

A REPORT OF THE CSIS  
RUSSIA AND EURASIA  
PROGRAM

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ENERGY MARKETS AND GEOPOLITICS IN NORTHEAST ASIA

*Author*

Shoichi Itoh

*Foreword*

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## FOREWORD

Russia's status as the world's largest producer of hydrocarbons (oil and natural gas) today is principally the result of massive Soviet investments in western Siberian oil and gas fields dating back to the 1950s. These fields are past their peak, and in order for the Russian Federation to maintain, let alone increase, oil and gas production, new greenfields in eastern Siberia and the Far East, the Arctic, and elsewhere must be developed. These projects will be among the most expensive and technologically complicated in the history of the energy industry. The development of these projects will also increase the role of Asian investment and markets in Russia's energy portfolio. In 2009, the Russian government published its *Energy Strategy of Russia for the Period up to 2030*, which laid out very ambitious export goals: increasing exports in oil to the Asia-Pacific region from 8 percent to 22–25 percent and natural gas from 0 percent to 20 percent by 2030.

The following report by Shoichi Itoh illustrates the challenges that Russia faces in this regard and the very mixed picture of results to date. It also sets forth a set of recommendations for the Russian government, the energy industry, and key Asian states, including the United States, to enhance Russian production in as efficient a manner as possible that benefits not only Northeast Asian energy markets but the global energy market as well. For much of the past decade, Russia has overestimated its leverage as an Asian energy supplier and engaged in geopolitical games that have undercut its potential role. Unlike in Europe—Russia's traditional energy export market for decades—leading Asian countries like China, Japan, South Korea, and others have not relied significantly on Russian supplies of oil and gas.

While Russian exports of natural gas and oil to Japan have increased significantly in the past several years to close to 10 percent of Japanese imports, the Sino-Russian energy relationship has underachieved its potential despite the rhetorical fervor about this “strategic partnership.” With Russia as the world's largest producer of hydrocarbons and China as the fast-growing consumer market, compounded by their geographical proximity, one would expect far more from the Russia-China energy nexus. But, as Itoh argues, the relationship has been underachieving in part due to Russia's deep-rooted geopolitical concerns about China and Beijing's mistrust of and frustration with Moscow. Itoh concludes that we should welcome the deepening of Sino-Russian energy interdependence to help reduce the volatility of international oil and gas prices. The United States, Itoh suggests, should develop a less Eurocentric approach to Russia and more of a transpacific strategy to help promote greater Northeast Asian energy cooperation.

Part of this transpacific strategy must be directed to diversifying the huge investment risks involved in developing eastern Russian energy resources. Itoh suggests establishment of an international consortium involving initially Russia, China, Japan, South Korea, and the United States in order to reduce Russia's resource nationalism and avoid the necessity of each stakeholder bearing excessive financial risk or wielding excessive control. Naturally, the role of energy majors will be critical as promoting the development of Northeast Asian energy cooperation must be premised

on the cooperation of the public and private sectors. Win-win, positive-sum outcomes are certainly possible, and the result would have implications not only for global energy markets but also for geopolitical security among big powers in Asia.

The Russia and Eurasia Program is grateful to the Carnegie Corporation of New York, whose support allowed for the visiting residency of Mr. Itoh at CSIS in the spring of 2010 and the publication of this report.

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## PREFACE

At the beginning of the twenty-first century, Russia began to look eastward more aggressively than ever. Today, the scale of mobilizing national resources in the country's eastern region (that is, eastern Siberia and the Far East), which accounts for about 60 percent of national territory but was virtually "deserted" and beyond Moscow's primary concern for economic development from the late Soviet period through the end of the 1990s, can be compared with Imperial Russia's enterprise of constructing the Trans-Siberian Railway at the turn of the twentieth century.

The rapidly growing demand for energy in Northeast Asia, triggered especially by China, has generated a new opportunity for Russia to exploit new energy markets by making the most of potentially huge, yet still undeveloped oil and natural gas resources lying in the eastern regions. Russia began to export liquefied natural gas from the Sakhalin-2 project in spring 2009. Subsequently, the first crude oil tanker sailed from the Pacific Coast at the end of the same year with the completion of the 2,700-kilometer first phase of the East Siberia–Pacific Ocean (ESPO) pipeline. Indeed, Russia made a striking debut as a new oil and natural gas supplier in the region.

Media headlines about the so-called Sino-Japanese scramble over Russian crude oil are still fresh in our memory. In hindsight, it is noteworthy that Moscow's geopolitical ambition of exploiting the Sino-Japanese rivalry to its own advantage turned out no more than wishful thinking. Moscow's overwhelmingly geopolitical mind-set, notwithstanding the limitation of developing untapped hydrocarbon resources completely on its own, has delayed the increase in the newly available volumes of oil and natural gas in the Pacific region. Presumably, Russia could have otherwise attracted more capital investment from both China and Japan if Moscow had interpreted more pragmatically the different trends in these consumers' energy markets and the fact of the virtually irreversible economic interdependence of China and Japan.

Besides the extension of another 2,000 kilometers in the second phase of the ESPO crude oil pipeline, Russia is currently making strides in the development of natural gas pipelines in the eastern regions. After the accident at the Fukushima Daiichi nuclear power plant in Japan, caused by the world's fifth-largest earthquake accompanied by a dreadful tsunami in March 2011, Moscow promptly showed its readiness to take advantage of a widely forecast relative rise in natural gas demand, including by Japan as the biggest LNG importer at least for the immediate future. Development of the hidden potential of eastern Russia would be one of the keys for the future supply-demand balance of natural gas, not only for Northeast Asia alone but also the international market, especially considering the geographical adjacency to the world's biggest energy consumer, China, with its surging natural gas consumption. How soon Russia will be able to translate its eastern natural gas potential into reality accompanied by a simultaneous solution of its historically ingrained geopolitical concern vis-à-vis China will depend on whether Moscow will learn lessons from the recent experiences with regard to the development of the ESPO project.



For the United States, the advancement of Russia's so-called eastern vector cannot be just someone else's problem. For almost two decades since the collapse of the former Soviet Union, Washington has lacked in formulating a comprehensive strategy to address the Russian factor in the Asia-Pacific region. In other words, Russia is accelerating its effort to project its influence to the East by way of using its energy potential, whereas the U.S. policy toward is still overwhelmingly centered on Russia in Europe. Washington has yet to design a concept to capture the implications from Russia's increasing influence as a big hydrocarbon supplier for the Pacific theater in a wider spectrum of geopolitically complicated Northeast Asian politics. Russia's new move in Northeast Asia should not be seen by the United States as a matter of only bilateral relations, but should be seen as the way for China to meet its skyrocketing energy demand, which will have a significant impact on not only Beijing's diplomatic conduct globally but also in terms of the energy security of the United States.

Northeast Asia embraces almost all the vital factors addressing energy security, the result of which will affect the life of international community as a whole. Russia has sizable underdeveloped hydrocarbon resources, but it is still inexperienced in doing market-oriented business. We have no alternative but to find a way to solve the question of the spiking energy demand in China, notwithstanding the rising concern about the rise of China in world politics. The March 2011 nuclear power plant accident in Japan has prompted us to revisit the future of energy security. The United States is not only the pivotal power for stability concerning almost every issue in Northeast Asia; it also has its own increasing economic and military interests in the Asia-Pacific region.

Policymakers, experts, and businesspeople alike must take full responsibility for assembling the wisdom of all the concerned parties, given that the direction and framework of energy security we construct in Northeast Asia will determine the kind of energy life as well as the method of conflict resolution we prepare for future generations.

# 1

## BACKGROUND AND SUMMARY

Moscow has been aiming to restore its presence in the Asia-Pacific region—a presence important at one time but that disappeared with the demise of the Soviet Union—through increases in oil and natural gas exports. *Energy Strategy of Russia for the Period up to 2030* envisioned that Russia would increase its exports of oil so that use of Russian oil in the Asia-Pacific region would increase from 8 percent of oil used in 2008 to 22–25 percent in 2030.<sup>1</sup> Natural gas exports were predicted to increase from 0 percent used in the Asia-Pacific in 2008 to about 20 percent in 2030.

Russia's so-called eastern vector has four main strategic motives:

- Oil and gas production potential in the traditional production bases in western Siberia has gradually peaked. Russia has faced the pressing need to speed up development of the hitherto untapped resources in the eastern regions to make up for the declining rate of production in the western regions.
- China has the fastest-growing energy market. In view of the limited growth in the future of oil and gas markets in Europe, which up to now have accounted for the overwhelming share of Russia's hydrocarbon exports, Russia needs to exploit new market opportunities in the east.
- The economic backwardness of eastern Siberia and the Far East, which Moscow considers a Russian weakness vis-à-vis its geopolitical rival, China, can be overcome only by attracting huge amounts of domestic and international capital through drastic increases in production of hydrocarbon resources.
- Russia believes that increases in exports toward the Asia-Pacific would create an “Asia card” vis-à-vis the nations of the European Union, which have demonstrated growing skepticism about Russia's use of energy as a tool of diplomatic leverage and have gradually striven to reduce their energy dependence on Russia.

Russia's geopolitical mind-set has turned out to be a serious impediment to timely attraction of foreign investment and to surmounting the pressing need for speeding up development of the eastern regions. Moscow initially attempted to play Beijing and Tokyo against each other with the aim of maximizing inflow of external investment, especially from Japan, while simultaneously counterbalancing China's presence. Notwithstanding the apparent development of the diplomatically celebrated bilateral strategic partnership, the Russians have paradoxically been concerned that an increase in Chinese influence in the energy sector might ultimately encroach upon Russia's geopolitical interest.

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1. Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030* (Moscow: Ministry of Energy of the Russian Federation, 2010), pp. 140–141, [www.energystrategy.ru/projects/docs/ES-2030\\_%28Eng%29.pdf](http://www.energystrategy.ru/projects/docs/ES-2030_%28Eng%29.pdf). This official document was approved by decree no. 1715-r of the government of the Russian Federation on November 13, 2009.

Russia's geopolitical tactics toward Northeast Asia ended in almost complete failure. The Sino-Japanese rivalry over access to crude oil from eastern Siberia gradually faded away. Moscow failed in getting Tokyo to finance a part of the first phase of the Eastern Siberia–Pacific Ocean (ESPO) crude oil pipeline and built it on its own when Russia could no longer delay the project because of the urgency to develop east Siberian oilfields.<sup>2</sup> Meanwhile, Russia was “compelled” to start the construction of the spur pipeline from the endpoint of the ESPO pipeline's first phase to the Chinese field. This is what Moscow had refused, until the last minute, to clarify: its longtime ambivalent attitude despite verbal promises with Beijing. After all, however, it had no alternative but to rely on China's financial assistance in the aftermath of the global financial crisis and the decline of oil prices after the latter half of 2008.

The first phase of the ESPO pipeline was completed in late 2009. Subsequently, in 2010, Russia began shipping by rail what amounted to 15 million tons of oil over a distance of 2,000 kilometers from the endpoint of the first phase to the Pacific Coast. In addition, beginning in January 2011, Russia's exports of 15 million tons of crude using the spur pipeline followed from its 20-year contract with China in return for a credit of \$25 billion. Russia is currently building the second phase—an extension of approximately 2,000 kilometers—of the ESPO pipeline toward the Pacific Coast; completion by 2013 is planned. Yet, there has remained a serious degree of uncertainty with regard to the availability of proven reserves of another 50 million tons needed to fulfill the maximum capacity of the second phase.

The scale of investment required for development of oil and gas fields in eastern Siberia and the Far East is enormous, and Russia cannot undertake such an investment on its own. Moscow has failed to encourage its domestic oil companies to make as much financial commitment as required to realize the national energy policies in eastern Russia. Costs are high because of the exorbitant amount of capital needed to overcome various investment risks including the harsh climate, geological difficulties, and insufficient basic socioeconomic infrastructure. The effect of tax preferences has also been limited in scale in order to galvanize domestic investment. Although oil prices in international markets have been in an uptrend following the temporary downturn caused by the shock of the Lehman Brothers collapse, this has not prompted either China or Japan to increase financial commitments in upstream projects in eastern Russia.

Russia's concept of expanding natural gas pipeline networks in the eastern part of the country, the Eastern Gas Program authorized by the government in September 2007, has remained to date an unfinished concept at best. Aside from liquefied natural gas (LNG) from the Sakhalin-2 project, the future supply routes and the ways of supplying natural gas have been undetermined.

Russia took its time to finalize negotiations on gas export with China. Disagreement over the gas-pricing formula has been the apparent reason that Russia has postponed the construction of a natural gas pipeline to China. That, however, has been just a part of the story: Moscow's deep-rooted geopolitical concern delayed its serious commitment in concluding the negotiation with Beijing. Meanwhile, China hurried to sign gas supply contracts with other producers, including Central Asian countries. Consequently, China has secured a sufficient quantity of gas supplies without needing to import from Russia for at least the next decade or so. Ironically, the Russians have found themselves driven to a position in which they themselves needed to find an early solution to Sino-Russian gas talks against the background of the loosened global natural gas markets and increases in availability of LNG and shale gas. Pressure on Russia has been compounded by

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2. The first phase was a 2,700-kilometer pipeline.

the effort by the EU nations, which currently consume more than 85 percent of Russia's total oil exports and about 70 percent of Russia's gas exports, to reduce dependency on Russia as an oil and gas supplier. Nevertheless, Gazprom has continued to demonstrate a tepid approach to early construction of a gas pipeline to Chinese territory, including an option from the Sakhalin-1 project against the proposal by its operator, Exxon Mobil.

Whether Russia will be able to keep up or even increase its current levels of oil and natural gas production will be seriously affected by the results of developing greenfield hydrocarbon deposits in eastern Russia. A successful realization of this project would also help Moscow to enhance its regional presence in Northeast Asia. Russia's geopolitical maneuvers and ambitions on the basis of its energy supplies have not avoided bringing about adverse effects.

# 2

## OIL AND NATURAL GAS POTENTIAL IN EASTERN RUSSIA

### Oil

Western Siberia has been the area of Russia's largest crude oil production for more than three decades. Approximately 70 percent of Russia's crude has been produced there to date; however, oil production potential in western Siberia has peaked. While western Siberia accounted for about 68 percent of Russia's total crude production as of 2008, the ratio is projected to decline to less than 60 percent by 2020. Moscow hopes that crude production in eastern Siberia and the Far East will steadily increase and compensate for the relative decline of oil productivity in the western part of the country. Crude production in eastern Russia will increase by more than sevenfold, from 14.3 million tons in 2008 to 102–107 million tons in 2030 (table 2.1).<sup>1</sup> The share of eastern Russia in national crude production is projected to rise from 3 percent in 2008 to 10–12 percent in 2013–2015, to 12–14 percent in 2020–2022, and to 18–19 percent in 2030.<sup>2</sup>

Western Siberia has more than half of the country's initial aggregate crude reserves and about 70 percent of proven reserves.<sup>3</sup> Meanwhile, many oil wells have entered into the mature stage; more than 75 percent of their potential in western Siberia has been exploited.<sup>4</sup> Furthermore, a large part of proven reserves, mainly concentrated in the Khanty-Mansi Autonomous Region, accounting for 54 percent of national crude production as of 2009, remains what is called “difficult oil.” The Institute for Energy Strategy, a subsidiary organization of Russia's Ministry of Energy, estimates that 67 percent of untapped reserves in western Siberia are virtually unrecoverable currently, while new development wells in this region have gradually become smaller in size and the rate of investment recovery for exploring oilfields has worsened since the late 1990s.<sup>5</sup>

Eastern Siberia and the Far East (except for the continental shelf) account for 12.4 percent and 0.5 percent, respectively, of initial aggregate resources of crude oil across the country.<sup>6</sup> Fields in these regions are mostly unexplored although development of these eastern regions has become more important than ever against the backdrop of western Siberia's peak potential.<sup>7</sup> Production of crude in eastern Russia has gradually increased, but the Sakhalin region has accounted for the

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1. Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030* (Moscow: Ministry of Energy of the Russian Federation, 2010), [www.energystrategy.ru/projects/docs/ES-2030\\_%28Eng%29.pdf](http://www.energystrategy.ru/projects/docs/ES-2030_%28Eng%29.pdf).

2. *Ibid.*, p. 140.

3. Institute for Energy Strategy, *Toplivno-energeticheskii kompleks Rossii 2000–2008* [The fuel-energy complex of Russia in 2000–2008] (Moscow: Institute for Energy Strategy, 2009), p. 91.

4. *Ibid.*, p. 93.

5. Institute for Energy Strategy, *Toplivno-energeticheskii kompleks Rossii 2000–2007* [The fuel-energy complex of Russia in 2000–2007] (Moscow: Institute for Energy Strategy, 2008), pp. 133, 138.

6. Institute for Energy Strategy, *Toplivno-energeticheskii kompleks Rossii 2000–2008*, p. 65.

7. The Russian government acknowledges that more than 50 percent of Russia's initial oil reserves have been already depleted. The figure amounts to 65 percent in the European region and more than 70 percent

**Table 2.1. Crude Oil Production in Russia, 2005–2030 (est.) (million tons)**

Area of Russia	2005	2008	2013–2015	2020–2022	2030
Northern and northwest areas	24.5	29.1	32–35	35–36	42–43
Volga area	52.7	54.1	49–50	44–45	34–36
Ural area	49.2	52.6	45–47	36–41	25–29
Caucasian and Caspian areas	4.9	4.8	7–11	19–20	21–22
Western Siberia <sup>1</sup>	334.3	332.7	294–310	286–312	301–303
Eastern Siberia <sup>2</sup>	0.2	0.5	21–33	41–52	75–69
Far East	4.4	13.8	23–25	30–31	32–33
Total	470.2	487.6	486–495	505–525	530–535

Source: Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030* (Moscow: Ministry of Energy of the Russian Federation, 2010), p. 145.

1 Tyumen Region and the Tomsk Region.

2 Includes the Sakha Republic.

most part, and it produced 14.8 million tons out of a total of 18.3 million tons in the Far Eastern Federal District in 2010 (table 2.2).<sup>8</sup>

Russia needs to achieve substantial increases in crude production in the adjacent areas of the Eastern Siberia–Pacific Ocean (ESPO) pipeline to fulfill the maximum capacity (80 million tons per annum) with the completion of the second phase and to maintain its economic profitability. Insofar as the first phase of the project is concerned, a sufficient volume of crude oil has been ensured for the maximum annual capacity of shipping 30 million tons, with gradual development of oilfields in eastern Siberia and the Sakha Republic, together with additional supplies from western Siberia to make up for the shortage of crude oil in the eastern regions. When it comes to the second phase, however, a sufficient quantity of crude production has not come into sight for the foreseeable future.

Three of the major oil production areas in continental eastern Russia— the Vankor oilfield in the Krasnoyarsk Region, the Verkhnechon oilfield in the Irkutsk Region, and the Talakan oilfield in the Sakha Republic—produced 12.7 million tons, 3.9 million tons, and 3.3 million tons, respectively, in 2010.<sup>9</sup> It is planned that crude production in the Vankor oilfield will increase to approximately 25 million tons at peak by 2014.<sup>10</sup> Production at the Verkhnechon and Talakan oilfields is planned to increase to 7.5 million and 7–8 million tons, respectively, per annum at peak in the future.<sup>11</sup> The grand total of production plans, mostly taken for granted and backed up by the

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in the Urals and Volga regions; see Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030*, p. 62.

8. Some official statistics on crude production have not been made public since 2008 when the *Federal Law on Official Statistical Calculation and State Statistical System in the Russian Federation*, law no. 282-F3, signed by President Vladimir Putin on November 29, 2007, went into effect.

9. *Nef't' i Kapital* [Oil and gas], nos. 1–2 (2011): p. 76.

10. “Milliony Vankora,” Rosneft, February 17, 2010, [www.rosneft.ru/news/today/17022010.html](http://www.rosneft.ru/news/today/17022010.html).

11. “V promyshlennykh mashtabakh: Nef't' Talakana i Verkhnechonskogo uzhe v VSTO. No techet poka na zapad” [Industrial scale: Oil from Talakan and Verkhnechon is already delivered to the ESPO pipeline, but toward the west in the meantime], *Nef't' i Kapital* [Oil and gas], November 2008, pp. 44–48.

**Table 2.2. Crude Oil Production, Including Gas Condensate, in Russia, 1970–2010 (million tons)**

Federal district	Siberia	Federal subject	1970	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Northwestern			7.6	21.7	17.0	10.3	13.5	14.5	15.4	18.0	21.6	24.5	26.0	27.4	29.5	33.6	32.2	
Southern			41.8	22.6	12.0	7.8	10.6	11.6	12.3	12.8	13.3	13.5	13.6	13.3	12.6	11.0	8.9	
Volga			201.5	187.2	109.6	78.3	75.2	78.7	83.0	89.2	92.9	93.2	95.5	97.4	98.8	102.3	107.0	
Urals	Western Siberia	Tyumen Region	28.5	307.9	365.3	201.6	213.5	231.3	254.2	283.2	310.0	320.2	325.5	323.8	319.0	311.0	307.0	
		Khanty-Mansi Auto. Region	28.5	304.9	306.0	169.2	180.9	194.2	209.9	233.2	255.8	268.0	275.6	278.0	275.0	268.0	266.0	
		Yamalo-Nenets Auto. Region	—	3.0	59.4	32.4	32.0	36.3	43.4	49.1	53.0	50.8	48.4	44.5	42.4	40.3	35.7	
Siberia		Subtotal–Urals	28.5	307.9	365.3	201.6	213.5	231.3	254.2	283.2	310.0	320.2	325.5	323.8	319.0	311.2	307.0	
		Novosibirsk Reg.	—	—	0.0	0.0	0.0	0.1	0.2	0.5	0.9	1.4	1.8	2.0	n.a.	n.a.	n.a.	
		Omsk Region	—	—	—	—	—	0.0	0.1	0.3	0.5	1.0	1.1	n.a.	n.a.	n.a.	n.a.	
		Tomsk Region	2.9	4.8	10.3	6.7	6.9	7.8	10.6	13.7	15.9	11.7	10.1	10.3	10.3	10.4	10.6	11.1
		Subtotal–Western Siberia	31.4	312.7	375.7	208.4	220.4	239.1	265.1	297.6	327.4	334.3	338.6	336.1	n.a.	n.a.	n.a.	
		Eastern Siberia	—	—	—	—	—	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	n.a.	3.8	12.9
		Krasnoyarsk Reg.	—	—	—	—	—	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	n.a.	1.6	3.2
Far East		Subtotal–Eastern Siberia	—	—	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	n.a.	5.4	16.1	
		Subtotal–Siberia minus the Urals	2.9	4.8	10.3	6.9	7.0	7.9	11.0	14.6	17.6	14.3	13.3	13.8	13.8	14.4	18.9	29.3
		Sakha Republic	—	—	0.1	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	n.a.	2.0	3.5
Total		Sakhalin Region	2.5	2.5	1.9	1.7	3.4	3.8	3.3	3.2	3.5	4.0	6.2	14.8	12.9	15.5	14.8	
		Subtotal–Far East	2.5	2.5	2.0	1.9	3.8	4.2	3.7	3.6	3.9	4.4	6.6	15.2	13.6	17.4	18.3	
		Total	284.8	546.7	516.2	306.8	323.5	348.1	379.6	421.3	459.3	470.2	480.5	490.9	488.0	494.3	505.0	

Sources: *Rossiiskii statisticheskiy ezhegodnik 2007* [Russian statistical yearbook 2007] (Moscow: Federal State Statistics Service of the Russian Federation); *Sotsial'no-ekonomicheskoe polozhenie Rossii* [Socioeconomic situation of Russia] (Moscow: Federal State Statistics Service, 2008, 2009, 2010).



**Table 2.3. Crude Oil Reserves in Eastern Siberia and the Sakha Republic, as of January 1 of each year (million tons)**

Geographical area	Type of reserves	2005	2006	2007	2008	2009
Southern part of eastern Siberia and the Sakha Republic <sup>1</sup>	A+B+C1	533.1	538.4	557.6	651.1	668.8
	C2	631.6	630.5	698.8	794.2	845.2
Northern part of the Krasnoyarsk Region <sup>2</sup>	A+B+C1	114.2	175.9	278.1	467.1	483.7
	C2	235.5	381.1	442.2	197.4	237.4
Total	A+B+C1	647.3	714.3	835.7	1,118.2	1,152.5
	C2	867.1	1,011.6	1,141.0	991.6	1,082.6

Source: A. S. Efimov, A. I. Varlamov, A. A. Gert, V. S. Starosel'tsev, and V. S. Surkov, "Sostoyanie resursnoi bazy uglevodorodov Vostochnoi Sibiri i Respubliki Sakha (Yakutiya), perspektivy narashshivaniya i osvoeniya" [The state of hydrocarbon resource base in eastern Siberia and the Sakha Republic (Yakutiya): prospects of growth and development] (paper presented at ninth St. Petersburg International Energy Forum, 2009), [www.energyland.info/library-group-155](http://www.energyland.info/library-group-155).

1 The southern part of eastern Siberia includes the southern Krasnoyarsk Region, the Irkutsk Region, and the southwestern Sakha Republic.

2 The northern part of the Krasnoyarsk Region include the Bol'shekhetsk zone where the Vankor oilfield is located.

current availability of proven oil reserves in the major oilfields in eastern Siberia, amounts to no more than 40–45 million tons per annum. The volume of backup supplies from western Siberia will be limited in scale against the backdrop of its peak potential and is expected to be insufficient to cover the shortage of crude production in the eastern regions, thus preventing the second phase pipeline from operating to full capacity.

