberalization through free trade agreements and the abolition of destination clauses in oil and LNG contracts.
- Formulating and regulating policies on the environment and energy efficiency in the domestic, regional and global context, including various policy dialogues, as well as efforts to implement these policies and persuade others to follow suit
- The enhancement of energy supply security through resource development, transportation (pipeline and sea lane shipments) and cooperation among relevant authorities.

The report prescribes that Japan should aim at a flexible and sustainable international energy system,¹⁴ establishing multilevel and multilateral frameworks and consolidating energy links with other Asian energy-importing countries.

3.2 Engaging Russia and the US

The so-called Korean nuclear crisis has remained the single biggest destabilizing factor in Northeast Asia. Russia has begun to draw up a plan for constructing a natural gas pipeline to Busan, but realization of this plan depends upon the settlement of the Korean crisis. Predictably, without the north-south division of the peninsula, it would have been possible to build up transportation networks, including pipelines. On the other hand, the Korean crisis has provided us with a prototype framework for policy coordination in the form of the six-party talks.

The assumption of a greater role on the part of Russia and the US could help to establish an energy

security regime in the area. In addition to their policy influence, both the US and Russia are important in terms of investment, technologies and resources. At their summit in Houston in October 2002, the two countries basically agreed to enhance cooperation in developing oil and natural gas resources in East Siberia and the Far East. This could be a step forward in advancing the New Energy Dialogue launched at their summit in May 2002. US oil majors, including ConocoPhillips, are extending their involvement in energy projects in Russia further west from Sakhalin. Furthermore, there are plans to import LNG from Russia. In addition, Moscow and Washington have also reached a basic agreement on cooperation in building strategic oil reserves.

Both the US and Japan are providing “investment support” for the Sakhalin oil and gas projects, contributing to future supply capacity and resource additions in both oil and natural gas, which have recently lagged considerably behind increases in demand.¹⁵ Advanced exploration methods have somewhat checked the decline in newly discovered reserves, albeit in areas with a challenging operating environment, such as the Sakhalin continental shelf. For Japan and the US, promoting energy cooperation with Russia and within the Northeast Asian subregion as a whole can be seen as a means of “policy bridging” concerning various gaps and uncertainties.

Moscow has been restructuring the oil and gas sector for the purpose of tightening governmental control over the development of energy resources as strategic goods. Export-oriented energy projects could serve as the biggest lever in developing Eastern Siberia and the Far East. Currently, oil and natural gas exports, together with products manufactured in related industries, account for more than half of the federal government’s revenue.¹⁶

3.3 Russia looks east

The Energy Strategy 2020¹⁷ approved in August 2003 envisages the expansion of the energy sector and the growth of energy exports. Russian energy planners proposed diversifying energy exports and accessing new oil and gas markets in the Asia-Pacific region, Northeast Asia in particular. The government proposes to diversify energy supplies to the “north, east and south”, in light of new projects aimed at oil and natural gas production in capital-intensive environments, including Eastern Siberia, the Far Eastern region, the Arctic and also the continental shelf of the northern and Caspian seas. The economies of Northeast Asia and the US are seen as supplementary markets. The Energy Strategy 2020 stated that oil exports to the Asia-Pacific region could reach about 100 Mt, including about 25 Mt produced by the Sakhalin offshore fields. According to this plan, Russia aims to increase the share of its oil exports to the Asia-Pacific from 3% to 30%.

¹⁴ In the report, the international energy system is defined as a chain of energy supply and consumption in international oil and gas markets.

¹⁵ Harry J. Longwell, Executive Vice President, ExxonMobil, Remarks at the Offshore Technology Conference, Houston, May 7, 2002.

¹⁶ In 2002, Russia produced 380 Mt of crude oil and exported 180 Mt. In 2003, oil production reached 421 Mt (11% of the world total), with exports totaling 228 Mt. For 2004, the forecast for production is 450 Mt, with 255 Mt to be exported.

