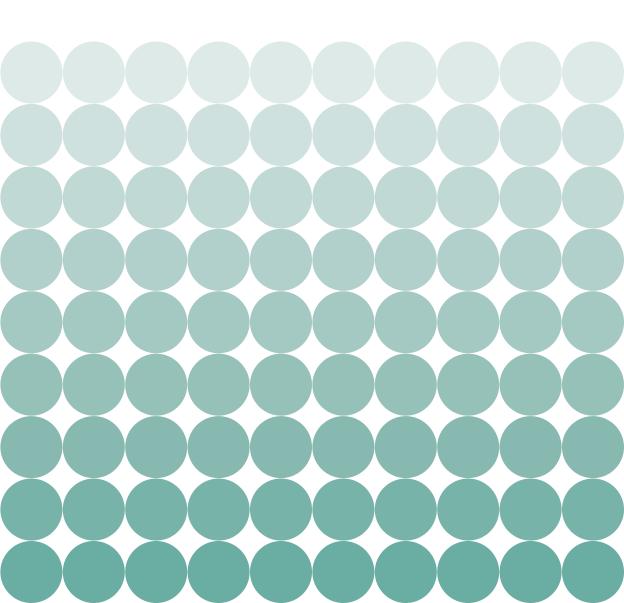


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CHINA'S ENERGY AND SECURITY RELATIONS WITH RUSSIA

Hopes, Frustrations and Uncertainties

LINDA JAKOBSON, PAUL HOLTOM, DEAN KNOX AND JINGCHAO PENG



STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE

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Preface

In 1996 the leaders of China and Russia, Jiang Zemin and Boris Yeltsin, declared the establishment of a 'strategic partnership' between the two countries. Considering the dramatic changes undergone in the world since then, especially in China and Russia, 1996 seems a long time ago indeed.

China has grown with remarkable speed to become the world's second largest economy, oil importer and military spender. It is the world's largest in regards to greenhouse gas emission, foreign currency reserves, exports and manufacturing. This growth highlights a power shift from West to East: China's rise has had an enormous impact on the spectrum of international relationships at global and regional levels, and is one of the most important strategic developments of the past 15 years. But while China's ascendance and its impact around the world—in Africa, in South America, and vis-à-vis the United States and Europe—is the subject of frequent and often heated inquiry, less attention has been given to assessing the impact on its longstanding 'strategic partnership' with Russia.

Hence the timeliness and value of this study, which illuminates the current status of and likely prospects for China-Russia relations. One of the most important and unique aspects of this study is its emphasis on Chinese perspectives. The work not only draws on open-source analyses published by Chinese specialists in Chinese and English but is also based on research interviews conducted by the authors in China from late 2009 to early 2011 with Chinese officials and experts concerned with security and energy relations with Russia. It is also informed by research interviews with Russian China specialists and security analysts conducted in Moscow from October-November 2010 to gauge Russian views on Chinese perceptions of the partnership. Delving deeply into two of the most important aspects of China-Russia ties-security ties and energy links-the study is rich in insight and detail. The authors conclude that while these two countries will remain pragmatic 'partners of convenience', the foundation of their relationship over the past two decades-military and energy cooperation-is eroding, and Russia's significance to China will continue to diminish.

I am particularly pleased to note that this study results from close and fruitful cooperation between two SIPRI programmes—the China and Global Security Programme and the Arms Transfers Programme—and was led by the directors of those programmes, Linda Jakobson (who stepped down from this position as of April 2011 to take up new duties at the Lowy Institute for International Policy in Sydney, Australia) and Paul Holtom, respectively. They were ably supported with excellent contributions from two research assistants in the China and Global Security Programme, Dean Knox and Jingchao Peng. I join with the authors in thanking SIPRI colleagues Oliver Bräuner, Mark Bromley and John Hart for their insightful comments and suggestions on earlier drafts of the study. Members of

the SIPRI editorial team, Joey Fox and Angela Hur, also lent their great skill to improving the final version of the study.

On behalf of SIPRI and the authors, I would also like to thank the Finnish Ministry of Defence and the Finnish Ministry of Foreign Affairs for their generous support, which helped make the study possible.

> Dr Bates Gill Director, SIPRI September 2011

Summary

Fifteen years have passed since China and Russia formed a 'strategic cooperative partnership' in 1996, and 2011 marks the 10th anniversary of their 2001 Treaty of Good-Neighbourliness and Friendly Cooperation. Considering the significant changes that have taken place in China and Russia over this period, it is well worth assessing the meaning of the China–Russia 'strategic partnership' and their declared 'good-neighbourly' relations.

Relations between China and Russia are regularly described as 'at their best in history' by officials from both sides. Yet Chinese foreign policy specialists stress that centuries of antagonism have bred a deep-rooted mistrust that continues to challenge the fostering of close China–Russia relations. Furthermore, China's rising global influence is also regarded in Beijing as a complicating factor for the 'partnership between equals'.

China and Russia are interested in expanding bilateral cooperation in a variety of areas and share a number of mutual interests with regard to regional and international security and stability. For example, both seek to preserve stability in their respective 'near abroads', both have an aversion to a United States-led unipolar world, both promote multilateralism and both defend the principle of non-interference in other countries' affairs. However, the 'strategic partnership' falls short of the aspirational official rhetoric of both sides. Chinese observers characterize China–Russia relations as warm at the governmental level and cold at the grass roots level, as politically mature and economically weak. A fundamental problem in the relationship, in the eyes of Chinese analysts, is a divergence between Chinese and Russian world views. A number of Chinese specialists believe that Russia views itself in European terms, thereby weakening its desire or ability to strengthen its relationship with China. There are three common threads in the views of Chinese policymakers and analysts regarding the China–Russia partnership; pragmatism, lack of political trust and the US factor.

A cornerstone of the China–Russia relationship since the early 1990s has been military cooperation. Cooperation has developed in the military-political, training and military-technical spheres. Between 1991 and 2010, an estimated 90 per cent of China's imported major conventional weapons were supplied by Russia. China remains interested in Russian military technology and components but has not placed a significant order since 2005. Six factors affect Russia's ability and willingness to deliver the weapons and technology that China seeks: (a) Russian technology levels; (b) competition from other suppliers; (c) the quality of Russian arms exports; (d) Russian arms transfer relations with India; (e) concerns about Chinese copying; and (f) Chinese competition with Russia on the arms market. In contrast, military training cooperation has developed positively since 2005. The four 'Peace Mission' joint military exercises (in 2005, 2007, 2009 and 2010) provided for high-level consultations on defence cooperation and global and regional security, combat exercises and live fire drills. China derives a range of benefits from the Peace Mission exercises, and during Peace Mission 2010

demonstrated that it could move large numbers of troops and equipment over considerable distances.

At first glance, China and Russia seem perfectly matched in the energy sphere considering their geographic proximity and near perfect supply and demand complementarity. However, energy cooperation between China and Russia is modest. In 2010, imports from Russia accounted for a mere 6 per cent of China's total oil imports. Chinese experts highlight a number of challenges for future cooperation on oil, such as Russia's declining production in Siberia, barriers to foreign upstream investment in Russia and pricing disputes. Prospects for cooperation on coal are subject to the same uncertainty, and the lack of meaningful cooperation on natural gas is even more evident. China currently imports a very small amount of liquefied natural gas (LNG) from Russia. Negotiations on a natural gas pipeline have been held up for years due to pricing disagreements. Meanwhile, China is diversifying energy imports and the government has drafted an ambitious plan to explore shale gas reserves. These developments have strengthened China's hand in gas negotiations. Nuclear power cooperation continues in China's Tianwan power plant, and Russia is committed to jointly construct new reactors with China. But China's determination to develop its own technology and competition from France and the USA makes Russian technology less attractive.

While some of the grander expectations of China–Russia relations are unlikely to develop, the two countries will nevertheless avoid antagonizing one another and will find common interests in a stable relationship. The relationship may encounter tension over specific issues, but it is relatively resistant to long-term damage because of the pragmatism of both parties and the willingness to discuss differences behind closed doors. China and Russia will continue to be pragmatic partners of convenience, but not partners based on deeper shared world views and strategic interests. In the coming years, while relations will remain close at the diplomatic level, the two cornerstones of the partnership over the past two decades—military and energy cooperation—will continue to crumble. As a result, Russia's significance to China will continue to diminish.

Abbreviations

AU African Union bcm Billion cubic meters

CNPC China National Petroleum Corporation ESPO East Siberia-Pacific Ocean (oil pipeline)

IEA International Energy Agency

LNG Liquefied natural gas

NATO North Atlantic Treaty Organization NTC National Transitional Council PLA People's Liberation Army

SCO Shanghai Cooperation Organisation

Sinopec China Petroleum and Chemical Corporation

UN United Nations

1. Introduction

Fifteen years have passed since China and Russia formed a 'strategic cooperative partnership' in 1996, and 2011 marks the 10th anniversary of their 2001 Treaty of Good-Neighbourliness and Friendly Cooperation.¹ Given this passage of time, the significant changes in the world, especially in China and Russia over this period, China's continuing accretion of strength and influence, and Russia's continuing importance as a major power, it is well worth assessing the meaning of the China–Russia 'strategic partnership' and their declared 'good-neighbourly' relations.

It is particularly important to take stock of China–Russia relations as the official political rhetoric between the two neighbours often belies the inherent obstacles that prevent the emergence of a truly strategic partnership between them. Chinese and Russian officials regularly note that relations between the two countries are 'at their best in history'. However, this formulation reveals little about the actual nature of the ties, particularly from a Chinese perspective.

To begin, while Chinese policymakers and analysts might agree with the formulation, it might not be for the same reasons as their Russian counterparts. Beijing's relations with Moscow in the early years of the People's Republic were close, but China was undeniably the junior partner. Today, Chinese analysts refer to 'normal state-to-state relations ... between friendly neighbours' based on equality, mutual benefit and mutual respect.³ They use the term 'partnership between equals'—although they are aware that some in Moscow are concerned about the balance tipping in China's favour.⁴

Moreover, Chinese foreign policy specialists argue that 'calling the bilateral relations "the best in history" is relative as there are still important challenges to

¹In Chinese, the partnership is called the 'strategic cooperative partnership'. See '中俄联合声明' [Sino-Russia joint statement], Xinhua, 25 Apr. 1996, http://news.xinhuanet.com/ziliao/2002-11/27/content_642 464.htm>. In English, 'strategic partnership' is used. See 'Joint Declaration by the People's Republic of China and the Russian Federation: Adopted at Beijing on 25 April 1996', 2 May 1996, United Nations General Assembly, A/51/127, http://www.un.org/documents/ga/docs/51/plenary/a51-127.htm; and Chinese Ministry of Foreign Affairs, Treaty of Good-Neighbourliness and Friendly Cooperation Between the People's Republic of China and the Russian Federation, 24 July 2001, http://www.fmprc.gov.cn/eng/wjdt/2649/t15771 htm>

² See e.g. 'China–Russia relations at their best: ambassador', Xinhua, 26 Sep. 2010, http://news.xinhua.net.com/english2010/china/2010-09/26/c_13530762.htm.

³ See e.g. Sun, Z. and Li, N., '稳步推进的中俄关系' [Steadily advancing China–Russia relations], *Chifeng Xueyuan Xuebao*, vol. 30, no. 5, May 2009.

⁴ Feng, Y., Director of Institute of Russian Studies, China Institutes of Contemporary International Relations, Interview with author, Beijing, 9 Dec. 2009; Mei, X., '中国经济的隐形优势' [Intangible advantages of China's economy], Xinhua, 22 July 2010, 'http://news.xinhuanet.com/comments/2010-07/22/c_12361 410.htm>; and Feng, Q., '中俄战略关系的内涵变化: 从政治战略协作到国家发展战略协调' [On implicit changes in China–Russia strategic partnership: from political collaborative strategy to national development coordination strategy], *Jiaoxue yu Yanjiu*, no. 4 (2009), p. 46. See also Bellacqua, J., 'Introduction', ed. J. Bellacqua, *The Future of China–Russia Relations* (University Press of Kentucky: Lexington, KY, 2010), p. 8.

meet in Sino-Russian relations'. Centuries of antagonism have bred deep-rooted mistrust in both countries. In a remarkably candid on-the-record comment, a prominent Beijing-based academic observed, 'We have had 400 years of contact, and Russia has deceived us many times. We cannot completely trust them'. A Chinese foreign policy specialist stated that although many Chinese dislike Japan or the United States, they concede they have much to learn from these two countries. He concluded, 'But what do the Chinese have to learn from Russia?' Chinese analysts often observe that China has risen to great power status as Russia's power has waned. China has surpassed Russia as a focus of attention among policymakers in Washington, further complicating China-Russia relations. In addition, China has used its economic power to gain political clout in Central Asian countries, which Russia perceives as part of its traditional sphere of influence.

More broadly, in looking at the principal interests that shape China's policies toward Russia, it is not always clear that the two countries see eye-to-eye. In relations with Russia, Chinese policy seeks to (a) assure stability along its border with Russia and in the provinces that border Russia; (b) develop China's role as a regional power in Central and North East Asia, and as a great power in the international arena; (c) help address China's growing energy needs; (d) assist in China's military modernization and military-technical development; and (e) accelerate the economic development of China's northern border provinces. China clearly shares only the first interest with Russia: both countries have benefited from a peaceful and secure border since complete demarcation was announced in 1997.9 However, the other four interests encompass elements on which the two sides have differing views, complicating bilateral relations.

Such issues have continuously plagued China–Russia relations, and during the past 10–15 years Chinese and Russian analysts, along with outside observers, have debated the meaning of the China–Russia 'strategic relationship' and their 'goodneighbourly relations'. Do these neighbours have mutual strategic interests, and if so, where do they lie? Are they genuine strategic partners? If so, what does that mean for the rest of the world? If China's economic wealth, military power and diplomatic weight continue to grow, it will be important to understand Chinese perceptions and responses to these questions.

⁵ Feng, S., 'Russia and contemporary East Asia: also on the interaction of Sino-Russian-Japanese trilateral relations in the early twenty-first century', ed. I. Akihiro, *Eager Eyes Fixed on Eurasia-Russia and its Eastern Edge*, vol. 2 (Slavic Research Center: Sapporo, 2007), p. 203.

⁶ Haukkala, H. and Jakobson, L., 'The myth of a Sino-Russian challenge to the west', *International Spectator*, vol. 44, no. 3 (Sep. 2009), pp. 70–71.

⁷ Guan, G., Associate professor of international relations, School of International Studies, Beijing University, Interview with author, Beijing, 2 Dec. 2009.

 $^{^8}$ Zha, D., Professor of international relations, School of International Studies, Beijing University, Interview with author, Beijing, 3 Feb. 2010.

⁹ There have been several proclamations of full border demarcation. The 2 countries signed new border agreements in 2004 and 2008, with the latter agreement also proclaimed to be the full border demarcation. Burles, M., *Chinese Policy toward Russia and the Central Asian Republics* (RAND: Santa Monica, 1999), p. 6; Matyayev, V., 'Russia–China: forty years of border negotiations', *International Affairs* (Moscow), vol. 50, no. 6 (2004), pp. 34–39; and Guo, S. and Blanchard, B., 'China signs border demarcation pact with Russia', Reuters, 21 July 2008, https://uk.reuters.com/article/idUKPEK29335820080721.

To shed greater light on these issues, this Policy Paper seeks to provide a greater understanding of China-Russia relations, with a particular focus on Chinese views and interests. To do so, chapter 2 first assesses the strategic partnership by examining the nature of shared interests between China and Russia. Chapters 3 and 4 then cover to two crucial aspects of China-Russia ties: security and energy, respectively. The Policy Paper concludes in chapter 5 with an assessment of the prospects for China-Russia relations.

2. The strategic partnership

China and Russia share a long list of mutual interests, ranging from the need to maintain domestic order and stability in their respective 'near abroad' to a common desire to prevent the proliferation of weapons of mass destruction (WMD) and the militarization of space. Also Chinese and Russian leaders share an aversion to a unipolar world and strive to curb US power. They both advocate supporting strong state sovereignty and are usually in agreement when defending the principle of non-interference in other countries' affairs. Moreover, China and Russia share an interest in expanding cooperation in a widening variety of areas—from scientific and technological collaboration in fields such as energy and military technology to joint initiatives in media, culture and education.

Yet the 'strategic partnership' is plagued with problems and falls short of the aspirational official rhetoric of both sides. Despite frequently beginning with a description of the partnership's great potential and the expectations expressed by top leaders for deeper cooperation, Chinese analyses often end by enumerating the difficulties and frustrations encountered by both sides.¹⁰

This chapter begins with a discussion of the most important convergent interests of China and Russia, followed by an assessment of why, despite these common interests, the countries have not been able to elevate their relationship to the 'completely new level' foreseen in the 2001 Treaty of Good-Neighbourliness and Friendly Cooperation.

Convergent interests

More than 40 years have passed without a military clash along the over 4000-kilometre China–Russia border. Given the numerous armed conflicts between China and Russia over past centuries, a peaceful border is viewed by officials in Beijing and Moscow as a paramount mutual interest in itself.¹¹ Beyond the shared border, the two countries also share contiguity with the vast Central Asia region, a joint neighbourhood they both wish to see as stable and secure. Because the Chinese and Russian governments share a fear of internal threats to national unity, in Central Asia they strive to jointly and multilaterally prevent the regional

¹⁰ Wang, H., '中俄关系:战略基础与发展趋势' [Sino-Russian relations: strategic basis and development trends], *Eluosi Yanjiu*, vol. 156, no. 2 (Sep. 2009), p. 8; Huang, D., '中俄战略协作伙伴关系析论' [Sino-Russian strategic and cooperative partnership: problems, countermeasures and prospects], *Dongbeiya Luntan*, vol. 17, no. 2 (2008), p. 37–42; and Zhao, H., '中俄关系:地位,模式,趋势' [Sino-Russia relations: status, pattern and trend], *Shijie Jingji yu Zhengzhi*, vol. 285, no. 5 (2004), p. 41.

¹¹ See e.g. Chinese Ministry of Foreign Affairs, 'China and Russia issue a joint statement, declaring the trend of the boundary line between the two countries has been completely determined', 14 Oct. 2004, http://www.fmprc.gov.cn/eng/wjdt/2649/t165266.htm; Li, X., 'China, Russia sign border agreement', China Daily, 22 July 2008, http://www.chinadaily.com.cn/china/2008-07/22/content_6865847.htm; and 'Medvedev to visit China', International Relations and Trade, 20 Sep. 2010.

spread of the 'three forces' of terrorism, separatism and extremism. Furthermore, both seek to limit US influence in Central Asia.¹²

Officially, China and Russia pursue common interests in Central Asia through the Shanghai Cooperation Organisation (SCO). Originally formed in 1996 as the Shanghai Five to strengthen mutual military trust and facilitate border demilitarization between China, Kazakhstan, Kyrgyzstan, Russia and Tajikistan, the group was renamed the SCO in 2001 when Uzbekistan joined. China and Russia both adamantly stress that the SCO is not a military alliance.