At the beginning of 2009, the grand total of proven reserves of crude (categories A + B + C1) amounted to 1.15 billion tons (table 2.3). It is estimated that achievement of optimal crude production for the ESPO pipeline will require a total of 1.8 billion tons of oil reserves in eastern Russia by 2020 and 3 billion tons by 2030.<sup>12</sup> In 2007, the deputy minister of the Ministry of Industry and Energy, Andrei Dement'ev, disclosed at a government hearing that Russia would need to upgrade to 1.84 billion tons from 0.6 billion tons of unproven reserves (category C2) and move 4.9 billion tons of resources (categories C3 and D1) into proven level (C1) by 2025 in view of maintaining the maximum capacity of ESPO's second phase (table 2.4).<sup>13</sup> Table 2.5 shows the current state of major oilfields in the adjacent areas of the ESPO pipeline.

12. Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030*, p. 63.

13. "O Khode realizatsii stroitel'stva nefteprovodnoi sistemy 'Vostochnaya Sibir'–Tikhii Okean' i obespechenii ee neftyanymi resursnami," [www.minprom.gov.ru/appearance/report/48/](http://www.minprom.gov.ru/appearance/report/48/). According to the Russian definition of geological classification, categories comprise "reserves" and "resources." Reserves are divided into proven reserves (categories A and B), provisional proven reserves (category C1), and unproven reserves (category C2). Resources are composed of C3, D1, and D2, while the superiority of geological assessment is in descending order. According to Viktor Orlov, chairman of the Federation Council's Committee on Natural Resources and Environmental Protection, if a coefficient of 0.66 is applied to the Russian classification of reserves (A + B + C1), they approximately correspond with the proven reserves by Western standards. "Dobycha nefi rastet: nadolgo li ee khvatit Rossii v takikh tempakh" [Oil production grows: Can Russia maintain such a tempo for a long period?], *RusEnergy*, May 11, 2004. For more details on the Russian definition of domestic hydrocarbons, see "Kategorii zapasov i resursov uglevodorodov, predlagaemye novoi klassifikatsiei" [The category of hydrocarbon reserves and resources by new classification], *Kommersant*, April 26, 2005.



**Table 2.4. Crude Oil Reserves (Category C1) from Categories C2, C3, and D1 in Eastern Siberia and the Sakha Republic, 2025 (est.) (million tons, estimated as of January 1, 2007)**

Area	Unproven reserve (C2)		Resource (C3)		Resource (D1)		Total increment of C1
	Standing stock	Targeted amount of upgrade into C1	Standing stock	Targeted amount of upgrade into C1	Standing stock	Targeted amount of upgrade into C1	
Total	610.6	366.4	1,533.7	466.1	3,350.3	1,005.1	1,837.6
Eastern Siberia	519.6	311.8	1,402.1	420.6	3,036.6	911.0	1,643.4
Sakha Republic	91.0	54.6	151.6	45.5	313.7	94.1	194.2

Source: Andrei Dement'ev (presentation by the deputy minister of Russia's Ministry of Industry and Energy, 2007), [www.minprom.gov.ru/appearance/report/48/](http://www.minprom.gov.ru/appearance/report/48/).

**Table 2.5. Major Oilfields in Areas Adjacent to ESPO Pipeline, January 1, 2009**

Name of oilfield	Federal area	Reserve category (million tons)	
		A + B + C1	C2
Vankor	Krasnoyarsk	375.1	145.0
Yurubcheno-Tokhomsk	Krasnoyarsk	122.0	349.7
Verkhnechon	Irkutsk	159.3	42.1
Sredne-Botuobinsk	Sakha Republic	82.1	47.9
Talakan	Sakha Republic	103.4	18.1
Total		841.9	602.8

Source: *Toplivno-energeticheskii kompleks Rossii 2000–2009 gg* [The fuel-energy complex of Russia in 2000–2009] (Moscow: Institute for Energy Strategy, 2010), pp.131–132.

Notwithstanding the urgency, however, exploration of Russia's eastern flank has faced serious underinvestment. The Ministry of Natural Resources approved the Program of Geological Study and Allocation of Utilizing Hydrocarbon Resource Deposits in Eastern Siberia and the Sakha Republic in 2005–2008 (also called the East Siberian Geological Program) by Ministerial Ordinance no. 219 in July 2005. The result of this program, however, betrayed its goals. The federal government invested 12.8 billion rubles (about \$515 million), slightly more than its original plans in 2005–2008, whereas the registered companies in the program invested 41.6 billion rubles (about \$1.7 billion), which was only 51 percent of the initial target (table 2.6).<sup>14</sup> As a result, they could increase the extraction of only 136.5 million tons of crude reserve (category C1) compared with the original plan of ensuring 346.7 million tons by 2008 (table 2.7). Since January 2007, oil companies have been exempted from paying the natural resource extraction tax with regard to development of the oilfields in the Krasnoyarsk Region, the Irkutsk Region, and the Sakha Republic until the cumulative production reaches 25 million tons for up to 10 years if production licenses have been

14. The values in U.S. dollars are calculated by the official average exchange rate of rubles per dollars (24.85 rubles per U.S. dollar) in 2008, published by the International Monetary Fund.

**Table 2.6. Investment for Geological Survey in the East Siberian Geological Program (million rubles)**

Investor		2005	2006	2007	2008	Total
Federal government	Plan	1,500	2,500	3,820	4,927	12,747
	Result	1,397	2,424	3,877	5,126	12,824
Subsoil users	Plan	19,000	20,100	21,400	21,400	81,900
	Result	4,196	6,060	11,784	19,540	41,579

Source: A. S. Efimov, A. I. Varlamov, A. A. Gert, V. S. Starosel'tsev, and V. S. Surkov, "Sostoyanie resursnoi bazy uglevodorodov Vostochnoi Sibiri i Respubliki Sakha (Yakutiya), perspektivy narashshivaniya i osvoeniya" [The state of hydrocarbon resource base in eastern Siberia and the Sakha Republic (Yakutiya): prospects of growth and development] (paper presented at ninth St. Petersburg International Energy Forum, 2009), [www.energyland.info/library-group-155](http://www.energyland.info/library-group-155).

**Table 2.7. Proven Crude Oil Reserves (C1) in the Southern Part of Eastern Siberia and the Sakha Republic (million tons)**

	2005	2006	2007	2008	Total
Plan	90.7	96.3	102.9	56.8	346.7
Result	5.8	19.6	93.4	17.7	136.5

Source: A. S. Efimov, A. I. Varlamov, A. A. Gert, V. S. Starosel'tsev, and V. S. Surkov, "Sostoyanie resursnoi bazy uglevodorodov Vostochnoi Sibiri i Respubliki Sakha (Yakutiya), perspektivy narashshivaniya i osvoeniya" [The state of hydrocarbon resource base in eastern Siberia and the Sakha Republic (Yakutiya): prospects of growth and development] (paper presented at ninth St. Petersburg International Energy Forum, 2009), [www.energyland.info/library-group-155](http://www.energyland.info/library-group-155).

Note: The southern part of eastern Siberia includes southern Krasnoyarsk Region, the Irkutsk Region, and the southwestern Sakha Republic.

issued and up to 15 years if both exploration and production licenses have been issued.<sup>15</sup> Even this preferential measure has brought about a very limited effect.

It was estimated that the aggregate investment required for establishing with more certainty the crude reserves in the region, as originally planned in the East Siberian Geological Program, would amount to 6 billion rubles (about \$241 million) in 2010 and 12 billion rubles (about \$483 million) on average annually during 2016–2020 by the federal government and 21.1 billion rubles (about \$849 million) in 2010 and 46.6 billion rubles (about \$1.9 billion) annually during 2016–2020 by subsoil users.<sup>16</sup>

Meanwhile, a series of uncertainties with regard to development of the eastern regions has discouraged oil companies from accelerating capital investment despite pressure from the Kremlin. Aside from a handful of major places noted above, the economic viability of investment is questionable with regard to many hydrocarbon deposits that are not only medium or small in scale but also lie extensively and sparsely under the vast permafrost terrain without reasonable development

15. Sergei Glazkov, "Eastern Pipeline Will Provide New Options," *Russian Petroleum Investor*, June–July 2006, p. 22.

16. A. S. Efimov, A. A. Gert, A. I. Varlamov, V. S. Starosel'tsev, and N. A. Suprunchik, "Programma izucheniya i osvoeniya uglevodorodnykh resursov vostochnoi sibiri i republiki Sakha (Yakutiya)—Itogi i perspektivy" [The program of investigation and utilization of hydrocarbon resources in eastern Siberia and the Sakha Republic (Yakutiya): Summary and perspectives], *Geologiya Nefti i Gaza*, no. 6 (2009): p. 9.

of socioeconomic infrastructure.<sup>17</sup> Because of the extreme climate, geological surveying is possible only three to five months a year in some parts of eastern Russia.<sup>18</sup> It is estimated that it costs \$2.50 to verify one ton of crude reserves in western Siberia, whereas \$4.00–\$5.60 are needed to do the same in eastern Siberia.<sup>19</sup>

Under these conditions, it is easy to understand that attracting external investment would be difficult enough without any tightening of governmental control of foreign capital. Nonetheless, Vladimir Putin on the eve of leaving the presidency signed a federal law on the process of executing foreign investment in economic entities having strategic significance for national defense and national security. The oil and gas sectors were included among the so-called 42 strategic industries over which state control of foreign capital was tightened. Oilfields with more than 70 million tons of recoverable reserves and gas fields with more than 50 billion cubic meters of reserves fell into the categories classified as strategically significant. Foreigners' acquisition of a stake in such mineral deposits is strictly limited and requires special permission of the Russian government.<sup>20</sup> Russia's eastern flank remained no exception to Moscow's effort of minimizing foreign involvement in the oil and gas sectors. The Russian government increasingly overestimated Russia's own capability to galvanize development of greenfield hydrocarbon deposits during the spike in oil prices, which continued to hit historical highs up to July 2008.

Given that the Russian economy encountered a downturn in the aftermath of the global financial crisis beginning with the Lehman shock in autumn 2008 and the relative decline of oil prices in international markets, Russia's revision of the federal law on restricting foreign access to domestic hydrocarbon fields has been discussed in the Russian government.<sup>21</sup>

The Russian government decided to exempt oil companies from the oil export tax with regard to 22 oilfields in the eastern regions after January 2010. Because of constraints on the federal budget, however, those oilfields became subject to taxation, although at discounted rates, as early as

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17. Natal'ya Timakova, "Neftyaniki ne speshat vkladyvat' den'gi v razrabotku Vostochnoi Sibiri" [Oilmen do not hurry up investing money in exploration in eastern Siberia], *RusEnergy*, September 25, 2008.

18. Vladimir Badashin, "Will There Be Sufficient Crude Oil for the ESPO Pipeline," *Russian Petroleum Investor*, June–July 2007, p. 17.

19. *Toplivno-energeticheskii kompleks Rossii 2000–2006* [The fuel-energy complex of Russia in 2000–2006] (Moscow: Institute for Energy Strategy, 2007), p. 125.

20. For details, see "Federal'nyi zakon Rossiiskoi Federatsii ot 29 aprelya 2008 g. N 58-F3 g. Moskva 'O vnesenii izmenenii v otdel'nye zakonodatel'nye aktivy Rossiiskoi Federatsii i priznanii utrativshimi silu otgel'nykh polozhenii zakonodatel'nykh aktov Rossiiskoi Federatsii v svyazi s prinyatiem zakonodatel'nykh Federal'nogo zakona 'O poryadke osushchestvleniya inostrannykh investitsii v khozyainstvennye obshchestva, imeiushchie strategicheskoe znachenie dlya obespecheniya oborony strany i bezopasnosti gosudarstva'" [Federal law of the Russian Federation N 58-F3, adopted in Moscow on 29 April 2008: On the modification of the individual legal acts of the Russian Federation and the sanction of nullifying individual conditions of the legal acts of the Russian Federation with regard to the adoption of the federal law 'on the procedure of executing foreign investment in economic entities having strategic significance for national defense and national security]; and "O poryadke osushchestvleniya inostrannykh investitsii v khozyainstvennye obshchestva, imeiushchie strategicheskoe znachenie dlya obespecheniya oborony strany i bezopasnosti gosudarstva'" [Federal law of the Russian Federation N 58-F3, adopted in Moscow on 2 April 9, 2008: On the procedure of executing foreign investment in economic entities having strategic significance for national defense and national security], *Rossiiskaya gazeta*, May 7, 2008.

21. Oksana Gavshina, "Dostupnyi shelf: Minprirody predlagaet izmenit' poriadok dostupa inostrantsev k strategicheskim nedram Rossii" [Accessible shelf: the Ministry of Natural Resources proposes to change conditions for foreigners' entry to strategic mining deposits in Russia], *Vedomosti*, October 22, 2010.

July 2010.<sup>22</sup> This preferential measure led to increases in production in a few of the regional major oilfields, including Rosneft's Vankor oilfield, for example, in 2009–2010. Notwithstanding strong opposition on the part of the oil companies, the Ministry of Finance has already disclosed the difficulty of continuing the tax break for a prolonged period against the backdrop of the ongoing budgetary deficit.<sup>23</sup>

## Natural Gas

The share of eastern Siberia and the Far East in the composition of national natural gas production is projected to increase more than tenfold, from 13 billion cubic meters in 2008 to 130–152 billion cubic meters in 2030 (table 2.8). The percentage of natural gas from eastern Siberia and the Far East is projected to grow from 2 percent in 2008 to 7–8 percent in 2013–2015, to 12–14 percent in 2020–2022, and to 15 percent in 2030.<sup>24</sup>

Comparatively speaking, it is less urgent for Russia to accelerate the development of natural gas than crude oil in eastern Russia if we take into account only the total of gas production in Russia. Still, major gas fields in western Siberia such as Medvezhye, Urengoisk, and Yamburgsk have been depleted by 65–75 percent.<sup>25</sup> The volume of natural gas exports to Western destinations is projected to decline against the backdrop of peak demand in light of the EU nations' effort to reduce import dependence on Russia by diversifying supply routes of natural gas.<sup>26</sup> Accordingly, the development of the eastern regions has become important in order to tap new gas markets in view of the growing gas demand in the Asia-Pacific region.

Eastern Russia is home to initial aggregate natural gas reserves in the amount of 52.4 trillion cubic meters onshore and 14.9 trillion cubic meters offshore.<sup>27</sup> East Siberian and the Far Eastern regions (except for the continental shelf) account for 18 percent and 6 percent, respectively, of initial aggregate resources of natural gas in Russia (table 2.9).<sup>28</sup>

Proven reserves in three of the major gas fields in eastern Russia—the Kovykta gas field in the Irkutsk Region, the Chayandin gas field in the Sakha Republic, and the Yurubcheno-Tokhomsk

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22. The rates of the oil export tax are renewed monthly. As late as December 2010, the regular export tax on crude oil was \$303.8 per 1,000 tons, whereas the rate for eastern Siberian oil was \$108 per 1,000 tons.

23. According to estimates by the Ministry of Finance, 97.27 billion rubles (about \$3.2 billion) would flow into the state coffers if the country had abolished the tax holiday on the export duty from the Vankor oilfield in January 2011, and 27.64 billion rubles (about \$910 million) and 31.25 billion rubles (about \$1 billion), respectively, from Venkhnechon and Talakan together with Alinskoe oilfields in January 2012. *Russia & CIS Interfax Oil and Gas Weekly*, September 30–October 6, 2010. The values in U.S. dollars are calculated by the official average exchange rate of rubles to dollars (30.37 rubles per U.S. dollar) in 2010, published by the International Monetary Fund.

24. Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030*, p. 140.

25. *Ibid.*, p. 63.

26. On Europe's reactions to Russia's use of energy as a diplomatic tool and the implications, see Keith C. Smith, *Russia and European Energy Security: Divide and Dominate* (Washington, D.C.: CSIS, 2008); Jeronim Perovic, Robert W. Orttung, and Andreas Wenger, eds., *Russian Energy Power and Foreign Relations: Implications for Conflict and Cooperation* (London: Routledge, 2009); and Shoichi Itoh, "A Japanese Rethinking of Europe-Russia Relations," Slavic Research Center, Hokkaido University, Japan, December 24, 2008, [http://src-h.slav.hokudai.ac.jp/center/essay/20081224itoh\\_e.html](http://src-h.slav.hokudai.ac.jp/center/essay/20081224itoh_e.html).

27. "Eastern Gas Program," Gazprom, [www.gazprom.com/production/projects/east-program/](http://www.gazprom.com/production/projects/east-program/).

28. For data on eastern Siberia, see *Toplivno-energeticheskii kompleks Rossii 2000–2008* [The fuel-energy complex of Russia in 2000–2008], p. 65.

**Table 2.8. Natural Gas Production in Russia, 2005–2030 (est.) (billion cubic meters)**

Region	2005	2008	2013–2015	2020–2022	2030
Tyumen Region	585	600	580–592	584–586	608–637
Nadym-Purtazovsky	582	592	531–559	462–468	317–323
Ob-Taz bay	—	—	0–7	20–21	67–68
Bol'shekhetskaia Valley	3	8	9–10	24–25	30–32
Yamal	—	—	12–44	72–76	185–220
Tomsk Region	3	4	6–7	5–6	4–5
European Regions	46	46	54–91	116–119	131–137
Caspian Sea Region	—	—	8–20	20–22	21–22
Shtokman deposit	—	—	0–23	50–51	69–71
Eastern Siberia <sup>1</sup>	4	4	9–13	26–55	45–65
Far East	3	9	34–40	65–67	85–87
Sakhalin Region	2	7	31–36	36–37	50–51
Total	641	664	685–745	803–837	885–940

Source: Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030* (Moscow: Ministry of Energy of the Russian Federation, 2010), pp. 146–147.

1 Includes the Sakha Republic.

**Table 2.9. Distribution of Natural Gas Reserves and Resources in Russia, January 1, 2006 (trillion cubic meters)**

Region	Number of deposits	Initial aggregate resources	Increment of production	Reserves		Resources	
				A+B+C1	C2	C3	D1+D2
Total	837	248.62	15.37	47.83	20.95	28.87	135.60
Onshore (by federal district)	804	174.79	15.35	41.94	16.73	20.87	79.90
Northwestern	48	2.70	0.42	0.64	0.08	0.07	1.49
Southern	226	11.61	0.92	2.94	2.55	1.31	3.89
Volga	192	5.08	1.29	1.04	0.13	0.71	1.91
Urals	198	102.96	12.60	33.37	9.18	14.84	32.97
Siberian	53	37.88	0.03	2.60	3.56	3.73	27.96
Far Eastern	87	14.56	0.09	1.35	1.23	0.21	11.68
Continental shelf	33	73.83	0.02	5.89	4.22	8.00	55.70
Barents Sea	n.a.	23.47	—	2.77	1.20	1.07	18.43
Kara Sea	n.a.	30.86	0.01	1.40	2.26	6.35	26.11
Okhotsk Sea	n.a.	6.22	0.01	0.87	0.32	0.10	4.93
Pechora Sea	n.a.	2.31	—	0.02	0.06	—	2.23
Caspian Sea	n.a.	1.91	—	0.29	0.40	0.18	1.04
Others	n.a.	9.06	—	0.54	0.02	0.30	2.96

Source: *Toplivno-energeticheskii kompleks Rossii 2000–2007* [The fuel-energy complex of Russia in 2000–2007] (Moscow: Institute for Energy Strategy, 2008), p. 206.

**Table 2.10. Major Gas Fields in Eastern Siberia and the Sakha Republic, January 1, 2009 (billion cubic meters)**

Gas field	Federal area	Reserve category	
		A+B+C1	C2
Kovykta	Irkutsk	1,406.4	572.0
Chayandin	Sakha Republic	379.7	861.2
Yurubcheno-Tokhoms	Krasnoyarsk	144.1	434.1

Source: Toplivno-energeticheskii kompleks Rossii 2000–2009 gg [The fuel-energy complex of Russia in 2000–2009] (Moscow: Institute for Energy Strategy, 2010), p. 210.

gas field in the Krasnoyarsk Region—amounted to more than 1.9 trillion cubic meters as of the beginning of 2009 (table 2.10).

Natural gas production in eastern Russia has gained momentum only in the Sakhalin Region so far. It jumped from 3.6 billion cubic meters in 2000 to 26.6 billion cubic meters in 2010, with the rapid increase in production in the Sakhalin projects especially since 2007 (table 2.11).

Estimated recoverable reserves of the Sakhalin-1 project are about 2.3 billion barrels (313 million tons) of crude oil and 17.1 trillion cubic feet (about 485 billion cubic meters) of natural gas.<sup>29</sup> Proven oil reserves and proven gas reserves in the project were 38 million barrels (5.2 million tons) and 21 billion cubic meters as of December 2009.<sup>30</sup>

Commercial production of crude oil and natural gas in the Chaivo field for domestic supplies began in October 2005. The construction of the oil terminal in De-Kastri in the Khabarovsk Region across the Tatar Strait and a crude pipeline between the terminal and the Sakhalin-1 project started in 2004. In 2006 the oil terminal was completed in August, and that was followed by the commencement of crude exports with the completion of the pipeline in October. The peak oil production rate of 250,000 barrels per day was realized in February 2007.<sup>31</sup>

In autumn 2010, commercial production of crude oil and natural gas in the Odoptu field began in the Sakhalin-1 project,<sup>32</sup> and the field's annual production reached 7 million tons of crude oil and 7.7 billion cubic meters of natural gas.<sup>33</sup> Production in the Arkutun-Dagi mining field is planned to be in full swing in 2012.

Estimated recoverable reserves of the Sakhalin-2 project are about 1.1 billion barrels (150 million tons) of crude oil and 17.3 trillion cubic feet (about 480 billion cubic meters) of natural gas.<sup>34</sup> Crude oil production from the Molikpaq platform in the Piltun-Astokhskoye field, even though

29. "Sakhalin-1 Project" [in Russian], Exxon, [www.exxonmobil.ru/Russia-Russian/PA/news\\_info\\_project.aspx](http://www.exxonmobil.ru/Russia-Russian/PA/news_info_project.aspx).

30. "Sakhalin-1," Rosneft, [www.rosneft.com/Upstream/ProductionAndDevelopment/russia\\_far\\_east/sakhalin-1/](http://www.rosneft.com/Upstream/ProductionAndDevelopment/russia_far_east/sakhalin-1/).

31. "Sakhalin-1 Project: Fact Sheet, July 2010," Exxon Neftegas, [www.sakhalin1.ru/Sakhalin/Russia-English/Upstream/Files/facts\\_ENG.pdf](http://www.sakhalin1.ru/Sakhalin/Russia-English/Upstream/Files/facts_ENG.pdf).

32. "Odoptu," Exxon Neftegas, [www.sakhalin1.com/Sakhalin/Russia-English/Upstream/about\\_phases\\_odoptu.aspx](http://www.sakhalin1.com/Sakhalin/Russia-English/Upstream/about_phases_odoptu.aspx).

33. *Nefit' i Kapital*, no. 1–2 (2011): p. 79.

34. "Sakhalin-2: Oil and Gas Extraction," Shell in Russia, [www.shell.com.ru/home/content/rus/aboutshell/shell\\_businesses/e\\_and\\_p/oil\\_gas/sakhalin/](http://www.shell.com.ru/home/content/rus/aboutshell/shell_businesses/e_and_p/oil_gas/sakhalin/).



**Table 2.11. Natural Gas Production in Russia, 1990–2010 (billion cubic meters)**

Federal district	Siberia	Federal subject	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		
Northwestern			8.4	3.7	4.1	4.1	3.9	4.0	4.0	4.1	4.2	4.3	4.6	4.2	4.3		
Southern			8.5	8.5	14.4	15.4	16.1	16.7	16.8	18.0	17.9	18.2	18.1	15.5	16.2		
Volga			46.1	35.2	28.6	27.5	26.7	25.6	24.3	23.9	23.6	23.8	24.0	23.3	24.3		
Urals		Tyumen Region			530.4	526.4	54.0	564.5	577.8	585.3	600.9	591.7	601	514	570.0		
		Khanty-Mansi Auto. Region	29.0	17.6	20.1	20.4	20.8	24.4	26.2	27.5	29.2	28.4	29.6	31.1	31.8		
		Yamalo-Nenets Auto. Region	545.2	527.0	510.2	506.0	519.1	540.0	551.5	557.8	571.6	562.0	572	483	538.0		
		Subtotal–Urals	574.2	544.6	530.4	526.4	539.9	564.5	577.8	585.3	600.9	591.7	601	514	570.0		
Siberia		Novosibirsk Reg.	—	—	—	—	—	0.0	0.1	0.1	0.1	0.2	—	—	—		
		Omsk Region	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	
		Tomsk Region	0.2	0.1	2.6	3.7	4.4	5.3	5.3	5.3	5.0	4.6	4.7	4.5	4.3	4.0	
		Subtotal–Western Siberia	574.4	544.8	533.0	530.1	544.4	569.8	583.2	590.5	605.7	596.6	605.5	605.5	518.3	574.0	
		Krasnoyarsk Reg.	—	—	0.4	0.4	0.4	0.4	0.5	0.7	0.8	1.0	1.2	—	1.7	2.2	
		Irkutsk Region	—	—	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	—	—	—	
		Subtotal–Eastern Siberia	—	—	0.4	0.4	0.4	0.4	0.6	0.8	0.8	1.1	1.3	—	—	—	
		Subtotal–Siberia minus the Urals	0.2	0.1	3.0	4.1	4.9	4.9	5.9	6.2	6.0	5.8	6.3	6.4	6.2	6.4	
		Far East															
				Sakha Republic	1.4	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.8	2.0	2.2
		Kamchatka Reg.	—	—	0.0	0.0	0.0	0.0	0.0	0.0	0.0	—	—	—	—		
		Sakhalin Reg.	1.8	1.6	1.9	2.2	2.1	2.0	1.9	2.0	2.2	6.8	7.9	18.7	24.3		
		Chukotka Reg.	—	—	—	—	—	—	—	—	0.0	—	—	—	—		
		Subtotal–Far East	3.2	3.3	3.6	3.8	3.7	3.6	3.6	3.5	3.9	8.4	11.0	20.7	26.6		
Total			640.6	595.5	583.9	581.4	595.1	620.2	632.6	640.8	656.3	652.7	664	584	649.0		

Sources: Rossiiskii statisticheskiy ezhegodnik 2007 [Russian statistical yearbook 2007] (Moscow: Federal State Statistics Service of the Russian Federation); Sotsial'no-ekonomicheskoe polozhenie Rossii [Socioeconomic situation of Russia] (Moscow: Federal State Statistics Service, 2008, 2009, 2010).

currently operating only during the summer, started in July 1999, and its annual shipments of 150 thousand barrels per day came online in December 2008. May 2003 was the beginning of the second phase of the project, including installation of two more platforms—Piltun-Astokhskoye-B and Lunskeye-A—off the northeastern coast of Sakhalin Island, offshore pipelines connecting the three platforms for a total extension of 300 kilometers, and construction of the 800-kilometer-long Trans-Sakhalin onshore oil and gas pipeline from the north to the south of the island, as well as an oil terminal and a LNG plant at Prigodnoye in Aniva Bay in the southern coast of the island.<sup>35</sup>

Russia's first LNG plant, with a maximum production capacity of 9.6 million tons per year, was completed in February 2009, and the first LNG shipment was commissioned in the following month.