¹⁷ Available on-line: <http://www.mte.gov.ru/docs/32/189.html>

Gazprom, Russia's leading producer of hydrocarbons, has also begun to pay attention to Northeast Asia and the Pacific region only recently. In this regard, the blueprint for natural gas transportation schemes in Eastern Russia announced in Tokyo in June 2003 referred to a Trans-Siberian gas pipeline and two LNG terminals located in the vicinity of Vladivostok and Vanino Port.¹⁸ It is also projected that gas exports to China and the Korean Peninsula via pipelines could reach 25-35 Bcm by 2020, but these volumes could be larger, given that advanced natural gas conversion and utilization technologies could help to alleviate the region's high dependence on oil. The decision has been taken to transform the representative office of Gazprom in Beijing into a regional office that will also cover Japan and the Korean Peninsula, in order to promote gas exports and Gazprom's participation in various projects, including gas-to-liquid (GTL) production.

In total, the share of Northeast Asia in Russia's gas exports could reach 15-20% by 2020. The integrated West-East trunk pipeline plan envisages building a high-capacity gas pipeline in parallel with the Pacific oil pipeline. Yet the Sakhalin 2 LNG project will export 9.6 Mt annually in the form of LNG by 2015 and these volumes could double, responding to the growth in demand.

In his 2004 Address to the Federal Assembly, President Vladimir Putin made special reference to energy projects and transport infrastructure in Eastern Russia, including oil and gas pipeline projects.¹⁹ According to Transneft, the project has been revised and the target capacity of the Pacific pipeline is now 80 Mt per annum, rather than the 50 Mt p.a. proposed initially. A branch pipeline could deliver another 30 Mt p.a. to China. On the other hand, from 2007, Russia is prepared to export about 15 Mt p.a. of crude oil to China by rail.

These plans are related to the energy security interests of the economies of Northeast Asia, including Japan, China and the ROK, as well as the US, all of which are seen as the principal export markets for oil, oil products, natural gas, coal, and, in some cases, electricity. However, the scale of ongoing and proposed ventures, the enormous costs involved and the energy security concerns of the energy-importing economies would require new partnership-type relationships and foreign investment.

The investment needed to support these intentions and plans is estimated to total tens of billions of dollars. However, cross-border energy undertakings are expected to serve several strategic purposes by (1) cementing improved political relationships; (2) promoting trade, investment, and technological and manufacturing links among regional neighbors; (3) providing additional incentives for economic advancement at the local and regional levels; and (4) supporting increased efficiency and lower environmental impacts in energy use.

3.4 Strategic joint oil stockpiling

By the second oil shock of the late 1970s / early 1980s, Japan had succeeded in maintaining oil reserves equivalent to 90 days of imports. By 2001, total reserves in the state and private sectors exceeded the equivalent of 150 days of imports. The ROK achieved the IEA's 90-day minimum requirement in 2001 and attained official membership of the IEA in 2003. As for China, the Tenth Five-Year Plan, endorsed by the Fourth Session of the Ninth National People's Congress in March 2001, also advocated the need to build a strategic oil stockpiling system.

The concept of Joint Oil Stockpiling (JOS) could be relevant to Northeast Asia. It would ameliorate the risks arising from conflicts of interests. The system could also help in reducing the maintenance costs of oil stockpiling. In September 2002, when the energy ministers of Japan, China and the ROK gathered in Osaka, they proclaimed an "Energy Cooperation Initiative" that includes the oil stockpiling. In June 2004, ASEAN decided to introduce JOS, and Japan and the ROK showed their readiness for technological cooperation, including an offer made by Japan to provide financial assistance for the feasibility study.²⁰ However, a similar multinational effort ought to be realized in Northeast Asia. Moreover, the existing concepts and frameworks of regional economic cooperation, such as "ASEAN+3" and some kind of "East Asian community", should be flexible when it comes to energy security and the roles to be played by both Russia and the US. On the other hand, Japan, China and the ROK could support Russia's increasingly serious intention to become integrated into the region.

It seems very important, however, that East Asian countries should convince Moscow not only of the need to develop energy infrastructure for the sake of the mutual benefits that it can deliver, but also in the context of Russia's responsibility as a regional power and an important energy supplier. As a supplier, Russia can also expect significant benefits from the emergence of a relatively large JOS system in this region, because the market for oil imports would expand accordingly, as long as guarantees regarding stability, adequate volumes and competitive pricing were provided.