Neither China nor Russia wants an international order dominated by the USA alone. On a number of significant global issues, Chinese and Russian diplomats cooperate in opposition to US positions. However, both insist that their partnership is not anti-US but rather a move towards a multipolar world. 13 Both promote multilateralism while acknowledging its limitations.¹⁴ In the words of Mei Zhaorong of the Chinese State Council's Development Research Center, 'It is very difficult to protect national interests by following others. Even if we adhere to multilateralism, protection of national interests should be our fundamental principle'.15 Multilateralism is mentioned frequently in the 2008 Russian Foreign Policy Concept as a means of preserving international peace and security and of protecting Russian national interests, but so too is bilateralism.¹⁶ To a degree, both use 'multilateralism' as a byword for discussing and resolving international issues through the United Nations; as veto-wielding permanent members of the Security Council, both feel confident in their abilities to protect their respective national interests in this forum.

¹² For China's and Russia's interests in Central Asia, see Jiang, Z., 俄罗斯国家安全问题研究 [Studies on Russia's state security] (Social Sciences Academic Press: Beijing, Sep. 2009), pp. 61-62, 363-64; Feng, S., '多 重三边关系影响下的中亚地区' [Central Asian regions under influences of multiple trilateral relations], Eluosi Yanjiu, vol. 100, no. 6 (2009), pp. 7-14; Ma, F., '中亚地区安全与中俄战略协作' [Security of middle Asia and strategic cooperation of Sino-Russian cooperation], Dangdai Shijie Shehuizhuyi Yanjiu, vol. 101, no. 3 (2009), pp. 48-58; Wang, B. and Zhou, Y., 东北亚国家的地缘战略与中俄战略协作 [Geopolitical strategies of Northeast Asia states and Sino-Russian strategic cooperation] (Liaoning University Press: Shenyang, Nov. 2009), pp. 286-90; and Indeo, F., Russia and China in Central Asia: Growing Geopolitical Competition, ISPI Policy Brief no. 199 (Istituto per gli Studi di Politica Internazionale: Milano, Oct. 2010), http://www.ispi online.it/it/documents/PB_199_INDEO_2010.pdf>.

¹³ Yevgeniy Primakov, a former Russian foreign minister and prime minister, first promoted this idea, which has been embraced by his successors, including Vladimir Putin, a former president and current prime minister. The Russian Foreign Policy Concept of 2000 states, 'Russia shall seek to achieve a multi-polar system of international relations'. Lukin, A., 'Russian-Chinese relations: Keeping up the pace', International Affairs (Moscow), vol. 56, no. 1 (2010), pp. 12-13; and Lo, B., 'China's permanent reset', Russia in Global Affairs, 15 Oct. 2010.

¹⁴ Zhang Ruizhuang, Dean of the Institute of International Studies at Nankai University, argues that multilateral diplomacy is inefficient because it involves complex relationships and balances of power. Li Jingzhi, Dean of the School of International Studies at Renmin University, points out that multilateralism will inevitably lead to conflicts of interest. See First China Forum on International Issues, '多边主义与中国 外交' [Multilateralism and China's foreign policy], Jiaoxue yu yanjiu, no. 8 (2005), pp. 6, 26. For a Russian perspective see Tsygankov, A. P., 'Russia in global governance: multipolarity or multilateralism?', eds D. Lesage and P. Vercauteren, Contemporary Global Governance: Multipolarity vs New Discourses on Global Governance (Peter Lang Publishing Group: Frankfurt, 2009), pp. 51-62.

¹⁵ First China Forum on International Issues (note 14).

 $^{^{16}}$ President of Russia, The Foreign Policy Concept of the Russian Federation, Approved 12 July 2008, http://archive.kremlin.ru/eng/text/docs/2008/07/204750.shtml.

Both China and Russia oppose expansion of the North Atlantic Treaty Organization (NATO), which Russia views as encroaching on its sphere of influence. Chinese opposition to NATO expansion is partly out of solidarity for what is viewed as a major strategic interest of Russia but is also driven by its own fundamental security concerns. Some in China believe that NATO expansion is emblematic of a broader US strategy to contain rivals through alliances, including with Japan and the Republic of Korea (South Korea). These concerns underlie China's long-held opposition to military blocs and military expansionism.

China and Russia also hold similar positions on international initiatives to curb the spread of WMD. Both view non-proliferation efforts as important, but China and Russia do not share what they perceive as 'Westerners' obsession' with non-proliferation. ¹⁹ Both have generally called for dialogue rather than multilateral sanctions to influence Iran and the Democratic People's Republic of Korea (DPRK or North Korea). This is partially because both Chinese and Russian companies have been subjected to unilateral US sanctions for dealings with Iran and North Korea. Neither government wants its companies to be punished, nor its companies' business opportunities limited.

Both China and Russia supported the 1972 Soviet–US Anti-Ballistic Missile Treaty, which they viewed as helpful in preventing the development of armaments that could threaten their nuclear deterrents and lead to a renewed arms race. Thus, both governments condemned the USA's withdrawal from the treaty in 2001.²⁰ China and Russia have also worked closely to promote a treaty on the prevention of an arms race in outer space since 2002.²¹ In 2008 China and Russia jointly proposed a draft treaty on the topic that, despite an unfavourable reception by the USA, spurred discussion and new proposals on the subject.²²

China and Russia maintain and assert the right of a sovereign state to determine its own political system. For example, China and Russia dismiss any criticism of their human rights records as meddling in the internal affairs of a sovereign state. They view Western governments' concern with social and political liberties in other countries as 'an intrusion at best, an ideological offensive at worst'.²³ Russia was among the 16 countries that heeded China's call to boycott

¹⁷ Huang, R., '从中美俄的战略思维的比较看三国的关系' [Examining China-US-Russia relations by comparing their strategic thinking], *Eluosi Yanjiu*, vol. 53, no. 5 (Oct. 2008), pp. 63-64.

¹⁸ Yang, C., '新世纪的中美俄三边关系' [China-Russia-US trilateral relations in the new century], *Eluosi Yanjiu*, vol. 53, no. 5 (Oct. 2008), pp. 59-60; and Liu, Q. and Wang, H., '俄美战略交锋及其对中国的影响' [Russia-US strategic conflict confrontation and its effects on China], *Xiandai Guoji Guanxi*, vol. 221, no. 2 (2008), pp. 33-39.

¹⁹ High-ranking Chinese foreign ministry official, Remark at closed-door workshop, Central Party School, Beijing, Dec. 2010; and Russian China specialist, Interview with author, Moscow, 30 Oct. 2010.

²⁰ Simeone, N., 'Consequences of US ABM withdrawal', Voice of America, 15 Dec. 2001.

²¹ Possible elements for a future international legal agreement on the prevention of the deployment of weapons in outer space, the threat or use of force against outer space objects', Working paper presented by the delegations of Belarus, China, Indonesia, Russia, Syria, Viet Nam and Zimbabwe, Russia–China Conference on Disarmament, Submitted to the Conference on Disarmament on 27 June 2002, http://www.acronym.org.uk/docs/0206/doc10.htm.

²² Loshchinin, V. and Wang, Q., 'Russian and Chinese texts of the draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects (PPWT)', CD/1839, 29 Feb. 2008.

²³ Menon, R., 'The limits of Chinese–Russian partnership', *Survival*, vol. 51, no. 3 (June/July 2009), p. 107.

the Nobel Peace Prize award ceremony in December 2010 to protest at the Norwegian Nobel Committee's decision to grant the award to Liu Xiaobo, a Chinese dissident.²⁴ They share the view that Western human rights campaigns can spur opposition movements at home or in nearby countries, potentially causing instability. China and Russia were both critical of Western support for the socalled colour revolutions in Georgia, Kyrgyzstan and Ukraine from 2003 to 2005. In 2011 they both adopted similar responses to the Egyptian democracy movement, emphasizing the need for stability and arguing that Egypt should decide its affairs independently without external intervention.²⁵ Chinese and Russian positions of non-interference are most clearly demonstrated in discussions on the imposition of sanctions by the UN Security Council. For example, both cited noninterference in the internal affairs of a sovereign state in exercising their vetoes in July 2008 to block an arms embargo on Zimbabwe and financial and travel sanctions against members of the Zimbabwean ruling elite in response to continuing political violence and violations of human rights.²⁶ Both also referred to the fact that neither the African Union (AU) nor the Southern African Development Community (SADC) had requested UN sanctions but rather had asked for time to mediate.²⁷ Conversely, when regional and subregional organizations seek sanctions on their members for violations of human rights, China and Russia tend to support these requests. For example, after the AU and the League of Arab States (Arab League) condemned the actions of Libyan leader Mu'ammer Gaddafi in February 2011 and called on the UN Security Council to impose sanctions, both voted in favour of wide-ranging sanctions against Libya. Russia referenced the requests by the AU and Arab League in its decision; China referred to the 'special situation in Libya' and the views of Arab and African states.²⁸

The Chinese and Russian governments also defend a sovereign state's right to determine the treatment and status of ethnic groups and minorities within national borders, most likely because they share a fear of internal threats to national unity. China continuously refrains from criticizing Russia's actions in

²⁴ In addition to China, the following countries refused to attend the Nobel Peace Prize award ceremony in Oslo on 10 Dec. 2010: Afghanistan, Algeria, Cuba, Egypt, Iran, Iraq, Kazakhstan, Morocco, Pakistan, Russia, Saudi Arabia, Sri Lanka, Sudan, Tunisia, Venezuela and Viet Nam. 'Nobel peace prize: who is boycotting the ceremony', BBC News, 10 Dec. 2010, http://www.bbc.co.uk/news/world-11879731.

²⁵ Chinese Ministry of Foreign Affairs, 'Foreign ministry spokesperson Ma Zhaoxu's regular press conference on February 10, 2011', 10 Feb. 2011, http://www.fmprc.gov.cn/eng/xwfw/s2510/2511/t794101.htm; and President of the Russian Federation, 'Telephone conversation with President of Egypt Hosni Mubarak', 3 Feb. 2011, http://eng.kremlin.ru/news/1722.

²⁶ Holtom, P. and Kelly, N., 'Multilateral arms embargoes', SIPRI Yearbook 2009: Armaments, Disarmament and International Security (Oxford University Press: Oxford, 2009), p. 484.

²⁷ United Nations, Security Council, 5933rd meeting, S/PV.5933, 11 July 2008, p. 9.

²⁸ United Nations, Security Council, 6491st meeting, S/PV.6491, 26 Feb. 2011, p. 4. According to 2 senior researchers at Chinese Government research institutions and 1 university professor, China endorsed sanctions against Libya because the sanctions were not perceived as a Western initiative but rather had broad international support. All 3 mentioned that the AU endorsement was pivotal for China's decision. Personal communications with author, Beijing, 3 Mar. 2011. See also Wyatt, E., 'Security Council calls for war crimes inquiry in Libya', New York Times, 26 Feb. 2011. China Review News, a Hong Kong-based media service, reported that China's decision to endorse the UN sanctions against Libya was made after its UN representatives consulted with the AU. Qiao, X., '联合国第1907号决议 强烈的震撼力' [UN Security Council Resolution 1907: strong shock], China Review News, 6 Mar. 2011.

Chechnya, and correspondingly Russia withholds judgement on China's actions towards Tibetan and Uighur minorities. Although in 2005 China and Russia supported the UN World Summit's endorsement of the 'Responsibility to Protect' concept—which gives states primary responsibility to guarantee their citizens' safety but permits external armed intervention with UN approval—both remain suspicious of initiatives that could institutionalize the right of outsiders to intervene in any humanitarian crisis within a sovereign state.

Libya has been a serious test for both states. Events following the establishment in March 2011 of the no-fly zone over Libya confirmed fears among Chinese and Russian officials of the consequences of outsider intervention. Initially, China and Russia stated their opposition to a no-fly zone, considering it a significantly larger encroachment on Libyan sovereignty than the sanctions to which they had agreed.²⁹ The stances of both governments changed after the 12 March 2011 meeting of the Council of the Arab League, which explicitly called on the UN Security Council to impose a no-fly zone for Libyan military aviation and to establish safe areas.³⁰ China and Russia abstained from the vote on the resulting resolution, with China again explicitly referring to the wishes of Arab and African states in its decision not to exercise its veto.³¹ Consequently, both were quick to criticize the air strikes led by France, the United Kingdom and the USA after Amr Moussa, Secretary General of the Arab League, announced that the League had hoped for a no-fly zone on Libya for 'the protection of civilians and not bombing other civilians'.32 However, following the fall of Gaddafi, China and Russia diverged in their approaches to the rebel National Transitional Council (NTC). When in early September Russia recognized the NTC as the legal authority in Libya, China still dragged its feet with official recognition.³³ Regardless, the governments of China and Russia were at pains to distance themselves from their support of Gaddafi and have pointed out that they did not block the Security Council's endorsement of the no-fly zone. To counter perceptions that they had failed to support the rebels, China and Russia have underscored the fact that they

²⁹ 'China joins Russia in signaling potential opposition to Libya no-fly zone', Bloomberg News, 2 Mar. 2010, http://www.bloomberg.com/news/2011-03-02/china-s-un-ambassador-signals-potential-opposition-to-libyan-no-fly-zone.html.

³⁰ The outcome of the Council of the League of Arab States meeting at the Ministerial level in its extraordinary session on the implications of the current events in Libya and the Arab position', 12 Mar. 2011, Cairo, http://responsibilitytoprotect.org/Arab League Ministerial level statement 12 march 2011 - english.pdf.

³¹ United Nations Security Council Resolution 1973, 17 Mar. 2011; and United Nations, Press Centre, 'Security Council approves "no-fly zone" over Libya, authorizing "all necessary measures" to protect civilians, by vote of 10 in favour with 5 abstentions', SC/10200, 17 Mar. 2011.

^{32 &#}x27;Arab League criticizes western strikes on Libya', AFP, 20 Mar. 2011, http://www.montrealgazette.com/news/Arab+League+criticizes+Western+strikes+Libya/4473587/story.html>. African leaders have also criticize the strikes. 'Several African leaders criticise air attacks in Libya', Voice of America, 22 Mar. 2011, http://www.voanews.com/english/news/Several-African-Leaders-Criticize-Air-Attacks-in-Libya-11843559 9.html>; President of the Russian Federation, 'Statement by Dmitriy Medvedev on the situation in Libya', 21 Mar. 2011, <a href="http://www.strikes.com/eng/kwfw/sepin/http://www.strikes.com/eng/kwfw/sepin/http://www.strikes.com/eng/kwfw/sepin/http://www.strikes.com/eng/kwfw/sepin/http://www.strikes.com/eng/kwfw/sepin/http://www.strikes.com/eng/kwfw/sepin/http://www.strikes.com/eng/kwfw/sepin/http://www.strikes.com/http://www.strikes

³³ Russian Ministry of Foreign Affairs, Заявление МИД России [Statement by the Russian MFA], 1 Sep. 2011, http://www.mid.ru/bdomp/ns-rafr.nsf/89414576079db559432569d8002421fc/c32577ca001743fdc32578fe001f14a6.

maintained contact with the rebels throughout the seven-month crisis and held talks with the rebel leadership in Benghazi as well as in Beijing and Moscow.³⁴

Conflicting interests

Among Chinese observers, it is popular to characterize China-Russia relations as warm on the governmental level and cold at the grass roots level, as politically mature and economically weak.35 Chinese officials and scholars alike blame Russia's stagnant economy for difficulties in China-Russia relations.³⁶ Despite repeated pledges over the past 15 years by Chinese and Russian leaders to improve the trade balance, in 2010 Russia ranked only 10th among China's trading partners.³⁷ But economics are not the only reason that the strategic partnership often appears to exist only in name.

A fundamental problem in the relationship is divergence between Chinese and Russian world views.³⁸ Chinese analysts believe that Russia views itself predominantly in European terms, a heritage which is alien to China.³⁹ Chinese people are aware that Russians have historically seen China as inferior and that Russians find it demeaning to be slipping into the junior role of resource provider.40 Moreover, Chinese analysts tend to assume that Russia wishes to be part of Europe and that Russia therefore 'cannot antagonize the West', thereby weakening its desire or ability to strengthen the strategic partnership with China.41 However, these views fail to take into account the debate within Russia regarding its own complex relationship with 'Europe' and the fact that Russian officials and scholars are re-evaluating Russia's role in Asia. Russian officials and

³⁴ Dorsey, J. M., 'Fall of Gaddafi: Policy challenge for China and Russia', S. Rajaratnam School of International Studies (RSIS) Commentaries no. 126, 5 Sep. 2011, http://www.rsis.edu.sg/publications/comment aries.asp?selTheme=3>; 'The Libyan dilemma', The Economist, 10 Sep. 2011

35 See e.g. Wang, Y., '战略机遇期考验中俄"伙伴"" ['Friendship' getting tested in times of strategic opportunities], Nanfang Zhoumo, 8 Nov. 2004; Zhao, H., '中俄关系应超越政热经冷' [Sino-Russian relations should go beyond warm political but cold economic ties], Guangzhou Daily, 6 July 2009; and 'Past difficulties won't affect good Sino-Russian relations', Global Times, 15 Oct. 2009.

³⁶ The Russian ambassador to China, Sergei Razov, highlighted the fact that 'potential in economic and trade cooperation are not fully tapped', suggesting that part of the problem lies with underdeveloped business ties between the 2 countries. Razov, S., 'Pragmatism instead of complaints and mistrust', International Affairs (Moscow), vol. 56, no. 1 (2010), p. 10. See also Lukin (note 13), pp. 16-19; and Mikheev, V., 'Россия-Китай: подзарядки отношений' [Russia-China: re-charging relations], Mirovaya ekonomika i mezhdunarodnoe otnoshenie (Moscow), no. 6 (2010), pp. 14-15 (in Russian).

³⁷ Statistics based on data from Chinese Ministry of Commerce, Country Report, 19 July 2011, http:// countryreport.mofcom.gov.cn/default.asp>.

³⁸ See e.g. '从俄总统访华看中俄"战略伙伴"关系' [A review of Sino-Russia strategic cooperative partnership at the time of Russian president's China visit], ABC Radio Australia, 28 Sep. 2010, http://www.radio australia.net.au/chinese/articles/s3024256.htm>; and Lo, B., How the Chinese See Russia, Russie.Nei.Reports no. 6 (Institut français des relations internationales (IFRI) Russia/Newly Independent States (NIS) Center: Paris, Dec. 2010), p. 8.