Additional phases of the Sakhalin offshore project, ranging from Sakhalin-3 to Sakhalin-6, are currently being contemplated.<sup>36</sup>

Gazprom's Eastern Gas Program laid out a plan to develop natural gas production in eastern Siberia and the Far East in view of increasing the use of natural gas in these regions as well as augmenting gas exports to the Asia-Pacific region. Gazprom also proposed the possibility of connecting the United Gas Supply System (UGSS), which had already expanded to western Siberia, with the eastern regions of the country by constructing new pipeline networks.

The program envisages the creation of four major centers for natural gas production, gas processing, and gas chemical facilities: the Krasnoyarsk Region, the Irkutsk Region, the Sakha Republic (Yakutsiya), and the Sakhalin Region. According to Gazprom's calculation, regional natural gas resources amount to 25 trillion cubic meters in Krasnoyarsk, 7.4 trillion cubic meters in Irkutsk, 10.4 trillion cubic meters in Yakutsk, and 3.6 trillion cubic meters on Sakhalin.<sup>37</sup> Gazprom plans to produce 55 billion cubic meters in eastern Siberia (the Krasnoyarsk and the Irkutsk regions) and 95 billion cubic meters of natural gas in the Far East (the Sakha Republic and the Sakhalin Region) by 2020 and 57 billion cubic meters and 105 billion cubic meters, respectively, by 2030.<sup>38</sup> It was estimated that annual natural gas supplies to the eastern regions would exceed 27 billion cubic meters by 2020 and 32 billion cubic meters by 2030, while gas transportation to the UGSS might increase up to 35 billion cubic meters per annum.

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35. For details, see Sakhalin Energy, [www.sakhalinenergy.com/en/default.asp](http://www.sakhalinenergy.com/en/default.asp).

36. Ministry of Energy, *Energy Strategy of Russia for the Period up to 2030*, p. 78.

37. The Eastern Gas Program also named the Kamchatka Region as one of the main future development areas after the official endorsement of the Eastern Gas Program in September 2007.

38. That is, Gazprom's forecast of natural gas production in eastern Russia was more optimistic than calculations shown in the *Energy Strategy of Russia for the Period up to 2030* at the time of the Eastern Gas Program's publication. As late as summer 2009, the Russian government announced that the Krasnoyarsk center, the Irkutsk center, the Yakutsk center, and the Sakhalin center were projected to produce 11.6 billion cubic meters, 39.5 billion cubic meters, 34.6 billion cubic meters, and 59.4 billion cubic meters, respectively, per year by 2020. See the July 31, 2009, posting on the Official Site of the Prime Minister of the Russian Federation, <http://premier.gov.ru/visits/ru/6119/info/4644/>. At a later stage, the Kamchatka Region, where natural gas reserves were projected to increase to approximately 200 billion cubic meters in 2009–2011, was also included as one of the focused areas in the Eastern Gas Program. See "Eastern Gas Program," Gazprom, [www.gazprom.com/production/projects/east-program/](http://www.gazprom.com/production/projects/east-program/).



# 3

## OIL AND GAS MARKETS IN NORTHEAST ASIA

### Oil

China's demand for energy is increasing dramatically. The country's demand for primary energy jumped from 872 Mtoe (million tons of oil equivalent) in 1990 to 2,131 Mtoe in 2008. The International Energy Agency (IEA) reports that China became the biggest consumer of primary energy, surpassing the United States, in 2009.<sup>1</sup> China's estimated needs for primary energy will increase about 1.8 times from 2008 to 2035 (figure 3.1). Meanwhile, Japan's demand for primary energy has already peaked. The IEA forecasts that it will decrease from 496 Mtoe in 2008 to 470 Mtoe in 2035.

Japan's demand for oil peaked in 2002, and its net import of crude oil has been also on a gradual decline since 2003. According to IEA estimates, Japan's oil consumption will decrease from 214 Mtoe in 2008 to 164 Mtoe in 2020, and this declining trend is unlikely to be reversed as the share of oil in the composition of primary energy declines and as Japan builds its low-carbon economy.<sup>2</sup>

By contrast, although in 1990 China's oil consumption was less than half of Japan's, China overtook Japan in 2003 and more than tripled its consumption from 1990 to 2006 (figure 3.2).

The surge in China's oil demand has been an issue of global concern. The gap between production and consumption of crude oil in China has widened since the mid-1990s against the backdrop of the country's rapid economic growth and motorization, among other things (figure 3.3). The number of passenger vehicles in China is forecast to increase from 51 million in 2008 to 128 million in 2020 and 308 million in 2035.<sup>3</sup>

China's demand for oil is projected to increase by about 1.9 times, at the average annual rate of 2.4 percent, from 8.1 million barrels per day in 2009 to 15.3 million barrels per day in 2035, thus surpassing that of the United States by 2035 (figure 3.4). The IEA predicts that China will account for 57 percent of the overall increase in global oil demand during the same period.<sup>4</sup> The China National Petroleum Corporation (CNPC) foresees that China will surpass Japan in the volume of crude imports in 2012,<sup>5</sup> and China's dependence on oil imports will increase to 67.8 percent by 2020.<sup>6</sup> The IEA estimates that China's oil import dependence will increase from 53 percent in 2009 to 84 percent in 2035.<sup>7</sup>

1. *World Energy Outlook 2010* (Paris: International Energy Agency, 2010), p. 87.

2. *Ibid.*, p. 646.

3. *Asia/World Energy Outlook 2010* (Tokyo: Institute of Energy Economics, Japan, 2010), p. 66.

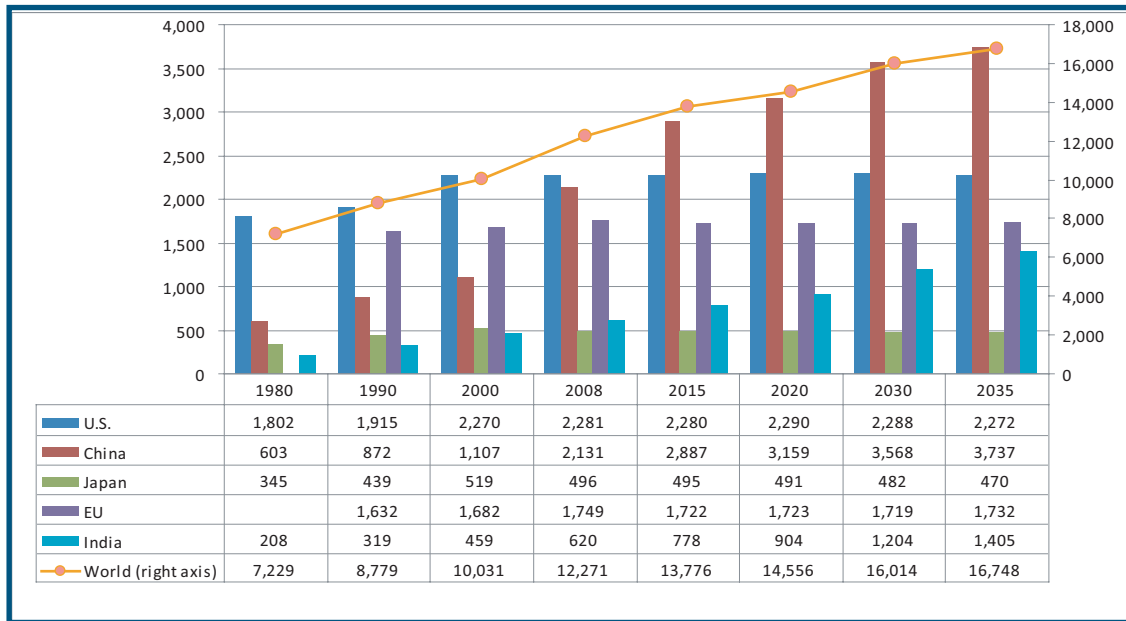
4. IEA, *World Energy Outlook 2010*, pp. 104–105.

5. Zhang Yinghong, "Northeast Asian Energy: Situation and Multilateral Cooperation Outlook" (presentation at the Northeast Asia Petroleum Forum 2009, Tokyo, October 26, 2009).

6. Xu Yonghua, "Outlook of China's Oil Demand for 2020" (presentation at the Northeast Asia Petroleum Forum 2009, Tokyo, October 26, 2009).

7. These estimates are based on the New Policies Scenario in *World Energy Outlook 2010*, and the percentages are calculated from *World Energy Outlook 2010*, page 105 and page 135.

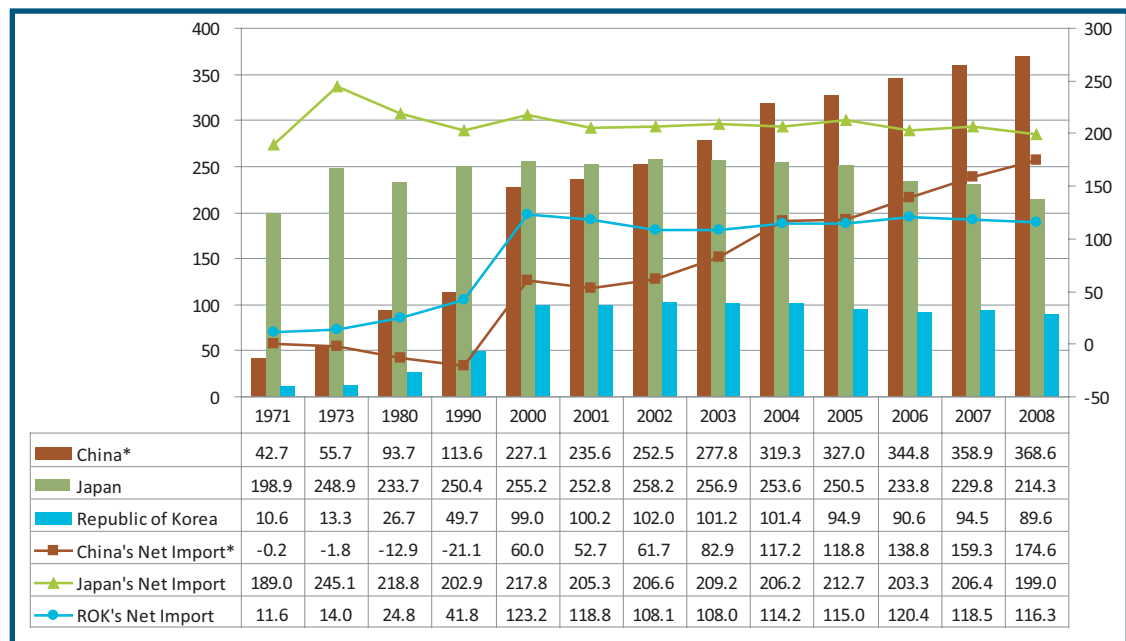
**Figure 3.1. Demand for Primary Energy in Selected Countries, 1980–2035 (est.) (Mtoe)**



Source: *World Energy Outlook 2010* (Paris: International Energy Agency, 2010), p. 85.

Note: This estimate is part of the New Policies Scenario. According to *World Energy Outlook 2010*, page 59, the New Policies Scenario “takes account of the broad policy commitments that have already been announced and assumes cautious implementation of national pledges to reduce greenhouse-gas emission by 2020 and to reform fossil-fuel subsidies.”

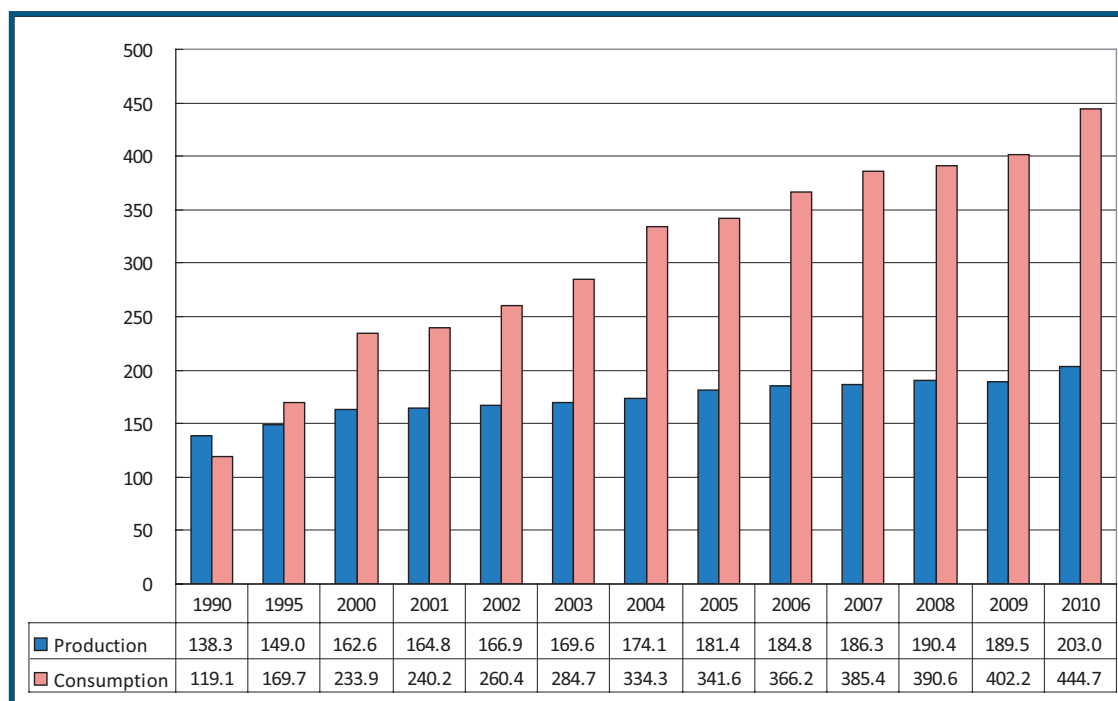
**Figure 3.2. Demand for Oil (left axis) and Net Imports of Crude Oil (right axis) in Northeast Asia, 1971–2008 (Mtoe)**



Sources: International Energy Agency, *Energy Balances of Non-OECD Countries*; *Energy Balances of OECD Countries*; *Energy Statistics of Non-OECD Countries*; *Energy Statistics of OECD Countries* (Paris: IEA, various years).

\* Includes Hong Kong.

**Figure 3.3. Crude Oil Production and Consumption in China, 1990–2010 (million tons)**



Source: BP, *Statistical Review of World Energy* (BP, various years).

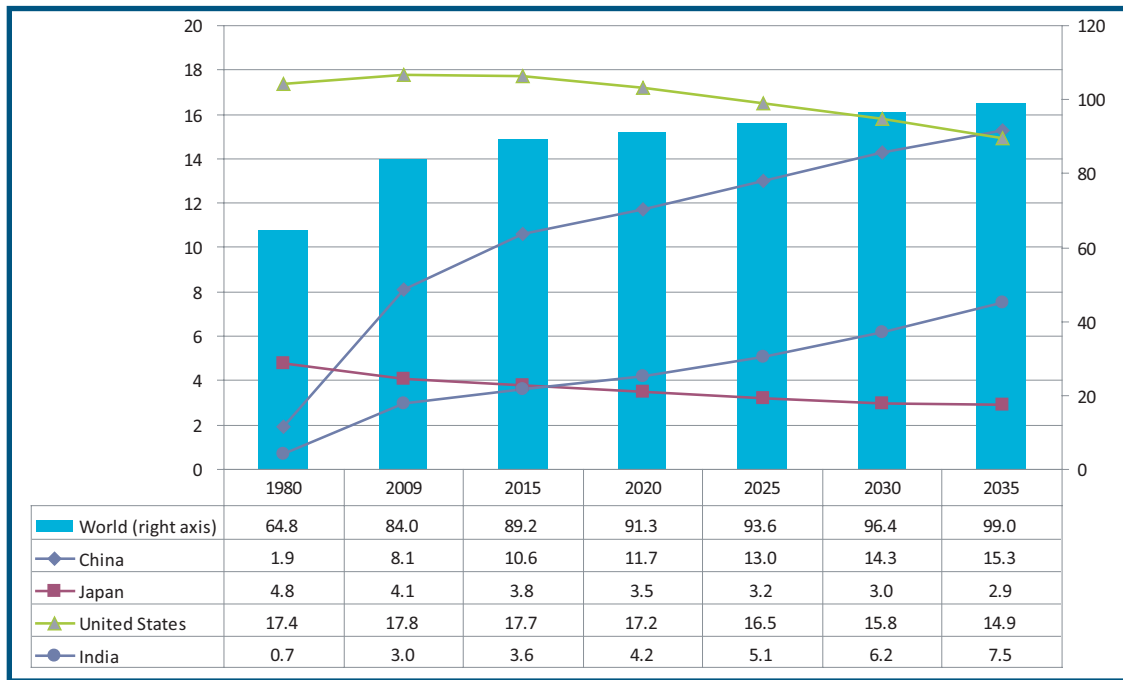
According to the Russian Federal Customs Service, the aggregate total of Russia’s crude oil exports to China, Japan, and South Korea more than quintupled from 4.4 million tons in 2002 to 23.6 million tons in 2009.<sup>8</sup> China accounts for almost half of Russia’s crude sales to Northeast Asian markets today. The volume of Sino-Russian oil trade is expected to grow further after Russia begins to export 15 million tons per annum to China via a crude pipeline that began in 2011; this will be in addition to the partial maintenance of traditional supplies that are transported by rail. Crude exports to Japanese and South Korean markets have also been augmented, especially since 2007 with increases in production in the Sakhalin-1 project. Besides the piped oil supplies to China, with the commissioning of crude exports transported by rail from the endpoint of the first phase of the ESPO pipeline to the Pacific Coast beginning in late 2009, crude supplies moving toward eastern destinations increased to 15 million tons per annum. In 2010, Japan, South Korea, and the United States imported 30 percent, 29 percent, and 16 percent, respectively, of crude exports traveling by tankers from the Kozmino oil terminal in the Primorsk Region.<sup>9</sup>

The extent to which Russia will be able to expand the volumes of its crude exports in Northeast Asia depends on the quantity of proven reserves ensured in advance for an increase in commercial production, while Moscow aims at realizing the full capacity (80 million tons per annum)

8. Tamozhennaya statistika venshnei trgovli Rossiiskoi Federatsii [Customs statistics of foreign trade of the Russian Federation], various years.

9. “Bol’shuyu chast’ nefi iz trub VSTO spetsmorfnefteport Koz’mino otgruzil Yaponii: Plan po otgruzke 15 mln tonn ‘Chernogo zoloto’ vypolnen doslochno” [The large part of oil from the ESPO pipeline from the Kozmino oil terminal was transported to Japan: The plan to transport 15 million tons of “black gold” was fulfilled on time], Prima Media, December 28, 2010, <http://primamedia.ru/news/28.12.2010/143377/>.

**Figure 3.4. Demand for Oil in Selected Countries, 1980–2035 (est.) (million barrels per day)**



Source: *World Energy Outlook 2010* (Paris: International Energy Agency, 2010), p. 105.

Note: This estimate is part of the New Policies Scenario. According to *World Energy Outlook 2010*, page 59, the New Policies Scenario “takes account of the broad policy commitments that have already been announced and assumes cautious implementation of national pledges to reduce greenhouse-gas emission by 2020 and to reform fossil-fuel subsidies.”

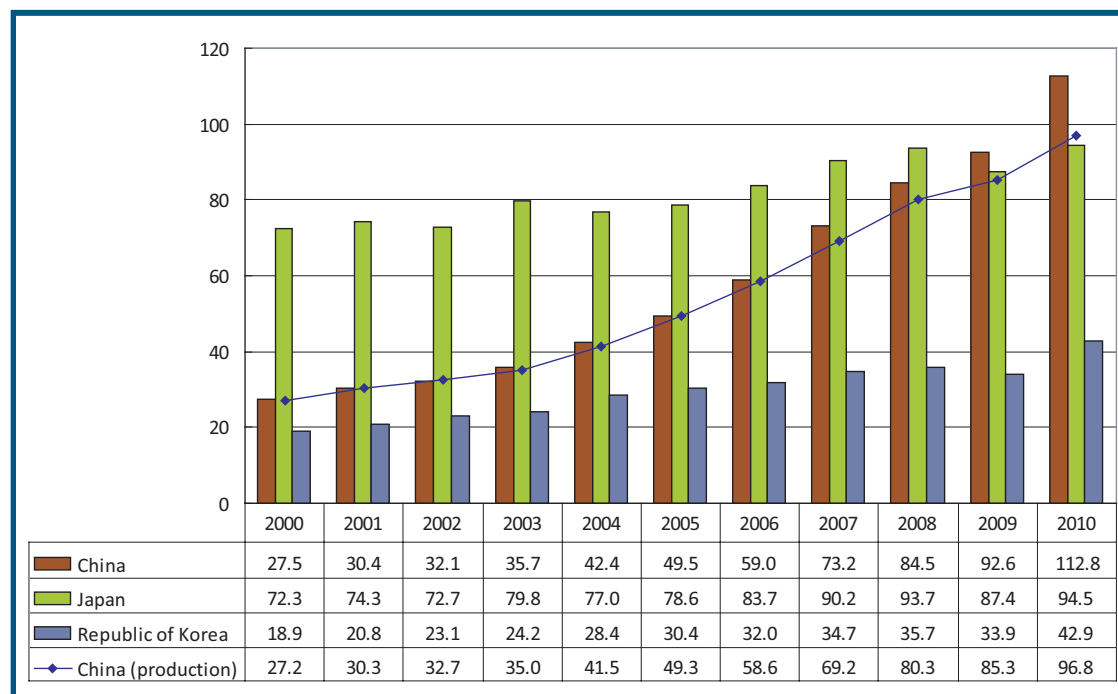
of the ESPO pipeline in the 2020s. Ultimately, the result will most likely depend on how effectively Russia can attract sufficient investment, including sizable amounts of foreign capital, to accelerate development of its greenfield eastern regions.

## Natural Gas

The demand for natural gas in Northeast Asia is also on the increase. At the beginning of the twenty-first century, Japan consumed 2.6 times as much natural gas as China. Although natural gas accounted for only 3 percent of China’s primary energy demand in 2008, the demand for natural gas in China is growing rapidly, and demand in China overtook the demand in Japan in 2009. China’s domestic production of natural gas increased by 3.6 times in the decade preceding 2010 (figure 3.5).

The demand for natural gas in China is projected to increase by about 4.6 times, at the average annual rate of 5.9 percent, from 85 billion cubic meters in 2008, to 216 billion cubic meters in 2020, and to 395 billion cubic meters in 2035, according to estimates of the IEA (figure 3.6). CNPC’s vice president, Zhou Jiping, predicted an even more aggressive projection: domestic demand will increase to 300 billion cubic meters, of which imports will account for 80 billion cubic

**Figure 3.5. Natural Gas Consumption in Northeast Asia and Natural Gas Production in China, 1999–2010 (billion cubic meters)**



Source: BP, *Statistical Review of World Energy* (BP, various years).

meters, by 2020.<sup>10</sup> The IEEJ forecasts that China’s dependence on natural gas imports will reach about 30 percent in 2020 and more than 50 percent in 2035.<sup>11</sup>

Domestic gas pipeline networks are expanding across China: the First West-East Gas Pipeline, running from the Tarim Basin in Xinjiang Uygur Autonomous Province to Shanghai (3,843 kilometers) came on line at the end of 2004; the Shaan-Jing Gas Pipelines from the Changqing gas field in Shaanxi Province to Beijing (918 kilometers) and Tianjin (935 kilometers) were completed in 1997 and 2005, respectively; the Sichuan-to-East Gas Pipeline from Danzhou in Sichuan Province to Shanghai (1,700 kilometers) went into commercial operation in 2010;<sup>12</sup> and the Second West-East Gas Pipeline from Horgos in Xinjiang Uygur Autonomous Region to Guangzhou (8,704 kilometers, including one trunk line and eight branches) was completed in June 2011.<sup>13</sup> The total length of natural gas transmission pipelines in China is projected to exceed 60,000 kilometers by 2020 and 80,000 kilometers by 2030.<sup>14</sup>

10. Zhou Jiping, “Embracing the Low Carbon Economy of Sustainable Energy Development” (speech at International Petroleum Technology Forum, Doha, December 7, 2009).

