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CHINA–RUSSIA RELATIONS AND REGIONAL DYNAMICS

From Pivots to Peripheral Diplomacy

EDITED BY LORA SAALMAN

March 2017

STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE

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Preface

Discussions of China–Russia dynamics are ubiquitous and yet prone to generalization. From platitudes on great power politics to often outdated analyses of their political systems, these studies provide interesting reads but are not always representative of current conditions and specific cases. To fill this lacuna, this report provides a range of essays from 27 experts from 13 countries in Asia and Europe.

Their case studies offer the reader first-hand exposure to voices from the region and concrete examples of Chinese–Russian interaction and its impact on North East Asia, South East Asia, South Asia, Central Asia and Europe. In covering everything from infrastructure building in Central Asia to nuclear weapon modernization in North East Asia, the report provides a baseline for further research into specific topics and trends.

Its main takeaways suggest that rather than forming an alliance, China and Russia are still negotiating their potential arenas of overlap and contention in non-traditional security spheres. The report illustrates this phenomenon with studies probing the role of the Silk Road Economic Belt and Eurasian Economic Union in Central Asia, the extent to which Russia is willing to negotiate its role as a gatekeeper in the Arctic, and the mismatched expectations and experiences in countries such as Belarus and Kyrgyzstan, among others. At the level of traditional security, Chinese and Russian convergence is even clearer. This includes their common threat perceptions driving advanced conventional and nuclear weapon modernization, interest in generating norms such as cyber sovereignty and shifting arms trade patterns in regions such as South East Asia and South Asia.

While the debate continues over how the new US administration might change these dynamics with its potential for enhanced engagement with Russia and push-back against China, the essays in this report suggest that these trends are largely independent of the United States. Whether called a pivot or peripheral diplomacy, the Chinese–Russian convergence was forming before the crisis in Ukraine and the US elections. While external factors in the West may accelerate Chinese and Russian comity, they remain tangential to the larger interest that both countries have in strengthening their leverage on the regional and global stage and diversifying their partnerships throughout Asia and Europe.

Dan Smith
Director, SIPRI
March 2017

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Abbreviations

ANSF	Afghan National Security Forces
APEC	Asia-Pacific Economic Cooperation
APT30	Advanced Persistent Threat 30
ASEAN	Association of South East Asian Nations
AWACs	Airborne warning and control systems
A2AD	Anti-access area-denial
BMEWS	Ballistic missile early warning system
BRI	Belt and Road Initiatives
CBIP	China–Belarus Industrial Park
CCP	Chinese Communist Party
CIA	Central Intelligence Agency
CNP	Comprehensive National Power
CNPC	China National Petroleum Corporation
COSL	China Oilfield Services Limited
CPEC	China–Pakistan Economic Corridor
CSTO	Collective Security Treaty Organization
C4ISR	Command, control, communications, computers, intelligence, surveillance and reconnaissance
DDoS	Distributed denial of service
EAEU	Eurasian Economic Union
EU	European Union
FDI	Foreign direct investment
GDP	Gross domestic product
ICBM	Intercontinental ballistic missile
IEA	International Energy Agency
IRBM	Intermediate-range ballistic missile
ISIS	Islamic State of Iraq and Syria
LNG	Liquefied natural gas
MIRV	Multiple independently targetable re-entry vehicles
MLE	Maritime law enforcement
MSR	Maritime Silk Road
NATO	North Atlantic Treaty Organization
NGO	Non-governmental organization
NMD	National Missile Defence
NSA	National Security Agency
OECD	Organisation for Economic Co-operation and Development
OSCE	Organization for Security and Co-operation in Europe
PLA	People's Liberation Army
PLAAF	PLA Air Force
PLAN	PLA Navy
PLARF	People's Liberation Army Rocket Force
RCEP	Regional Comprehensive Economic Partnership

RFE	Russia's Far East Federal District
SCO	Shanghai Cooperation Organization
SEZ	Special Economic Zone
SLBM	Submarine-launched ballistic missile
SOE	State-owned enterprise
SREB	Silk Road Economic Belt
SSBN	Nuclear ballistic missile submarine
START	Strategic Arms Reduction Treaty
THAAD	Terminal High Altitude Area Defense
TMD	Theatre missile defence
TPP	Trans-Pacific Partnership
TTIP	Transatlantic Trade and Investment Partnership
UNCLOS	United Nations Convention on the Law of the Sea
WTO	World Trade Organization

Executive summary

This report contains case studies from 27 experts from 13 countries in North East Asia, South East Asia, South Asia, Central Asia and Europe. Over two days in January 2017, these experts assembled at a workshop of over 70 participants to discuss their research and analyses on China and Russia in both non-traditional and traditional security domains.[1] The first day covered non-traditional security, including issues related to energy, resources and development. The second day featured panels on traditional security and over the horizon issues, such as cyberspace and terrorism, the arms trade and conventional military development, and nuclear and space modernization. The workshop yielded findings that can be grouped into three primary categories: uncertainty, strategic ambiguity and new frameworks.