³⁹ Haukkala and Jakobson (note 6); and Huang (note 10).

⁴⁰ See e.g. Wu, D., '防范中的合作-俄罗斯关于中国和平崛起的心里图解' [Cooperation in discretion-Russia's psychology about China's peaceful rise], vol. 146, no. 5 (2005), p. 56; and Wang (note 10), p. 6. For a Russian realization of this tendency see Lukin (note 13), pp. 10-19.

⁴¹ See e.g. Huang (note 10), p. 40.

analysts increasingly emphasize the need for Russia to develop an 'Asian vector' and pay more attention to its eastern neighbours.⁴²

Views on Russia among policymakers and analysts in China are diverse.⁴³ However, three common threads emerge concerning the underlying weaknesses of the China-Russia partnership: pragmatism, lack of political trust and the US factor.

First, the pragmatic approach that both countries apply to their national interests often creates disagreement. 44 Long gone are the days when ideological solidarity might help to overcome foreign policy differences. When interests diverge, the strategic partnership has little meaning. Russia's decision to invade Georgia in August 2008 and subsequently recognize the independence of Abkhazia and South Ossetia revealed the limits of the China-Russia strategic partnership. Russia's actions were unacceptable to China because they undermined fundamental principles of China's foreign policy: respect for national sovereignty and territorial integrity as well as non-interference in another country's affairs.⁴⁵ Aware that acceptance of Abkhazian and South Ossetian independence could set a dangerous precedent for independence movements in Taiwan, Tibet and Xinjiang, China disregarded its strategic partner's wish for support and refused to recognize the two regions. Chinese President Hu Jintao went as far as to personally ensure that the SCO refrained from supporting Russia's position.⁴⁶ Ever since, Russia has sought to maximize its influence in Central Asia via multilateral organizations in which China is not a member (the Commonwealth of Independent States, the Eurasian Economic Community and the Collective Security Treaty Organization), as well as via bilateral relations with Central Asian governments. In particular, Russia seeks to maintain a dominant position in the region's energy sector.⁴⁷ China, in contrast, has increasingly dominated the SCO agenda, which since late 2008 has focused on accelerating economic integration with trade and infrastructure projects. 48 Concerns initially raised by Western analysts when the

⁴² See e.g. Lavrov, S., 'The rise of Asia, and the eastern vector of Russia's foreign policy', *Russia in Global Affairs*, vol. 4, no. 3 (July–Sep. 2006), pp. 68–80; and Lukin, A., 'Russia to reinforce the Asian vector', *Russia in Global Affairs*, 7 June 2009. For a more recent formulation see Council for Security Cooperation in Asia Pacific, Russian National Committee, 'Going East: Russia's Asia–Pacific strategy', *Russia in Global Affairs*, 25 Dec. 2010.

⁴³ Lo (note 38), p. 2.

⁴⁴ On Russia's pragmatic approach to foreign policy see e.g. Ge, X., '俄罗斯外交大转弯' [Big foreign policy shift of Russia], *Shidai Zhoubao*, 5 Aug. 2010; and '卢金: 对中国,俄秉持实用主义路线' [Alexander Lukin: Russia upholds pragmatic approach towards China], *Huangqiu Shibao*, 10 Apr. 2010. On China's pragmatism in foreign policy see e.g. Wang, Y., '从胡锦涛访美看中国外交的四条主线' [A look at the four main trends of China's foreign policy based on Hu Jintao's US visits], *Jingji Guancha Bao*, 19 Jan. 2011; and Chu, S., Li, X. and Feng, F., '上升的中国国力,国际地位与作用' [The rise of China's power and its international role and responsibilities]', *Guoji jingji pinglun*, vol. 84, no. 6 (2009), p. 15.

⁴⁵ Lo, B., 'Russia, China and the Georgia dimension', Centre for European Reform Bulletin, Oct./Nov. 2008, http://www.cer.org/uk/articles/62_lo.html.

⁴⁶ Shanghai Cooperation Organisation, Dushanbe Declaration of the Heads of the Member States of the Shanghai Cooperation Organisation, 28 Aug. 2008, http://www.sectsco.org/EN/show.asp?id=90.

⁴⁷ Li, X., '中俄上合组织战略构想比较分析' [A comparative studies of China and Russia's SCO strategic vision], Xin Shiye, no.1 (2009), p. 96. For Russian studies of its power play in Central Asia see Marat, E., The Military and the State in Central Asia: From Red Army to Independence (Routledge: London, 2009); and Safranchuk, I., 'The competition for security roles in Central Asia', Russia in Global Affairs, no. 1 (2008).

⁴⁸ Cooley, A., 'Cooperation gets shanghaied: China, Russia and the SCO', Foreign Affairs, 14 Dec. 2009.

SCO was founded-namely, that the SCO would develop into an anti-Western alliance opposing US influence in Central Asia-have proven to be exaggerated. This is largely due to a lack of political will in Beijing and Moscow to make the necessary concessions to agree on mutual Chinese and Russian objectives in Central Asia.

At the same time, when Chinese and Russian interests coincide, collaboration is pursued. China's decision to side with Russia against Japan on the territorial dispute over the southern Kuril Islands can in part be explained by a sense of loyalty to its strategic partner. Other factors include China's desire to cooperate with Russia to access the islands' rich natural resources and its aversion to supporting Japan on sovereignty issues.⁴⁹ On the other hand, a change in the sovereignty of the southern Kuril Islands could have implications for China in its dispute with Japan over the Senkaku/Diaoyu Islands.50

Second, despite official rhetoric, political trust is weak. Official statements emphasize that the strategic partnership is based on mutual political trust. However, Chinese scholars do not shy away from publicly discussing the lack of trust.⁵¹ Neither do Chinese officials in private conversations. Academics routinely refer to the great power mentality of Russians and warn that Russia still harbours global ambitions.⁵² Consequently, they argue, China cannot know whether Russia will resume a chauvinistic policy or continue a cooperative and equal relationship with China.53

Alongside historic animosity, suspicion voiced by some Russian observers of a powerful China's intentions towards Russia and Central Asia hinders the emergence of genuine trust between the two countries.⁵⁴ Chinese observers are well aware that among hard-line Russian nationalists there is an assumption that 'the [Chinese] leadership and the PLA [People's Liberation Army] command are seriously considering the possibility of waging offensive combat actions in the foreseeable future against Russia and the countries of Central Asia'.55 The 'China threat' is also used by Russian liberals as a means of pushing Russia towards Europe and away from Asia. Chinese commentators are as resentful of the 'China threat' debate in Russia as they are of similar debates in other countries about the potential risks of China's rise. They dismiss Russian claims that a powerful China

⁴⁹ See Li, X., 'China can't be afraid of Kuril's development', *Global Times*, 17 Feb. 2011.

⁵⁰ Japan and Russia have a contentious sovereignty dispute over the southern Kuril Islands, which, formerly controlled by Japan, were seized by the Soviet Union at the end of World War II. Japan and China both claim sovereignty to the Senkaku/Diaoyu Islands, which were also controlled by Japan until their surrender to the USA at the end of World War II, but were subsequently returned to Japan by the USA.

⁵¹ See e.g. Wang (note 10), p. 8; Wu (note 40) p. 58; Fomenko, A., Why Russia is not China: an afterword to the celebrations', International Affairs (Moscow), vol. 56, no. 1 (2010), pp. 29-39; Lukin (note 13), pp. 12-28; and Mikheev (note 36), pp. 10-19.

⁵² Hu, J., '俄罗斯应对中国和平崛起的战略分析' [Strategic analysis of Russian approaches towards China's rise], Dangdai Shijie yu Shehuizhuyi, vol. 60, no. 2 (2006), pp. 134-35.

⁵³ Huang (note 10), p. 38.

⁵⁴ See e.g. Piontkovsky, A., 'China's threat to Russia', *The Guardian*, 27 Aug. 2007; and Fu, L. and Liu, Y., 'Russian experts clash over "China threat", China.org, 17 Aug. 2010, http://www.china.org.cn/opinion/ 2010-08/17/content_20728431.htm>.

⁵⁵ Khramchikhin, А., 'Миллионы солдат плюс современное вооружение' [Millions of soldiers plus modern weapons], Nezavisimoye Voyennoye Obozreniye, 9 Oct. 2009.

could marginalize Russia's political and economic clout in North East and Central Asia, as well as arguments that a powerful China might retaliate for past clashes with Russia by revisiting resolved border disputes.⁵⁶ Although Russians concede that China's investments in Central Asia have spurred economic development—thereby contributing to stability and restraining the emergence of extremism in Central Asia—they are nevertheless concerned about China's economic advances in the region. China's growing economic presence has, among other effects, led to competition for Central Asian energy resources and political influence over Central Asian political leaders.

Many Western experts view Chinese–Russian rivalry in Central Asia as inevitable.⁵⁷ Chinese experts such as Xing Guangcheng argue that, while China respects Russia's presence in Central Asia and has not sought to displace it, it opposes Russian dominance in the region.⁵⁸ This tension is especially evident in the energy sector. The opening of the Kazakhstan–China oil pipeline in 2005 and the Turkmenistan–Uzbekistan–Kazakhstan–China gas pipeline in 2009 broke Russia's monopoly on transportation networks for Central Asia's energy exports and weakened its ability to charge high transit fees. As Feng Yujun of the China Institutes of Contemporary International Relations says, 'Russia is unable to block such [pipeline] projects and so it must accept them'.⁵⁹ In the view of Zhao Huasheng of Fudan University, countries with interests in the region 'will not be completely enemies or adversaries, but neither will they be completely friends or partners'.⁶⁰

The third key factor contributing to the weakness of the China–Russia partnership is the USA. Although both want to check US power, the US relationship is paramount for both. Both rely heavily on the USA (and Europe) to modernize. Hence, the two struggle to agree on a common agenda to restrain US power without causing harm to their own bilateral relationships with the USA. While Chinese Russia specialists rarely write publicly about the US factor in the China–Russia relationship, it is discussed frankly by policy officials and academics in off-the-record conversations. In addition, the importance of the USA is highlighted in the overall foreign policy objectives of both China and Russia.⁶¹

⁵⁶ Wu, D., '评俄罗斯的'中国威胁论' [On Russia's 'China threat debate'], *Guoji Jingji Pinglun*, no. 3 (2005), pp. 21–22; and Hu (note 52), p. 134.

⁵⁷ See e.g. 'Riches in the near abroad', *The Economist*, 28 Jan. 2010; and Gleason, G., 'China, Russia, and Central Asia: triangular energy politics', eds C. L. Currier and M. Dorraj, *China's Energy Relations with the Developing World* (Continuum: New York, Jan. 2011).

⁵⁸ Xing, G., 'China and Central Asia', eds R. Allison and L. Jonson, *Central Asian Security: The New International Context* (Royal Institute of International Affairs/Brookings Institution Press: London/Washington, DC, 2001), p. 166.

⁵⁹ Feng (note 4).

⁶⁰ Zhao, H., '中亚与大国关系' [Central Asia and great power relations], *Guoji Guancha*, no. 3 (2008), p. 4.

⁶¹ See e.g. Yang, S., '坚持韬光养晦 积极有所作为' [Continue to keep a low profile; actively seek to get something done], *Liaowang*, 6 Nov. 2010; and Gaaze, K. and Zigar, M., Россия поменяет внешнюю политику [Russian foreign policy will change], *Russkkiy Newsweek*, 11 May 2010.

3. Military cooperation

One of the central elements of the China–Russia relationship since the early 1990s has been military cooperation. Yet Chinese and Russian officials stress that, while they are 'strategic partners', they have not formed a military alliance. Exercise that they are 'strategic partners' of this approach, but agree that it is not a military alliance. Three dimensions of Chinese–Russian military cooperation have developed as part of the strategic partnership: (a) military-political cooperation in the form of high-level meetings between military chiefs of staff and defence ministers; (b) military training cooperation via exchanges of personnel for training, military education and joint military exercises; and (c) military-technical cooperation through transfers of arms, technology and know-how for production of military equipment.

This chapter focuses on the second and third dimensions, with references to the first. Estimating the level and quality of military-political cooperation is a challenge; while data exists on high-level exchanges and visits, it does not provide clear evidence of the relationship's strength.⁶⁴ In the cases of training and technical cooperation it is possible to quantify developments.⁶⁵

The first section of this chapter charts the background and continuing limitations in Chinese–Russian military-technical cooperation; the second section assesses Chinese–Russian military training cooperation, particularly the 'Peace Mission' joint military exercises.

The trend in Chinese arms imports from Russia

One of the cornerstones of the China-Russia relationship since the end of the cold war has been the transfer of major conventional weapons, components and

62 '和平的使命:写在中俄首次联合军演结束之际' [Peaceful mission: writing at the end of China-Russia joint military exercises], *Renmin Wang*, 26 Aug. 2005. While signing the Treaty of Good-Neighbourliness, Russian President Vladimir Putin announced that it 'is not a basis for creating a military alliance'. President of the Russian Federation, 'Interview with the Italian newspaper *Corriere della Sera*', 16 July 2001, http://archive.kremlin.ru/eng/text/speeches/2001/07/16/0002_type82916_142538.shtml>.

63 Dittmer, L., 'The Sino-Russian strategic partnership', Journal of Contemporary China, vol. 10, no. 28 (2001), pp. 399–413; Ferdinand, P., 'Sunset, sunrise: China and Russia construct a new relationship', International Affairs (London), vol. 83, no. 5 (Sep. 2007), pp. 841–67; Wilkins, T. S., 'The Russo-Chinese strategic partnership: a new form of security cooperation?', Contemporary Security Policy, vol. 29, no. 2 (2008), pp. 358–83; Wishnick, E., 'Russia and China: brothers again?', Asian Survey, vol. 41, no. 5 (Sep.-Oct. 2001). For Chinese and Russian perspectives see Wang, H., '中俄联合军演与"结盟"不沾边' [China-Russia joint military exercises are unrelated with 'alliances'], Global Times, 27 July 2009; and Bolyatko, A. V., 'A view from Moscow: China's growing military power', eds A. Scobell and L. M. Wortzel, China's Growing Military Power: Perspectives on Security, Ballistic Missiles and Conventional Capabilities (Strategic Studies Institute, US Army War College: Carlisle, PA, Sep. 2002), p. 94.

⁶⁴ Russia is the first state mentioned in the 'Strategic Consultations and Dialogues' section of the 2010 Chinese Defence White Paper, where reference is also made to the establishment in 1997 of annual strategic consultations between the Chinese and Russian general staff headquarters. Chinese State Council, *China's National Defense in 2010* (Information Office of the Chinese State Council: Beijing, Mar. 2011.

⁶⁵ See e.g. Yuan, J., 'Sino-Russian defense ties: the view from Beijing', ed. J. Bellacqua (note 4), table 7.1.

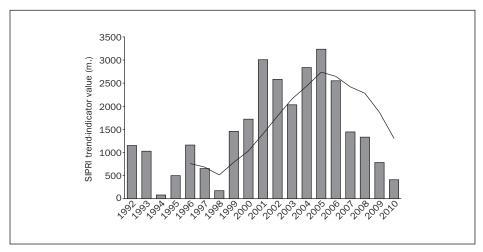


Figure 3.1. The volume of Chinese arms imports from Russia, 1992–2010

The bar graph shows annual totals and, to smooth out year-on-year fluctuations in deliveries, the line graph shows the five-year moving average (plotted at the last year of each five-year period). The SIPRI trend-indicator value (TIV) is a measure of the volume of arms transferred and not of financial values. For a description of the TIV and its calculation see http://www.sipri.org/databases/arms transfers/background>.

Source: SIPRI Arms Transfers Database, http://www.sipri.org/databases/armstransfers.

technologies from Russia to China.⁶⁶ Between the collapse of the Soviet Union in 1991 and 2010, it has been estimated that more than 90 per cent of China's imported major conventional weapons were supplied by Russia, while China accounted for nearly 40 per cent of Russian exports.⁶⁷ During this period China imported from Russia Su-27/Su-30 combat aircraft, transport aircraft, Mi-17 military transport helicopters, Tor-M1 mobile air defence systems, S-300PMU1/2 air defence systems, Type 636E and Type 877E submarines, Sovremenny destroyers and a wide range of missiles. In addition, China secured agreement for the licensed production of Su-27 combat aircraft, Mi-17 helicopters and anti-tank and anti-ship missiles.⁶⁸ The year 2005 has been highlighted in Chinese and Russian analyses as the beginning of the end for Chinese orders for complete systems from Russia as PLA demands for Russian equipment were sated and the Chinese arms industry was increasingly able to meet PLA demands.⁶⁹ Since 2007 there has been a notable decline in Russia's arms deliveries to China (see figure 3.1).

⁶⁶ On rising Chinese imports from Russia see Donaldson, R. H. and Donaldson, J. A., 'The arms trade in Russian–Chinese relations: identity, domestic politics and geopolitical positioning', *International Studies Quarterly*, vol. 47, no. 4 (2003), pp. 709–32; and Rangsimaporn, P., 'Russia's debate on military-technological cooperation with China: from Yeltsin to Putin', *Asian Survey*, vol. 46, no. 3 (May/June 2006), pp. 477–95.

⁶⁷ SIPRI Arms Transfers Database, http://www.sipri.org/databases/armstransfers.

⁶⁸ A full list of China's arms imports from Russia and licensed production of Russian arms for the period 1991–2010 can be generated from the SIPRI Arms Transfers Database (note 67).

^{69 &#}x27;冰山一角,中国军队究竟得到俄罗斯多少技术?' [Tip of the iceberg: how much technology has the Chinese military actually received from Russia], *Kan Shijie*, June 2010; and Rybas, A., 'Breakthrough into the global arms market', *Russia in Global Affairs*, no. 2 (Apr.–Jun. 2008).

In mid-2007 China's ambassador to Moscow, Liu Guchang, reportedly described bilateral military cooperation as 'very successful'.70 Yet that year Russian arms exports to China fell to half that of 2006.71 Although the volume of deliveries can fluctuate sharply from year to year, deliveries for 2008 remained at the same low level and shrank further in 2009 and 2010. Anatoly Isaikin, director of Rosoboronexport—the agency responsible for managing the Russian arms trade acknowledged that China's share of Russian arms exports dropped to 10 per cent in 2010, when Russia exported a record \$8.6 billion worth of arms. 72 China, once the largest importer of Russian arms, ranked behind India and Algeria in 2010.