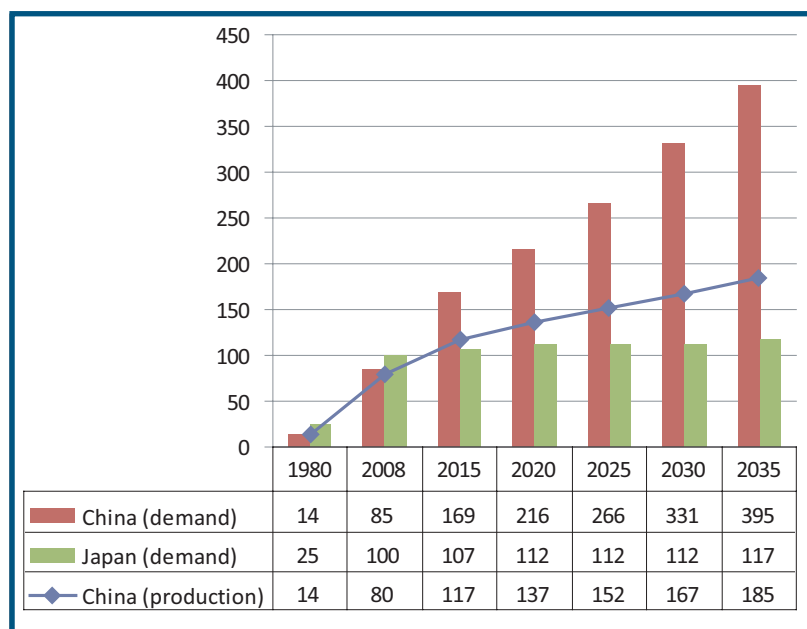
11. *Azias / Sekai Enerugi- Auto Rukku 2010* [Asia/World Energy Outlook 2010] (Tokyo: the Institute of Energy Economics, 2010), p. 50.

12. Official Initiation of “Sichuan-East China Gas Project,” Sinopec Corp., [http://english.sinopec.com/media\\_center/news/archive/2007/20070906/2362.shtml](http://english.sinopec.com/media_center/news/archive/2007/20070906/2362.shtml).

13. “Trunk Line of the Second West-East Gas Pipeline Starts Operation,” CNPC, July 1, 2011, [www.cnpc.com.cn/en/press/newsreleases/Trunk\\_Line\\_of\\_the\\_Second\\_West%EF%BC%8DEast\\_Gas\\_Pipeline\\_starts\\_operation.htm](http://www.cnpc.com.cn/en/press/newsreleases/Trunk_Line_of_the_Second_West%EF%BC%8DEast_Gas_Pipeline_starts_operation.htm).

14. Northeast Asian Gas and Pipeline Forum (NAGPF), *A Long-term Vision of Natural Gas Infrastructure in Northeast Asia, 2009 Version* (Tokyo: NAGPF, 2009), p. 22.

**Figure 3.6. Demand for Natural Gas in China and Japan and Production of Natural Gas in China, 1980–2035 (est.) (billion cubic meters)**



Source: *World Energy Outlook 2010* (Paris: International Energy Agency, 2010), pp. 182, 191.

Note: This estimate is part of the New Policies Scenario. According to *World Energy Outlook 2010*, page 59, the New Policies Scenario “takes account of the broad policy commitments that have already been announced and assumes cautious implementation of national pledges to reduce greenhouse-gas emission by 2020 and to reform fossil-fuel subsidies.”

Four liquefied natural gas (LNG) terminals—at Dapeng in Guangdong Province, Meizhou in Fujian Province, Yangshan in Shanghai, and Rudong in Jiansu Province—were in operation as of spring 2011. Several LNG terminals—including at Dalian in Liaoning Province, Ninpo in Zhejiang Province, Jieyang and Zhuhai in Guangdong Province, Jiaonan in Shandong Province, and Cao-feidian in Hebei Province—are currently under construction; in addition, several new terminals are being contemplated. China imported 16.4 billion cubic meters of natural gas, of which LNG accounted for 12.8 billion cubic meters, as of 2010.<sup>15</sup> The import volume is forecast to increase to approximately 50 to 60 billion cubic meters in 2015.<sup>16</sup>

15. BP, *Statistical Review of World Energy 2011* (BP, 2011).

16. International Energy Agency, *World Energy Outlook 2011: Are We Entering a Golden Age of Gas?* Special Report (Paris: International Energy Agency, June 2011), p. 42.

## 4

## DEVELOPMENT OF OIL AND GAS PIPELINES

## Eastern Siberia-Pacific Ocean Crude Oil Pipeline

The Russian project of constructing a crude oil pipeline from eastern Siberia—the Eastern Siberia-Pacific Ocean (ESPO) pipeline—became a source of Sino-Japanese geopolitical rivalry at the beginning of the twenty-first century (figure 4.1). The process of Russia's bilateral talks with China and Japan over the pipeline's route fueled the aggravation and mutual distrust between these two major consuming countries. Moscow hoped to play Beijing off against Tokyo to enhance Russia's geopolitical positioning in Northeast Asia and to maximize foreign investment in Russia, especially from Japan. In the end, however, Moscow's wishful thinking led its geopolitical calculation of the trilateral game way off target even though Russia was able to increase Russian crude oil exports to Asian markets.

The Russian process of designing the crude oil pipeline routes demonstrated the conflicts among domestic stakeholders that unfolded regardless of Chinese and Japanese attitudes toward the Russian side.<sup>1</sup> As early as the mid-1990s, Beijing and Moscow began their talks on the possibility of building a crude oil pipeline (the so-called Daqing route) from Angarsk in the Irkutsk Region, at which a crude pipeline from western Siberia stopped, to the Daqing oilfield in the Heilongjiang Province via the Sino-Russian border areas of Zabaikalisk in the Chita Region and Manzhuli in the Inner Mongolian Autonomous Region. CNPC and Yukos, a Russian private oil company, as early as 1998 reached a basic agreement to construct the pipeline. During the visit to Moscow of Chinese premier Zhou Rongji in February 1999, both governments agreed on initiating a feasibility study of this transnational pipeline plan.<sup>2</sup>

At the July 2001 summit in Moscow, when the Sino-Russian Treaty of Good-Neighborliness and Friendly Cooperation was signed, President Vladimir V. Putin and President Jiang Zemin also basically agreed on the construction of the 2,300-kilometer Daqing pipeline route, with the goal of exporting 20 million tons per annum of Russian crude oil to China beginning in 2005 and 30 million tons per annum after 2010.<sup>3</sup> An intergovernmental agreement on the commencement of

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1. For a detailed account of the conflict of domestic interests in Russia, see Shoichi Itoh, "The Pacific Pipeline at a Crossroads: Dream Project or Pipe Dream?" *ERINA Report* 73 (2007): pp. 42–62.

2. "Vizit Chzhu Zhuntszi v Rossiyu" [Zhu Rongji's visit to Russia], *Diplomaticheskii vestnik*, no. 3 (1999): pp. 11–12; Dmitrii Kosyrev, "Chislo podpisannykh rossiisko-kitaiskikh dokumentov—eshche ne povod dlia radosti" [The number of signed Russo-China documents—Still no base for joy], *Nezavisimaya gazeta*, April 26, 1999.

3. "Vstrecha predsedatelya pravitel'stva Rossiiskoi Federatsii M. M. Kas'yanova s predsedatelem KNR Tsyau Tseminem" [The meeting of Russian Prime Minister, M. M. Kasyanov and Chinese leader Jian Zemin], *Diplomaticheskii vestnik*, no. 8 (2001): p. 29.



Figure 4.1. Eastern Siberia–Pacific Ocean (ESPO) Crude Oil Pipeline, January 2011



Source: Drawn by author.

the feasibility study was subsequently signed at the sixth Sino-Russian Premiers' Regular Meeting in September 2001 in the presence of Yukos, Transneft, and CNPC.<sup>4</sup>

Nevertheless, in July 2001 the Russian oil pipeline monopoly, Transneft, also announced an alternative proposal to construct a 3,900-kilometer pipeline, with a maximum capacity of 50 million tons per annum, from Angarsk to Nakhodka in the Primorsk Region (the so-called Nakhodka route). They suggested that the Nakhodka route was superior to the Angarsk route, given that the Nakhodka route would (1) remove the possibility of an emergence of a buyer's market, (2) avoid the possibility of a profit margin for China if China resold Russian crude oil to a third party at a premium, and (3) avert the geopolitical risk of building a direct pipeline to an adjacent historical rival.

The Russian government during the prime ministership of Mikhail M. Kasyanov initially tilted toward the Daqing route. President Putin, however, prompted the government to reconsider the route; at the National Security Council that was convened on the eve of his visit to Beijing in late November 2002, Putin noted the interest of the local economies in the Far Eastern regions.<sup>5</sup> In the

4. Anatolii Temkin, "Velikaya neftianaya družba: Prem'ery Rossii i Kitaya dogovorilis' o stroitel'stve nefteprovoda mezhdy dvumya stranami" [Great oil friendship: Prime ministers of Russia and China agreed on the construction of an oil pipeline between the two countries], *Vedomosti*, September 10, 2001.

5. Svetlana Babaeva, Oleg Zhunusov, and Maria Ignatova, "Nef' poidet drugim putem: marshrut krupneishego truboprovoda Vostochnoi Sibiri mozhnet izmenen" [Oil goes in a different course: The route of the



Sino-Russian declaration signed at the Beijing summit in December 2002 Russia refrained from confirming its support of the Daqing route, thus putting into doubt China's expectation.

During his visit to Moscow in January 2003, Prime Minister Junichiro Koizumi of Japan disclosed Tokyo's interest in supporting the ESPO project under the condition that Moscow would choose the Nakhodka route. Since then, media coverage regarding the so-called Sino-Japanese scramble over Russia's crude pipeline began to heat up not only within the three countries concerned but also globally.<sup>6</sup>

Notwithstanding requests from both Beijing and Tokyo, Moscow maintained its equivocal attitude with regard to the pipeline routes while it weighed the moves from the consuming nations. A compromise plan that designated the Nakhodka route as the trunk pipeline and the Daqing route as the spur pipeline from Nakhodka was agreed on at a cabinet meeting in May 2003.<sup>7</sup> Subsequently, the main question of trilateral pipeline politics no longer has been an exclusive choice between the two options; instead, it has evolved into whether they would start construction of the spur pipeline to China before the trunk pipeline reached the Pacific Ocean. This compromise plan was endorsed in the *Russian Energy Strategy for the Period up to 2020*, authorized by the Russian government in August 2003.<sup>8</sup>

In February 2004, Transneft announced a revised plan for the pipeline route, moving the origin of the ESPO pipeline to Taishet in the Irkutsk Region, at a point located 130 kilometers northwest of Angarsk and the junction of the Trans-Siberian Railway and the BAM (Baikal-Amur) Railway.<sup>9</sup> Transneft proposed that the trunk pipeline would detour to the north of Lake Baikal and run almost in parallel with the BAM Railway and reach Perevoznaia Bay in the Primorsk Region via Skovorodino in the Amur Region, about 70 kilometers north from the Sino-Russian national border.

Sino-Russian talks on the spur pipeline continued even after the October 2003 arrest of Mikhail B. Khodorkovsky, head of Yukos and an advocate for the Daqing route. With Transneft's new proposal for the trunk pipeline, the origin of the planned spur pipeline accordingly moved to from Zabaikalisk to Skovorodino.

In December 2004, Prime Minister Mikhail Y. Fradkov signed Government Decree No. 1737-r, which officially approved the ESPO pipeline plan as a national project. Transneft was given authority concerning the formulation of this plan and its construction. The decree authorized the concept of building the 4,130-kilometer pipeline from Taishet to Perevoznaia Bay that Transneft

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biggest east Siberian pipeline may change], *Izvestiya*, December 9, 2002.

6. See, for example, David Pilling, "Russia Plans for \$12bn Oil Pipeline to Pacific," *Financial Times*, January 3, 2003; James Brooke, "Koizumi Visits Energy-Rich Region, Seeking Oil," *New York Times*, January 13, 2003; Toshihiko Kaya, "Roshiya Genyu Sodatsusen: Nihon, Datsuraku no Osoremo" [Scramble over Russian crude oil: Japan may drop out], *Nihon Keizai Shimbun*, February 14, 2003; Zhuang Hongtao, "Ribei yuanhe tong Zhongguo jilie zhengduo eshiyou [Why Japan and China severely compete over Russian oil]," *Jingjicankaobao*, September 26, 2003.

7. Oil & Gas Report, Interfax, May 16–22, 2003.

8. *Energeticheskaya strategiya Rossii na period do 2020 goda* [The energy strategy of Russia for the period up to 2020] (Moscow: Ministry of Energy of the Russian Federation, 2003), pp. 69–70, [www.energys-trategy.ru/projects/ES-28\\_08\\_2003.pdf](http://www.energys-trategy.ru/projects/ES-28_08_2003.pdf).

9. Petroleum Report, Interfax, February 20–26, 2004.

had proposed since early 2004; the pipeline would have an annual maximum capacity of 80 million tons. There was no reference to the spur pipeline in this official document.<sup>10</sup>

In April 2005, Viktor B. Khristenko, minister of industry and energy, signed Directive No. 91, Decision Concerning the Construction Phases of the Pipeline between Eastern Siberia and the Pacific Ocean.<sup>11</sup> This decree split the ESPO project into two phases. The decree stipulated that Transneft, relying on its own financial resources, during the second half of 2008 would complete the first-phase pipeline from Taishet to Skovorodino, with a maximum capacity of 30 million tons per year. Backup supplies from western Siberia to Taishet were taken for granted until the time when crude production in eastern Siberia would catch up. In addition, the construction of the oil terminal in Perevoznaia Bay, initially with a maximum annual handling capacity of 30 million tons, was planned with the aim of beginning the first shipment from the terminal at the same time as the completion of the first phase. Once again, there was no mention concerning the future of the spur pipeline to the Chinese territory.

The second phase was conceptualized with the extension of the pipeline from Skovorodino to Perevoznaia Bay with the additional capacity of 50 million tons per year (in other words, the total of the first and the second phases would be 80 million tons per year). Transneft at a later stage proposed a revised idea of moving the terminus of the second phase to Kozmino Bay, 50 kilometers away from Perevoznaia Bay and located in the Nakhodka Bay. This plan was approved by the federal government in February 2008.<sup>12</sup>

President Putin, who had positioned the construction of the ESPO pipeline as one of the national priorities in his presidential message to the Russian parliament in May 2004, spearheaded actions throughout the development of the project.<sup>13</sup> He urged the relevant ministries in charge to accelerate the process at each juncture. Yet, the formulation of a specific work schedule for the realization of the ESPO project continued to be delayed despite Government Decree No. 1737-r and Directive No. 91 because of conflicts of interest among various stakeholders, including the Ministry of Industry and Energy, the Ministry of Natural Resources, Transneft, Rosneft, local governments, and nongovernmental organizations.<sup>14</sup>

In June 2005, Foreign Minister Sergey V. Lavrov, upon returning from Japan, reported at a cabinet meeting that Tokyo's attitude toward the ESPO project was ambiguous. President Putin, however, ordered the cabinet members to speed up work on the project in order to encourage Tokyo to offer a concrete plan for investment in the project.<sup>15</sup> In October of the same year, several days before his first visit to Tokyo in five years, President Putin reprimanded those involved in the ESPO project, noting that completion of the project had been delayed without satisfactory reason.

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10. Rasporyazhenie ot 31 dekabrya 2004 g. N 1737-r Pravitel'stva RF [Government decree no. 1737-r of the Russian Federation on December 31, 2004], Web page of Transneft, [www.dsdvsto.ru/qa/28.html](http://www.dsdvsto.ru/qa/28.html).

11. Prikaz ot 26 aprelya 2005 g. N 91 Ministerstva Promyshlennosti i energetiki [Directive no. 91 of the Ministry of Industry and Energy on April 26, 2005], Web page of Transneft, [www.dsdvsto.ru/qa/24.html](http://www.dsdvsto.ru/qa/24.html).

12. Rasporyazhenie ot 27 fevralya 2008 g. N 231-r Pravitel'stva RF [Government decree no. 231-r of the Russian Federation], Web page of Transneft, [www.dsdvsto.ru/qa/26.html](http://www.dsdvsto.ru/qa/26.html).

13. "Poslanie Federal'nomu Sobraniyu Rossiiskoi Federatsii" [Federal message to the assembly of the Russian Federation], Web page of the President of Russia, May 26, 2004, [http://archive.kremlin.ru/appears/2004/05/26/0003\\_type63372type63374type82634\\_71501.shtml](http://archive.kremlin.ru/appears/2004/05/26/0003_type63372type63374type82634_71501.shtml).

14. Itoh, "The Pacific Pipeline at a Crossroads," pp. 49–52.

15. "Stenograficheskii otchet o soveshchanii s chlenami Pravitel'stva" [Shorthand record of the ministerial meeting], Web page of the President of Russia, June 6, 2005, <http://archive.kremlin.ru/text/appears/2005/06/89163.shtml>.

He ordered Prime Minister Fradkov to speed organizing the work conducted by relevant organizations.<sup>16</sup> As late as November 2005, the Ministry of Industry and Energy published the draft work schedule for the first phase of the ESPO project, which was planned for completion by November 2008. Domestic debates over the options for trunk pipeline routes, questions concerning the distance of the pipeline from Lake Baikal, and the environmental impact of the location of the terminus of the pipeline on the Pacific Coast still continued.<sup>17</sup>

The Russian government finally approved the draft work schedule for the first phase of the ESPO project in early April 2006.<sup>18</sup> Russia began the construction of the first-phase pipeline later in the same month although the pipeline route of the first phase was to be drastically altered again.

Signals from the Kremlin led Transneft to downplay the environmental issues raised by its pipeline choice; Transneft emphasized instead the savings on the construction costs of the pipeline. As early as July 2005, President Putin indicated that environmental questions would not obstruct the implementation of a national economic development project such as the ESPO pipeline.<sup>19</sup> However, only two days before the construction of the pipeline started in April 2006, President Putin contradicted his previous position and rebuked Transneft for its inadequate awareness of environmental concerns; Putin demonstrated this new point of view when he presided over a conference on the socioeconomic development of Siberia; in attendance were administrators in the Siberian federal district and ministers from federal ministries and agencies in the Tomsk Region. President Putin, in the middle of a live television broadcast, urged Semyon Vainshtok, the CEO of Transneft who was participating in the conference, to change the pipeline route once again.<sup>20</sup>

The original plan, proposed by Transneft and already approved by the related federal agencies, was to bring the pipeline within only 800 meters of the shore of Lake Baikal. President Putin now was requiring that Transneft give adequate consideration to the danger of natural disasters, such as earthquakes and landslides, and move the pipeline route farther to the north of Lake Baikal. At the same time, Putin said that postponement of the planned deadline for the completion of the first phase was unacceptable. It was reported that the environmental issue was a pretext used by Putin to pressure Transneft to alter the planned pipeline route; Putin was responding to oil companies, such as Rosneft and Surgutneftegaz, that encouraged the Kremlin to move the pipeline route closer to their own oilfields.<sup>21</sup>

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16. Anna Skornakova and Denis Skorobogat'ko, "Transneft forsirovala Baikal: Yuri Trutnev razreshil protianut' nefteprovod riadom s ozerom" [Transneft forced Baikal: Yuri Trutnev approved leaving the pipeline in parallel with the lake], *Kommersant*, November 11, 2005; Ekaterina Derbilova, "Vtoroe preduprezhdenie: Putin opiat' velel uskorit' stroitel'stvo Vostochnogo truboprovoda" [The second warning: Putin ordered speeding up the construction of the eastern pipeline], *Vedomosti*, November 24, 2005.

17. Itoh, "The Pacific Pipeline at a Crossroads," pp. 49–51.

18. Andrei Kolesnikov, "Glavgospertiza utverдила TEO stroitel'stva pervoi ocheredi ESPO" [Federal appraisal committee confirmed the feasibility study of the construction of the ESPO's first phase], *Neftegozavaya vertikal'*, April 10, 2006.

19. "Putin: stroitel'stvo truboprovoda Sibir'-Datsin—krupneishii proekt" [Putin: the construction of the Siberia-Daqing pipeline is the biggest project], RIA Novosti, July 20, 2005.

20. "Baikalspasaigrup: Vladimir Putin ukazal novyi marshrut vostochnogo truboprovoda" [Baikal-saving group: Vladimir Putin ordered a new route of the eastern pipeline], *Kommersant*, April 27, 2006.

21. "V promyshlennykh mashtabakh: Heft' Talakana i Verkhnechonskogo uzhe v VSTO. No techet poka na zapad" [Industrial scale: Oil from Talakan and Verkhnechonsk is already delivered to the ESPO pipeline, but toward the west in the meantime], *Neft' i kapital*, no. 11, 2008, p. 48.

It was a snap decision to start the construction of the first phase from Taishet eastward on April 28, 2006, and westward from its terminus, Skovorodino, in September of the same year; the route between these two points (about 2,000 kilometers) in fact remained officially undetermined at the time. Transneft formulated a revised plan for the first phase: the route would run more than 400 kilometers by forming a big arc to the north from the shore of Lake Baikal. The new, extended route was to run from Taishet to Ust-Kut and Kirensk in the Irkutsk Region and pass through Lensk, Olyominsk, Aldan, and Neryungri in the Sakha Republic and reach Skovorodino via Tynda in the Amur Region.<sup>22</sup>

Finally, Transneft finished connecting all the sections of the first-phase pipeline (2,694 kilometers) in October 2009, and the first oil tanker was loaded from the oil terminal at Kozmino Bay two months later. The spur pipeline from Skovorodino to the Daqing oilfield in China was completed in autumn 2010.

Transneft started the construction of the second phase of the pipeline (2,045 kilometers), which was planned for completion by 2013, in January 2010.<sup>23</sup> Whether and when the second phase of the ESPO project will be able to ensure the transport of 80 million tons of crude oil annually to make the best of its full capacity still remains to be seen.

## Natural Gas Pipelines

The story of planning natural gas pipeline routes from eastern Siberia has also shown Moscow's geopolitical mind-set. Sino-Russian talks on the construction of a natural gas pipeline (as well as the oil pipeline) date back to the mid-1990s. CNPC and RUSIA Petroleum, the operator of the Kovykta gas field—about 350 kilometers to the north of Lake Baikal and holding the largest natural gas deposit in eastern Siberia with more than 1.9 trillion cubic meters of reserves—in 1994 signed a memorandum of consensus on the construction of a natural gas pipeline. An intergovernmental agreement on the start of a feasibility study was signed in February 1999.<sup>24</sup> Korea Gas Corporation (KOGAS) also joined the project, and an international feasibility study of gas pipeline routes from the Kovykta gas field was begun by RUSIA Petroleum, CNPC, and KOGAS in November 2000.

Meanwhile, Moscow initially attempted to explore the possibility of building a gas pipeline via Mongolia in order to circumvent the emergence of a direct pipeline link from the Kovykta gas field to Chinese territory.<sup>25</sup> The cost savings of the pipeline construction achieved by shortening the

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22. This final plan was to be approved by Government Decree No. 231-r in February 2008; see Rasporozhenie ot 27 fevralya 2008 g. N 231-r Pravitel'stva RF [Government decree no. 231-r of the Russian Federation].

23. "Transneft pristupila k stroitel'stvu VSTO-2" [Transneft began to construct ESPO-2], January 15, 2010, [www.vstoneft.ru/news.php?number=1387](http://www.vstoneft.ru/news.php?number=1387); "VSTO-2 postroyat k kontsu 2013 goda—nachalu 2014" [ESPO-2 will be built by the end of 2013—the beginning of 2014], February 19, 2010, [www.vstoneft.ru/news.php?number=1416](http://www.vstoneft.ru/news.php?number=1416). As late as March 2011, the deputy minister of energy, Sergey Kudryashov, stated that the construction of the second phase might be completed by the end of 2012: "Kudryashov: VSTO-2 mogut zapustit' v dekabre 2012 goda" [Kudryashov: ESPO-2 may come online in December 2012], March 21, 2011, [www.vstoneft.ru/news.php?number=1710](http://www.vstoneft.ru/news.php?number=1710).

24. "Vizit Chzhu Zhuntszi v Rossiyu" [Zhu Rongji's visit to Russia], *Diplomaticheskii vestnik*, no. 3, 1999: pp.11–12.

25. Sergei Pravstugov, "Kompanii boryutsya za vykhod na kitaiskii rynek gaza: Rossiiskii 'Vostokgaz-prom' mozhet prrvat'sya v Aziyu ranysh'e 'British Petroleum'" [Companies compete for entry into Chinese

distance was just a pretext; Russia's real aim was to once again enhance its influence over Mongolia, where the Chinese presence had gradually increased since the collapse of the former Soviet Union. From a geopolitical standpoint, Russia wanted to make the Mongolian territory a buffer zone between the two big Northeast Asian powers in case Sino-Russian relations might be aggravated in the future.