On uncertainty, participants raised questions over the sustainability of China's economic growth and the statistics behind the Belt and Road Initiatives (BRI). They discussed how the new US Administration and external players may affect regional dynamics on such diverse and divisive issues as the Arctic and North Korea. When it came to conventional and strategic military modernization, experts explored how Russia may be applying the concept of using its nuclear weapons for 'de-escalation' and how Chinese military advances may drive future technological and postural changes. In the realm of cyberspace, the issue of attribution relating to cyber intrusions and cyberattacks raised widespread concerns over proportionality and response.

On strategic ambiguity, experts focused on whether transparency serves as a stabilizing or destabilizing factor when revealing arsenal size or providing information on military exercises to potential adversaries. They discussed how the use of political and military red lines might lead to future miscalculations, particularly on Ukraine and the South China Sea. Participants debated the potential for civilian and military deployments and exercises in both arenas to exacerbate existing tensions and to elicit future conflict. When discussing cyberspace, experts probed how hybrid warfare and new governance norms from Asia are shaping international civilian and military realms.

On new frameworks, participants questioned the use of the terms 'pivot' and 'peripheral diplomacy' to describe Russia's and China's regional activities. Some asserted that while the cold war no longer exists, China and Russia retain similar threat perceptions and traditional concepts, such as mutually assured destruction, in their strategic calculus. Others advocated challenging the assumed asymmetry and inevitability of a Russia 'in decline' and a China 'on the rise'. Overall, experts discussed methods for the two powers to de-conflict their economic and security

[1] For the purposes of the workshop and this report, 'non-traditional security' refers to such issues as the economy and investment, health and migration, the environment and resources. An example would be the impact of the Silk Road Economic Belt on migration patterns and internal stability in Kazakhstan. 'Traditional security' refers to national military strength and the threats from war and conflict. An example would be the impact of shifts in nuclear posture on the conflict in Ukraine.

engagement, combined with both active and reactive mechanisms for regional actors to shape Chinese and Russian initiatives throughout Asia and Europe.

This report represents a subset of these discussions and offers case studies on a range of non-traditional and traditional security issues. The Introduction provides a brief overview of the origins and nature of Russia's 'pivot to Asia' and China's 'peripheral diplomacy'. Chapter 2 explores these conceptual frameworks in an essay by Sergey Lukonin (Russia) that challenges whether a 'pivot' even exists, given that Russia's engagement with Asia has been more gradual and predates the crisis in Ukraine. Yang Cheng (China) continues this discussion by asserting that Russia is engaged in an eastward shift, but has a much broader concept of what constitutes Asia. He suggests that Russia still finds itself culturally alienated from Asia and more connected with the West and Europe. Niklas Swanström (Sweden) applies these two discourses to the region of Central Asia to explore how China is integrating itself into what has traditionally been a Russian stronghold.

Chapter 3 offers a foundation for a better understanding of the theoretical and practical applications of the BRI. Christer Ljungwall and Viking Bohman (Sweden) discuss the method through which these projects could offer 'strategic resiliency' for China, particularly if it faces future isolation due to increasingly assertive regional and global policies. Their work is paired with that of Ma Bin (China), who questions the assumption that the increase in China's foreign direct investment (FDI) in Central Asia is directly tied to the BRI's Silk Road Economic Belt (SREB). He makes the case that many of these investment patterns and infrastructure deals were already under way and that Chinese FDI in the region has recently declined.

Chapter 4 discusses how the Russian-backed development model of the Eurasian Economic Union (EAEU) and the Chinese-backed development model of the SREB are interacting. Richard Ghiasy (the Netherlands) analyses this interplay from the perspective of a Russia that finds itself in a 'forced marriage', often reacting to many of China's new initiatives and infrastructure projects. Damir Esenaliev and Gulzhan Asylbek Kyzy (Kyrgyzstan) offer a concrete example of this phenomenon. Their case study illustrates the manner in which misaligned expectations of EAEU membership have contributed to Kyrgyzstan's pursuit of Chinese investment in order to diversify its options.

Chapter 5 presents a parallel set of case studies that analyse Chinese entry into two spheres of traditional Russian regional influence—territory and minerals. Jiayi Zhou (United States) analyses the integration of Chinese labour migrants into the Russian Far East. She argues that while much of the local Russian discourse portrays these forays as 'land grabbing', they are instead often motivated by commercial interests. Henrik Hallgren (Sweden) explores Chinese–Russian interaction in Belarus, to provide a better understanding of the patterns of labour migration and the power politics of resource extraction.

Chapter 6 maps out Chinese and Russian pathways into each other's traditional regions of influence: the Arctic and South East Asia. Ekaterina Klimenko (Kyrgyzstan) offers an in-depth view of the Arctic region and how China and Russia are interacting through resource exploration. She notes that if Russia continues to

act as a 'gatekeeper' by not offering more cost-effective deals to China, the latter is likely to slow its entry. Imes Chiu (the Philippines/USA) provides a detailed account of similar activities in South East Asia. Like the Arctic, she argues that changes to the environmental and geopolitical climate in this maritime region have led to greater external attempts at entry. She provides specific examples of why Russia's level of engagement in South East Asia is more robust than is often assumed.