The Chinese-Russian Joint Commission on Military-Technical Cooperation sets the framework for arms transfer deals and is chaired by Chinese and Russian defence ministers. The Commission met regularly in 1992-2005, but did not meet in 2006 and 2007. Although Russia expressed willingness to supply a range of air defence systems, combat and transport aircraft and submarines at the 2008 and 2009 commission sessions, no new orders were agreed.⁷³ At the 15th session of the Commission in November 2010, China and Russia signed an agreement on the supply of spare parts for air defence systems, aircraft and naval systems.⁷⁴ Both sides reportedly discussed potential orders for a range of items, including Su-35 combat aircraft, S-400 air defence systems and Il-476 transport aircraft. China is thought to prioritize acquisition of the Il-476 and the S-400, seeking to become the first foreign customer for both.⁷⁵ Some Chinese analysts have raised questions about the need to acquire Su-35 when there are indigenous efforts to produce a fifth-generation combat aircraft.⁷⁶

Driving factors

As in all arms transfer relationships, a range of domestic and international influences in Chinese and Russian decision making determine the volume and type of equipment sought and transferred. The underlying driving factor for the large volume of Chinese arms imports from Russia in the 1990s is that China sought to

70 Quoted in Blagov, S., 'Arms, energy and commerce in Sino-Russian relations', China Brief, vol. 7, no. 16 (Aug. 2007), p. 9.

72 'Russian arms 2010 exports hit record at \$8.6 bln', Reuters, 9 Mar. 2011.

⁷⁵ Yu, P., '中俄军事合作由技术合作取代武器买卖' [Analysing China's military procurement from Russia from the perspective of carrier-based aircraft], Junshi Wenzhai, no. 3 (2007), pp. 40-41.

 76 Yu (note 75). Although there is no agreed definition for '5th generation' combat aircraft, it is generally agreed that its key attributes are a high level of stealth (including weapons carried internally), advanced sensors integrated into a wider network and a 'super cruise' ability (i.e. the ability to fly a prolonged period faster than the speed of sound). Currently, the only aircraft in service meeting those requirements is the US F-22, which is not available for export. The Russian 'fifth generation' Sukhoi PAK FA made its first flight in late 2009, and China's 'fifth generation' prototype J-20 made its first flight in 2011.

⁷¹ SIPRI Arms Transfers Database (note 67). Alternative calculations by the Russian Centre for Analysis of Strategic and Technologies (CAST) suggest that the downward trend began in 2006. Nikolskiy, A., 'B защиту копирайта' [In protection of copyright], Vedomosti, 12 Dec. 2008.

⁷³ Nikolskiy (note 71); Gabuev, A., 'Российское оружие заняло оборону в Китае' [Russian weapons defend China], Kommersant, 12 Dec. 2008; and Mukhin, V., 'Российско-китайское оружейное эмбарго' [Russian-Chinese arms embargo], Nezavisimaya gazeta, 30 Nov. 2009.

⁷⁴ 'Russia ready to sell Su-35 fighter jets to China', RIA Novosti, 16 Nov. 2010; 'Russia to sell additional RD-93 jet engines to China', RIA Novosti, 16 Nov. 2010; and Nikolskiy, А., 'Китай не все скопировал' [China has not copied everything], Vedomosti, 23 Nov. 2010.

modernize its air force and navy to match those of potential adversaries in the South China Sea. China's first large orders for combat aircraft, air defence systems and naval equipment from Russia took place following a Taiwanese procurement drive that included purchases of combat aircraft and naval equipment from the USA and France in 1992.⁷⁷

The reason that China turned to Russia to meet its perceived need for advanced combat aircraft, air defence systems and naval equipment is twofold. First, China's own domestic arms industry was unable to meet the demands of the air force and navy to provide equipment comparable to that being acquired by Taiwan and other states in China's neighbourhood. Second, China had a limited range of potential suppliers following the imposition of European Union (EU) and US arms embargoes in 1989. Russia was one of the few suppliers that could meet Chinese needs. Furthermore, the Russian arms industry had become dependent on exports for income as domestic orders had dried up following the collapse of the USSR and the industry could no longer rely on export orders from traditional clients that were backed by generous Soviet credit lines. Therefore, a mutually beneficial relationship developed. However, the import of complete systems from Russia was regarded as a short-term solution as China sought to develop its own military aircraft and shipbuilding industries.⁷⁸

China has acquired arms and technology from Russia by a variety of means over the past two decades: (a) import of complete weapon systems; (b) licensed production of complete weapon systems; (c) import of components for Chinese-produced weapon systems; (d) acquisition of technologies and know-how by bringing Russian experts to China and sending Chinese technicians to Russia for training; and (e) industrial espionage. These acquisitions have helped China to modernize its armed forces to a level commensurate with its economic and political power. China's acquisitions from Russia represent a systematic modernization of the PLA to be capable of limited power projection. Licensed production arrangements, technology transfers, personnel exchanges and training and industrial espionage have also helped China's arms industry to make considerable advances with regard to the production of advanced combat aircraft and naval platforms. Nevertheless, China is likely to remain partially dependent on

^{77 &#}x27;中国批量引进俄罗斯基洛级潜艇的背后' [Background of China's wholesale import of 'Kilo' submarines], Xinwen Xinxi Bao, 30 Mar. 2005.

⁷⁸ Crane, K. et al., *Modernizing China's Military: Opportunities and Constraints* (Rand Corporation: Santa Monica, CA, 2005), pp. 136–37; and You, J., 'Friends in need or comrades in arms: the dilemma in the Sino-Russian weapons business', ed. A. Tan, *The Global Arms Trade: A Handbook* (Routledge: London, 2009), pp. 52–53.

⁷⁹ Adapted from Cheung, T. M., 'Dragon on the horizon: China's defense industrial renaissance', *Journal of Strategic Studies*, vol. 32, no. 1 (2009), pp. 29–66.

⁸⁰ Crane et al. (note 78); Gill, B. and Kim, T., China's Arms Acquisitions from Abroad: A Quest for 'Superb and Secret Weapons', SIPRI Research Report no. 11 (Oxford University Press: Oxford, 1995); Howard, R. D., The Chinese People's Liberation Army: 'Short Arms and Slow Legs', United States Air Force Academy/Institute for National Security Studies Occasional Paper 28, Regional Security Series (United States Air Force Institute for National Security Studies: Colorado Springs, CO, Sep. 1999).

⁸¹ Crane et al. (note 78), pp. 202-203; and Engstrom, J., 'PLA's growing force projection capabilities', *China Brief*, vol. 10, no. 25 (17 Dec. 2010).

⁸² Medeiros, E. S. et al, A New Direction for China's Defence Industry (Rand Corporation: Santa Monica, CA, 2005).

imports of a number of advanced weapon systems, components and technologies for the coming decade, particularly long-range strike, tanker and transport aircraft, and high-performance ship-launched land-attack missiles. In contrast to the energy relationship (see chapter 4), China has been unable to substantially diversify its arms and military technology suppliers. There are thus opportunities for Russia to remain China's primary foreign arms supplier, although there are questions as to whether Russia is willing and able to meet China's changing demands for transfers of technology and components rather than finished weapons systems.

Is Russia able and willing to meet Chinese demands?

Further development of the Chinese arms industry is an important element of the 12th Five Year Plan (2011-15).83 Among the major objectives for 2015 are 15 per cent growth of the military-industrial economy, the promotion of scientific and technological innovation, integration of civilian and military industries, and core industry capabilities. Yet Chinese arms producers will continue to require foreign assistance for components and technologies for combat aircraft, submarines and large surface warships. Manufacturing engines is a continuing weakness for China's arms industry and represents an area where Russia or other willing suppliers are likely to maintain a presence.84

Six factors affect Russia's ability and willingness to deliver the weapons and technology that China seeks: (a) Russian technology levels; (b) competition from other suppliers; (c) the quality of Russian arms exports; (d) Russian arms transfer relations with India; (e) Chinese copying concerns; and (f) Chinese competition with Russia on the arms market. First, while Russia remains the world's secondlargest exporter of major conventional weapons, it has fallen behind technologically and has begun to import arms and technologies from Israel and Western Europe for its own military modernization.85 Russia is therefore unable to meet certain Chinese technology demands.86 Although the EU and US arms embargo has enabled Russia to enjoy a virtual monopoly over China's imports of major conventional weapons, China has used imports of dual-use products and technologies from EU member states and also domestic production to help with modernization programmes-especially 'informatization'-of the PLA.87 National export control agencies of EU member states have interpreted the EU arms embargo flexibly, particularly with regard to dual-use products and tech-

^{83 &#}x27;两会授权发布:"十二五"规划军民融合加强国防和军队现代化建设,「Authorized release by NPC and CPPCC: 12th Five Year plan: facilitating civilian-military integration to strengthen defence and army modernization], Xinhua, 5 Mar. 2011, http://news.xinhuanet.com/society/2011-03/05/c_121152463.htm.

⁸⁴ Pomfret, J., 'Military strength eludes China, which looks overseas for arms', *Washington Post*, 25 Dec.

⁸⁵ Makienko, К., 'Импорт вооружений и военной техники в Россию: история, проблемы и перспективы' [The import of arms and military technology in Russia: history, problems and prospects], Zakupki vooruzhenii (a special edition of the journal Arms Exports), no. 85 (2010), pp. 14-19.

⁸⁶ Wang, T. (王涛), '革新与困境中前行的俄罗斯武器装备出口' [Innovations and dilemmas facing Russia's arms export], Xiandai Junshi, May 2010.

⁸⁷ 'Informatization' refers to the Chinese military's use of networks, communications, computers and other information technologies.

nologies.⁸⁸ For example, EU member states issued export licences worth more than €210 million and exported at least €58 million worth of military equipment to China in 2009.⁸⁹ Additionally, the PLA has drawn on transfers of civilian technologies from EU member states and resulting improvements in Chinese civilian industry.⁹⁰

Second, Russia competes with other former Soviet republics to supply arms to China. Ukraine has provided China with military equipment and technical assistance in the form of engines, tanks, combat and trainer aircraft, helicopters and naval platforms as well as missiles and related technologies. In 2009 Ukraine signed a contract worth an estimated \$350 million to supply 4 Zubr air-cushion landing craft to China, undermining hopes that it would order up to 10 from Russia. According to Yang Chuang, China Foreign Affairs University professor and former first secretary of the Chinese Embassy in Ukraine, there is 'very good potential for cooperation in the aerospace industry, aircraft manufacturing, and shipbuilding' although more political trust is necessary. The volume of planned Chinese purchases of Ukrainian arms and military equipment during 2010–12 is approximately \$1.2 billion, compared with \$1.5 billion for all of 2002–2009.

In particular, Ukrainian companies have provided China with Kh-55 cruise missiles, an Su-33 carrier combat aircraft prototype (T-10K) and the aircraft carrier *Varyag*, which have been used by China in the development of their own missiles, carrier combat aircraft and aircraft carriers. The *Varyag* is being used as the basis for the first Chinese Project 089 aircraft carrier (renamed Shi Lang), and the Chinese J-15 carrier-borne combat aircraft is based on the T-10K. China is also reportedly interested in using, or preparing its own version of, the Landbased Naval Aviation Testing and Training Complex (Nazyemniy Ispitateiniy Treynirovochniy Kompleks Aviatsii, NITKA) located in the Crimea in Ukraine. 94 NIKTA is a unique centre for training pilots to fly combat aircraft from Soviet air-

88 Smith, M., 'China focuses on defence shakeup', Jane's Defence Industry, Aug. 2007, p. 9.

⁸⁹ Council of the European Union, 12th annual report according to article 8(2) of Council Common Position 2008/944/CFSP defining common rules governing control of exports of military technology and equipment, Official Journal of the European Union, C9, 13 Jan. 2011, p. 314.

⁹⁰ For civil-military integration see Cheung (note 79), pp. 56–61. For EU technology in PLA informatization, see Wortzel, L. M., 'PLA command, control and targeting architectures: theory, doctrine and warfighting applications', eds R. Kamphausen and A. Scobell, *Right Sizing the People's Liberation Army: Exploring the Contours of China's Military* (Strategic Studies Institute, US Army War College: Carlisle, PA, Sep. 2007), p. 223.

⁹¹ Two will be built in China. 'ФСК "Море" построить для КНР десантные корабли на воздушной подушке типа "Зубр": министр промполитики' [FSC 'More' to build Zubr amphibious hovercraft for PRC: minister of industrial policy], Interfax, 11 Aug. 2009; and Minnick, W., 'China to buy armed hovercraft', *Defense News*, 11 Sep. 2006, p. 48.

⁹² 'Chinese expert sees good potential for cooperation with Ukraine', RIA Novosti, 2 Sep. 2010, http://en.rian.ru/world/20100902/160440021-print.html.

⁹³ Ukrainian Ministry of Industrial Policy, 'Мінпромполітики відпрацьовано ряд питань у сфері військово-технічного співробітництва з КНР' [Ministry of Industrial Policy signs MTC agreements with China], 11 Aug. 2010, http://industry.kmu.gov.ua/control/uk/publish/article?art_id=81116&cat_id=36232.

⁹⁴ Chang, A., 'China seeks Ukraine's help to train aircraft carrier pilots', UPI, 10 Dec. 2008, https://www.upi.com/Business_News/Security-Industry/2008/12/10/China-seeks-Ukraines-help-to-train-aircraft-carrier-pilots/UPI-10311228940743/; Il'chenko, A., 'Бывший офицер подставил сына под шпионаж' [Former officer put son up to espionage], *Segodnya*, 3 Feb. 2011; and Johnson, R.F., 'Ukraine reopens training base to Russian pilots', *Jane's Defence Weekly*, 14 Apr. 2010, p. 6.

craft carriers with ski-jump flight decks, such as the Varyag. The fact that Ukraine has caught Ukrainian and Russian citizens in the process of passing classified information on NITKA to an Asian state, which Ukrainian media reports have named as China, lends weight to the thesis that China is interested in building its own naval aviation training complex for ski-jump flight deck aircraft carriers.95

Third, China is increasingly frustrated with poor Russian quality controls and is demanding that Russia deliver products on time, in good condition and at agreed prices. 96 Russian arms industry officials recognize that they have problems 'filling foreign orders', and capital is desperately needed to upgrade manufacturing equipment and processes.97 Chinese companies are thought to be contributing to this process in that most of Russia's imported machine tools are made in China.98 In January 2011 a delegation from the Russian Engineering Union visited China to 'give new impetus to relations in engineering' and 'give concrete substance' to the strategic partnership.99

Fourth, Chinese analysts regularly assert that Russia restricts supply of its most advanced weapon systems and technology, arguing that the Russian military may seek to maintain technological superiority over China and that Russia provides India with more advanced equipment and technology than China. 100 There is certainly a difference between the Russia-China and Russia-India militarytechnical cooperations. There is no history of conflict between Russia and India, whereas some Russian analysts who advocate restraint in arms transfers to China cite the 1969 Sino-Soviet border conflict in which Chinese forces used Sovietsupplied weapons. 101 However, this concern is not raised in mainstream Russian discourse, which stresses that border disputes are resolved and that Chinese purchases are intended for use in the Taiwan Strait and South China Sea. 102 Similarly,

⁹⁶ Wang, Y., '剖析俄罗斯对华武器出口的走向' [Analysis of the future of Russian arms sales to China], Jianzai Wuqi, no. 9 (2005), p. 15; Chen, J. (陈君) and Wang, F. (王峰), '俄罗斯武器出口现状与趋势' [Current status and trends in Russian arms exports], Xiandai Guoji Guanxi, no. 2 (2009), pp. 58-62; and You (note 78).

98 Myasnikov, V., 'Покупается не станок, а технологическое решение' [Don't buy the machine but the technological solution], Nezavisimoe voennoe obozrenie, 27 Nov. 2009.

99 Rostekhnologii, 'В Пекине проходит бизнес-миссия российских машиностроителей' [Russian engineers business-mission to Peking], 19 Jan. 2011, http://www.rostechnologii.ru/archive/2/detail.php?ID=9195>.

100 Wang (note 96); and '俄大力对中国推销战机应拿出真正的尖端产品' [Russia promotes sales of jet fighters; Russia should bring out its most advanced products], Shijie Xinwen Bao, 19 Nov. 2010.

101 E.g. Khramchikhin, A., 'Ближайший сосед—будущая военная сверхдержава' [Next-door neighbour future military superpower], Nezavisimaya voennoe obozrenie, 27 Mar. 2009. See also Balmasov, S., 'Relations between USSR and China were marred with short-term war 40 years ago', Pravda, 3 Mar. 2009.

102 Bolyatko (note 63); and Rangsimaporn (note 66), pp. 487-88.

^{95 &}quot;Крайне важно, чтобы в кадре не было грифа 'секретно'", — говорили китайские агенты украинскому подполковнику, пообещав за работу миллион долларов' ['It is essential that the shot does not show the "classified" stamp'-Chinese agents told the Ukrainian colonel, who promised to work for a million dollars], Fakty i Kommentarii, 9 Nov. 2010; and Il'chenko (note 94).

⁹⁷ 'Сергей Чемезов: ''Не нефтью единой . . ."' [Sergei Chemezov: 'There is no united oil . .'], *Nezavisimaya* gazeta, 20 Feb. 2008; and Kalinina, N., 'Russia's military-technical cooperation with foreign states: problems and prospects', Russia: Arms Control, Disarmament and International Security, IMEMO Supplement to the Russian edition of SIPRI Yearbook 2008 (Russian Academy of Sciences, Institute of World Economy and International Relations: Moscow, 2009), p. 61.

mainstream Chinese analysts do not expect confrontation with Russia. 103 Nevertheless, some Chinese analysts do suspect that the 'China Threat' does play a role in Russian decision making on whether to provide arms and technology to China. 104

Although some Russian analysts see no problem in transferring technology to both India and China as part of a broader shift in focus from Europe to Asia, others argue that Russia's preferred strategic partner in Asia should be India. 105 Russia and India have a long-standing friendly relationship and high levels of mutual trust. Moreover, closer ties with India are seen as a means of balancing a rising China. In addition, while Russian officials enjoy a senior role in the partnership with India, they are increasingly aware of and displeased with their junior role vis-à-vis China.