The alternative concept of the Mongolian route disappeared as late as November 2003 with the conclusion of the trilateral feasibility study of the gas pipeline route. The planned route would be 4,900 kilometers long and run through Zabaikalisk in the Chita Region (currently the Zabaikal Region), cross the Sino-Russian national border to Manzhuli in the Inner Mongolia Autonomous Region in China, and then go through Harbin in Heilongjiang Province, Shenyang in Liaoning Province, Beijing, Dalian in Liaoning Province, and reach Pyeongtaek in the Republic of Korea via the bottom of Yellow Sea.<sup>26</sup> The three parties to the feasibility study agreed to start exporting 20 billion cubic meters of natural gas annually to China after 2008 and were waiting only for approval from their respective governments. Beijing and Seoul subsequently endorsed the trilateral proposal, but Moscow, which never made clear its own assessment, withheld its endorsement. The result of the feasibility study faded away with the emergence of Russia's unilateral alternative.

As early as July 2002, the Russian government designated Gazprom, which did not hold a stake in RUSIA Petroleum, to draft the "development program for an integrated gas production, transportation and supply system in Eastern Siberia and the Far East, taking into account potential gas exports to China and other Asia-Pacific countries (the so-called Eastern Gas Program)" by Government Decree No. 975-r. The skeleton of the state-run program was put on the table at a cabinet meeting in March 2003, and the final version was approved by Government Order No. 340 of the Ministry of Industry and Energy in September 2007.<sup>27</sup>

The Eastern Gas Program (figure 4.2) expects to export 25–50 billion cubic meters of natural gas per year via pipeline to China and South Korea combined after 2020. In addition, the program also envisions increasing LNG exports to the Asia-Pacific countries in amounts up to 21 billion cubic meters annually by 2020 and 28 billion cubic meters by 2030. The so-called Vostok 50, meaning the achievement of exporting 50 billion cubic meters to the east (38 billion cubic meters to China and 12 billion cubic meters to South Korea) by 2030, received special attention as a subprogram of the Eastern Gas Program.

Uncertainties regarding the future of Vostok-50 have remained. At the time of its publication, this official document seemed unfocused, with 15 scenarios concerning possible pipeline routes, for example. The realization of the subprogram would also entail abandoning the option of the westward transport of east Siberian gas to the United Gas Supply System.<sup>28</sup>

The 1,350-kilometer pipeline from Sakhalin Island to Vladivostok in the Primorsk Region via the Khabarovsk Region (the so-called SKV pipeline) is currently under construction, to be completed in time for the Asia-Pacific Economic Cooperation summit in 2012. It is planned to deliver

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gas market: Russian 'Vostokgazprom' may rush in Asia earlier than 'British Petroleum', *Nezavisimaya Gazeta*, December 21, 2000.

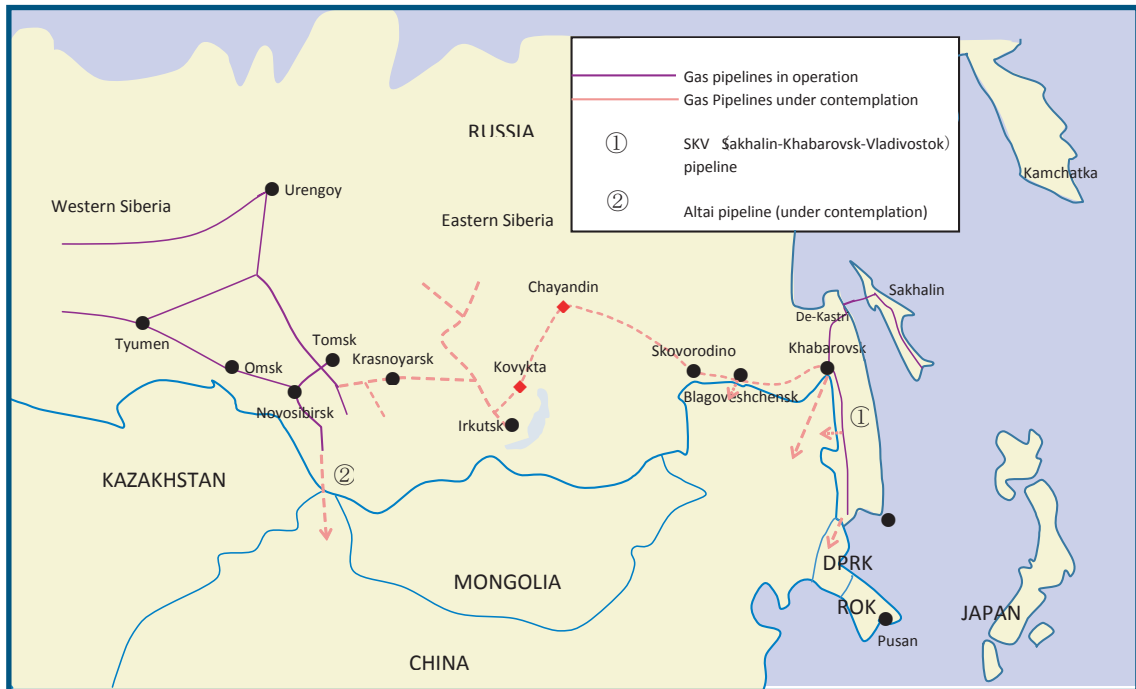
26. "RUSIA Petroleum, CNPC and KOGAS Complete Kovykta International Feasibility Study," *Insight TNK-BP*, December 2003, p. 6.

27. "Eastern Gas Program," Gazprom, [www.gazprom.com/production/projects/east-program/](http://www.gazprom.com/production/projects/east-program/).

28. Elena Mazneva, "Vostochnuyu Sibir' razrabotayut po planu 'Gazproma'" [Eastern Siberia is developed in accordance with Gazprom's plan], *Vedomosti*, September 10, 2007.



**Figure 4.2. Gazprom's Eastern Gas Program**



Source: Drawn by author; based on map on Gazprom website, [www.gazprom.com/f/posts/69/808097/map\\_4\\_31\\_new\\_eng.jpg](http://www.gazprom.com/f/posts/69/808097/map_4_31_new_eng.jpg).

6 billion cubic meters annually from the Sakhalin-1 project to domestic markets at the initial stage. Gazprom aims to increase the volume to 30 billion cubic meters per annum in view of finding export routes via this pipeline.<sup>29</sup> However, disagreements have occurred with ExxonMobil, the project operator, regarding the destination of natural gas once the increase in gas supply from the Sakhalin-1 project goes into effect. Meanwhile, Gazprom currently envisions additional supplies from the Sakhalin-3 project and the Chayandinsk gas field in the Sakha Republic, where gas production is expected to start in 2014 and 2016, respectively.<sup>30</sup>

Aside from the SKV pipeline, other pipeline routes have remained only on paper at present although expansion of the pipeline networks is needed for gaining access to gas deposits in continental eastern Russia and for building supply chains for domestic and external supplies. One of the proposed options is construction of a natural gas trunk pipeline from eastern Siberia to the east, almost in parallel with the ESPO pipeline. This new pipeline might be able to take advantage of the area's newly developed socioeconomic infrastructure.

29. "Eastern Gas Program," Gazprom.

30. "Glava 'Gazproma' i Prezident Yakutii obsudili voprosy osvoeniya Chayandinskogo neftegazokondensatnogo mestorozhdeniia" [The head of Gazprom and president of the Sakha Republic discussed the problems of developing the Chayandinsk oil and gas condensate mining fields], *LawTek*, January 26, 2010.

## 5

## CHINA-RUSSIA RELATIONS STRATEGIC CAMOUFLAGE

The Sino-Russian partnership has developed conspicuously during the past two decades. Their bilateral relations, called a “constructive partnership” during President Jiang Zemin’s visit to Moscow in 1994, was elevated to “strategic partnership” during President Boris Yeltsin’s visit to Beijing in 1996.<sup>1</sup> The Sino-Russian Treaty of Good Neighborliness and Friendly Cooperation was signed in July 2001. In October 2004 agreement was achieved on the issue of demarcating the national boundary, which historically had been the single biggest contributor to mutual distrust and discord. Sino-Russian joint military exercises have become biennial events since 2005. The two countries also share a common interest in standing up to the predominant U.S. role in various international arenas.

For more than a decade after the collapse of the former Soviet Union, Moscow and Beijing agreed that development of political relations also had to be reinforced by development of economic relations. Indeed, the volume of Russia’s trade with China increased by almost ten times during the first decade of the twenty-first century: from \$6.2 billion in 2000 to about \$60 billion in 2010 (figure 5.1). This corresponded closely with the increase in Sino-Russian oil trade. Russia’s crude oil exports to China increased from 1.3 million tons in 2000 to 12.8 million tons in 2010 (figure 5.2).

Both Russian and Chinese leaders have praised the apparent “evolutionary development” of bilateral relations over the years. They have repeatedly emphasized the dawn of a new epoch for the two countries almost whenever they have held summit meetings.<sup>2</sup> The fact that the leaders need to reiterate their close relations so often could indicate that their relations are still not particularly close.

### Crude Oil Pipeline: Moscow Scored on Its Own Goal

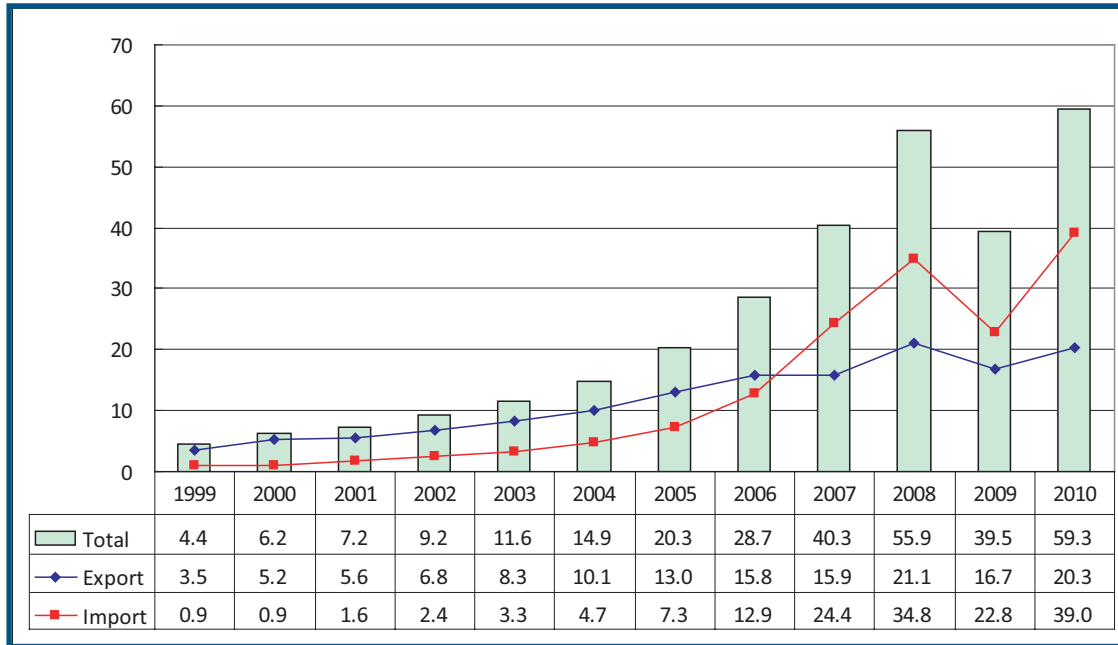
The twists and turns of Moscow’s negotiation with Beijing over the Eastern Siberia–Pacific Ocean (ESPO) pipeline turned out to be a typical example of the depth of bilateral mistrust. Notwithstanding Beijing’s repeated requests, Moscow maintained an equivocal attitude with regard to the timing of constructing a spur pipeline from Skovorodino; Russia was finally pushed into agreeing with China to undertake the construction when Moscow lost an alternative, but to do so required immediate financial help.

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1. For a comprehensive account of the development of Sino-Russian relations, see Cui Xiantao, *Mianxiang Ershiyishijide Zhonghe Zhanlue Xiezuo Huoban Guanxi* [Sino-Russian strategic cooperation partnership toward 21st century] (Beijing: Zhonggong Zhongyangdang Xuexiao Chubanshe, 2003).

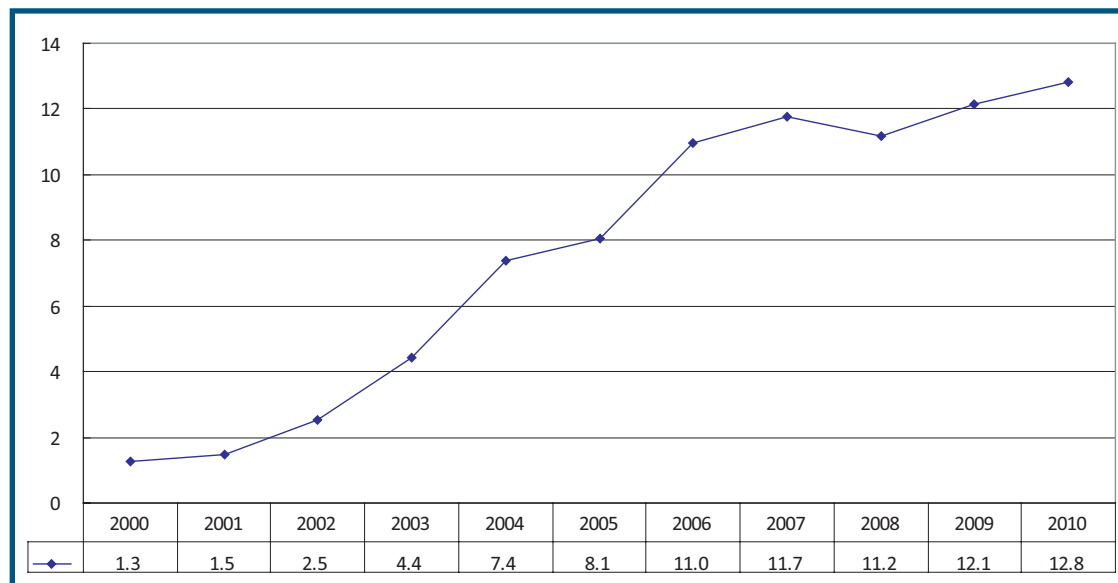
2. For example, see “Zayavleniya dlya pressy po itogam rossiisko-kitaiskikh peregovorov” [Press release on the result of Russo-China negotiations], Website of President of Russia, September 27, 2010, <http://news.kremlin.ru/transcripts/9039>.

**Figure 5.1. Russia's Trade with China, 1999–2010 (billion dollars)**



Source: *Tamozhennaya statistika vneshnei trgovli Rossiiskoi Federatsii* [Customs statistics of foreign trade of the Russian Federation] (Moscow: Federal Customs Service of the Russian Federation, various years).

**Figure 5.2. Russia's Crude Oil Exports to China, 2000–2010 (million tons)**



Source: *Tamozhennaya statistika vneshnei trgovli Rossiiskoi Federatsii* [Customs statistics of foreign trade of the Russian Federation] (Moscow: Federal Customs Service of the Russian Federation, various years).

As early as November 2006, the vice president of Rosneft, Dmitri Bogdanov, publicly stated that his company planned to ship 14 million tons of crude oil annually via pipeline to China, while the rest of 30 million tons at the first stage would be shipped to the oil terminal on the Pacific side



by rail before the completion of the second phase.<sup>3</sup> The minister of energy and industry, Viktor Khristenko, publicly noted during his visit to Beijing in July 2007 that the spur pipeline to China would be completed in 2008.<sup>4</sup> Transneft and CNPC signed a memorandum to build the spur pipeline in the same month.<sup>5</sup>

Nonetheless, Rosneft in September 2007 announced that the construction of the China route should be postponed until the realization of the second phase and that the total volume of the first phase should be delivered by rail to the oil refineries planned for construction in the Primorsk Region. They also began to suggest the possibility that China would be no longer a profitable destination for Russian oil after the expiration in 2010 of the multiple-year contract with CNPC for supplying crude oil.<sup>6</sup>

In the aftermath of the global financial crisis, which hit the Russian economy severely, Moscow was compelled to resort to a Chinese source for funding to repay debts and refinance loans in the short term. Moscow and Beijing signed a memorandum of mutual understanding for cooperation in the oil sector and agreed that Russia would export 15 million tons of crude annually to China for 20 years beginning in 2011 in exchange for China lending Russia \$20–\$25 billion in October 2008.<sup>7</sup> During the visit to Beijing in February 2009 of Deputy Premier Igor Sechin, Vice Premier Wang Qishan, representing China, agreed to undertake the building of the spur pipeline immediately, under the condition that the China Development Bank would provide Rosneft with a loan of \$15 billion and Transneft with a loan of \$10 billion. In return, Rosneft and Transneft agreed to deliver annually via the spur pipeline 9 million tons and 6 million tons, respectively, of crude to CNPC.<sup>8</sup> Subsequently, the Intergovernmental Agreement on the Oil Sector was signed in April 2009.<sup>9</sup> Construction of the 970-kilometer pipeline, including 63.8 kilometers on the Russian side (from Skovorodino to the Sino-Russian border), was begun immediately and was completed in September 2010.<sup>10</sup>

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3. Andrei Uspenskii and Evgeniya Gavriilyuk, “Rosneft’ ogranichila kitaiiskii marshrut: V KNR po VSTO budut prokachivat’ lish’ 14 mln tonn nefti” [Rosneft’ delimits the China route: The ESPO will supply only 14 million tons of oil to China], *RBK Daily*, November 24, 2006.

4. “Stroitel’stvo otvetvleniya VSTO v Kitai nachnetsya v 2008 godu” [The construction of the ESPO’s spur pipeline to China will begin in 2008], July 10, 2007, [www.vstoneft.ru/news.php?number=427](http://www.vstoneft.ru/news.php?number=427).

5. “Transneft podpisala protokol ob otvetvlenii VSTO na KNR” [Transneft signed a protocol on the ESPO’s spur pipeline to China], *Neftegazovaya vertikal’*, July 19, 2007.

6. Liudmila Podobedova, “Bogdanchkov predlagaet kitaitsam podozhdat’: postavok rossiiskoi nefti po VSTO” [Bogdanchkov suggests the Chinese to wait: Russian oil supplies by the ESPO], *RBK Daily*, September 6, 2007; Natal’ya Skorlygina, “Rosneft’ sdelala kitaitsam preduprezhdenie” [Rosneft has warned the Chinese], *Kommersant*, September 12, 2007. In January 2005, Rosneft financed its buying out Yukos, formerly the biggest subsidiary of near-bankrupt Yukos, by signing a contract to supply 48.4 million tons of crude to China until 2010 in return for CNPC’s prepayment of \$6 billion.

7. “Rossii i Kitai dogovorilis’ o postavkakh 15 mln tonn nefti v god v techenii 20 let” [Russia and China agreed on supplying 15 million tons of oil per year for 20 years], *Neftegazovaya vertikal’*, October 28, 2008.

8. Catherine Belton, “China Lends Russia \$25 bln for 20 Years of Oil,” *Financial Times*, February 17, 2009; Galina Starinskaya, “Treiderskie dogovorennosti: Rosneft’ i Transneft’ podpisali soglasenie o postavkakh nefti v Kitai” [Trade agreements: Rosneft and Transneft signed an agreement on oil deliveries to China], *RBK Daily*, April 14, 2009.

9. “V Rossii odobren proekt mezhpravsovlasheniya s Kitaem v neftyanoi sfere” [An intergovernmental agreement with China in the oil sector was approved in Russia], *LawTek*, April 13, 2009.

10. “Zavershenno stroitel’stvo nefteprovoda ‘Skovorodino-Datsin’” [Skovorodino-Daqing oil pipeline was completed], September 27, 2010, [www.vstoneft.ru/news.php?number=1575](http://www.vstoneft.ru/news.php?number=1575).

In retrospect, it can be said that Russia “scored on its own goal.” Moscow originally wished to hold off the realization of the spur pipeline until the last minute unless it could attract a larger-scale Japanese investment in the ESPO project, which it hoped would include the construction of the pipeline, for the purpose of counterbalancing Chinese involvement in the process.

However, the Russian tactic of playing one country off against another was not a success for Russia. Russia did not know when to stop its geopolitical game. Moscow failed to understand the essence of Sino-Japanese relations. The worsening of the relationship between Asia’s two biggest energy consumers bottomed out sooner than Moscow originally anticipated. In addition, despite Russian urgency to develop its eastern regions, Russia increasingly took a high-handed approach to foreign capital while its resource nationalism was enhanced by oil prices that kept hitting historical highs until the summer 2008.

## Gas Pipeline: Moscow’s Loss of Bargaining Power

Sino-Russian talks on the construction of natural gas pipelines have also shown the depth of the countries’ mutual distrust. Since the mid-1990s the Kovykta project had been used as a symbol of Sino-Russian partnership. Russia, however, unilaterally dropped this project from the array of bilateral cooperation issues. Beijing and Moscow agreed to cooperate on the Kovykta project, citing the result of the international feasibility study conducted by Russian, Chinese, and South Korean companies as part of the Sino-Russian action program for implementing the Sino-Russian Treaty of Friendship for 2005–2008, signed in October 2004.<sup>11</sup> The Russian government withheld its official approval, however, as it awaited the announcement of Gazprom’s Eastern Gas Program. It is undeniable that Moscow from the beginning had little real interest in the international feasibility study, contrary to the rhetorical diplomatic “agreement.” The Eastern Gas Program made no reference to the concept of constructing a pipeline from the Kovykta deposit to China.

Gazprom has proposed alternative routes, although the choice of a specific route has not yet been determined. Gazprom and CNPC signed the Agreement of Strategic Cooperation in October 2004, agreeing during President Vladimir V. Putin’s visit to Beijing in March 2006 that Russia would supply 30–40 billion cubic meters from its eastern routes (eastern Siberia and the Far East) and the western route.<sup>12</sup> President Putin then surprised everyone by proposing to construct the so-called Altai pipeline, which would stretch 2,700 kilometers from the Altai Republic in western Siberia to the Xinjiang Uygur Autonomous Region; it was planned to have a capacity of 30 billion cubic meters per annum.<sup>13</sup>

The Russians have attributed the reason for delays in construction of a gas pipeline to disagreement on China’s purchasing prices although it is highly questionable whether this is more than just a part of the reason. Moscow’s proposal of the Altai pipeline testified to its geopolitical maneuver concerning energy. In the first place, no study of the Altai pipeline’s route and economic

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11. “Ofitsial’nyi visit v Kitaiskuyu Narodnuyu Respubliku” [Official visit to the PRC], Website of President of Russia, <http://archive.kremlin.ru/events/articles/2004/10/77866/161386.shtml>.

12. “Kitai budet poluchat’ rossiiskii gaz iz Zapadnoi Sibiri” [China will receive Russian gas from Western Siberia], *RBK Daily*, March 21, 2006.

13. “Fradkov: Marshrut gazoprovoda iz Zapadnoi Sibiri RF v Kitai poka ne opredelen” [Fradkov: The gas pipeline route from Russia’s western Siberia to China is still to be decided], *Neftgazovaya vertikal’*, April 14, 2006.

feasibility was implemented prior to the president's announcement.<sup>14</sup> Second, it is quite natural to assume that Russia should have known by that time that China would not make any further concession on purchasing prices, given the lessons from the bilateral negotiations over the “buried” Kovykta project.<sup>15</sup> Third, Moscow's aim was to float a trial balloon by implying that if China was on the receiving end of Russia's gas shipments it would mean a reduction in gas exports to the Western markets and, thus, Russia would gain the upper hand in price negotiations with the EU nations.<sup>16</sup>

Bilateral negotiations over the Altai pipeline are currently still under way. Gazprom and CNPC in June 2009 signed a memorandum of understanding for cooperation in the natural gas sector. Two months later, Gazprom's experts reportedly admitted that they would have to shelve the concept of the Altai pipeline because of the lack of economic rationality.<sup>17</sup> When the two companies signed the framework agreement on major terms and conditions for a supply of natural gas from Russia to China in October 2009—an agreement that basically adhered to the preliminary agreement they had reached in March 2006—Gazprom suggested that the route to the West would be more realizable than eastern routes.<sup>18</sup>

The selection of the eastern options has also been affected by noneconomic considerations. CNPC and ExxonMobil signed a memorandum for gas supply by pipeline from the Sakhalin-1 project in October 2006; however, this plan has been frozen against the backdrop of Gazprom's opposition. Instead, Gazprom insisted that the total amount of gas from the Sakhalin-1 project, which is planned to be in full production in 2012, should be sent via the pipeline from Sakhalin Island to Vladivostok (the SKV pipeline). Gazprom does not have a stake in the Sakhalin-1 consortium and has signed a contract to buy 20 percent of the gas production of Sakhalin-1 for domestic supplies. Still, Russian law prohibits gas export in the absence of Gazprom.<sup>19</sup> Alternatively, the Russian side has proposed construction of a new liquefied natural gas (LNG) plant. Yet, it can be fairly said that the Russians have hoped to find an export destination other than China before a direct pipeline to China, if any, comes into being.

Gazprom has designed two options for gas pipeline routes to Chinese territory, given that it has been proposed that natural gas supplies, planned to arrive from both the Chayandin gas field

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14. Ibid.

15. Shoichi Itoh, “Russia's Energy Diplomacy toward the Asia-Pacific: Is Moscow's Ambition Dashed?” in *Energy and Environment in Slavic Eurasia: Toward the Establishment of the Network of Environmental Studies in the Pan-Okhotsk Region*, ed. Shinichiro Tabata (Sapporo: Slavic Research Center, Hokkaido University, 2008), pp. 44–45. China used to propose setting a gas price formula corresponding to its domestic coal prices, which were much lower than half of Russia's requested amount in the early years of the bilateral negotiations.