3.5 Energy and the environment

In order for an energy security regime to take root in the region, it is not enough to build efficient energy supply routes and increase the volumes of energy trade. It is also essential to make efforts to achieve more effective utilization of energy. For example, according to one estimate, due to different levels of energy efficiency, the US needs about twice as much crude oil than Japan per unit of GDP, while China needs about five times as much.²¹ Japan is less vulnerable to crude oil prices, both because of its enhancement of energy efficiency by approximately 30% compared with the 1970s and the higher value of the yen than in past decades. It will, however, also be indirectly

¹⁸ Alexey B. Miller, "The Eurasian Direction of Russia's Gas Strategy", Keynote Address, 22nd World Gas Conference, Tokyo, June 4, 2003, p. 6. See also *Green Paper—Towards a European Strategy for the Security of Energy Supply* (Technical Document), European Commission, 2000, Figure 5. Gas of the Russian East.

¹⁹ Vladimir Putin, Address to the Federal Assembly of the Russian Federation, May 26, 2004

²⁰ *Nihon Keizai Shinbun*, 21 June 2004.

affected by economic slowdowns in the US and China.

The benefits generated by international technology transfers are not limited to energy conservation in a narrow sense, but could also support environmental protection. With the Kyoto Protocol coming into effect in February 2005, the basic schemes of CDM (Clean Development Mechanism) and JI (Joint Implementation) could support environmentally friendly projects. In addition, China has the biggest potential for new business in this field. China's energy development program to 2020 aims at environmental protection, efficient energy utilization and sustainable development. Much the same basic concepts were incorporated into the energy strategies of Japan (to 2030) and Russia (to 2020).

In order to meet simultaneously rising energy demand and promote environmental protection (e.g. the reduction of greenhouse gas emissions) in China and Russia, Beijing and Moscow may well find it to their advantage to cooperate with Japan. At the same time, Japan can find a vast market in China and Russia that ranges well beyond mere business matters: greenhouse gas emissions trading can be implemented by way of the CDM and JI schemes. The joint development of renewable energies also seems to be very promising in the long run.

3.6 Energy cooperation and conflict prevention

The ROK government has also made a proposal regarding the future of Northeast Asia.²² In 2003 alone, the Presidential Committee on a Northeast Asian Business Hub conducted 26 working meetings, conferences and workshops, developing as result of this effort a comprehensive plan for regional economic cooperation in a number of areas, including the energy sector. The Committee stated that the "super consumers" of Northeast Asia (the ROK, China and Japan) lie adjacent to a "potential super supplier" (Russia), giving rise to a framework for energy cooperation within the subregion. The Committee proposed the following steps in order to promote energy cooperation:

- The construction of a natural gas pipeline network
- Joint exploration and processing of petroleum
- Cooperation in supplying energy to the DPRK on a long-term basis
- The development of cleaner energy sources, such as Siberian hydroelectric power.

The Committee also proposed that, in pursuing energy cooperation, broader considerations other than immediate economic needs to be taken into account, including long-term energy security, environmental constraints and the impact of energy cooperation on overall relations among the

countries of Northeast Asia. The government is supportive of new initiatives by Korean energy companies, which are seeking contact with those involved in the Sakhalin projects in order to discuss the prospects for imports and investment. During the 2004 September Russia-ROK Summit in Moscow, the two sides agreed to cooperate in oil and natural gas resource development in Eastern Russia and work out an agreement on long-term natural gas cooperation, launching a strategic energy dialogue.

Basically, there are three major infrastructure projects supported and/or under discussion that involve the ROK, the DPRK and Russia:

- The reconnection of the railways connecting the two Korean states, linking the ROK to Europe via Russia and/or China
- A natural gas pipeline constructed from Sakhalin to the ROK via the DPRK
- Power grid interconnection, involving the electric power plants in the southern belt of Far Eastern Russia and the Koreans.