China and Russia have explored possibilities for enhanced military-technical cooperation, including potentially jointly developing and producing a fifthgeneration combat aircraft. Such efforts have developed further with India, however, where discussions on a fifth-generation combat aircraft (Perspective Multi-role Fighter, PMF, also called PAKFA in Russia and FGFA in India), as well as a multi-role transport aircraft (MTA), have made progress. This strengthens the impression that Russia is more willing to cooperate with India than with China. However, it is also worth bearing in mind that competition from Israeli, European and even US suppliers has led Russia to offer more advanced products to maintain a significant share in the growing Indian market. In contrast, competition for the shrinking Chinese market is limited. Nevertheless, if China made concessions on price and intellectual property rights, Russian analysts believe that China could receive more advanced weapons and technology. 108

103 Wang, Z., '中俄军事安全合作方兴未艾' [China-Russia military and security cooperation is in the ascent], *Jiefangjun Bao*, 28 Mar. 2006; and Yang, H., '中俄军事安全合作概述' [General survey on China-Russia military and security cooperation], *Eluosi Zhongya Dongou Yanjiu*, vol. 142, no. 1 (2005), pp. 87–88.

104 Feng, Y. (冯艳玲), '中俄战略安全合作的机遇和挑战' [Opportunities and challenges for China–Russia strategic security cooperation], *Langfang Shifan Xueyuan Xuebao (Social Sciences Edition*), vol. 25, no. 3 (June 2009), pp. 89–91; Jing, X. (井小磊) and Rong, W. (荣文仿), '中俄军事技术合作的特点' [The features of Sino–Russian military technology cooperation], *Keji Xinxi*, no. 23 (2008), pp. 162–63.

¹⁰⁵ Bordachev, T., 'Asia's future and Russia's policy', *Russia in Global Affairs*, no. 3 (July–Sep. 2006). This point was made in several interviews conducted in Moscow in Nov. 2011. Ruslan Pukhov and Konstantin Makienko, CAST, Interview with author, Moscow, 1 Nov. 2010; and Gennadiy Chufrin, Institute of World Economy and International Relations (IMEMO), Russian Academy of Sciences, Interview with author, Moscow, 3 Nov. 2011. See also Kislov, A. and Frolov, A., 'Russia in the world arms market', *International Affairs* (Moscow), vol. 49, no. 4 (2003), pp. 147–48.

106 Jintao, J., 'Sukhoi completes delivery of fighter aircraft to China', *Jane's Defence Weekly*, 1 Sep. 2004, p. 15.

p. 15. 107 Indian Government Press Information Bureau, 'India and Russia sign landmark agreement for joint development and production of fifth generation fighter aircraft', 18 Oct. 2007, http://pib.nic.in/release/rel_print_page.asp?relid=32016; Indian Government Press Information Bureau, 'List of agreements signed between India and Russia during Prime Minister's visit to Moscow', 12 Nov. 2007, http://pib.nic.in/release/rel_print_page.asp?relid=32746; Grevatt, J., 'India and Russia create JV to build multi-role transport aircraft', *Jane's Defence Weekly, 15 Sep. 2010, p. 7; and 'India, Russia sign FGFA joint development deal', *Outlook India, 21 Dec. 2010.

¹⁰⁸ Pukhov, R. and Makienko, K., Centre for Analysis of Strategies and Technologies, Interview with author, Moscow, 1 Nov. 2010.

Fifth, Russia is reluctant to transfer advanced arms and technology to China because of suspicions that China will copy these. 109 This will further limit Chinese demand for imports of Russian weapons and also lead to greater competition between Russia and China on the international market. Russian arms industry and government officials have frequently complained about 'piracy' of their weapons. A new Russian law of April 2011 requires that recipients of Russian arms and military equipment must agree to respect Russian intellectual property rights.¹¹⁰

Since 2008 Russian media and arms industry commentators have expressed concern that a number of Chinese weapons systems are unauthorized copies of Russian systems. The main target of these concerns is the Chinese-produced J-11B combat aircraft, which Russia officially declared a copy of its Su-27SK in April 2008; Russia has threatened legal proceedings against China for violation of international agreements on intellectual property rights.¹¹¹ Against this backdrop, China and Russia reached an agreement on protection of intellectual property in 2008 and began discussions over copyright for Kalashnikov rifles in late 2009. 112 Russia continues to discuss the issue with China according to Mikhail Dmitriev, director of the Russian Federal Service for Military-Technical Cooperation. In February 2011 he acknowledged that poor record keeping and past practices of 'giving away hardware and technology' to China, which they have subsequently used for the development of their own systems, means that the resulting products are no longer 'Russian'.113

Competition for arms export deals

China was the fifth-largest exporter of major conventional weapons in the 1980s, but dropped to seventh-largest in the 1990s and remained there in the 2000s. During the 1980s, China exported tanks and armoured vehicles, aircraft, ships and missiles to Egypt, Iran, Iraq, North Korea and Pakistan. Analysts speculate that China will increasingly compete with Russia for orders from Africa, Asia and Latin America.¹¹⁴ Russian concern is growing in response.¹¹⁵ The Russian

¹⁰⁹ Holtom, P., 'The beginning of the end for deliveries of Russian major conventional weapons to China', Opinion and Analysis, RIA Novosti, 31 Mar. 2008, http://en.rian.ru/analysis/20080331/102440239.html. The fear that China will purchase small numbers of Russian advanced weapon systems and copy them is not

¹¹⁰ Федеральный закон Российской Федерации от 5 апреля 2011 г. N 61-ФЗ 'О внесении изменений в Федеральный закон "О военно-техническом сотрудничестве Российской Федерации с иностранными государствами" [Federal law of the Russian Federation of 5 April 2011 N. 61-F3 'Concerning the introduction of changes to the Federal Law "Concerning military-technical cooperation of the Russian Federation with foreign countries"'], Rossiiskaya Gazeta, 8 Apr. 2011.

'Russia cancels sale of Su-33 fighters to China to prevent their pirate copies', *Pravda*, 10 Mar. 2009.

112 Nikolskiy (note 74); and 'Russia, China draft Kalashnikov copyright deal', RIA Novosti, 22 Oct. 2009, http://en.rian.ru/russia/20091022/156560593.html.

113 Сейчас нужна суперповоротливость, быстрее надо дело делать [Now it is necessary to be super agile, to be quicker to make deals], Kommersant, 24 Feb. 2011.

Donnan, S. and Dickie, M., 'Jakarta in missile deal with Beijing', Financial Times, 31 July 2005; and Kashin, V., 'Перспективы экспорта китайских истребителей' [Prospects for export of Chinese fighter aircraft], Eksport vooruzheniy, no. 5 (Sep./Oct. 2008), pp. 37-42.

¹¹⁵ Chinese military scholars and personnel also recognize this concern in Russia. Jing and Rong (note 104).

Government called for a study on 'The strategies and tactics of Chinese exporters of arms and military equipment: the phenomenon of success and key competitive advantages' in July 2010.¹¹⁶

Around the same time, the head of the MiG and Sukhoi design bureaus sent a letter to Rosoboronexport opposing the further export of RD-93 engines for use in the Chinese JF-17 (FC-1) combat aircraft because of potential competition for exports with Russia's MiG-29 combat aircraft. Russia, in principle, has a degree of control over the re-export of these engines. China has formally sought and received permission from Russia to re-export Russian-produced RD-93 engines, integral to China's JF-17 and J-10 combat aircraft, to prospective Asian and African states. In late 2010, agreement on the export of more engines was reportedly reached. Furthermore, Russia secured an order in late 2009 from Myanmar for 20 MiG-29 in direct competition with China's JF-17 and J-10. Even so, this has not assuaged Russian fears of competition in its traditional markets.

Some analysts point to exports of Chinese K-8 trainer combat aircraft to Egypt, Namibia and Zambia as evidence of China replacing Russia as a combat aircraft supplier. Although they received combat aircraft from the USSR, post-Soviet Russia has not exported combat aircraft to these states. In Sudan, another purported example of the 'switch', China and Russia both supply major conventional weapons and assist in developing the Sudanese arms industry. 123

China has had some success in exporting major conventional weapons to states in Africa, Asia and the Middle East that were formerly recipients of Soviet arms. China and Russia are also both seeking to export arms to Latin America. If China can offer as wide a range of conventional arms as Russia under more favourable conditions, then China could indeed become a serious competitor in a number of Russian markets.

^{116 &#}x27;Наглый Восток' [The impudent East], Gazeta.ru, 8 July 2010, http://www.gazeta.ru/politics/2010/07/08_a_3396043.shtml.

^{117 &#}x27;Russia's iconic MiG and Sukhoi fighters enter competition with Chinese clones', Pravda, 6 July 2010.

^{118 &#}x27;China to re-export Russian jet engine', Kommersant, 20 Nov. 2007.

^{119 &#}x27;Russia, China sign military cooperation protocol', RIA Novosti, 9 Nov. 2010.

¹²⁰ Balmasov, S., 'Russian MiGs "attack" China in Myanmar', *Pravda*, 23 Dec. 2009.

¹²¹ The MiG-29 was reportedly competing with China's JF-17 for an Egyptian order in 2010; they are also competing for a Sri Lankan order. 'Шри-Ланка может приобрести российские истребители' [Sri Lanka might choose Russian fighters], *Vzglayd*, 23 Oct. 2010. Russia has agreed to grant Sri Lanka \$300 million for arms purchases. 'Russia to grant Sri Lanka \$300 mln loan to buy armaments', RIA Novosti, 5 Feb. 2010.

¹²² Chang, A., 'Russian, Chinese weapons compete in Africa', UPI Asia, 19 Dec. 2008, http://www.upiasia.com/Security/2008/12/19/russian_chinese_weapons_compete_in_africa/5472/.

¹²³ Since 2003 China has supplied at least 12 each of A-5C combat aircraft and K-8 trainer aircraft, while Russia has supplied 12 MiG-29S combat aircraft and, with Belarus, 15 Su-25 ground-attack aircraft. Sudan is reportedly ready for new purchases from Russia. Holtom, P. and Wezemen, P., Memorandum by SIPRI Arms Transfer Programme, in British House of Lords, Foreign Affairs, Defence and Development Policy Subcommittee, 'EU's Conflict Prevention and Peace-building Role in Sudan: written evidence', 11 Mar. 2011, <a href="http://www.parliament.uk/business/committees/committees-a-z/lords-select/eu---foreign-affairs-defence-and-development-policy-sub-committee-c/inquiries/the-eus-conflict-prevention-and-peace-building-role-in-sudan/»; and 'Хартум намерена закупать оружие в России: суданский министр' [Khartoum intends to buy arms in Russia: Sudanese minister], Interfax-AVN, 14 Nov. 2008.

Military training cooperation¹²⁴

Professor Anatoliy Bolyatko, a retired Soviet major general, stated in 2002 that few Chinese soldiers train in Russia, and contacts are limited primarily to senior Chinese officers. 125 Western analysts note that US doctrine, particularly the 'revolution in military affairs' concept, influences Chinese strategic thinking more than Russian military science.126

While joint China-Russia military (combat) training exercises only began with Peace Mission 2005, they must be viewed in a broader context. Chinese participation in military exercises, whether for political or operational ends, is a new phenomenon as a whole; Russia is only one of China's several partners.¹²⁷ Of 44 joint exercises and training courses in which the Chinese military participated in 2002-10, Russia was involved in 5: the 4 Peace Mission exercises and the 2009 Gulf of Aden anti-piracy exercise, which included missions involving Chinese frigates, a Russian missile destroyer, Russian helicopters, coordinated resupply efforts and live fire.¹²⁸ Nevertheless, Chinese analysts suggest that military training exercises with Russia have helped to build trust. 129

On the eve of the latest round of bilateral discussions between the heads of the Russian and Chinese general staffs, which took place at the beginning of August 2011, the Chief of Staff of the Russian Armed Forces, General Nikolai Makarov, stated: 'a natural consequence of our meeting will be the signing of a memorandum to hold joint naval exercises'. 130 However, the joint statement issued following the meeting by General Makarov and his Chinese counterpart Colonel General Chen Bingde did not explicitly include a reference to joint naval exercises. 131 The joint statement did refer to continued bilateral military exercises and also joint exercises under SCO auspices and called for continuing strategic dialogue on ways to respond to regional and global challenges, as well as for 'intensifying' cooperation on military education. 132

¹²⁴ This section focuses on Chinese and Russian participation in the Peace Mission military exercises, the first of which took place in 2005. It does not discuss the training of Chinese officers in Russia. Jing and Rong (note 104); and You (note 78).

¹²⁵ Bolyatko (note 63), p. 94.

¹²⁶ Wortzel (note 90).

¹²⁷ China's first bilateral military exercise was on anti-terrorism with Kyrgyzstan in 2002.

¹²⁸ Feng, Z., '在世界军事舞台上书写中国的精彩' [China's splendour on the global military stage], Jiefang Junbao, 30 Nov. 2010; Chinese State Council (note 64); and 'China, Russia to hold anti-piracy naval drills off Somali coast', RIA Novosti, 18 Sep. 2009, http://en.rian.ru/mlitary_news/20090918/156169511.html>.

¹²⁹ '中俄军演的国际观点' [International perspective on Sino-Russian joint military exercises], Zhejiang Ribao, 12 Aug. 2005; '专家:"和平使命—2009"中俄双方将从5方面获益' [Experts: Sino-Russian 'Peace Mission 2009' benefits both sides in five ways], Xinhua, 21 July 2009, http://www.gov.cn/jrzg/2009-07/21/ content_1370782.htm>; and Han, L., 'Implications of Sino-Russian military co-operation after 11 September', RUSI Journal, Dec. 2002, pp. 64-69.

¹³⁰ Генштаб РФ рассчитывает провести с Китаем морские учения [General Staff of the Russian Federation expects to hold naval exercises with China], RIA Novosti, 4 Aug. 2011, http://ria.ru/defense_safety/ 20110804/411825362.html>.

¹³¹ Russian Ministry of Defence, 'Завершился официальный визит в Россию военной делегации Китая во главе с начальником генерального штаба HOAK генерал-полковником Чэнь Бинде' [The official visit to Russia, Chinese military delegation headed by PLA Chief of General Staff Colonel General Chen Bindel, 8 Aug. 2011, http://www.function.mil.ru/news_page/country/more.htm?id=10642160@egNews>.

¹³² Russian Ministry of Defence (note 131).

The Peace Mission joint military exercises

There have been four Peace Mission exercises, in 2005, 2007, 2009 and 2010. All have been driven by China and Russia but have involved SCO member states as either observers or participants. The 2005 and 2009 exercises were bilateral China–Russia affairs, while the 2007 and 2010 exercises were open to all SCO members with only Uzbekistan abstaining. Each Peace Mission exercise has consisted of high-level consultations on defence cooperation and global and regional security issues between chiefs of general staff and defence ministers before combat exercises and live fire drills commence. The formal objectives of the exercises are to strengthen joint operational capabilities, exchange experience, facilitate cooperation in the fight against the 'three forces' of terrorism, separatism and extremism, and enhance mutual combat readiness against emerging threats. Russian and Chinese spokespersons stress that the exercises are not targeted at any particular third party.

Western analysts have questioned the applicability of the exercises' equipment and tactics to counterterrorism, noting similarities between Peace Mission 2005 and a potential 'Taiwan scenario'. Russia's *Kommersant* newspaper reported that Russia planned Peace Mission 2007 based on events in Andijan, Uzbekistan, in 2005. A Russian journalist has suggested that Peace Mission 2011 will take place in the Sea of Japan, at a time when Russia is taking a harder line on the disputed Kuril Islands. Islands.

Western analysts argue that the exercises serve as an opportunity for China to highlight ties with Russia and Central Asian states, showing that it respects their security concerns. Other general objectives include the political benefits of

¹³³ Despite China's 2002 exercise with Kyrgyzstan, the first formal SCO joint counterterrorism exercises, Cooperation 2003, took place in Kazakhstan and Xinjiang, China. Uzbekistan hosted the multilateral counterterrorism exercise 'East-Antiterror 2006' for SCO special forces and law enforcement personnel. Kyrgyzstan hosted the SCO counterterrorism exercise 'Issyk-Kul Antiterror 2007'. General Ma Xiaotian, deputy chief of the PLA General Staff Department and commander of Chinese forces in Peace Mission 2010, stated that Peace Mission 2010 was the 7th military exercise within the SCO framework. 'Interview: "Peace Mission 2010': strategic action fighting terrorism', Xinhua, 17 Sep. 2010, http://news.xinhuanet.com/english2010/china/2010-09/17/c_13515789.htm.

¹³⁴ Russian and Chinese officials refer to Peace Mission 2005 as an SCO activity. De Haas, M., Russian-Chinese Military Exercises and their Wider Perspective: Power Play in Central Asia (Conflict Studies Research Centre: Swindon, Oct. 2005), p. 4. See also '中国专家:上合组织安全合作进入深度磨合阶段' [Chinese specialists: SCO security cooperation entered stage of strengthened coordination], Xinhua, 20 Sep. 2010, http://news.xinhuanet.com/mil/2010-09/20/c_12588006.htm; and '上合组织历次军演简介' [Brief introduction of SCO joint military practises], Jiafangjun Bao, 20 Sep. 2010.

¹³⁵ See e.g. 'China-Russia joint military exercises: Peace Mission 2005', China Military Online, http://eng.chinamil.com.cn/special-reports/zelhjy/index.htm; 'Peace Mission 2007', China Military Online, http://english.chinamil.com.cn/site2/special-reports/2007peace/index.htm; 'Sino-Russian joint antiterror exercises: Peace Mission 2009', China Military website, http://eng.mod.gov.cn/SpecialReports/2009peaceze.htm; and Chinese Ministry of National Defence, 'SCO joint anti-terrorism exercise: Peace Mission 2010', http://eng.mod.gov.cn/SpecialReports/SCO Joint Military Exercises.htm>.

¹³⁶ Ryan, K., 'Russo-Chinese defense relations: the view from Moscow', ed. Bellacqua (note 4).

¹³⁷ Gabuev, A., 'Maneuvers to outflank US', Kommersant, 9 Aug. 2007.

¹³⁸ President of Russia, 'Dmitry Medvedev discussed economic development and security in the Kuril Islands with ministers of Defence and Regional Development', 9 Feb. 2011, http://eng.kremlin.ru/news/1751; and Redchenko, A., 'Russia, China start war games', Voice of Russia, 23 Dec. 2010, http://english.ruvr.ru/2010/12/23/37570459.html.

stronger ties with joint exercise participants and the demonstration of capabilities to friends and potential foes. More specifically, China is able to test and improve capabilities for counterterrorism and logistics, among other fields; it can also observe other militaries' tactics, decision making and use of equipment.¹³⁹ Given its relative lack of operational experience, China gains more than Russia from these joint exercises.