16. “Postavki gaza v KNR likvidiruiut zavisimost' Rossii ot rynkov Evropy” [Gas Supply to China Overcomes Russia's Dependence on European Markets], *Neftegazovaya vertikal'*, March 22, 2006; “Altaiskaya al'ternativa: Rossia obeshchaet Kitaiu mnogo gaza. Slishkom mnogo” [The Altai alternative: Russia supplies much gas to China, too much], *RusEnergy*, March 30, 2006.

17. “Gazprom' zamorozil stroitel'stvo gazoprovoda ‘Altai’” [Gazprom shelved construction of the Altai gas pipeline], *LawTek*, August 28, 2009.

18. “Sechin: Postavki gaza iz RF v Kitaiu mogut nachatsya v 2014–2015 gg., kontrakt dolzhen byt' podpisany v iyune 2010 g” [Sechin: Gas supply from Russian Federation to China may begin in 2014–2015: Contract will be signed in June 2010], *LawTek*, October 14, 2009.

19. “Gaz dlya Evropy v ‘odnom okne’: ‘Gazprom’ stanet eksklyuzivnym prodavtsom rossiiskogo syr'ya za rubezhom” [Gas for Europe through one window: Gazprom becomes an exclusive seller of Russian resources abroad], *Rossiiskaya gazeta*, July 11, 2006.

and the Sakhalin-3 field after the mid-2010s, will converge along the outer rim of the Sino-Russian national border. One of the suggested routes will run into Chinese territory through Blagoveshchensk of the Amur Region toward Daqing in Heilongjiang Province, and the other would be near Ussuriysk or Dalnerechensk in the Primorsk Region.<sup>20</sup> Gazprom currently plans to begin building a gas pipeline in 2012 from the Chayandin gas field, to be connected with the SKV pipeline in the Khabarovsk Region, and to complete it in time for the start of gas production in 2016.<sup>21</sup>

Meanwhile, China has steadily increased its bargaining power vis-à-vis Russia in the gas sector as well as in the oil sector. During the period in which Moscow had no intention of quickly concluding the negotiations with Beijing over gas pipelines, China gradually increased access to non-Russian gas exporters. In addition to the plans to increase LNG imports, China has gained access to a natural gas pipeline to Myanmar; it has a capacity of 12 billion cubic meters per year. Beijing has also rapidly diversified its access to natural gas from Central Asia as China shouldered a large part of the investment in the construction of pipelines and upstream development.

In December 2009, the presidents of China, Kazakhstan, Uzbekistan, and Turkmenistan celebrated the inauguration of the Central Asian–China Pipeline, which runs for approximately 2,000 kilometers through the four countries and has a planned total annual capacity of 40 billion cubic meters.<sup>22</sup> It was planned that more than 5 billion cubic meters of natural gas would be delivered to China in 2010 and more than 13 billion cubic meters in 2011.

Turkmenistan and China agreed that they would build a natural gas pipeline as early as April 2006, and they further agreed in July 2007 that Turkmenistan would export 30 billion cubic meters of natural gas per year to China for 30 years. CNPC became the first foreign company to develop major licensed onshore gas fields in Turkmenistan.<sup>23</sup> In June 2009, Beijing offered credits amounting to \$4 billion to Turkmenistan via the China Development Bank in return for Ashgabat's promise of increasing Turkmen exports of gas from 30 billion cubic meters to 40 billion cubic meters per year in the future.<sup>24</sup> China's purchase price of gas from Turkmenistan was said to be \$120–\$165 per 1,000 cubic meters, which was cheaper than Russia's purchase price of gas from Turkmenistan (\$190 per 1,000 cubic meters).<sup>25</sup>

An intergovernmental agreement on the construction of the Kazakh-China pipeline was signed during President Hu Jintao's visit to Astana in August 2007. In October 2008 CNPC and KazMunayGaz inked a framework agreement on expanding natural gas and gas pipeline cooperation, including joint development of the Urikhtau gas condensate field and a natural gas pipeline

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20. Svetlana Milyaeva, "Gazprom Begins Push into the Asia-Pacific Region," *Russian Petroleum Investor* (May 2010): pp. 18–19.

21. Sergei Glazkov, "Gazprom Eastern Gas Program Taking Shape," *Russian Petroleum Investor* (April 2010): pp. 11–17.

22. Vladimir Socor, "Three Central Asian Countries Inaugurate Gas Export Pipeline to China," *Eurasia Daily Monitor* (Jamestown Foundation) 6, no. 230 (December 15, 2009).

23. "China to Increase Gas Imports from 'Economically Complementary' Turkmenistan," *Eurasia Daily Monitor* (Jamestown Foundation) 6, no. 125 (June 30, 2009).

24. "Turkmenistan i Kitai podpisali soglasheniya v gazovoi sfere" [Turkmenistan and China signed an agreement in the gas sector], *LawTek*, June 26, 2009.

25. Natal'ya Grib, "Turkmenskii gaz podelili na troikh: Rossiya perestala byt' ego osnovnym pokupatelem" [Turkmen gas was divided to the troika: Russia is no longer its main buyer], *Kommersant*, April 15, 2010; Natal'ya Grib and Aleksandr Gabuev, "Rossiiskomy gazu dlya Kitaya tseny net: Udalos' soglasovat' chast' soglasheniya o postavkakh" [Unsettled prices of Russian gas for China: they could agree to only a part of the agreement on supplies], *Kommersant*, September 27, 2010.

with an annual full capacity of 10 billion cubic meters.<sup>26</sup> In addition to the first-phase, 1,300-kilometer pipeline that came on line as a part of the Central Asia–China pipeline in December 2009, Beijing and Astana in June 2010 signed an agreement on the construction of the second-phase, 1,400-kilometer pipeline from Beyneu in western Kazakhstan to Shymkent; this pipeline is expected to have a capacity of 10 billion cubic meters, half of which is expected to be for exports to China.<sup>27</sup>

China and Uzbekistan signed an intergovernmental agreement on the construction of a 530-kilometer gas pipeline in April 2007. CNPC and Uzbekneftegaz signed another framework agreement on the purchase and sale of natural gas in Tashkent, by which Uzbekneftegaz promised to supply 10 billion cubic meters per year via the Central Asia–China pipeline; this plan was also endorsed by an intergovernmental memorandum of understanding on expanding cooperation in natural gas sector.<sup>28</sup>

Faced with other countries tapping into new gas markets in China, Moscow has found itself needing to activate negotiations with Beijing. Gazprom and CNPC signed a framework agreement on the basic conditions of the gas supply from Russia to China in October 2009, when Prime Minister Putin stated that Russia's sales price of natural gas would be linked to oil prices.<sup>29</sup> In March 2010, however, the deputy chairman of Gazprom, Alexander Medvedev, disclosed that the Sino-Russian talks on gas prices were yet to be concluded, while Gazprom claimed that China's purchase price should correspond with the former sales price to Europe.<sup>30</sup> Gazprom and CNPC, in principle, agreed to conclude negotiations over gas pricing before mid-2011 in view of the start of Russia's natural gas exports (up to 30 billion cubic meters per year) to China in 2015.<sup>31</sup> Reportedly they have continued to disagree on the quantity and pricing of natural gas sales to China.<sup>32</sup>

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26. "CNPC and KazMunayGas Sign Framework Agreement on Expanding Natural Gas and Gas Pipeline Cooperation," CNPC, November 1, 2008, [www.cnpc.com.cn/en/press/newsreleases/2008/3c95bf42-a53c-4670-a997-b0404c032b6a.htm](http://www.cnpc.com.cn/en/press/newsreleases/2008/3c95bf42-a53c-4670-a997-b0404c032b6a.htm).

27. "China and Kazakhstan Sign Agreement on the Construction of the Phase-II Gas Pipeline," CNPC, June 13, 2010, [www.cnpc.com.cn/en/press/newsreleases/2010/ChinaandKazakhstansignagreementontheconstructionofthephaseIIgaspipeline\\_.htm](http://www.cnpc.com.cn/en/press/newsreleases/2010/ChinaandKazakhstansignagreementontheconstructionofthephaseIIgaspipeline_.htm); Sébastien Peyrouse, "China's Recent Advances in Central Asia," *Central Asia-Caucasus Analyst Institute Analyst*, December 10, 2008, [www.cacianalyst.org/?q=node/5001](http://www.cacianalyst.org/?q=node/5001).

28. "Kitai i Uzbekistan podpisali ramochnoe soglashenie o postavkakh uzbekskogo gaza" [China and Uzbekistan signed a framework agreement on supplying Uzbek gas], *LawTek*, June 10, 2010; "Natural gas purchase and sale framework agreement signed between China and Uzbekistan," CNPC, June 10, 2010, [www.cnpc.com.cn/en/press/newsreleases/Natural\\_gas\\_purchase\\_and\\_sale\\_framework\\_agreement\\_signed\\_between\\_China\\_and\\_Uzbekistan\\_.htm](http://www.cnpc.com.cn/en/press/newsreleases/Natural_gas_purchase_and_sale_framework_agreement_signed_between_China_and_Uzbekistan_.htm).

29. "Gazprom i CNPC podpisali ramochnoe soglashenie ob osnovnykh usloviyakh postavok prirodnogo gaza iz Rossii v KNR" [Gazprom and CNPC signed a framework agreement on the basic conditions of supplying gas from Russia to China], *LawTek*, October 14, 2009; "Tsena gaza dlya Kitaya budet privyazana k aziatskoi neftyanoi korzine" [Gas price for China will be linked to the Asian oil basket], *Kommersant*, October 14, 2009.

30. "Postavki gaza iz Rossii v Kitai mogut nachat'sya v 2015 g" [Supplying gas from Russia to China may start in 2015], *LawTek*, March 30, 2010; "Kitai i Rossiya poka ne dogovorilis' o tsene na gaz" [China and Russia have not reached an agreement on gas price], *LawTek*, March 4, 2010.

31. Sergei Kulikov, "Rossiya prositsya v Kitai so svoim gazom: Resheny pochti vse voprosy za isklyucheniem odnoi meloch—tseny" [Russia yearns for China with its own gas: Almost all the questions with one small exception—prices—were solved], *Nezavisimaya gazeta*, September 22, 2010.

32. Yuliya Shishkova and Igor' Pylaev, "Kitai garantiruet oplatu lish' 41% zakontraktvannogo ob'emna gaza 'Gazproma'" [China guarantees payment of only 41% of the contracted quantity of Gazprom's gas], *RBK Daily*, November 9, 2010.



Meanwhile, Beijing sees no specific reason to hurry the bilateral talks with Moscow. It is noteworthy that China has successfully secured enough natural gas until around 2020 without taking into account imports from Russia. Beijing has multiplied the number of its contracts for the import of natural gas, including not only pipeline imports from Central Asia and Myanmar but also LNG imports from the Middle East, Southeast Asia, and Australia. Thus, China has steadily increased its bargaining power vis-à-vis Russia, whereas Russia has faced a pressing need to diversify its gas export destinations away from Europe.

## Russia's Paranoia about China

Russia has more than once demonstrated its hesitation to deepen interdependence with China in the energy sector. The story is not limited to oil and gas pipeline issues. The Russian Duma (the lower house) passed a nonbinding resolution to remove CNPC from the bidders list when the CNPC intended to make a bid for 75 percent of Slavneft's stocks in December 2002. One of the strong supporters of this resolution in the Russian government was the former prime minister, Boris Nemtsov, who was alarmed that if the Chinese were to acquire such a big stake in a Russian oil company, Russia's long-term geopolitical interest would be endangered.<sup>33</sup>

CNPC in November 2003 made a successful bid to buy 61.8 percent of the shares of Stimul through a public auction process involving ten bidders. Stimul was established in 1993 in the Orenburg Region, located in the Volga area, as a joint venture of a small U.S. company, Avalon International, and Gazprom's subsidiary, Orenburggazprom. However, the Federal Antimonopoly Service, lobbied by Gazprom, kept delaying the approval of CNPC's acquisition of Stimul.<sup>34</sup> In the end, CNPC was virtually compelled to give up holding its stake in Stimul, which Gazprom then bought up in 2004.<sup>35</sup>

When Rosneft listed its shares in Moscow and London and raised a total of \$10.4 billion in an initial public offering in 2006, CNPC was able to buy only \$500 million worth despite its readiness to invest up to \$3 billion; pressure from Rosneft is thought to be the reason. At the same time, however, BP and a Malaysian oil company, Petronas, were each able to buy stakes worth about \$1 billion.<sup>36</sup>

Ironically, the deepening of the energy nexus has gradually aggravated the concern of the Russian power elite that Russia could be becoming China's "resource appendage."<sup>37</sup> Some in Russia

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33. Dmitirii Butrin and Denis Skoroborot'ko, "Slavneft' ne otdadut kitaiskim kommunistam" [Slavneft was not given to the Chinese communists], *Kommersant*, December 16, 2002.

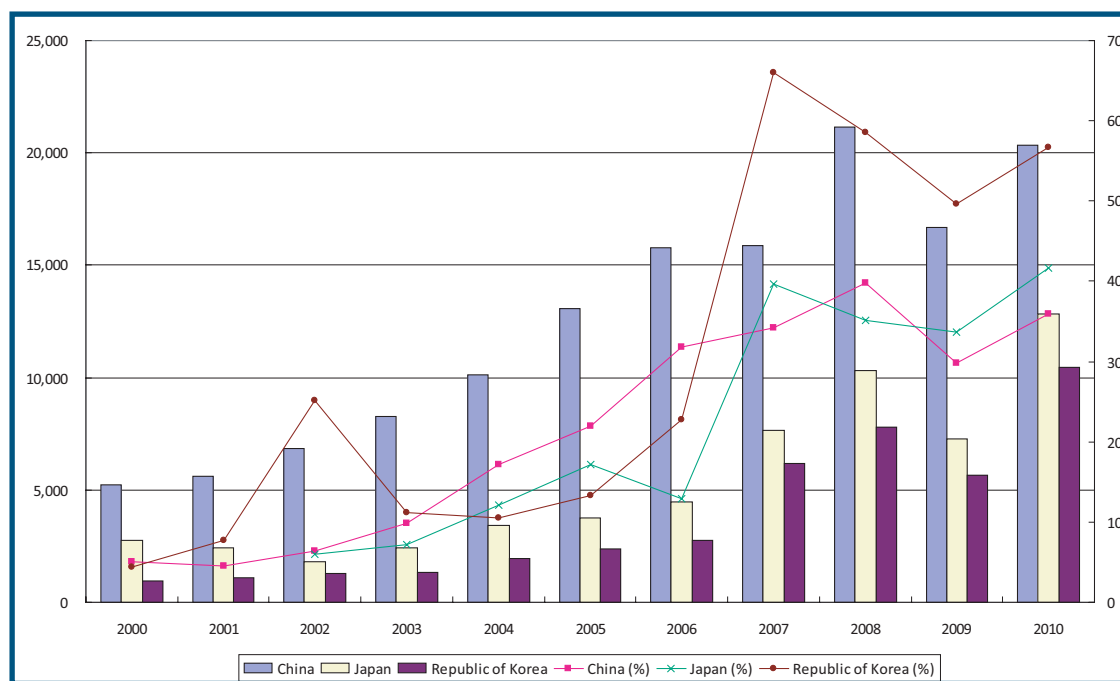
34. Irina Reznik, "CNPC opyat' ne povezlo: MAP zatyagivaet odobrenie sdelki po pokupke kitaitkami rossiiskikh neftnykh aktivov" [CNPC was again unsuccessful: MAP holds off the approval of the deal concerning Chinese purchase of Russian oil assets], *Vedomosti*, February 6, 2004. For a review on the process of CNPC's pullback from Stimul, see Kong Bo, *China's International Petroleum Policy* (Santa Barbara, Calif.: Praeger Security International, 2010), pp. 107–108.

35. Aleksandr Tutushkin and Irina Reznik, "Stimul dlya Gazproma: Monopoliya skupila 100% ego akt-sii" [Stimul for Gazprom: The monopolist bought up 100% of its assets], *Vedomosti*, December 21, 2004.

36. Joanna Chung, "China Eyes \$3 bln Rosneft Stake," *Financial Times*, July 4, 2006; Joanna Chung, "Chinese Lose Out in Rosneft Allocation," *Financial Times*, July 15, 2006.

37. For example, see Igor Naumov, "Sal'do ushlo mimus: Kitai torguet Rossiei kak svoei kolonei" [The balance turned minus: China trades with Russia as its own colony], *Nezavisimaya gazeta*, January 28, 2008; Masyuk Elena, "Syr'voi pridatok Kitaya: Russkii s kitaitsem snova brat'ya navek?" [China's resource appendage: the Russians and the Chinese are forever friends?], *Novoe Vremya*, November 17, 2008; Yuliya Latynina,

**Figure 5.3. Russia's Crude Oil Exports to Northeast Asia, 2000–2010 (left axis: quantity in millions of dollars [bars]); right axis: percentage in total exports to the country [lines])**



Source: *Tamozhennaya statistika vneshnei torgovli Rossiiskoi Federatsii* [Customs statistics of foreign trade of the Russian Federation] (Moscow: Federal Customs Service of the Russian Federation, various years).

have argued that the increase in the export of raw materials, including crude oil, instead of value-added products not only curtails Russia's trading revenue but also strengthens China's economic power and geopolitical positioning. In the composition of Russia's exports to China, as late as 2010 crude oil accounted for 36 percent, which was a lower percentage than crude oil made up in Russia's trade with Japan and the Republic of Korea (figure 5.3). The cautious attitude the Russians expressed with regard to their trade with China has not been heard as far as energy trade with Japan and the ROK is concerned.

Russia's geopolitical concern about China partly stems from the never-ending and widening gap in the two countries' populations and the dynamism of economic development across the 4,000-kilometer land border between the two countries. Eastern Russia with the Far East and eastern Siberia combined account for 60 percent of Russia's territory, but the area has only 14.8 million people (table 5.1). The Russian Far East alone, having lost more than 1.5 million people since the collapse of the Soviet Union, has fewer than 6.5 million today. In comparison, China's northeastern provinces and Inner Mongolia combined have experienced a steady growth of population and had 132.9 million people as late as 2008 (table 5.2).

"Rossiya—syr'evoi pridatok Kitaya" [Russia—China's resource appendage], *Ezhednevnyi Zhurnal*, June 18, 2009; Igor Chubakha, "Rossiya—syr'evoi pridatok Kitaya?" [Russia—China's resource appendage?], *Rosbalt RU*, February 11, 2010, [www.rosbalt.ru/2010/02/11/711758.html](http://www.rosbalt.ru/2010/02/11/711758.html).



**Table 5.1. Population in Eastern Russia, 1990–2008 (millions)**

Region	1990	1996	2001	2008
Far East <sup>1</sup>	8.045	7.360	6.832	6.487
Eastern Siberia	9.203	8.983	8.660	8.326
Total	17.248	16.343	15.492	14.813

Source: *Rossiiskie Statisticheskie Ezhegodnik* [Russian statistical yearbook] (Moscow: Federal State Statistics Service of the Russian Federation, various years).

1 Far Eastern Federal District.

**Table 5.2. Population in China's Northeast Provinces and Inner Mongolia, 1991–2008 (millions)**

Provinces and region	1991	1996	2001	2008
Liaoning	39.39	40.57	41.49	43.15
Jilin	24.60	25.79	26.91	27.34
Heilongjiang	35.11	36.05	38.11	38.25
Inner Mongolia	21.65	22.63	23.77	24.14
Total	120.75	125.04	130.28	132.88

Source: *Zhongguo tongji nianjian* [China statistical yearbook] (Beijing: National Bureau of Statistics of China, various years).

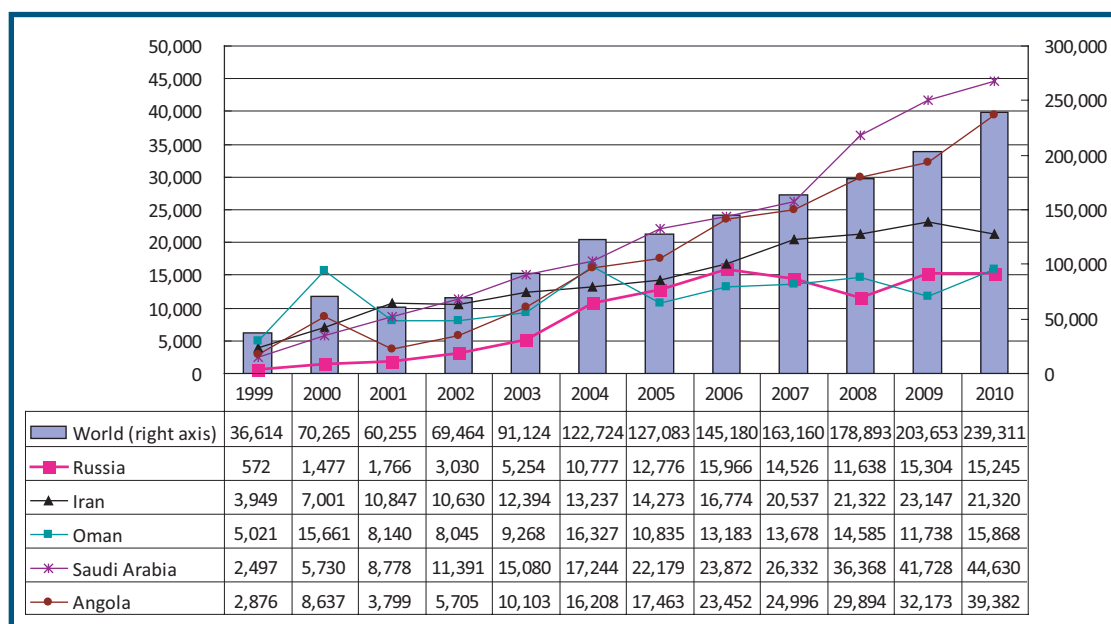
Such concepts as the *tikhaya ekspansiya* (silent expansion) or demographic expansion by the Chinese prevailed in political discourse among the power elite as well as in the Russian mass media during the chaotic years right after the collapse of the Soviet Union.<sup>38</sup> Their concern was gradually reduced as Sino-Russian intergovernmental cooperation over the control of the national border developed by the end of the 1990s. There emerged, though, a concept of economic expansion by the neighbor because of the increase in Chinese economic activities on Russian soil since the turn of the twenty-first century.<sup>39</sup>

The development of energy relations, diplomatically applauded by both governments, indeed boosted economic interdependence but has paradoxically aggravated Russia's anxiety about the enhancement of China's presence in Russia's strategic sector. As late as September 2009, Moscow and Beijing signed what was called the Cooperation Program between the Far Eastern and East Siberian Regions in Russia and Northeastern Regions in China (2009–2018). Some in Russia have warned that this interregional program will benefit and strengthen only the Chinese side because

38. For various discussions of the so-called China threat from the Russian side, see Shoichi Itoh, "Putin jidai no Churokankei: Roshia toubuchiiki wo meguru nikokukankankei wo chushinni" [Sino-Russian relations in the Putin era: Bilateral relations in the eastern regions], *Roshia Gaikou no Genzai I*, 21st COE Occasional Papers no. 2 (Sapporo: Slavic Research Center, Hokkaido University, 2004), pp. 62–105; Vladimir Shlapentokh, "China in the Russian Mind Today: Ambivalence and Defeatism," *Europe-Asia Studies* 59, no. 1 (2007): pp. 1–21; Viktor L. Larin, *V teni prosnuvshegosya drakona: rossiisko-kitaiskie otnosheniya na rubezhe XX–XXI vekov* [In the shadow of the dragon awoken: Russian-Chinese relations on the boundary of the 20th–21st centuries] (Vladivostok: Dal'nauka, 2006).

39. Aman Tuleev, "Vnutrennaya ugroza. Bezopasnost' gosudarstva nachinaetsya so stabil'nosti v regionax" [Internal threat: National security begins with stability of the regions], *Nezavisimaya gazeta*, May 20, 2003.

Figure 5.4. China's Crude Oil Imports, by Major Country, 1999–2010 (1,000 tons)



Source: *Zhongguo tongji nianjian* [China customs statistical yearbook] (Beijing: China Customs, various years).

virtually all the projects to be implemented on the Russian side are development of raw resources, including crude oil, while the manufacturing activities remain in China, which indicates that Moscow lacks a serious strategy to develop Russia's eastern flank.<sup>40</sup>

Meanwhile, Russian experts in China argue that what the Russians call the China threat (*Zhongguo weixielun* in Chinese) simply reflects Russia's own paranoia against the backdrop of economic backwardness and depopulation of its eastern regions, about which China can do nothing.<sup>41</sup> Knowing the limited possibility of overcoming mutual distrust, China ultimately does not regard Russia as a reliable exporter. Although the volume of Sino-Russian oil trade has increased rapidly, it does not mean that Russia stands out among other exporters. Oil imports to China from Saudi Arabia, Angola, and Iran have also increased steadily (figure 5.4).

It certainly reinforces China's energy security to secure access to energy supplies arriving by land from an adjacent county; this goes beyond the mere question of diversifying supply routes, given Beijing's concerns about a conceivable naval blockade of oil tankers by the U.S. fleet in case

40. Veniamin Gotvanskii, "Tikhaya ekspansiya Kitaya: Programma sotrudnichestva mezhdru regionami Rossii i KNR vygodna tol'ko Podnebesnoi" [China's silent expansion: the Sino-Russian interregional cooperation program is profitable only for China], *Nezavisimaya gazeta*, September 23, 2010.