Provided that the political obstacles were removed, these mega-projects could serve as the long-term foundations for stability in Northeast Asia and change in the DPRK. The economics of the two energy projects appear sufficiently strong, attracting the interest of industrial entities.²³

4. Conclusions

In other regions, cooperative relationships in the field of energy are proliferating. In Europe, an energy dialogue is developing between the EU and Russia that could potentially lead to an energy partnership. There is also room for cooperative arrangements in Northeast Asia, but this depends on the policies of the neighboring countries. The ASEAN+3 energy dialogue brings together consumers, but not potential producers such as Russia. Expanding this framework should not be seen as a goal in itself. What is important is that cooperation, even in "soft formats", could both speed up large-scale energy projects and lead to concerted changes in policies. Indeed, some changes in policies are already taking place.

Compared with Europe, where the desire for unity has prevailed, in Northeast Asia the legacy of the Cold War is still deeply rooted. Against this background, competition over access to natural resources may apparently heighten the "walls" between sovereign states. At the same time, the turmoil in the Middle East and the spread of terrorist attacks has increased the degree of attention paid to energy supplies worldwide. In addition, demand for oil is increasing rapidly, especially in China.

²¹ *Yomiuri Shinbun*, 14 September 2004. The IEA's estimate suggests that, if the crude oil price rises by \$10 per barrel, global GDP growth will slow by 0.5%. Consequently, there would be falls of 0.3% and 0.8% in the GDP of the US and China, respectively.

²² See: *Toward a Peaceful and Prosperous Northeast Asia*, (Seoul: Presidential Committee on a Northeast Asian Business Hub, 2003), p. 24.

²³ See papers by Victor Minakov, "The 500kV Cross-Border Transmission Line Project Linking the Russian Far East with the DPRK (Chongjin)" and by John Fetter and Rimtaig Lee "Energy and Political Cooperation in Northeast Asia: The KoRus Gas Pipeline," in Vladimir I. Ivanov and Eleanor Goldsmith, eds., *The Niigata Energy Forum 2004*, published in *ERINA Booklet*, vol. 3, December 2004, p. 65-75.

The realist school of international relations argues that policies of states are ultimately zero-sum-based. This refutes the possibility of positive-sum outcomes, which, according to the liberal approach, could be encouraged by institution building, respect for international law, interdependence and regional cooperation. Indeed, realist explanations usually provide more clear-cut pictures for which it is easier to garner support from the general public. People tend to prefer a simple picture and the mass media is a key source of simple answers. In the contemporary world, unfortunately, this tendency becomes even stronger when impending issues touch upon limited sources of energy.

Our goal is to shed light on this problem in a way that opens up the unlimited opportunities for cooperation. In reality, it goes without saying that cooperation may not be easy: it is not China or Japan, but Russia that wants to bring its oil and natural gas to the markets of Northeast Asia in very large volumes using the most economical mode. Moreover, it was not that Japan and China were competing for a pipeline route; rather, diverse interests inside Russia were the true contenders. Indeed, there are interest groups, which would prefer to monetize the oil and natural gas reserves without much coordination with or benefits for local industries and local communities, and without considering overall development needs, including the discovery of new reserves. There are also groups that prioritize regional development, social advancement and national energy security, as well as access to multiple markets in Northeast Asia. Tokyo was only supporting (not proposing) the pipeline route that Transneft had already advocated and President Putin strongly favored. On the other hand, while Russia's readiness to integrate into Northeast Asian energy markets has intensified, China, Japan and the ROK all increasingly consider Russia to be an important energy supplier. The United States has also shown an interest in the development of oil and natural gas fields in Eastern Russia. The issue we are facing is how to avoid excluding any of the big consumers or the supplier from the energy market and to find a way in which all of these would benefit from the possible emergence of an energy security regime. There remains much room for such regional energy stability if we consider the following points

Firstly, aiming for the establishment of JOS in Northeast Asia would be a starting point for the possible establishment of a regional energy security regime. If the decision-makers of the region seriously intend to institutionalize a multilateral partnership for achieving greater energy security at affordable prices, they must ensure that each party shares the burden.