In Peace Mission 2010, China demonstrated it could move large numbers of troops and equipment over considerable distances. The non-stop, mid-airrefuelled flight from Urumqi, in western China, to Kazakhstan and back of China's J-10 combat aircraft and H-6H bomber aircraft represented the longest continuous distance that Chinese military aircraft have flown. 140 Some Western analysts suggest that China used Peace Mission 2010 to demonstrate new equipment and capabilities; if so, the attention that was focused on the two J-10 combat aircraft validated this move. General Ma Xiaotian, deputy chief of the PLA General Staff Department and chief commander of Chinese forces in Peace Mission 2010, stressed that China's use of new equipment 'promoted military transparency'. 141 Ma also emphasized that Peace Mission 2010 showed the importance China attaches to SCO defence cooperation.

Even as military-technical cooperation began to stall in 2004, Peace Mission 2005 showed that Chinese-Russian relations in military training were developing positively. Just as Russia once enjoyed the upper hand in military-technical cooperation at the beginning of the partnership, it enjoys the upper hand in military training cooperation because of its greater operational experience in fields such as counterinsurgency. Even so, China derives a range of military-political and military training benefits from the Peace Mission exercises, and while still lagging behind Russia in some regards it is making significant progress.

¹³⁹ US Department of Defense (DOD), Military and Security Developments Involving the People's Republic of China 2010, Annual report to Congress (DOD: Washington, DC, 2010), p. 17.

¹⁴⁰ Ministry of National Defense, 'Liang Guanglie observes "Peace Mission 2010" anti-terror military drill', Jiefangjun Bao, 25 Sep. 2010, http://eng.mod.gov.cn/SpecialReports/2010-09/25/content_4196346. htm>.

¹⁴¹ 'Interview Peace Mission 2010: Strategic action fighting terrorism' (note 133).

4. Energy cooperation

At first glance, China and Russia seem perfectly matched in the energy sphere. In 2009 China replaced Japan as the world's second-largest oil importer. 142 In mid-2010, according to the International Energy Agency (IEA), China surpassed the USA to become the world's largest energy consumer.¹⁴³ Russia, in turn, has abundant energy sources: in 2009 it was the world's largest producer of oil and the second-largest of natural gas. 144 In addition to this complementarity, close proximity and the over 4000-kilometre shared border offer numerous transportation options.

However, energy cooperation between China and Russia is modest. Russia's share of China's total crude oil imports was 2 per cent in 2000, seven years after China became a net oil importer. Russia's share of Chinese oil imports grew steadily to 11 per cent in 2006, only to drop to 6 per cent in 2007. In 2010 oil imports from Russia constituted just 6 per cent of China's total oil imports, and Russia was only China's fifth-largest supplier of oil (see figure 4.1).¹⁴⁵ China's efforts to avoid reliance on any one supplier have borne fruit. In 2010 its largest crude oil supplier was Saudi Arabia, followed by Angola, Iran and Oman.

The lack of meaningful natural gas cooperation is even more evident. In 2010 China only purchased liquefied natural gas (LNG) from Russia, constituting just 4 per cent of China's total LNG imports (see figure 4.2). 146

Despite extensive bilateral discussions and official dialogues over the past 10 years, China-Russia energy cooperation has experienced 'many twists and turns'. 147 It is revealing that some Chinese analysts describe the mere existence of continued negotiations as a feat in itself and an illustration of the usefulness of the strategic partnership. 148 Most Chinese analysts lament the failure of China-Russia energy cooperation to reach its full potential.¹⁴⁹ For example, 'China-Russia energy cooperation has unfolded for more than 10 years, and the two sides have made corresponding progress in crude oil trade, oil and gas pipeline construction, exploration and development, oil refining, and similar areas', writes Feng Yujun of the China Institutes of Contemporary International Relations, 'but

¹⁴² International Energy Agency, 'China overtakes the United States to become world's largest energy consumer', 20 July 2010, http://www.iea.org/index_info.asp?id=1479.

 $^{^{143}}$ China rejected the IEA claim that it is the world's largest oil consumer. Swartz, S. and Oster, S., 'China

tops U.S. in energy use', Wall Street Journal, 18 July 2010.

144 US Energy Information Administration, 'Country analysis brief: Russia', http://www.eia.gov/ countries/country-data.cfm?fips=RS>.

¹⁴⁵ Statistics based on data from the Chinese General Administration of Customs, http://www.haiguan. info/onlinesearch/TradeStat/StatComSub.aspx?TID=4&f=ORI>.

¹⁴⁶ Statistics based on data from the Chinese General Administration of Customs (note 145). Other than LNG, China hardly imported any natural gas in 2009.

¹⁴⁷ Xia, Y., '中俄能源合作的现状和前景' [The current situation and prospects for China-Russia energy cooperation], Heping yu Fazhan, no. 3 (2007), p. 5.

¹⁴⁸ Jiang, Y., Researcher at Institute of Russian, Eastern European and Central Asian Studies, China Academy of Social Sciences, Interview with author, Beijing, 14 Dec. 2010.

¹⁴⁹ Feng, Y., '权力交接后俄罗斯能源政策走向与中俄能源合作' [Trends in Russian energy policy and China-Russia energy cooperation after the transfer of power], Eluosi Yanjiu, no. 4 (2008), p. 65; and Xia (note 147).

at the same time, there exists a tremendous gap between existing and potential cooperation'. 150 Even after completion of a much-anticipated oil pipeline in September 2010, heralded as a major milestone and facilitated by massive Chinese loans, fully fledged energy cooperation remains a distant prospect. 151

Still, negotiations on expanded China-Russia energy cooperation continue. From a Chinese perspective, it is essential to China's intensifying efforts to diversify its foreign sources of energy.¹⁵² Today's discussions focus not only on oil and natural gas, but also on coal and nuclear power. However, whether these discussions will lead to significant new cooperation in the near-to-medium term remains highly uncertain.

Oil

Russia has periodically expressed a strong desire to tap Asia's booming energy markets—not only China's, but also those of India, Japan and South Korea. In 2003 the Russian Government published an ambitious energy strategy for the period up to 2020, calling for Asia to account for 30 per cent of Russia's oil exports and 25 per cent of natural gas exports by 2020, a goal which has proven wildly optimistic.153 Even the revised targets published in 2009, for the share of Russia's oil exports to the Asia-Pacific region to increase from 6 to 22-25 per cent and natural gas exports from 0 to 19-20 per cent by 2030, are highly unlikely.¹⁵⁴ Most of Russia's oil continues to be delivered to long-time clients in Europe.

Before 2011, China's crude oil imports from Russia were transported by rail. But Siberia's harsh weather conditions caused delivery disruptions, and capacity depended on a limited number of Russian tanker wagons. 155 For more than a decade, Chinese specialists advocated building a pipeline to exploit geographic proximity, to lower operating costs and to stabilize crude oil supply.

Russia wavered for several years in selecting an East Siberian oil pipeline terminus. China sought an exclusive pipeline to north-east China, while Japan lobbied for a route to Russia's Pacific coast. From Russia's perspective, the line to China was cheaper and, as Chinese analysts observed, would tap a promising and reli-

155 '中俄能源运输合作再开新篇' (note 152).

¹⁵⁰ Feng (note 149), p. 65 (authors' translation).

¹⁵¹ Xia, Y., Senior Research Fellow and Director, Center for Energy Strategy Studies, China Institute of International Studies, Interview with author, Beijing, 4 Dec. 2009.

¹⁵² See e.g. '中俄能源运输合作再开新篇' [Sino-Russia energy cooperation turns a new page], *Xiandai* Wuliu Bao, 13 Oct. 2010; and '中俄能源合作新突破:专家称双方都是幸运儿' [Sino-Russia energy cooperation made major breakthrough: specialists call both sides lucky birds], China News Service, 19 Jan. 2011, http:// www.chinanews.com/ny/2011/01-19/2799011.shtml>.

¹⁵³ In 2003, total Asia-bound oil was 3% of Russian oil exports. Liu, X., '俄罗斯干线原油管道管理体制及 对亚太国家出口的运输政策' [Russian oil trunklines management and transportation policy for oil exports to Asia-Pacific countries], Guoji Shiyou Jingji, vol. 17, no. 3 (2009), pp. 12-17; and Russian Ministry of Energy, 'Энергетическая Стратегия России на Период же 2020 Года' [The energy strategy of Russia in the period up to 2020], Russian Government Decree no. 1234-r, Approved 28 Aug. 2003, http://www.energystrategy.ru/,

¹⁵⁴ Russian Ministry of Energy, 'Energy strategy of Russia for the period up to 2030', Russian Government Decree no. 1715-r, Approved 30 Nov. 2009, http://www.energystrategy.ru/, p. 23.

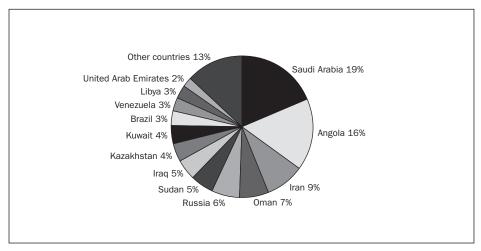


Figure 4.1. China's crude oil imports by country, 2010

Note: China imported a total of 239 million tonnes of crude oil in 2010.

Source: Chinese General Administration of Customs, Trade Statistics, http://www.haiguan.info/>.

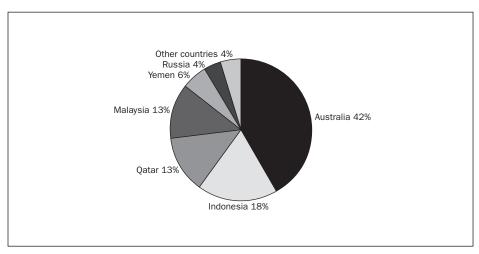


Figure 4.2. China's liquefied natural gas imports by country, 2010

Note: China imported a total of 9 million tonnes of liquefied natural gas in 2010.

Source: Chinese General Administration of Customs, Trade Statistics, http://www.haiguan.info/>.

able market: as a result of China's growing needs, oil imports from Russia grew from 1.8 million tonnes in 2001 to 15.2 million tonnes in 2010 (see figure 4.3). On the other hand, an exclusive China pipeline risked giving China strong leverage in price negotiations. The Pacific line would grant access to other Asian markets, but at greater cost and at the risk of alienating China. Ultimately, Russia hedged by building the East Siberia–Pacific Ocean (ESPO) oil pipeline with a spur to Daqing, China, despite concerns over insufficient supply (see figure 4.4).

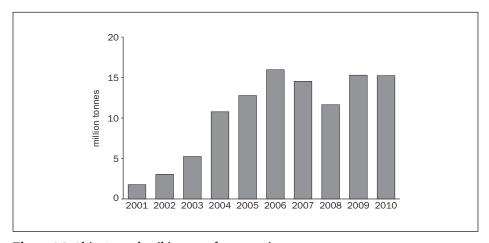


Figure 4.3. China's crude oil imports from Russia, 2001–10 Source: Chinese General Administration of Customs, Trade Statistics, http://www.haiguan.info/>.

Russian President Vladimir Putin agreed to build the China spur to the ESPO during a visit to Beijing in March 2006. However, construction on the spur did not begin until February 2009, after an 'oil for loans' agreement was reached in which the China Development Bank granted \$25 billion in soft loans to the largely state-owned Russian oil company Rosneft and the Russian pipeline monopoly Transneft. In exchange for the Chinese loans, Russia pledged to sell China 15 million tonnes of oil annually for 20 years, starting in 2011. These loans, reportedly offered at favourable interest rates of 6 per cent, eased the financial difficulties that Rosneft and Transneft faced as oil prices plummeted following the global financial crisis.¹⁵⁷ Additionally, the loans allowed the Russian companies to make strategic investments in medium- to long-term projects. 158 The deal also helped China to reduce exposure to the global financial crisis by converting US dollar foreign exchange reserves into oil and gas resource assets. 159 In the view of some Chinese analysts, these agreements were proof that China-Russia energy cooperation, after a decade-long breaking-in period, had at last achieved significant results.160

 $^{^{156}}$ One tonne of crude oil generally equals 6.6–8.0 barrels, depending on density. One barrel of oil per day is roughly 50 tonnes per year. Chen, Z., 'China, Russia ink oil loan agreement', Caijing, 18 Feb. 2009.

^{157.}中俄签署协议250亿美元贷款换3亿吨石油' [China and Russia sign an agreement to exchange 300 million tonnes of oil with 2.5 billion dollars loan], Nanfang Zhoumo, 18 Feb. 2009.

¹⁵⁸ See e.g. Feng, Y. and Zhao, C., '金融危机冲击与俄罗斯能源政策调整' [The impact of the financial crisis and Russia's energy policy adjustments], Zhongwai Nengyuan, no. 14 (2009), p. 10; An, Z., '国际金融危机对俄 罗斯能源开发政策的影响' [The effect of world financial crisis on Russia's energy development policy], eds X. Zhu and N. Lu, 俄罗斯东部及能源开发与中国的互动合作 [Russian energy development in the Eastern region and the interaction and cooperation with China] (Changchun Press: Changchun, Dec. 2009), p. 163; Wu, J., '国际金融危机背景下的中俄石油合作' [Petroleum cooperation between China and Russia under the world financial crisis], Guoji Shangwu Yanjiu, no. 3 (2010), pp. 51–57; and Lu, N., '中俄能源合作态势论析' [An analysis of Sino-Russia energy cooperation], Guoji Maoyi Yanjiu, no. 6 (2010), p. 79.

¹⁵⁹ Li, M., "'贷款换石油"全解读' [Full explanation of 'loans for oil'], *21 Shiji Jingji Baodao*, 5 Nov. 2008.

¹⁶⁰ Feng and Zhao (note 158), p. 11; Xia (note 147); Lu, N., '中俄能源合作获重大突破的缘由分析' [Reasons for the breakthrough in Sino-Russia energy cooperation], Eluosi Dongya Zhongou Shichang, no. 9 (2010),

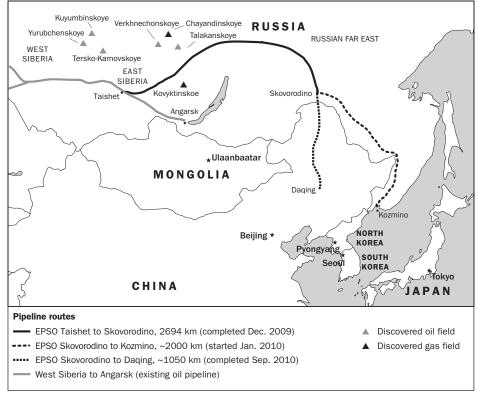


Figure 4.4. East Siberia-Pacific Ocean (ESPO) oil pipeline

Source: Economic Research Institute for Northeast Asia (ERINA), 'ESPO (East Siberia–Pacific Ocean) oil pipeline route (as of May '09)', http://www.erina.or.jp/en/Asia/map/>.

The Chinese section of the pipeline spur finally became operational in January 2011. ¹⁶¹ Most of the oil is refined in the Liaoyang refinery near Daqing. ¹⁶² The first stage of the main ESPO line from Taishet to Skovorodino has been in operation since December 2009. Construction of the second stage, from Skovorodino to the Pacific port at Kozmino Bay, started in January 2010 (see figure 4.4). ¹⁶³

Many questions remain about the ESPO pipeline's future. First, some Chinese experts question Russia's ability to sell 15 million tonnes of oil annually to China as committed, while simultaneously exporting oil via the Kozmino Pacific term-

pp. 1-6; and Chen, X., '中俄能源合作的现状、前景分析及启示' [Current situation, future prospects and implications of Sino-Russia energy cooperation], *Xiboliya Yanjiu*, vol. 37, no. 3 (2010), p. 24.

¹⁶¹ Rosneft received \$15 billion and Transneft received \$10 billion. Chen, J. and Si, T., 'Work starts on pipe to Russian oil', *China Daily*, 19 May 2009; and Feng, Y., '2009中俄关系盘点:走上"共同发展"之路' [An overview of 2009 Sino–Russian relations: on the road of 'joint development'], China.org, 25 Dec. 2009, http://www.china.com.cn/international/txt/2009-12/25/content_19131543.htm.

¹⁶² 俄罗斯合同油首个炼油项目开工 [First Russian pipeline oil refining project starts], Zhongguo Zheng-quanbao, 17 July 2009.

¹⁶³ 'Second section of Russia's ESPO pipeline starts welding', Xinhua, 15 Jan. 2010, http://news.xinhua.net.com/english/2010-01/15/content_12815949.htm.

inal.164 Russia's oil production has stagnated in recent years, especially in East Siberia and the Russian Far East, and large-scale investment in exploration and equipment will be needed. 165 Several Chinese experts have raised concerns about Russia's ability and willingness to invest the necessary resources: 'The major factor restricting an increase in Russia's oil production is the rising cost of exploration and extraction work', writes Yang Cheng of East China Normal University. At least \$8.5 billion is required to build new oil fields in East Siberia. 166 Without a rapid increase in East Siberian oil production, it will be essential to tap West Siberia's vast reserves to supply China via the ESPO pipeline.¹⁶⁷ However, this would decrease exports to Europe—an unlikely event, as European clients pay more than China.

In addition, Chinese observers see potential for pricing conflict in the 'oil for loans' agreement. 168 Tensions have already arisen. The February 2009 agreement stipulated that China purchase pipeline oil at the ESPO Blend price set at Kozmino.¹⁶⁹ Yet in March 2011, two months after the spur started operation, Rosneft accused China of unilaterally cutting prices and threatened to file a lawsuit.¹⁷⁰ Furthermore, if ESPO Blend prices increase substantially faster than those of other sources, China may perceive the 'oil for loans' agreement as disadvantageous and try to back out of the commitment, Correspondingly, Russia could be unwilling to sell if ESPO Blend prices decrease relative to European market prices. Referring to price disputes in 2009 which prompted Russia to halt the flow of natural gas to Ukraine and stall price talks with Turkmenistan, Yang Cheng writes: 'The construction and operation of the oil pipeline only marks a new phase of China-Russia energy cooperation. It is likely to generate new con-

¹⁶⁴ Xia Yishan questions whether Russia has enough oil to fill these 2 pipelines or even to meet its commitment of 15 million tonnes per year. Feng Yujun agrees that Russia does not have enough oil available to fill these 2 pipelines to a level near capacity, but in his view Russia will be able to fulfil its commitment. Xia (note 151); and Feng, Y. (note 4).

¹⁶⁵ Feng (note 161).

¹⁶⁶ See e.g. Song, K. et al., 中俄石油天然气合作 [Sino-Russia oil and natural gas cooperation] (Dizhi Chubanshe: Beijing, Sep. 2010), pp. 152-53; Yue, L., '中俄油气合作充满未知' [Sino-Russia energy cooperation are full of uncertainties], Zhongguo Shiyou Qiye, no. 1 (2008), p. 92; and Tarasyk V. М., Решение организационно экономических проблем повышения нефтеотдачи месторождений западной Сибири [Resolution of organizational and financial problems concerning the increase of oil extraction rate at the oil fields of western Siberia] (Khimiya: Moscow, 2004).