41. For Chinese analyses of the Russian discourse about the so-called China threat, see, for example, Cui, *Mianxiang Ershiyishijide Zhonghe Zhanlue Xiezuo Huoban Guanxi*, pp. 480–527; Deng Zhitao, "Ruhe Kandai Eyuandong Diqu Suowei Zhongguo 'Yimin Wenti'" [How to treat the so-called Chinese 'emigration problem' in the Russian Far East], *Xiboliya Yanjiu* 32, no. 3 (2005): pp. 34–36.

of a military contingency.<sup>42</sup> That said, Beijing bears in mind that Russia should not account for an excessive share of China's oil imports.<sup>43</sup>

For the Chinese leadership, their experience of facing Moscow's use of its oil trade as diplomatic leverage to exert influence on Beijing during the Sino-Soviet conflict of the early 1960s is still fresh in their memory. China was reminded of this tactic when Russia suspended the gas supply to Ukraine in January 2006 despite the fact that Ukraine should have been Russia's first brotherhood nation.<sup>44</sup> One of the most widely read Chinese energy journals ranked this incident among top ten major events in 2006.<sup>45</sup>

Russia's limited acceptance of Chinese involvement in oil and gas upstream projects displayed characteristics of a phony bilateral partnership. Rosneft and CNPC signed an agreement for long-term cooperation in July 2005, and in October 2006 they agreed to establish a joint-venture company, Vostok Energy, with Rosneft holding a 51 percent stake and CNPC holding 49 percent.<sup>46</sup> Vostok Energy, created to take advantage of the increasing oil production in areas adjacent to the ESPO pipeline and to jointly develop new hydrocarbon fields, was chosen in July 2007 to extract mineral deposits at Zapadno-chonsk and Verkhnechersk. The Zapadno-chonsk deposit has crude oil resources, comprising 5 million tons of category C3 and 30 million tons of category D1, and natural gas resources of 15 billion cubic meters of category D1. The Verkhnechersk deposit has crude oil resources of 50 million tons of category D1 and natural gas resources of 90 billion cubic meters of category D1.<sup>47</sup> These are small-sized deposits with geological assets classified below reserve categories. Some argue that Russia's real intention was only to impose high investment risks on its partner while Rosneft aimed to raise the small amount of unexplored resources into higher geological categories.<sup>48</sup>

Similarly, economically questionable joint projects can be found in other cases. Rosneft and Sinopec (China Petroleum & Chemical Corporation) signed a framework agreement on strategic cooperation in November 2006 and launched joint management of Udmurtneft, which had only already mature oilfields.<sup>49</sup> In March 2007, they also signed an agreement on the development of the Venin Block in the Sakhalin-3 project, which had by then undergone unsuccessful test drilling.<sup>50</sup>

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42. Ni Jianmin, ed., *Guojia Nengyuan Anquan Baogao* [National energy security report] (Beijing: Renmin Chubanshe, 2005), pp. 150–151.

43. Lu Nanquan, "Cong Zhongye Yuanyou Guandao Hezuo Xiangmu Tansuo Duie Touzi Wenti [Exploration of investment question in Russia in the light of cooperation agenda on Sino-Russian crude oil pipeline], *Xiboliya Yanjiu* 4, no. 31 (2005): pp. 25–26; Wu Lei, *Zhongguo Shiyou Anquan* [China's oil security] (Beijing: Zhongguo Shehui Kexue Chubanshe, 2003).

44. Experts on the subject of energy and Russian energy, interviews by author, Beijing, January 2006.

45. *Guoji Shiyou Jingji* [International petroleum economics], no. 1, 2007, pp. 2–3.

46. "Rosneft and CNPC Have Signed Protocol on Creation of Joint Venture Company," Rosneft, October 17, 2006, [www.rosneft.com/news/pressrelease/10575.html](http://www.rosneft.com/news/pressrelease/10575.html).

47. Natal'ya Skorlygina, "'Rosneft' podelila irkutskie nedra s kitaitkami: tri neftyanykh kupleny za 2.1 mlrd rublei" [Rosneft shared deposits in Irkutsk with the Chinese: Three oilfields were purchased for 2.1 billion rubles], *Kommersant*, August 1, 2007.

48. Olga Sukhova, "Riski vashi, zapasy nashi: Pochmu buksuet sozdanie rossiisko-kitaiskikh neftyanykh SP" [Your risks, our reserves: Why the establishment of the Russo-Chinese joint venture is going nowhere], *RusEnergy*, May 30, 2007.

49. "Rosneft and Sinopec Have Signed Agreements to Control Udmurtneft," Rosneft, November 17, 2006, [www.rosneft.com/news/pressrelease/10615.html](http://www.rosneft.com/news/pressrelease/10615.html).

50. "Rosneft and Sinopec Sign Shareholder and Operating Agreement for the Veninsky Block at the Sakhalin-3 Project," Rosneft, March 29, 2007, [www.rosneft.com/news/news\\_in\\_press/10726.html](http://www.rosneft.com/news/news_in_press/10726.html).

The Sino-Russian energy nexus has gradually deepened owing to mutual complementarity between one of the biggest hydrocarbon producers and the biggest consumer. Tapping the growing Chinese market and attracting massive amounts of Chinese capital are necessary if Russia wishes to develop its eastern regions in the future. Then, the energy sector would be the catalyst for interregional cooperation. Indeed, notwithstanding Russia's lingering geopolitical concern about its neighbor, the bilateral energy projects have gradually increased, including a joint project in the oil refinery sector by Rosneft and CNPC.<sup>51</sup> Rosneft is also considering the possibility of inviting Chinese capital to develop the continental shelf in the Okhotsk Sea and small hydrocarbon mining deposits in eastern Siberia.<sup>52</sup>

Paradoxically, however, it appears that Moscow and Beijing will never be freed from their ever-lasting mistrust regardless of how many new projects they may develop. In short, it can be fairly argued that the essence of the so-called Sino-Russian energy partnership has been largely a political show wrapped in a deep-rooted mutual distrust that contradicts the surface impression of an evolutionary consolidation of bilateral relations.

After learning of the accident at the Fukushima Daiichi nuclear power plant in Japan, which was caused by a devastating earthquake and tsunami in March 2011, Prime Minister Putin immediately ordered the related Russian ministries to accelerate work on the Eastern Gas Program, with the expectation of a sudden rise in Japan's demand for LNG as a fuel for thermal power plants to make up for the decline of nuclear generation.<sup>53</sup> Subsequently, other than putting an emphasis on the early realization of the Sakhalin-3 project, Moscow proposed to Tokyo that Russia and Japan jointly develop the Chayandin and Kovykta gas fields.<sup>54</sup>

Moscow had, however, at an earlier time shelved the plan to develop the Kovykta gas field as a Sino-Russian cooperation project. In fact, the head of Gazprom, Alexey Miller, publicly stated as late as December 2010 that Gazprom had no intention of undertaking development of this particular field any earlier than 2018.<sup>55</sup> Gazprom purchased TNK-BP's asset, RUSIA Petroleum, for 25.8 billion rubles at the beginning of March 2011 and is currently expected to quickly acquire a development license.<sup>56</sup>

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51. The joint-venture company, the Chinese-Russian Eastern Petrochemical Company, comprising Rosneft (49 percent) and CNPC (51 percent) signed an agreement to undertake a feasibility study on the construction of a refinery in Tianjin in September 2010. "Rosneft and CNPC Expand Cooperation," Rosneft, November 22, 2010, [www.rosneft.com/news/news\\_in\\_press/22112010.html](http://www.rosneft.com/news/news_in_press/22112010.html).

52. Kirill Mel'nikov, Olga Yagova, and Irina Parfent'eva, "'Rosneft' provodit CNPC ot Sibiri do Magadana: Igor' Sechin raskryl plany sotrudnichestva kompanii" [Rosneft leads CNPC from Siberia to Magadan: Igor Sechin disclosed the company's cooperation plans], *Kommersant*, November 25, 2010.

53. "Putin poruchil skorrektirovat' Vostochnuyu gazovuyu programmu" [Putin ordered correction of Eastern Gas Program], Interfax, March 19, 2011; "Putin: Rossiya mozhnet uskorit' realizatsiyu energoproektov na Dal'nem Vostoke" [Putin: Russia can accelerate realization of energy projects in the Far East], *LawTek*, March 15, 2011.

54. Elena Shatilova, "'Gazprom' zovet yapontsev v Chayandy i Kovykty" [Gazprom calls for Japanese to Chayandin and Kovykta], *RBK Daily*, March 23, 2011.

55. "'Gazprom' otravrit v Kitai gaz, dobytyi na krupneishem v Rossii mestorozhdenii gaza—Kovyktinskoy—eksperty" [Experts suggest that Gazprom will supply gas to China from the largest gas field in Russia, Kovykta], *LawTek*, March 2, 2011.

56. "'Gazprom' postavil na svoi balans 'Kovyktaneftegaz'" [Gazprom placed Kovyktaneftegaz into its own assets], *LawTek*, March 15, 2011. TNK-BP, the largest stakeholder (63.89 percent) of RUSIA Petroleum, having encountered pressure from the Ministry of Natural Resources that implied possible revocation of the development license for the Kovykta gas field, reached a basic agreement with Gazprom in June 2007

It will not be easy to gain Japan's direct involvement, particularly in the Kovykta gas field (the biggest in size) in eastern Siberia. There have also emerged some dissenting voices in Russia with regard to the early realization of exporting natural gas from the Kovykta field to China.<sup>57</sup> The way in which this single biggest gas field in eastern Siberia is developed, including the design of an export route to China, will be a litmus test of Sino-Russian energy linkage.

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regarding the sale of its stake in RUSIA Petroleum to Gazprom. But the final deal could not be concluded until March 2011 because of the bankruptcy of RUSIA Petroleum in October 2010. The background of the governmental pressure on the operator of the Kovykta project was complicated: The official reason why RUSIA Petroleum was blamed for the license violation was its failure to fulfill production quotas, which exceeded the local gas demand by far, while Gazprom, which kept silent about the Kovykta field until recently, did not support the idea of building a gas pipeline to China. According to the federal law enacted in 2006 on the subject of gas exports, Gazprom Export, the export arm of Gazprom, had the exclusive right to export Russian natural gas. In other words, TNK-BP came to a dead end, finding no business feasibility in starting major gas production without any prospect of developing an export route.

57. "Gazprom' otpravil v Kitai gaz, dobytyi na krupneishem v Rossii mestorozhdenii gaza—Kovyktinskom—eksperty".

## 6

## JAPAN-RUSSIA RELATIONS EXPECTATIONS IN DISARRAY

The history of talks on energy cooperation between Moscow and Tokyo dates back to the late 1960s–1970s when the Soviet Union proposed idea of launching joint projects, including creation of a supply route from the Tyumen oilfield in western Siberia to the Pacific Coast by either constructing a 7,000-kilometer pipeline or a railroad as well as development of gas fields in Yakutia. Notwithstanding Tokyo’s mounting concern about stable oil supplies from the Middle East against the backdrop of the outbreak of the first oil shock in the early 1970s,<sup>1</sup> Japan-Soviet cooperation failed to gather momentum as a result of the lack of clear prospects of economic feasibility with regard to Moscow’s proposals as well as unfavorable international settings. An exception was that the Soviet Ministry of Foreign Trade and the Sakhalin Oil Development Cooperation (SODECO) signed a basic agreement on cooperation with regard to exploration of the Sakhalin continental shelf in January 1975.<sup>2</sup>

Tokyo was concerned about exerting an adverse impact on its relations with Washington and Beijing, while both Sino-Soviet and U.S.-Soviet relations deteriorated in the same period.<sup>3</sup> Moscow’s geopolitical intention to build a closer relationship with Tokyo in the midst of the Sino-Soviet conflict by taking advantage of Japan’s need to ensure non-Middle Eastern oil supplies was dashed, and the Soviet Union was not facing a pressing need to develop the country’s eastern flank because oil and natural gas production in western Siberia was on the increase in the 1970s and 1980s, unlike current circumstances. Aside from the slow progress in the Sakhalin project, Russo-Japanese discussions on energy cooperation were virtually shelved until the 1990s against the backdrop of the second Cold War triggered by the Soviet invasion of Afghanistan in 1979 and the debacle of oil prices in international markets since the 1980s.

### Crude Oil Pipeline: Moscow’s Betrayed Hope

The concept of constructing a crude oil pipeline came back to life at the turn of the twenty-first century. In contrast with the 1970s when the Soviet leadership failed to realize the concept of de-

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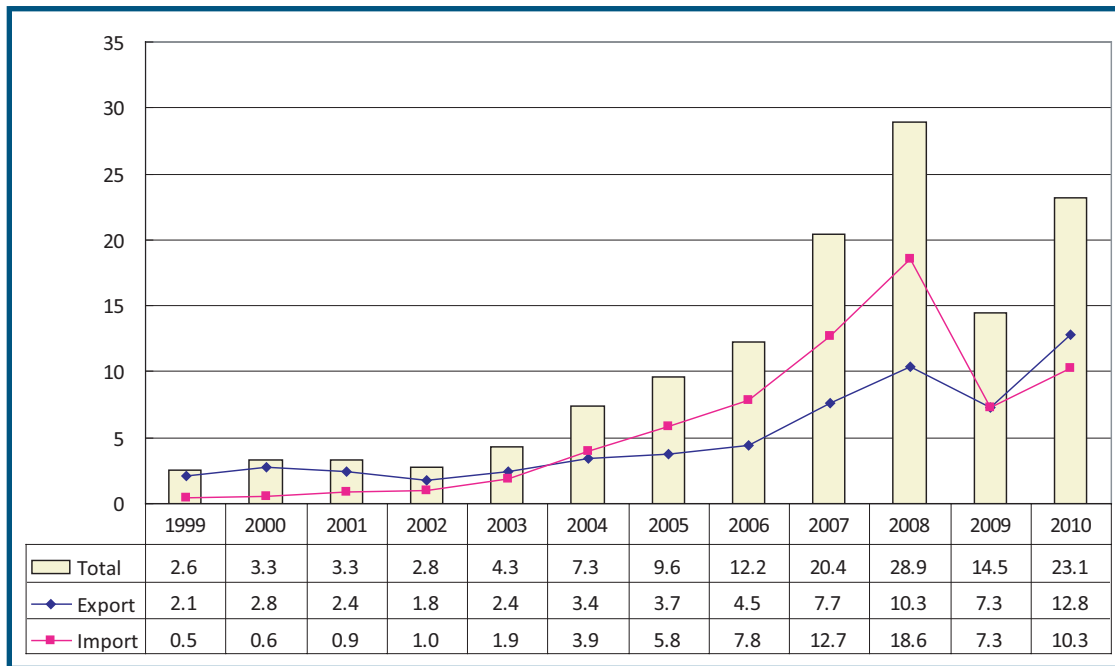
1. Gerald L. Curtis, “The Tyumen Oil Development in Japanese Foreign Policy Decision-Making,” in *The Foreign Policy of Modern Japan*, ed. Robert A. Scalapino (Berkeley: University of California Press, 1977), pp. 147–174.

2. SODECO was established by the Japan National Oil Corporation (JNOC) and 18 domestic trading companies in October 1974.

3. Although the Sino-Soviet conflict peaked with the incident of Damansky Island (Zhenbao dao) in 1969, President Richard Nixon visited China in 1972, a visit that resulted in the Shanghai Communiqué calling for normalization of Sino-U.S. diplomatic relations with Washington’s support for Beijing’s one-China policy. Likewise, Tokyo and Beijing agreed on resuming diplomatic relations with the joint statement of the Japanese and Chinese governments during Prime Minister Kakuei Tanaka’s visit to Beijing in September 1972. The Sino-Japanese Treaty of Peace and Friendship was signed in August 1978. In December 1978, the United States and China announced that bilateral diplomatic relations would be established in January 1979.



**Figure 6.1. Russia's Trade with Japan, 1999–2010 (billion dollars)**



Source: *Tamozhennaya statistika vneshnei torgovli Rossiiskoi Federatsii* [Customs statistics of foreign trade of the Russian Federation] (Moscow: Federal Customs Service of the Russian Federation, various years).

veloping an oil supply route to the East, the oil potential in western Siberia has peaked. The declining productivity of natural gas in western Siberia is less serious than that of crude oil, but it is also coming to be realized as a long-run problem. Development of untapped hydrocarbon potential in the eastern regions has become Russia's Achilles' heel so long as Russia wishes to maintain its current level of oil and gas production or even increase these volumes in the future.<sup>4</sup>

Japan appeared to be of greater importance for Moscow not simply as a source of financing but also of a counterbalance against China, given that development of Russia's integration into Northeast Asia would invariably entail a deepening of interactions between its economically underdeveloped eastern flank and the geographically adjacent historical rival, just as China was experiencing rapid economic growth and increasing political influence. The traditional Russian concern about China's conceivable expansion of influence over the eastern regions has remained virtually unchanged. Deliberate enhancement of Japan's more visible presence in the continental eastern Siberian and Far Eastern regions became a *sine qua non* from the Kremlin's geopolitical standpoint.

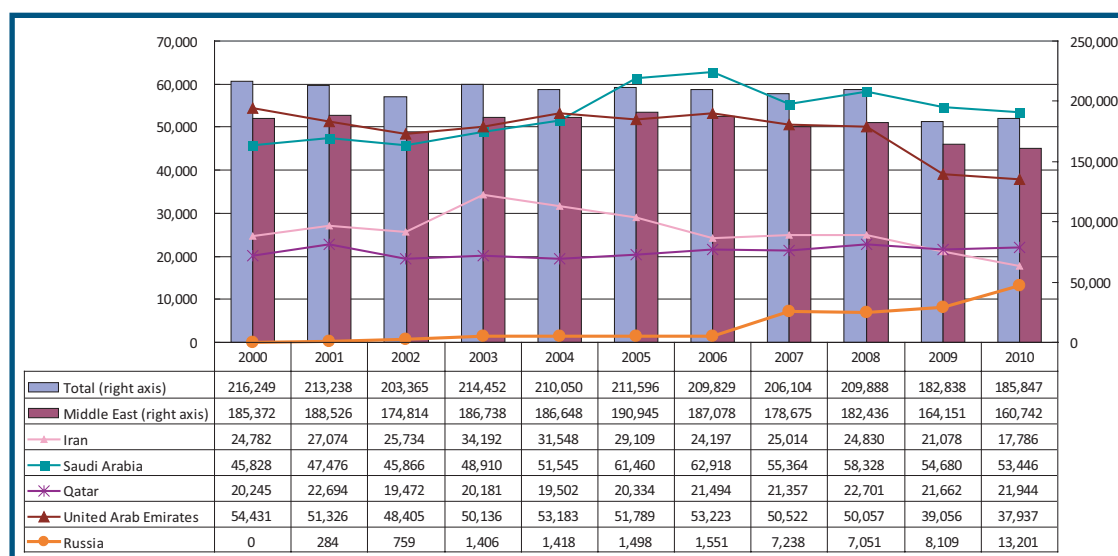
Indeed, notwithstanding the deadlocked negotiations over the territorial issue, Russo-Japanese bilateral trade volumes continued to hit historical highs from 2002 to 2008 because of the rapid growth of the Russian economy (figure 6.1).<sup>5</sup> Crude oil is the main component that has boosted Russia's exports to Japan, just as in the case of Sino-Russian economic relations. Japan's imports

4. Shoichi Itoh, "The Geopolitics of Northeast Asia's Pipeline Development," in Edward C. Chow et al., *Pipeline Politics in Asia: The Intersection of Demand, Energy Markets, and Supply Routes* (Seattle: National Bureau of Asian Research, 2010), p. 20.

5. The average annual growth rate of gross domestic product (GDP) in 2000–2008 reached 7 percent.



**Figure 6.2. Japan's Crude Oil Imports by Country, 2000–2010 (1,000 metric tons)**



Source: Compiled by the author from *Yearbook of Mineral Resources and Petroleum Products Statistics* (Tokyo: Natural Resources and Fuel Department, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry, various years).

Note: The quantity was originally published in kiloliters; 1 kiloliter = 0.863 metric tons.

of Russian crude oil jumped from 1.6 million tons in 2006 to 8.1 million tons in 2009 with the increase in production of the Sakhalin-1 project and then to 13.2 million tons in 2010 with the beginning of the first phase of the Eastern Siberia Pacific Ocean (ESPO) pipeline (figure 6.2). As of 2010, crude oil accounted for 34 percent of Russia's exports to Japan (see figure 5.3).

Japan's large-scale financial commitment has been limited to the Sakhalin projects. The continental part of eastern Russia, which faces China and Moscow and needs Japan's presence most, has not seen large-scale Japanese investment.

Japan and Russia, all other things being equal, would seem to have a natural interest in developing trade in energy, especially since it has been one of Japan's energy security concerns to reduce its high dependence—87 percent as late as 2010—on the Middle East as a source of crude oil supplies. Meanwhile, Russia has gradually emphasized development of hydrocarbon resources in its eastern regions. It takes only three days to ship oil from the Pacific Coast to Japan. By contrast, oil tankers from the Middle East, going through geopolitically sensitive chokepoints including the Strait of Hormuz and the Strait of Malacca, take about 20 days to reach Japan.

Russia not only initially overestimated Japan's immediate need to find a new oil supply route from eastern Siberia but also misinterpreted preconditions it would encounter before it could successfully attract Japanese capital investment on a massive scale. The deadlocked negotiation over the disputed Northern Territories (the Kuril Islands, in Russian terms) is merely a part of the reason why Tokyo has made a more limited financial commitment than Moscow expected at the outset.

The Japan-Russia Action Plan, signed during Prime Minister Junichiro Koizumi's visit to Moscow in January 2003, had a section on energy cooperation:

The two countries share the awareness that the realization of projects that are *in the interests of both sides from an economic perspective* in the field of developing energy resources in the Far Eastern and Siberian regions of the Russian Federation and developing pipelines for transporting these resources will contribute to enhancing the stability of international energy markets and the energy security of the Asia-Pacific region and the whole world. . . .<sup>6</sup>

With the passage of time, Russia and Japan interpreted the statement in different ways. It appeared that Moscow took it for granted that the Japanese government officially promised to finance the construction of the ESPO pipeline if Russia would decide to build an oil pipeline extending to the Pacific Coast instead of realizing the Sino-Russian route.<sup>7</sup> In other words, Moscow failed to pay serious attention to the fact that the economic viability of the ESPO project was still unsatisfactory from Tokyo's point of view.

In November 2005, when President Vladimir V. Putin visited Tokyo, he and Premier Koizumi signed the Detailed Agreement Concerning Cooperation in Individual Energy Fields. Part of this agreement said:

. . . Russia declared that a substantial amount of oil and oil products would be exported from Perevoznaya Bay after the construction of the first phase of the "ESPO pipeline system" has been completed. Russia will endeavor to ensure that the transition to the second phase of the project takes place as soon as possible. Japan welcomes this approach.

Both parties will discuss the conditions for the achievement and implementation of mutually beneficial agreements by companies and institutions in the two countries, concerning feasible cooperation related to the realization of the construction of the second phase of the "ESPO pipeline system." *As a result of these discussions, both parties will aim to reach a mutual understanding as early in 2006 as possible.* This will speed up the realization of the construction of the second phase of the "ESPO pipeline system."<sup>8</sup>

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6. "Japan-Russia Action Plan," Ministry of Foreign Affairs (MOFA), Tokyo, 2003, [www.mofa.go.jp/region/europe/russia/pmv0301/plan.html](http://www.mofa.go.jp/region/europe/russia/pmv0301/plan.html). Emphasis added by author.

7. Bobo Lo, in *Axis of Convenience: Moscow, Beijing, and the New Geopolitics* (Washington, D.C.: Brookings Institution, 2008) argues on page 249 that "some Japanese sources even assert that Tokyo has never offered the Russians a financial package (Shoichi Itoh, in a meeting at Chatham House on December 14, 2007) seems unlikely, however, given both the weight of countervailing evidence and the improbability that the Russian government would undertake the longer and more expensive route without external financial inducements." It is true that many ideas with regard to bilateral cooperation over the ESPO projects, including a variety of scenarios about the possible amount of Japan's investment, were discussed between Tokyo and Moscow over the years. It is, however, debatable whether offering a financial package simply means putting forward a conditional idea or reaching an official agreement with a specific amount of money. If simply putting forward an idea was the case, the Russians might well have taken an unofficial verbal proposal at some point in a series of negotiations as Tokyo's firm position to finance the project. If reaching an agreement was the case, then Japan never broke a "promise" that, Russia believes, Japan had made. One of the high-ranking government officials, now retired, who sat at the same table with Prime Minister Koizumi during his visit to Moscow in January 2003, whom the author interviewed six years later on the condition of anonymity, recalled that the Japanese side did not offer a ready-made financial package to the Russians at that time.

8. "Enerugi-bunya niokeru Nihonkokuseifu to Rosiarenpouseifu tonoaaidano choukikyouryoku no kihonteki houkousei" [Basic direction of long-term cooperation in the field of energy between the government of Japan and the government of the Russian Federation], Ministry of Foreign Affairs of Japan, [www.mofa.go.jp/mofaj/kaidan/yojin/arc\\_05/j\\_russia\\_shomei.html#3](http://www.mofa.go.jp/mofaj/kaidan/yojin/arc_05/j_russia_shomei.html#3). Emphasis added by author.

The aim of reaching a mutual understanding in early 2006 was never realized, and Moscow made a snap decision to begin the construction of the ESPO pipeline. Russia had no alternative but to do so because it could no longer postpone development of its eastern Siberian resources. Without a pipeline from eastern Siberia, virtually no oil companies would make investments in hydrocarbon deposits there. In addition, because of the seriousness of Russia's geopolitical concern about China, developing the pipeline route to the Pacific Coast would have unquestionably remained an indispensable national target.