Secondly, an energy security regime in the broader sense of the expression would require policy coordination in the field of energy conservation. Given the potential for new business in the environmental industry, we had better make the best of the current opportunity to promote environmental interdependence as a "substructure" of overall energy cooperation. Technological transfer as a means of raising energy efficiency could be the most important element of this substructure. In other words, in order to promote energy security throughout Northeast Asia, the experts should think not in terms of competition among countries, but of competition among fuels and

technologies, and of the price competitiveness of oil and natural gas supply routes.

The benefits can be multiple and significant, or narrow and limited, depending on the willingness of the parties to develop strong, long-term bonds in the energy sector. In order to adopt and implement such policies effectively, political leadership and longer-term outlooks are needed, as well as a tradition of working together. Among the economies of Northeast Asia, such a tradition has yet to be cultivated, but this subregion obviously has "sub-regional" opportunities to enhance energy security by promoting choice in long-term investment planning, the diversification of supply sources and competition between fuels.

Recent Developments

Leaving policy challenges aside in terms of theory, we ought carefully to watch practical developments that support the main assumptions we have made in this paper. This is to say that there is enough space in Northeast Asia, more specifically for China, Japan and Russia, for them to embark upon a long-term pragmatic trilateral partnership in the field of energy resource exploration, development and rational use. Two announcements made in Moscow in the closing days of 2004 clearly demonstrated that both Japan and China are strategically important counterparts in Russia's national energy strategy.

One such announcement came on December 31, 2004, when the Russian government officially launched the Eastern Siberia-Pacific oil pipeline project, issuing Directive No. 1737-p. The document approved the proposal made by Transneft to construct an integrated oil pipeline system with an annual capacity of 80 Mt, along the Taishet-Skovorodino-Perevoznaya Bay route. The directive incorporated the following instructions and measures that define the project logistics and implementation strategy:

- The Transneft Company was authorized to serve as chief contractor in the design and construction work for the project.
- The government proposed that, in collaboration with the Ministry of Industry and Energy and the Ministry of Economic Development and Trade, the Ministry of Natural Resources develop a program for the geological exploration and licensing of hydrocarbon resources in Eastern Siberia and the Far Eastern region.
- It requested that the Ministry of Industry and Energy and the Ministry of Natural Resources and Transneft jointly define the construction schedule and the construction phases of the pipeline by May 1, 2005, coordinating these with the opportunities for accessing hydrocarbon resources.
- The Ministry of Transport and Ministry of Defense were instructed to define the shipping routes and schedules in Perevoznaya Bay, near oil terminal facilities.
- With the participation of the Russian Railways Company (RZD), the Ministry of Transport was asked to design the railway logistics for (a) shipping construction materials and equipment for the ESP oil pipeline; and (b) crude oil shipments by rail, in coordination with the construction schedule and the

implementation phases of the pipeline.

- The regional authorities of the provinces to be traversed by the pipeline were advised to provide support for the project.
- The Federal Tariff Service was instructed to ensure that oil transportation tariffs would support the reconstruction and operation of the existing pipeline system to Taishet and facilitate financing of the construction of the new pipeline.
- By May 1, 2005, along with the Ministry of Economic Development and Trade and the Ministry of Finance, the Ministry of Industry and Energy is expected to propose measures that enhance the economic feasibility of pipeline construction (possibly indicating a parallel gas pipeline project).

At the same time, on December 30, 2004, in comments regarding the ongoing merger of the companies Gazprom and Rosneft, Viktor Khristenko, Minister of Industry and Energy, noted that Yuganskneftegaz – Russia’s largest and most successful oil-producing enterprise – will not be part of this merger. The assets of this former Yukos subsidiary will be transferred a new company wholly owned by the state. However, Khristenko said that up to 20% of the stock of this newly formed company could be offered to the China National Petroleum Corporation (CNPC) in exchange for assets controlled by CNPC, both in China and in third countries. The minister specified that this possibility was envisaged in earlier agreements signed with CNPC. He stressed that these plans are in line with the strategic agreements achieved by Russian and Chinese leaders in the sphere of energy cooperation.