¹⁶⁷ See e.g. Liu, X., '俄罗斯干线原油管道管理体制及对亚太国家出口的运输政策' [Russian oil trunklines management and transportation policy for oil exports to Asia-Pacific countries], Guoji Shiyou Jingji, vol. 17,

¹⁶⁸ See e.g. Wang, K., '中俄石油换贷款悬疑待解.原油结算价将是焦点' [Mystery about Sino-Russia oil for loans deal: the pricing for petroleum will be the focus], Diyi Caijing Ribao, 20 Feb. 2009; '关税再涨 中国"贷 款换石油"成本陡增' [Cost of 'oil for loans' rises as Russian lifts exporting taxes], Diyi Caijing Ribao, 29 Dec. 2010; and Yang, C., '俄罗斯能源外交的新动向及中国对俄能源合作的对策建议' [New trends in Russia's energy diplomacy and policy recommendations for China's energy cooperation with Russia], eds Zhu and Lu (note 158).

¹⁶⁹ Platts, 'Russian crude oil exports to the Far East: ESPO starts flowing', Platts Special Report, Dec. 2009, http://www.platts.com/IM.Platts.Content/InsightAnalysis/IndustrySolutionPapers/espo1209.pdf; and on pricing, see Argus Media, 'Crude', http://www.argusmedia.com/Petroleum/Crude>. ¹⁷⁰ 'Rosneft-CNPC conflict threatens Russia's largest oil supply deal', *Kommersant*, 18 Mar. 2011.

flicts. We cannot exclude the possibility that Russia will adopt the same approach as it did to Ukraine and Turkmenistan at crucial junctures'.¹⁷¹

However, the major impediment in China–Russia energy cooperation is no longer pipeline oil, according to Chinese analysts, but rather the hurdles that Chinese companies face in investing in Russian upstream activities. Prospects for China's state-owned oil companies in Russia's upstream market remain uncertain, although progress has been made since 2006. Vostok, a joint venture between China National Petroleum Corporation (CNPC) and Rosneft, has began exploratory drilling in 2010. Udmertneft, a regional oil company in which Sinopec (the China Petroleum and Chemical Corporation) holds a large minority stake, annually produces 45 million barrels for the Russian market only. Nevertheless, Chinese specialists argue that Russia has been granted greater access to China's downstream market through Rosneft's 49 per cent stake in a CNPC refinery in Tianjin. The refinery in Tianjin, due to be completed in 2014, will have capacity for the contracted pipeline throughout and will service about 300 Chinese petrol filling stations.

Several Chinese scholars bemoan Russian restrictions on foreign energy investment and the fact that China ranks low in Russia's energy priorities. Yang Cheng writes, 'Russia is always more inclined to cooperate with Western companies'. ¹⁷⁵ Qi Wenhai of Heilongjiang University warns that even if China enters upstream sectors, Russia will retain control. Uncertainty about Russian legislation and Russia's lack of transparency are major concerns of Chinese enterprises trying to gain a foothold in Russia. 'Russia has a tradition of "legal nihilism"', writes Han Lihua of the University of International Business and Commerce, 'In order to reserve projects for itself . . . with better oil and gas quality and more profitability, Russia always finds all kinds of reasons to terminate or alter contracts and change laws unexpectedly'. ¹⁷⁶ Hu Renxia of Jilin University notes inconsistencies between federal and local legislation and observes, 'some of the laws change continuously'. ¹⁷⁷ Furthermore, Chinese analysts see a misalignment between government policy and business interests in Russia, a perception that runs counter to some Western analyses, which argue that they are intertwined. ¹⁷⁸ Chinese

¹⁷¹ Yang (note 168), pp. 243–57.

¹⁷² Han, L., '中俄能源马拉松继续跑' [Sino-Russian energy marathon continues], Zhongguo Shiyou Shihua, no. 15 (2009), p. 54. See also Qi, W., '论中俄油气合作开发的有效模式' [A discussion on efficient cooperation method of Sino-Russian oil and gas development], eds Zhu and Lu (note 158).

¹⁷³ China National Petroleum Corporation (CNPC), '东方能源公司西乔1井成功取芯' [Vostok had a successful drill at Zapadno-Chonsky], CNPC News Center, 27 July 2010, http://news.cnpc.com.cn/system/2010/07/27/001298221.shtml.

¹⁷⁴ Wang, X., '中俄能源新棋局: 石油换贷款三月后落地' [New situation in Sino-Russian energy: oil for loans deal will be applied in 3 months], 21 Shiji Jingji Baodao, 28 Sep. 2010.

¹⁷⁵ Yang (note 168), p. 249.

¹⁷⁶ Han (note 172).

¹⁷⁷ Hu, R. and Cao, N., '俄罗斯远东能源领域的投资环境分析' [An analysis of investment environment in Russia's energy industry in Far East], eds Zhu and Lu (note 158).

¹⁷⁸ Smith, K. C., 'Russian energy policy and its challenge to Western policymakers', Center for Strategic and International Studies (CSIS) Commentary, 20 Mar. 2008, http://csis.org/publication/russian-energy-policy-and-its-challenge-western-policymakers; Li, T., '夏义善:中俄能源合作立足长远、全面发展' [Xia Yishan: China-Russia energy cooperation establishes long-term, comprehensive development], *Zhongguo Wang*, 22 July 2009; and Xia (note 147).

specialists are concerned that Russia's fear of becoming an 'energy appendage' for China and other East Asian states may dampen its enthusiasm for energy cooperation.¹⁷⁹ Russian officials and academics have expressed increasing dissatisfaction with the composition of exports to China and would like to see Russia sell refined products rather than crude oil. 80 Some Chinese scholars argue that powerful political groups in Russia may increasingly espouse this view.¹⁸¹ However, most believe China has the upper hand and that Russia has no choice but to trade the resources that China requires in exchange for the capital that China offers. 182

Gas

While China and Russia also appear ideally matched natural gas partners, gas cooperation is even more underdeveloped than oil cooperation. China can no longer meet its rising gas demand with domestic production (see figure 4.5). In 2010 China produced 94.4 billion cubic meters (bcm) of natural gas but consumed 107.2 bcm. Chinese specialists estimate that by 2020, annual consumption will reach 300 bcm and China will need to import 80-120 bcm. 183 Meanwhile, Russia has the world's largest natural gas reserves.

China and Russia have discussed natural gas pipelines since the mid-1990s. Several feasibility studies have been conducted, including one from Russia's Chayanda field to Shenyang, China, and another from Russia's Kovykta deposits to the Korean Peninsula via China's Heilongjiang province. 184 In 2006, CNPC and Gazprom (Russia's largest natural gas producer) agreed to construct a western line from Taishet in Russia's Altai Republic to China's Central Asia pipeline in Xinjiang province (the Altai project), along with an eastern line from Sakhalin Island to the north-east of China. According to the agreement, Russia would supply 30 bcm to China through the western line and 38 bcm through the eastern line. 185 Despite several rounds of negotiations, as of early 2011 both projects

¹⁷⁹ See e.g. Song et al. (note 166), pp. 45-80; Chen (note 159), p. 27; and Sun, Y., '中俄能源合作的新进展及 其前景探析' [The new progress and future prospect of Sino-Russia energy cooperation], Nengyuan Zhengce Yanjiu, no. 1 (2010), p. 47.

¹⁸⁰ Yang (note 168), p. 251.

181 "石油大通道"启动中俄能源合作"新引擎" ['Grand oil channel' starts a 'new engine' for Sino-Russia energy cooperation], Zhongguo Jingji Shibao, 6 Jan. 2011; and Xu, H., '俄罗斯总统选举及其未来走势"会议综 述" [Proceedings of CASS symposium on 'Russian election and future'], Eluosi Zhongya Dong'ou Yanjiu, no. 4 (2008), p. 81.

¹⁸² E.g. Lu, N., '中俄区域经贸合作发展趋势分析' [Analyzing the trend of Sino-Russia economic and trade cooperation], eds Zhu and Lu (note 158), p. 25; '远东开发俄罗斯借力中国' [Far East development: Russia leveraging Chinese power], Shidai Zhoubao, no. 49 (Oct. 2009); and '俄罗斯经济V型反转"经济安全气囊"功 不可没' [Russian economy experiences V-shaped recovery, thanks to a 'economic safety net'], Zhongguo Jingji Shibao, 14 Dec. 2010.

⁸³ '2020我国天然气消费量预测' [An estimate of China's natural gas consumption in 2020], China Industry Research and Report, 4 Aug. 2010, http://www.chinairr.org/view/V02/201008/04-48926.html>.

¹⁸⁴ Shi, C., '俄罗斯天然气工业东部战略与中俄天然气合作' [The Russian eastern strategies of the natural gas industry and the natural gas cooperation between China and Russia], Jiefangjun Waiguoyu Xueyuan Xuebao, vol. 32, no. 6 (2009), p. 125.

¹⁸⁵ Yue, X., Wu, H. and Xu, S., '俄罗斯出口天然气管道建设规划及对中国引进天然气资源的影响' [Russia's natural gas pipeline plan and implications for China's natural gas import], Shiyou Guihua Sheji, vol. 21, no. 3 (2010), p.10.

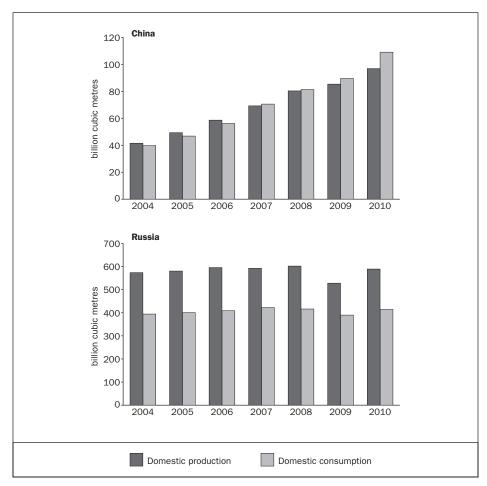


Figure 4.5. Gas production and consumption by China and Russia, 2004–10 *Source:* BP, *Statistic Review of World Energy June 2011* (BP: London, 2011).

existed on paper only. In early 2011 CNPC and Gazprom agreed to make the western line commercially operational by the end of 2015 but postponed the eastern line until 2015 at the earliest. 186

Gas pipeline projects remain mere plans primarily because China and Russia have not yet agreed on a price. The Russian side looks to set prices according to European levels, while Chinese negotiators wish to pay based on Chinese domestic market prices. China's reasoning is summed up by Pang Changwei of the China University of Petroleum: 'China lies close to Russia's natural gas fields, so it is reasonable to decline a price based on long-distance transfer (and transit fees

¹⁸⁶ Zhong, W., '俄公司计划从2015年末开始向中国出口天然气' [Gazprom plans to supply China natural gas at the end of 2015], Global Times, 12 Feb. 2011.

to countries en route) to Europe'. 187 Until July 2011, the price gap was reportedly \$100 per 1000 cubic meters. 188

While gas price negotiations with Russia have dragged on, China has energetically diversified its imports. Chinese analysts believe that China gained a negotiating advantage after concluding a gas pipeline deal with a number of Central Asian states, breaking Russia's monopoly over gas transport in the region. 189 The Central Asia-China gas pipeline-which starts in Turkmenistan, transits Uzbekistan and Kazakhstan, and stretches to China's Xinjiang province—was completed in late 2009 and is expected to operate at full capacity by 2013. Turkmenistan has agreed to supply China with 30 bcm of natural gas annually until 2030, or half of China's current demand. 190 'Russia will have lost its advantage in price negotiations with China with the completion of the Central Asia-China pipelines', Pang predicted in late 2009.¹⁹¹ In 2010 China and Kazakhstan concluded a natural gas deal using a proposed spur line to the Central Asia-China gas pipeline. Some gas will be used in southern Kazakhstan, and the remainder (5-10 bcm) will be exported to China. In 2010 China also signed a deal with Uzbekistan to buy 10 bcm of natural gas annually.¹⁹² Beyond Central Asian pipeline gas, China is expected to receive 13 bcm of natural gas annually via a China-Myanmar pipeline starting in 2013. Construction of both gas and oil pipelines from Myanmar's Kyaukpyu port to Kunming began in January 2011 (see figure 4.6). 193

In addition to its transnational natural gas pipeline projects, China has actively increased LNG imports in recent years. In 2010 China imported 9.35 million tonnes of LNG, 87 per cent more than in 2009. 194 The large contracts that Chinese companies have with Australia, Iran and Qatar have decreased China's need for Russian gas. 195 Besides diversification of its natural gas imports, China is also holding firm in price negotiations with Russia because of concern that Russia will be unable to fulfil its commitments of gas supplies because Gazprom's gas production in West Siberia is declining and Chinese experts doubt that Gazprom will make the enormous infrastructure investments necessary to develop huge gas reserves in the Russian Far East and East Siberia for East Asian customers. 196

¹⁸⁷ Pang, C., '俄罗斯油气工业形势与东北亚天然气合作前瞻' [The current situation of Russia's oil and gas industry and a preview of the future of North East Asia natural gas cooperation], eds Zhu and Lu (note 158),

p. 72.

188 'Russia offers Germany gas, rare earths to nudge China', Reuters, 19 Jul. 2011, http://www.reuters. com/article/2011/07/19/germany-russia-trade-idUKLDE76I0FT20110719>.

¹⁸⁹ Miao, S., '形势陡变,中俄天然气管道计划遭遇"逼宫" [Situation shift: Sino-Russian natural gas pipeline plan faces urgency], Zhongguo Jingji Wang, 25 Sep. 2006.

¹⁹⁰ Galpin, R., 'Struggle for Central Asian energy riches', BBC News, 2 June 2010, http://www.bbc.co.uk/ news/10131641>.

¹⁹¹ Pang (note 187).

¹⁹² Wan, Z., 'China, Kazakhstan sign new gas pipeline deal', *China Daily*, 14 June 2010.

¹⁹³ The natural gas will come from Myanmar's offshore Shwe field. See '中缅油气管道开通' [Construction of China-Myanmar oil and gas pipelines began], Dongfang Daily, 11 Sep. 2010; and 'Daewoo seals Myanmar-China gas export deal', Reuters, 25 Dec. 2008, http://uk.reuters.com/article/2008/12/25/myanmar-dae woo-china-idUKPEK30435020081225?sp=true>.

¹⁹⁴ Statistics based on data from the Chinese General Administration of Customs (note 145).

¹⁹⁵ Chen, A., 'China's L.N.G. firms eye Iran, and beyond', *Daily Star* (Beirut), 17 Jan. 2011.

¹⁹⁶ See e.g. Yue, Wu and Xu (note 185), p. 10; and Shi (note 184), p. 126.

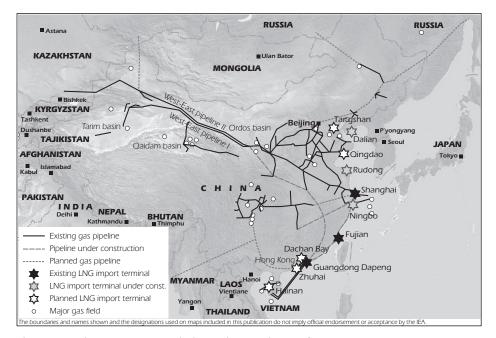


Figure 4.6. China's current and planned natural gas infrastructure

LNG = Liquefied natural gas

Source: International Energy Agency (IEA), Medium-term Oil & Gas Markets 2010 (IEA: Paris, 2010), part 3, p. 81, © Organisation for Economic Co-operation and Development (OECD)/IEA 2010.

To quote CNPC experts: 'the way in which Gazprom's projects in East Siberia and the Far East progress will have a significant bearing on China's efforts to introduce [Russian] gas'. 'Without a supply deal with China, Russia's exploration of its vast natural gas resources in the Eastern region will be postponed', predicts Yang Cheng. 'Russia cannot independently develop Kovytke and Chayanda into world-class gas fields without a long-term, large-scale purchase by China . . . Russia's profits will not cover its investment if it embarks on building a pipeline and only conducts small-scale exploration. And if massive exploration is undertaken, there is no guarantee that the gas output can be wholly consumed at market prices in the Asia–Pacific region'. 198

As in the oil sector, Russia has been reluctant to allow Chinese companies into its upstream gas market. Chinese analysts perceive that Russian energy companies are willing to cooperate only when they need capital. ¹⁹⁹ Yuan Zhengzhi, a Sinopec senior engineer, writes that foreign entry into Russia's upstream market is still risky, as the government may disapprove of attempts to tap what it perceives as strategic state assets. ²⁰⁰

¹⁹⁷ Yue, Wu and Xu (note 185), p. 10.

¹⁹⁸ Yang (note 168), p. 252.

¹⁹⁹ See e.g. Yuan, Z., '投资俄罗斯油气的机遇与挑战' [Opportunities and challenges of investing in Russian oil and gas sector], *Eluosi Zhongya Dongou Shichang*, no. 12 (2006), p. 10.

200 Yuan (note 199).

In practice, attempts at cooperation have indeed been fraught, although for different reasons. In 2005 Rosneft and Sinopec's joint exploration of an undeveloped Sakhalin bloc ended with Sinopec's withdrawal after spending tens of million of dollars and making no discoveries.²⁰¹ In 2009, China-Rus Energy Investment Limited announced its purchase of a 51 per cent share in Suntarneftegaz, which holds two exploration licences in the East Siberian gas fields of Yuzhno-Berezovskoye and Cherendeiskoye with estimated reserves of up to 60 bcm.²⁰² Despite initial elation over what was viewed as China's first real success in tapping Russia's natural gas upstream market, a Hong Kong-listed company, Solutec, later accused China-Rus's parent corporation of fraud and revealed that the exploration licence in Yuzhno-Berezovskoye had been terminated for commercial irregularities.²⁰³ Technological advances are also making China's recently discovered, vast reserves of shale gas available at competitive prices, which is likely to reduce dependence on foreign gas. Chinese experts estimate these reserves at 100 000 bcm, comparable to US levels.²⁰⁴ In 2011 the Chinese Ministry of Land and Resources announced its aim to produce 8-12 per cent of China's total natural gas from shale by 2020.205 China lacks the technology for large-scale independent exploration but is intent on partnering internationally,²⁰⁶ For example, CNPC partnered with Royal Dutch Shell and Encana to develop shale gas blocks in Guizhou province and Canada, and it is discussing the potential development of Sichuan with Conoco Phillips. In 2010 Sinopec started negotiations with BP and Chevron to develop shale gas blocks in south-west China.²⁰⁷ China's soaring need for natural gas will keep it in pursuit of natural gas from Russia but will continue to diversify its imports. This will 'put more pressure on Russia' in ongoing price negotiations for pipeline natural gas.²⁰⁸

From an environmental perspective, the more China can shift its energy consumption from coal to cleaner natural gas, the better.²⁰⁹ Keun-Wook Paik of the

²⁰² Kononczuk, W., 'Putin's visit to China focuses on raw material co-operation', East Week (Warsaw), vol. 185, no. 35 (Oct. 2009).