There are four main reasons why Moscow finally failed to gain Tokyo's proactive financial backing for the ESPO pipeline. Russia naively believed that Japan desperately wanted Russian oil, despite the fact that Japan could reinforce its national energy security without any oil imports from Russia until quite recently. This was true even during the period when Japan was still increasing the amount of oil it was consuming.

The first reason for Russia's failure to get Japan's backing for the ESPO pipeline was that the investment climate in Russia's energy sector never improved. Moscow chose not to provide a government-backed guarantee for a Japanese government loan, and Russia never presented a convincing business-oriented concrete investment framework for the ESPO project. With the spike in oil prices that prompted Russia to take heavy-handed approach to all external negotiations, negotiations with Japan were no exception.

Second, Russia's understanding of Japan's situation as a resource-poor country was no more than superficial. Despite Japan's almost complete dependence on oil imports, with the overwhelming share of the supplies coming from the Middle East, Japan's oil security is much more secure than it may at first appear. Japan has not only improved its energy efficiency more than 30 percent since the first oil shock in the early 1970s, but it has also continuously reduced the share of oil in the composition of primary energy from 77 percent in 1973 to 47 percent in 2008.<sup>9</sup> The volume of oil consumption in Japan peaked by the mid-1990s, after which it began to decrease against the backdrop of the overall decline in Japan's energy consumption. It seems that the so-called Middle East risk tends to be overemphasized given that (1) the expansion of spot oil markets globally has caused less vulnerability than relying on a specific region, (2) it is unrealistic to assume a scenario in which the Middle Eastern countries would ever be united as a region from which no oil at all would be exported to Japan, and (3) Japanese businesspeople have had good reason to increase their investment projects in the Middle East, which they would never implement without calculating business profitability.<sup>10</sup> In addition, Japan has one of the world's largest oil stockpiles, which amount to more than six months of domestic consumption.<sup>11</sup>

Third, it was wishful thinking on Moscow's part that the Sino-Japanese rivalry would continue, causing relations to spiral downward.<sup>12</sup> Prime Minister Koizumi's visits to the Yasukuni Shrine,

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9. *Handbook of Energy and Economic Statistics in Japan* (Tokyo: Energy Conservation Center, 2010), p. 38.

10. Japanese oil refineries are traditionally adapted to process sizable volumes of heavy oil with high sulfur content, imported from the Middle East, of which they can make value-added profits.

11. *Nihon no enerugi- 2010* [Energy in Japan 2010] (Tokyo: Agency for National Resources and Energy, 2010), p. 32.

12. On the background and the changing nature of Sino-Japanese energy nexus, see Xuanli Liao, "The Petroleum Factor in Sino-Japanese Relations: Beyond Energy Cooperation," *International Relations of the Asia-Pacific* 7, no. 1 (2006): pp. 23–36; Xuanli Liao, "Perceptions and Strategies on Energy Security: The Case of China and Japan," in *Energy and Security Cooperation in Asia: Challenges and Prospects*, ed. Christo-

where Japanese war criminals of the Pacific War are enshrined, were criticized by the Chinese leadership and mass media, which fanned anti-Japanese demonstrations by tens of thousands of Chinese people in April 2005. Meanwhile, anti-China nationalism was ignited by the frequent operations of Chinese “research” vessels around disputed national boundaries of China and Japan, and China’s continuation of geological exploration of gas fields has been under dispute in the East China Sea.<sup>13</sup> However, the worsening bilateral relationship between China and Japan—two of the biggest energy consumers—has been getting better since Koizumi left the prime ministership in September 2006, thus undercutting Moscow’s expectation that it would continue to worsen. The total value of Japanese trade with China (including Hong Kong), having overtaken trade with the United States in 2004, has continued to increase.<sup>14</sup> Even Shinzo Abe (prime minister from September 2006 to September 2007) and Taro Aso (prime minister from September 2008 to September 2009), who were well-known as the Liberal Democratic Party’s “hawks” on Japan’s policy toward China, could not help but strive for improvement in Sino-Japanese relations and take into consideration the Japanese business community’s serious concern about the otherwise negative impact on Japan’s domestic economy.

Last, opinions within the Japanese government were far from unanimous with regard to its support for the ESPO project. In addition, virtually no Japanese private oil companies ever expressed an interest in gaining oil equity in the areas adjacent to the ESPO pipeline route.<sup>15</sup> There existed a group of people in the Japanese establishment who called for a radical improvement in Japan-Russia relations by way of strongly supporting the ESPO project—their reason included holding the rise of China in check—but this view has gradually waned. Some in Japan are still afraid that Tokyo will not bargain hard enough with Moscow over the Northern Territories issues. Others have expressed concerns about a variety of uncertainties over the economic viability of the ESPO project, including insufficient information about proven oil reserves.

In March 2008, Japan’s Agency for Natural Resources and Energy (ANRE) signed a framework agreement on cooperation with Rosneft. A month later, during Prime Minister Yasuo Fukuda’s unofficial visit to Moscow, the Irkutsk Oil Company (IOC) and Japan Oil, Gas and Metals National Corporation (JOGMEC) established a joint-venture company, INK-Sever, with the aim of exploring the Severo-Mogdinsky mining deposit with hydrocarbon resources classified as D1 (15 million tons of crude oil and 50 billion cubic meters of natural gas).<sup>16</sup> When Prime Minister Putin visited

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pher Len and Alvin Chew (Stockholm: Institute for Security and Development Policy, 2009), pp. 105–119. On noncompetitive aspects of Sino-Japanese relations in the energy sector, see Shoichi Itoh, “China’s Surging Energy Demand: Trigger for Conflict or Cooperation with Japan?” *East Asia: An International Quarterly* 25, no. 1 (2008): pp. 79–98.

13. Richard C. Bush, *The Perils of Proximity: China-Japan Security Relations* (Washington, D.C.: Brookings Institution Press, 2010), pp. 75–81.

14. According to the trade statistics of Japan Customs, the total volume of Sino-Japanese trade was \$205 billion in 2004 and \$346 billion in 2010; and U.S.-Japan trade amounted to \$189 billion in 2004 and \$185 billion in 2010.

15. The former Russian ambassador to Japan, Aleksandr Losiukov, who served from June 2004 to November 2006, commented: “We feel that Japanese government officials basically hope for the ESPO pipeline to reach the Pacific Ocean, but their private energy companies are very passive. The Chinese lobbying is stronger in this regard. I don’t think that Sino-Japanese competition would provide Russia with a ‘weapon.’” “Nado zakrepiť granitsu s Yaponiei” [We need to reinforce the border with Japan], *Vremya novostei*, April 25, 2008.

16. On the geological classification, see note no. 13 in chapter 2. Irkutsk Oil Company holds a 51 percent stake in INK-Sever, just as Rosneft does in the Sino-Russian joint-venture company, Vostok Energy.

**Table 6.1. Russia's Joint Ventures with China and Japan in East Siberian Oil and Gas Fields**

	Russia-China		Russia-Japan		
Joint-venture company	Vostok Energy		INK-Sever	INK-Zapad	
Ratio of shares	Rosneft 51%; CNPC 49%		Rosneft 51%; JOGMEC 49%	Rosneft 51%; JOGMEC 49%	
Mining deposits	Zapadno-chonsk	Verkhnechersk	Severo-Mogdinsky	Bol'shetirsky	Zapadno-Yaraktinsky
Crude oil (million tons)	5 (C3) and 30 (D1)	50 (D1)	15 (D1)	8 (D1)	5 (D1)
Natural gas (billion cubic meters)	15 (D1)	90 (D1)	50 (D1)	32 (D1)	20 (D1)

Source: Compiled by the author from various sources.

Tokyo in May 2009, IOC and JOGMEC established another joint-venture company, INK-Zapad, with an agreement to begin joint exploration of the Bol'shetirsky and Zapadno-Yaraktinsky mining deposits.<sup>17</sup> Both fields have hydrocarbon resources classified as D1: Bol'shetirsky has 8 million tons of crude oil and 32 billion cubic meters of natural gas; and Zapadno-Yaraktinsky has 5 million tons of crude oil and 20 billion cubic meters of natural gas (see table 6.1).<sup>18</sup> The exact amounts and the percentage of Japanese investments in exploring three of those mining deposits have not been released officially. Even if Japan shouldered the full costs, however, the aggregate investment was reported to be no more than \$250 million.<sup>19</sup>

## Sakhalin Projects

### Sakhalin-1 Project

In the Sakhalin continental shelf, the Odoptu mining field and the Chaivo mining field were indentified in 1977 and 1979, respectively. The Arkutun-Dagi mining field was also identified and

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Aleksei Kopylov and Natal'ya Skorl'gina, "Yapontsy vtorglis' v Vostochnuiu Sibir': JOGMEC sozdaet SP s Irkutskoi neftyanoi kompaniei" [The Japanese encroached on eastern Siberia: JOGMEC created a joint-venture company with Irkutsk Oil Company], *Kommersant*, April 29, 2008.

17. The ratio of the stakes is the same as for INK-Sever.

18. Sergei Ispolatov, "Zavlekatel'nye uchastki: Yaponskaya JOGMEC sozdala vtoroe SP dlya osvoiniya mal'kh mestorozhdenii v Irkutskoi oblasti" [Attractive sites: Japanese JOGMEC created the second joint-venture company for developing small mining deposits in the Irkutsk region], *RBK daily*, May 13, 2009.

19. The investment amount for exploring the Severo-Mogdinsky mining deposit for five years up to 2012 was estimated at about \$100 million, and the amount for the Bol'shetirsky mining deposit and the Zapadno-Yaraktinsky mining deposit together, prior to commercial production, was estimated at about \$150 million; see Wakako Takeuchi, "Nihon muke paipurain, kensetsukeikaku no sokushin mo kitai" [Pipeline toward Japan, expectation of encouraging the construction plan], *Yomiuri Shimbun*, April 27, 2008. See also "Higashi shiberia de yuden keneki, Nichiro kyoudou kaihatu goui he, 13nen ikou honkaku seisan" [Oil equity in eastern Siberia, Japan-Russia agreement on joint development, production in full swing after 2013], *Nihon Keizai Shimbun*, May 12, 2009.



**Table 6.2. Japan's Imports of Crude Oil from Russia, 2001–2010 (1,000 metric tons)**

Imports	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sokol (from Sakhalin-1)	—	—	—	—	—	—	4,803	4,233	4,676	3,359
Vityaz (from Sakhalin-2)	284	470	708	1,274	1,498	993	1,094	449	933	2,496
Espo (from Kozmino)	—	—	—	—	—	—	—	—	—	4,429
Others	—	289	697	143	—	559	1,341	2,369	2,500	2,916
Total	284	759	1,406	1,418	1,498	1,551	7,238	7,051	8,109	13,201

Source: Compiled by the author from *Yearbook of Mineral Resources and Petroleum Products Statistics* (Tokyo: Natural Resources and Fuel Department, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry, various years).

Note: The quantity was originally published in kiloliters; 1 kiloliter = 0.863 metric tons.

integrated into the Sakhalin-1 project.<sup>20</sup> The Sakhalin Oil Development Cooperation was transformed into the new Sakhalin Oil and Gas Corporation (also called SODECO) in March 1995. The Japan National Oil Corporation (JNOC), predecessor of JOGMEC, held 50 percent of the shares, and 14 Japanese private companies invested in the remainder. SODECO formed an international consortium in which SODECO and Exxon Neftegaz, as the project's operator, each held a 30 percent stake in the investment portfolio. Rosneft-Sakhalin and Sakhalinmorneftegaz-Shelf accounted for 17 percent and 23 percent of the investment ratio, respectively.

In June 1995 the consortium signed a production-sharing agreement (PSA) with the Russian government and the Sakhalin regional administration. The Russian law on the PSA concerning the Sakhalin-1 project was proclaimed in January 1996, and the project commenced in June of the same year. India's Oil and Natural Gas Corporation (ONGC) purchased half of Russia's 40 percent share in the project in February 2000.<sup>21</sup>

The first crude oil export was commissioned in October 2006. As late as 2010, Japan imported 3.4 million tons of crude oil (Sokol) from the Sakhalin-1 project (table 6.2).

With regard to exporting natural gas, however, no firm schedule has been confirmed to date. Gazprom has opposed ExxonMobil's proposal of supplying gas from the Sakhalin-1 project via pipeline to China; instead, Gazprom has insisted on constructing a new LNG plant, with the estimated cost of \$20 billion, at the endpoint of the SKV pipeline.<sup>22</sup> In May 2009 Gazprom signed a basic agreement to undertake an economic feasibility study with the ANRE, Itochu Corporation, and Japan Petroleum Exploration Corporation (JAPEX).<sup>23</sup> There remain numerous uncertainties

20. "Project History," Exxon Neftegaz, [www.sakhalin1.com/Sakhalin/Russia-English/Upstream/about\\_history.aspx](http://www.sakhalin1.com/Sakhalin/Russia-English/Upstream/about_history.aspx).

21. The investment breakdown for the Sakhalin-1 project turned out to be Exxon Neftegaz, 30 percent; SODECO, 30 percent; Rosneft-Astra, 8.5 percent; Sakhalinmorneftegaz-Shelf, 11.5 percent; and ONGC, 20 percent.

22. Svetlana Milyaeva, "Gazprom Begins Push into the Asia-Pacific Region," *Russian Petroleum Investor* (May 2010): p. 19.

23. "Nichiro Enetantoushou Urajio LNG Jigyouka Kentou Goui" [Japanese and Russian energy ministers agreed on studying a launch of an LNG project in Vladivostok], *Denki Shimbun*, May 13, 2009.

from the standpoint of business profitability against the backdrop of the issues of, for example, the shale-gas revolution in North America, the massive new supply flow from Qatar, and mushrooming new LNG plants in Australia and Southeast Asia.

## Sakhalin-2 Project

Notwithstanding the aggravation of East-West relations in the early 1980s when Tokyo respected Washington's economic sanctions imposed on Moscow in response to the declaration of a state of martial law in Poland, the Soviet Union did still gradually develop the Sakhalin continental shelf.<sup>24</sup> By the mid-1980s, the Lunskeye mining field and the Piltun-Astokhskoye field were identified by Sakhalinmorneftegaz, which made the best use of exploration technologies they had gained through cooperation with Japan in 1970s.<sup>25</sup>

Sakhalinmorneftegaz established an international consortium with Mitsui and a U.S. company, McDermott, with an aim of developing these fields jointly in October 1986. They signed a memorandum of development cooperation with the Soviet Ministry of Oil Industry in 1988. The so-called MMM consortium was born with the participation of another U.S. company, Marathon, in February 1991. The MMM consortium signed an agreement with the Russian government in March 1992 to undertake a feasibility study of the Sakhalin-2 project, and Shell and Mitsubishi subsequently joined the international consortium in the same year.

Sakhalin Energy Investment Company was established by the five foreign companies in April 1994.<sup>26</sup> Two months later, the Russian government and the Sakhalin regional administration signed a PSA with Sakhalin Energy as the operator of the Sakhalin-2 project. The PSA was proclaimed in May 1996. It was not until February 1999, however, that the PSA actually entered into force because related domestic laws that conflicted with the PSA had to be revised.<sup>27</sup>

The two U.S. companies, McDermott and Marathon, withdrew from the Sakhalin-2 project in 1997 and 2000.<sup>28</sup> As late as December 2000, Shell, Mitsui, and Mitsubishi accounted for 55 percent, 25 percent, and 20 percent, respectively, in Sakhalin Energy.

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24. Takashi Murakami, ed., *Saharin tairikudana sekiyu/gasu kaihatsu to kankyō hozen* [Sakhalin offshore oil and gas development and environmental protection] (Sapporo: Hokkaido University, 2003), pp. 6–7.

25. *Ibid.*, p. 14.

26. At first, the investment breakdown for the Sakhalin-2 project was Marathon Sakhalin, 30 percent; McDermott Sakhalin, 20 percent; Mitsui Sakhalin Development, 20 percent; Shell Sakhalin Holdings, 20 percent; and Diamond Gas Sakhalin B.V. (Mitsubishi), 10 percent.

27. Murakami, ed., *Saharin tairikudana sekiyu/gasu kaihatsu to kankyō hozen*, pp. 24–26.

28. McDermott sold its 20 percent interest in the Sakhalin-2 project to the other members of the consortium for \$110 million in April 1997. As a result, the investment percentages became Marathon Sakhalin, 37.5 percent; Mitsui Sakhalin Development, 25 percent; Shell Sakhalin Holding, 25 percent; and Diamond Gas Sakhalin B.V., 12.5 percent; see “McDermott Sells Its Stakes in Sakhalin Energy,” *New York Times*, April 11, 1997. In October 2000, Shell Sakhalin Holdings and Marathon Sakhalin signed an exchange agreement with regard to the transfer of Marathon's 37.5 percent interest in Sakhalin Energy Investment to Shell in return for Marathon's acquisition of Shell UK Limited's 28 percent interest in the Foynaven field in the United Kingdom, and others. Subsequently, Shell sold a 7.5 percent interest in Sakhalin Energy to Mitsubishi. See “Shell Sakhalin Holdings B.V. and Marathon Sakhalin Limited Have Now Completed the Exchange Agreement,” Sakhalin Energy, December 6, 2000, [www.sakhalinenergy.ru/en/media.asp?p=media\\_page&itmID=149](http://www.sakhalinenergy.ru/en/media.asp?p=media_page&itmID=149).



In September 2006, the Russian Ministry of Natural Resources announced a flaw in the Sakhalin-2 project's environmental assessment, which the Russian government had officially approved in 2003. Yet it was not until Putin's second presidential term that Moscow began to raise serious environmental concerns against the backdrop of an upsurge in resource nationalism with the spike in international oil prices. This delay occurred despite the fact that the environmental problems had been raised by some organizations, including local nongovernmental organizations.<sup>29</sup>

It was also noted that Moscow was irritated by the increase in the cost of the project's development. The Sakhalin-2 project's operator, Shell, disclosed in July 2005 that the project's cost would increase to \$20 billion, which was twice as expensive as the original estimate, against the backdrop of the weakening of the dollar and the rise in construction materials. Under the revised investment plan, the Russian government's income from the project, including profit tax (32 percent) on the project that was stipulated in the PSA, will be delayed for a longer period than originally anticipated.<sup>30</sup>

With Gazprom's participation in the Sakhalin-2 project, however, Moscow's pressure on Sakhalin Energy by way of implying possible disapproval of the project's continuation on account of environmental destruction and cost overruns came to an abrupt end. In December 2006, Shell, Mitsui, and Mitsubishi signed a protocol to surrender their 50 percent plus one share stake to Gazprom for \$7.45 billion. As a result, the percentage of investment of Shell, Mitsui, and Mitsubishi in Sakhalin-2 worked out to be 27.5 percent minus one share, 12.5 percent, and 10 percent, respectively.

In addition, the three companies agreed to cover \$3.6 billion out of \$19.4 billion of the revised investment plan, not to include their payment toward the project's cost, in return for the Russian government's approval of the revised budget proposal in the PSA framework.<sup>31</sup>

With Gazprom's acquisition of the controlling shares in the Sakhalin-2 project, the Russian government stopped complaining of environmental destruction without suggesting how the environmental questions were to be solved. The absence of Russia's presence as a stakeholder in the project had been an object of domestic criticism since the mid-1990s. President Putin once reportedly described the PSA as "a colonial treaty" and regretted that the officials who approved it had not been imprisoned.<sup>32</sup> Even though local concerns about ecological catastrophe associated with the project were undeniable, it seems clear that bringing this issue to the forefront during the criticism of Sakhalin Energy was in retrospect no more than a pretext so that Moscow could impose its pressure on foreign stakeholders to "welcome" Gazprom's presence for the continuation of the Sakhalin-2 project. It was an urgent issue for Sakhalin Energy in order to avoid the suspension of the project, given that it had already signed long-term contracts with more than several Japanese buyers for LNG shipments.

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29. Shigeyuki Iwaki, "Saharin-2 mondai: Shigen nashonarismus to kankyou mondai no hazamade" [The Sakhalin-2 question poised between resource nationalism and environmental problems], *Reference 2007.5* (Tokyo: Research and Legislative Reference Bureau, National Diet Library, 2007).

30. In the meantime, the Russian government would receive only 6 percent of oil and gas sales as royalties for the use of the mining deposits until the rest of money would pay for the cost of the project before Sakhalin Energy would begin to recover the total sum of investments. *Ibid.*, pp. 19–20.

31. Vera Surzhenko and Aleksandr Bekker, "Sekonomili \$3.6 mlrd: novye detali po 'Sakhalin-2'" [3.6 billion dollars were saved: new details about "Sakhalin-2"], *Vedomosti*, December 28, 2006.

32. Marshall I. Goldman, *Petrostate: Putin, Power, and the New State* (New York: Oxford University Press, 2008), p. 86.

**Table 6.3. Russia’s Liquefied Natural Gas Exports by Country, 2009 and 2010 (billion cubic meters)**

Country	2009	2010
China	0.25	0.51
India	0.67	—
Japan	3.69	8.23
Republic of Korea	1.35	3.90
Taiwan	0.24	0.67
Kuwait	0.41	0.09
Total	6.61	13.40

Source: *BP Statistical Review of World Energy*, 2010, 2011.

Note: As of 2010, the Sakhalin-2 was the sole project to export LNG from Russia.

In 2010, 6.6 million tons of crude oil and 15.4 billion cubic meters of natural gas were produced in the Sakhalin-2 project.<sup>33</sup> Japan imported 2.5 million tons of crude oil (Vityaz) and 8.2 billion cubic meters (6.9 million tons) of LNG—about 9 percent of its total LNG imports—from this project (tables 6.2 and 6.3).<sup>34</sup> Japan accounted for about 60 percent of the project’s LNG product in the same year.

33. *Neft’ i Kapital* [Oil and gas], no. 1–2, 2011, p. 79.

34. Japan’s import data are from Japan Customs. By 2010, nine Japanese companies had signed long-term (from 15 to 24 years) sales and purchase agreements with Sakhalin Energy; see *Gasu Nenkan* [Gas almanac 2010] (Tokyo: Texreport, 2010), p. 174.

## 7

STRATEGIC IMPLICATIONS  
AND RECOMMENDATIONS

- The Russian experiences of playing a geopolitical game in Northeast Asia have testified to the limit of Moscow's capability to use energy as diplomatic leverage, given that the Northeast Asian region is just beginning to increase oil and natural gas imports from Russia. This is quite different from Europe, where both oil and gas dependence on Russia is traditionally high.<sup>1</sup>
- Russia has faced an almost insurmountable investment challenge as it has been accelerating development of untapped oil and gas resources in eastern Siberia and the Far East. This can be overcome only by massive inflows of foreign investment, inflows that are unlikely without overturning Moscow's traditional geopolitical mind-set of securitizing energy trade.
- Russia's deep-rooted geopolitical concern about China and Beijing's mistrust of Moscow have been and will be ineradicable, regardless of how diplomatically their strategic partnership will be orchestrated in world politics. Given that the convergence of Sino-Russian interest has its own limits, there is no need to worry about any deepening of the bilateral energy nexus. On the contrary, the enhancement of Sino-Russian energy interdependence should be welcomed and even strategically encouraged for the purpose of reducing volatility of international oil and natural gas prices. In other words, increases in Russia's oil and gas exports to China would alleviate the impact of China's surging energy demand upon the hydrocarbon markets.
- The United States should seriously consider building a transpacific approach to Russia. With the demise of the Soviet Union and the subsequent disappearance of its military threat in the Asia-Pacific region after the 1990s, Washington's Russia policy has been overwhelmingly based on transatlantic perspectives across Europe. Russia has gradually attempted to project its influence eastward since the turn of the twenty-first century by way of reinforcing energy links with Northeast Asia. Furthermore, the world economy's center of gravity, led by China, has increasingly shifted to the Asia-Pacific. The United States, with its oil major, ExxonMobil, already has a stake in the Sakhalin-1 project as the operator and should make a more proactive commitment in designing future scenarios of the energy nexus in the region.
- The diversification of huge investment risks with an aim to make the best use of hidden oil and natural gas potential in eastern Russia would be a key to constructing a multilateral framework in Northeast Asia through joint projects on building energy security. The author recommends establishment of an international consortium involving Russia, China, Japan, the Republic of Korea, the United States, and others. Because of the scale of investment risks as well as Russia's resource nationalism, Russia should cover no less than a half of the total financial costs, and the

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1. Russia accounted for 31 percent of the European Union's gas imports and 27 percent of the EU's crude oil imports in 2009. *EU-Russia Energy Dialogue 2000–2010: Opportunities for Our Future Energy Partnership*, printed on the occasion of the 10th anniversary of the EU-Russia Energy Dialogue by European Commissioner for Energy Günther H. Oettinger and Minister of Energy Sergey I. Shmatko, November 2010.

rest could be diversified among the consuming nations. This is, first, a way to prevent a big producer from using energy to drive a wedge between consuming nations in the future. Second, this would avoid each stakeholder from bearing an excessive amount of investment risk. Third, this would be a method for Russia to maximize foreign capital to accelerate development of the eastern regions while counterbalancing conceivable expansion of China's influence for the purpose of reducing Moscow's traditional concern about the loss of its geopolitical interest.

- There is an opportunity to design two-layered, positive-sum games among the consuming nations as well as between the consuming nations and the producing giant in Northeast Asia. A heuristic approach with creative and imaginative ideas is needed to seek regional energy security, knowing that the result would have implications not only for global energy markets but also for geopolitical security among the big powers in the twenty-first century.



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