²⁰³ 'Termination of the very substantial acquisition and resumption of trading', Soluteck, 31 May 2010, http://www.soluteck.com/news/files/eng/GLN20100531001.pdf>.

204 Li, Z., '中国计划2020年页岩气开采储量达1万亿立方米' [China targets 1 trillion cubic meters for shale gas reserves in 2020], Caijing, 21 Jan. 2011.

²⁰⁵ Li (note 204).

²⁰⁶ Yin, Y., '效仿"美国模式"石化双雄争夺页岩气' [Following 'US mode', CNPC and Sinopec scramble for shale gas], 21 Shiji Jingji Baodao, 29 Dec. 2010; and Liu, H. et al., '中国页岩气勘探开发适用技术探讨' [A discussion of applicable technology for exploration and development of shale gas in China], Youjingqi Ceshi, vol. 18. no. 4 (2009).

²⁰⁷ See 'China's fledgling shale gas exploration', Reuters, 24 Aug. 2010, http://www.reuters.com/ article/2010/08/24/china-gas-shale-idUSTOE67N00R20100824?pageNumber=2>; and 'Encana, CNPC look to Canada shale joint venture', Reuters, 24 June 2010, http://www.reuters.com/article/2010/06/24/ encana-cnpc-idUSN2419812020100624>; Dyer, G. and Hoyos, C., 'BP and Sinopec join forces in shale gas talks', Financial Times, 18 Jan. 2010; and 'Chevron, Sinopec may join in shale gas deal', China Daily, 17 Sep.

²⁰⁸ Yang (note 168), p. 251.

²⁰⁹ See e.g. "'富煤少气"的中国如何成功实现能源结构转型' [As a nation 'rich in coal and poor in gas', how can China successively achieve energy consumption structure evolution], Guangming Ribao, 1 Aug. 2010; and Cui, M., '低炭时代的中国能源战略转型' [China's energy strategy reform in the low-carbon age], Jingji Cankao Bao, 24 Feb. 2010.

²⁰¹ '中石化受挫萨哈林未阻中国油企入俄找油' [Sinopec's defeat in Sakhalin didn't stop Chinese enterprises going to Russia for oil], 21 Shiji Jingji Baodao, 29 Sep. 2010.

Oxford Institute for Energy Studies advocates that China reduce coal consumption to half of its total energy use as soon as possible (coal constituted 70 per cent in 2010).²¹⁰ According to Paik, this requires that China's annual domestic natural gas consumption reach 500 bcm (instead of the 300 bcm now targeted for 2020). The sooner Russia develops its natural gas fields and the sooner China and Russia agree to engage in large-scale natural gas cooperation, the more environmentally sustainable China's economy will become.²¹¹

Coal

Complementarity between China and Russia also appears to extend to the coal sector. Russia holds more than one-fifth of all proven coal reserves (second only to the USA), although Russia's coal production only constitutes 4.0 per cent of the world's total.²¹² Coal serves as China's predominant source of energy, making up 70 per cent of China's overall energy consumption, while accounting for only 12 per cent of Russia's. Despite China's attempts to reduce this figure by introducing natural gas and other, cleaner sources, coal demand is expected to continue to rise.²¹³ In 2009 China became a net coal importer and purchased approximately 12 million tonnes of coal from Russia, 10 times more than in 2008.²¹⁴

China and Russia signed a \$6 billion 'coal for loans' agreement in September 2010 to facilitate Russian infrastructure and equipment investments. Russia will annually provide 15 million tonnes of coal until 2015, then 20 million until 2035. A joint venture will also be established to explore coal resources in the Amur River (Heilongjiang) region. In addition, China's biggest coal producer, Shenhua Corporation, is studying a Russian proposal to participate in a coal-to-oil conversion project at Russia's Beringovsky coal mine.

Chinese experts have noted that the relative success of China-Russia coal cooperation is due to Russia's limited domestic use of coal and otherwise stagnant external demand, which compel it to look east.²¹⁶ Expanding eastward exports can, according to Wang Haiyun, former military attaché to Russia and now an energy researcher at the China Foundation for International Studies, 'inject new vitality to the Russian Far East's economy, which has been declining for many years'.²¹⁷ The deal was also attractive to China because of its low price,

²¹⁰ Paik, K., China-Russia Oil and Gas Cooperation (Oxford University Press: Oxford, forthcoming 2011).

²¹¹ Paik, K., Senior Research Fellow, Oxford Institute for Energy Studies, Interview with author, Beijing, 5 Mar. 2011; and Paik (note 210).

²¹² BP, Statistical Review of World Energy June 2011 (BP: London, 2011).

²¹³ Wang, G., '中俄煤炭合作再次引起业界关注' [Sino-Russia energy cooperation caused the attention of the industry again], *Energy*, Oct. 2010.

²¹⁴ Statistics based on data from the Chinese General Administration of Customs (note 145).

²¹⁵ Li, D. and Chen, X., '贷款换石油'2.0版' [Second version for loans-for-oil deal], *Diyi Caijing Ribao*, 15 Nov. 2010.

²¹⁶ Wang (note 213); Sun, Y., '中俄煤炭工业现状及对两国煤炭合作的思考' [The coal industry situation of China and Russia and contemplation on China–Russia coal cooperation], *Eluosi Zhongya Dongou Shichang*, no. 7 (2010), p. 48; and Wang (note 213).

²¹⁷ Wang (note 213).

which caused China to shift demand from other suppliers such as Australia and Indonesia.218

Despite growing prospects for coal cooperation, Chinese scholars regard it as insignificant in overall China-Russia energy cooperation. Twenty million tonnes of coal is less than 1 per cent of China's annual consumption. Furthermore, some Chinese experts doubt Russia's ability to transport large quantities of coal to China because of bottlenecks on Russia's undeveloped transportation network in East Siberia and the need to change carriages for different railway gauges between Russia and China.²¹⁹

Shenhua's ability to gain a foothold in Russia is also uncertain. Coal-to-oil technology remains far from commercially viable. Profits are restricted by oil prices and environmental concerns because of the enormous amounts of water needed.²²⁰ Shenhua is likely to face the same problems that Chinese oil and gas enterprises have experienced in Russia's upstream market. 'Russia has a tight grip on natural resources and energy ... it does not want to become another country's energy appendage', Wang Haiyun points out. 'This mentality will affect Russia's strategic thinking'.221

Nuclear power

China-Russia nuclear power cooperation centres on two Russian-designed reactors for the Tianwan nuclear power plant in Jiangsu province. In 1997 China's Jiangsu Nuclear Power Cooperation (a subsidiary of China National Nuclear Corporation) and Russia's Atomstroyexport signed what was then the largest-ever technological cooperation contract between China and Russia.²²² The first and second nuclear reactors began operation in late 2007.²²³ Throughout the construction, both companies continued negotiations on the construction of a third and fourth reactor (Tianwan Phase II). In November 2010, after lengthy price negotiations and an alternative French offer, China and Russia finalized the agreements to jointly build Tianwan Phase II.²²⁴

China is intent on boosting Tianwan's power generating capacity to 60 gigawatts so that it can become the central energy supplier for the northern Jiangsu province. This has propelled preliminary indigenous construction of a fifth and sixth reactor in Tianwan in 2010 while continuing negotiations with Russia on

²¹⁸ Russia's coal is reportedly \$30 cheaper per tonne than Australia's. Wang (note 213).

²¹⁹ Su, L., '俄罗斯煤炭增加对亚太地区出口可能性不大' [Chances are low for Russia to increase coal export to Asia Pacific region], *Yuandong Jingmao Daobao*, 6 July 2009; and Wang (note 213).

220 Chen, D., '煤制油暂停令能否解禁' [Whether the current ban on coal-for-oil will be lifted], *Zhongguo*

Huagong Bao, 19 Jan. 2011; and Yao, B., '发展煤制油应三思而行' [We should think thoroughly before developing coal-for-oil projects], Zhongguo Shihua, no. 1 (2011), p. 20.

²²¹ Wang (note 213).

²²² China National Nuclear Corporation, '田湾核电站' [Tianwan nuclear power plant], http://www.cnnc. com.cn/tabid/117/Default.aspx>.

²²³ China National Nuclear Corporation (note 222).

²²⁴ Chinese Russian expert, Chinese Academy of Social Sciences (CASS), Interview with author, 17 Jan. 2011; and 'ASE contracted to build Tianwan phase 2', World Nuclear News, 23 Nov. 2010.

the third and fourth reactors.²²⁵ In the words of a Chinese nuclear expert, this two-pronged approach 'helps China to meet the demand for domestic development of nuclear power while showing Russia goodwill. This move throws the ball back to Russia'.²²⁶ Chen Kexu of East China Normal University argues that Tianwan Phase II is moving forward based on political considerations and the hope that it will encourage construction of the gas pipelines.²²⁷ 'If no apparent progress is seen in [other forms of] energy cooperation, China's nuclear power cooperation with Russia might be affected'.²²⁸

China has already begun to develop its own nuclear power technology. It has created a design, which has been used in phases I and II of the Qinshan plant and has also been exported to Pakistan.²²⁹ China's domestic nuclear capabilities will greatly affect future prospects for cooperation in nuclear power. 'China's ultimate purpose is to become independent in nuclear power technology with help in advanced technology. Russia has many concerns about technology transfer, including the possibility that China might become a competitor in the international market once it has gained cutting-edge technology'. Furthermore, China is acquiring significant technology in the ongoing construction of Westinghouse AP-1000 reactors in Zhejiang and Shandong provinces. The first units are due to be operational in 2013.²³¹ The AP-1000 has been designated as the basis for China's third-generation nuclear power technology, undoubtedly making older Russian technology less attractive.

²²⁵ China Nuclear Association, '田湾核电站' [Tianwan nuclear power plant], 7 Feb. 2010, http://www.china-nea.cn/html/2010-02/14455.html.

²²⁶ Duan, X., '又一种三代核电技术进中国' [Another 3rd generation nuclear technology entered China?], *Zhongguo Nengyuan Bao*, 20 Oct. 2010.

²²⁷Chen, K., '中俄核电合作的前景分析' [The future prospect of Sino-Russian nuclear power cooperation], *Xiboliya Yanjiu*, vol. 36, no. 4 (2009), p. 65.

²²⁸ Chen (note 227).

²²⁹ US Energy Information Administration, 'China's commercial nuclear reactors', Reactor summaries, http://www.eia.doe.gov/cneaf/nuclear/page/nuc_reactors/china/reactors.html>.

²³⁰ Chen (note 227).

²³¹ 'Chinese sign up for four AP100s', *Modern Power Systems*, Sep. 2007.

5. Conclusions

Chinese and Russian leaders are pragmatic about their relationship: they know that both countries benefit from seeking common ground and promoting productive relations, and, in fact, their interests dictate little other choice. Therefore, at the highest political levels, mutual trust and respect are continuously emphasized. But in reality, the relationship is complicated and uneasy. There are several reasons that the China–Russia relationship falls well short of a formal 'strategic partnership', which was characterized in the declaration of the partnership as a 'partnership directed at strategic cooperation in the 21st century'. ²³² Some of the foundations of the strategic cooperation of the past 20 years are wearing thin. This calls for a reassessment of the China–Russia relationship and its implications for other states in the international system for the years ahead.

Alongside long-standing mutual mistrust between the two countries, and the practical commercial and technical impediments to deeper relations described above, the changing balance of power in the international system over the past decade has also strained the relationship. China's extraordinary rise has changed its status vis-á-vis its neighbour, from a junior partner during the Soviet era to one of economic dominance today. This is reflected by the fact that, while Russia is only China's 10th-largest trading partner, China became Russia's largest partner in 2010. China is now in a position to have greater expectations of and place demands on Russia, while Russia is struggling to come to terms with this new power dynamic. In both countries, strategic planners warn that the present competition could escalate to a more pointed rivalry, entirely undermining the notion of a strategic partnership.

Although the USA factors prominently in the China-Russia partnership, it is not always a factor for China-Russia unity. In many respects, China and Russia have found common cause in seeking to counterbalance US power and influence in the world, particularly in the immediate aftermath of the cold war and the USA's 'unipolar moment'. China and Russia continue to find themselves on opposite sides from the USA on many global and regional issues large and small, but not with the same intensity as in the late-1990s and early 2000s when the strategic partnership was first formulated. At present, China and Russia have a greater interest to develop productive relations with the US Government than with one another. For example, while China and Russia once stood together in opposition to US missile defence plans and their impact on strategic arsenals, today Russia is cutting a deal with the USA to jointly deploy and possibly develop missile defences and is increasingly calling on China to enter into multilateral nuclear disarmament discussions. China, in turn, is proud of the dozens of official bilateral dialogues it has with the USA and its role in what analysts have called 'the most important bilateral relationship' in the world.

²³² Mikheev, V., 'Russian-Chinese strategic cooperation: scenarios, perspectives and consequences for global and Asian security', Korean Journal of Defense Analysis, vol. 9, no. 2 (1997), p. 165.

From a more practical perspective, the flow of arms and military equipment from Russia to China has dramatically decreased. A more advanced Chinese defence industry is increasingly able to meet the needs of the PLA, limiting the need for imports of large weapon platforms. At the same time, it is unclear if Russia is able and willing to meet Chinese demands because of problems with its own arms industry and concerns that China will copy technology and compete with Russia on the world market. China is still seeking foreign assistance to develop state-of-the-art military technology, which represents an opportunity for Russia to continue military-technical cooperation with China. Russian acquiescence to these demands would demonstrate a significant level of trust. However, this trust is currently lacking, and so cooperation in this sphere is likely to remain limited. China will therefore continue to seek alternative suppliers; it will increasingly pressure EU member states to lift the arms embargo and push ahead with efforts to incorporate advanced civilian technology into the defence industry.

Joint China-Russia cooperation in military exercises is a relatively new development and could become a more important aspect of this relationship. Thus far, the Peace Mission exercises have been held under SCO auspices and consequently are not solely bilateral Chinese-Russian affairs. Nevertheless, the four such exercises to date have required high-level military-to-military cooperation and exchanges between China and Russia as well as other SCO members. The exercises have also provided Russians and others with an opportunity to assess the development of Chinese capabilities. Peace Mission 2007 was the largest overseas deployment of Chinese troops in decades, while Peace Mission 2010 demonstrated China's ability to project land and air forces over a considerable distance. China is now using joint exercises to demonstrate to friend and potential foe alike its ability to project its growing military power.

At the same time, China is expanding its range of partners and activities in this sphere. This collaboration is likely to expand and deepen, in particular with other Asian states such as Indonesia, Pakistan and Thailand. Russia will remain just one of several militaries with which the PLA cooperates. China has demonstrated its interest in gaining operational experience through joint exercises and training with militaries that have active combat experience, and in this regard, Asian states with militaries that have received US training and assistance can offer China a different perspective.

Prior to the global financial crisis, the energy sector was seen as the mainstay of the strategic partnership. As of 2011, however, Russia's share of China's oil imports was a mere 6 per cent in 2010. Even if Russia fulfils its obligation to annually provide 15 million tonnes of oil through the ESPO pipeline, it will remain a minor oil supplier because of China's soaring demand for imported oil and intense efforts to diversify supply. Moreover, questions remain among Chinese specialists about Russia's willingness and ability to deliver the promised oil to China.

In the gas sector, Russia's negotiating position has been seriously weakened by China's success in finding other partners, especially in Central Asia. China has diversified its sources of imported natural gas and is preparing to invest heavily in exploration of domestic and foreign shale gas reserves. This has moved China to its strongest position to date in its more than decade-long price negotiations over Russian gas that would be supplied by two prospective pipelines. Were China and Russia to come to an overarching agreement on gas cooperation which would probably require Chinese upstream investment in the Russian energy sector-China would have an incentive to increase its natural gas use. Such an initiative, like any that decreases China's coal dependency, would benefit the environment. Unfortunately, the prospects for all-embracing China-Russia gas cooperation remain dim.

Taking these strategic and practical points together, a number of conclusions arise regarding the future of the China-Russia relationship. To begin, while arms sales and energy cooperation will undoubtedly remain important elements of the partnership, both are likely to decrease in importance in China's overall strategic calculations. China could be expected to increasingly seek both Russian military technology and energy, but only on more favourable terms than it presently enjoys. China will accelerate efforts to reduce its reliance on any one country for any commodity or technology.

While some of the grander expectations of China-Russia relations are unlikely to develop, the two countries will nevertheless avoid antagonizing one another and will find common interests in a stable relationship. The relationship may encounter tension over specific issues, but it is relatively resistant to long-term damage because of the pragmatism of both parties and the willingness to discuss differences behind closed doors. As the number of challenges along and near China's borders increase in number and complexity, China will presumably appreciate the value of a stable neighbour all the more. The war in Afghanistan and the uncertain future for that country, possible instability in North Korea and Central Asia, land disputes with India, and maritime disputes with Japan and South East Asian countries could all undermine the stability that China seeks for its near abroad and which is also critical for its continued economic development. Consequently, China and Russia will continue to be pragmatic partners of convenience, but not partners based on deeper shared world views and strategic interests.²³³ In the coming years, while relations will remain close at the diplomatic level, the two cornerstones of the partnership over the past two decades military and energy cooperation—are crumbling. As a result, Russia's significance to China will continue to diminish.

²³³ Bobo Lo's comprehensive analysis of Russia-China relations was entitled Axis of Convenience. Lo, B., Axis of Convenience: Moscow, Beijing, and the New Geopolitics (Brookings Institution Press: Washington, DC, 2008).

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STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE

China's Energy and Security Relations with Russia: Hopes, Frustrations and Uncertainties

The leaders of China and Russia like to speak in public of the strategic partnership between the two countries, based on mutual interests and trust. In reality, the two cornerstones of the relationship—arms sales and energy cooperation—are crumbling. China has not placed a significant order for Russian arms since 2005 and buys only a fraction of its energy imports from Russia.

This timely report illuminates the current status of China's security and energy relations with Russia. The authors describe a relationship that is complex and at times fraught with distrust, and which, although potentially promising, is increasingly marred by uncertainties.

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