Chapter 7 provides a concentrated examination of the South China Sea from a historical and perceptual perspective. Masafumi Iida (Japan) sets out a timeline for China's activities, arguing that China's level of assertiveness has undergone a variety of fluctuations. He suggests that its current approach is more aggressive and marked by an attempt to reinforce its claims by building artificial landmasses, combined with civilian and military patrolling. He concludes, however, that opportunities for engagement remain. Igor Denisov (Russia) provides a view from inside Russia. He suggests that while Russia's stance, through its military exercises and statements, has seemingly coalesced in support of China, the reality is far more nuanced. Russia remains cautious about the potentially negative repercussions of China's instrumental use of multilateral organizations and Russian support for its claims.

Chapter 8 maps out China's and Russia's emerging crossover in cyberspace. Amirudin Bin Abdul Wahab (Malaysia) provides his take on the growing complementarity of their approaches to promoting such norms as cyber sovereignty. He also offers his assessment of the growing threat of cyberwarfare and the lack of a common definition and understanding of the concept in cyberspace, as they affect such regions as South East Asia. Lora Saalman (United States) explores how hybrid warfare is applied in the cyberspace domain, citing cases of alleged cyber intrusion and cyberattack that extend from Ukraine to the South China Sea. She argues that the Chinese–Russian convergence of views on external cyber threats to information flows and internal stability is driving their efforts to shape their security environment.

Chapter 9 constructs a two-pronged framework for evaluating counterterrorism trends in Central Asia. Iskander Akylbayev (Kazakhstan) delineates the terrorism challenges faced by regional powers. Rather than China replacing Russia or the two engaging in a division of labour, he supports the idea of 'inclusive responsibility', which also factors in the needs and inputs of regional actors. Zhang Weipeng (China) complements this strategic framework with a systematic breakdown of terrorism trends in each state in the region and argues that the Shanghai Cooperation Organization plays a vital role in establishing the 'rules of the game' and the institutionalism needed to combat terrorism.

Chapter 10 provides an expansive review of the crucial role that Afghanistan and Pakistan play in regional security and how their own stability is affected by Russia and China. B. K. Sharma (India) provides a detailed analysis of regional counterterrorism alignments, with insights into such new formations as the China–Russia–Pakistan summit. Sitara Noor (Pakistan) continues the discussion of regional regroupings by analysing the drivers of Russia's growing outreach

to Pakistan. While she concludes that this shift is more tactical than strategic, she notes that Russia's likely support for the China–Pakistan Economic Corridor could expand its ties with both Pakistan and China.

Chapter 11 uses statistics and case studies to explore the impact of China's and Russia's evolving arms trade and military exercises. Siemon Wezeman (the Netherlands) explains the reasons behind Russia's decision to sell China more advanced military platforms, even at a risk to its traditional markets. Rajeswari Pillai Rajagopalan (India) presents a case study to highlight how some of these specific sales have affected security dynamics in South Asia. Ian Anthony (United Kingdom) contextualizes Russia's shifts in platforms and security calculus within the European sphere. He analyses how its military exercises could reveal postural changes, and elicit misinterpretation from such neighbours as Belarus, Poland and Ukraine.

Chapter 12 pairs a discussion of Chinese and Russian nuclear modernization programmes with how technological advances are shaping their deterrence postures. Vasily Kashin (Russia) details China's nuclear 'build-up', offering his own insights into how these changes are likely to affect US and Russian arsenals. Yu Koizumi (Japan) reviews Russia's tactical and strategic nuclear forces. He dissects the Russian discourse on the use of nuclear weapons to engage in 'de-escalation' in a conflict scenario, suggesting that while this may not be official doctrine, its unofficial discussion may still exert a deterrent effect.

Chapter 13 uses technological advances in missile defence and hypersonic glide to explore the implications of such platforms for Chinese and Russian nuclear deterrence. Zhao Tong (China) sets out the foundation for understanding Chinese and Russian concerns regarding the threat of US missile defence to their nuclear deterrents. He argues that beyond the technological implications of such systems, their common threat perceptions compel the two countries to engage in similar responses and build-ups. Lora Saalman (United States) furthers this discussion by exploring how China's and Russia's threat perceptions are demonstrated in their hypersonic glide vehicle development. She argues that Chinese research and analyses increasingly display similarities with the Russian emphasis on missile defence as a target and nuclear warheads as payloads for prompt and precise delivery systems. Chapter 14 provides a summary of the key findings in the report and their implications for longer-term interaction between China and Russia and the regions of North East Asia, South East Asia, South Asia, Central Asia and Europe.

1. Introduction

The annexation of the Crimean Peninsula by Russia and the onset of armed conflict in eastern Ukraine are often attributed with fostering a new security dynamic in Europe and Asia. Given the crisis, a variety of analysts have argued that Russia has sought to accelerate its own 'pivot to Asia' (Поворот к Азии) and to deepen its evolving engagement with China.[1] Using a similar logic, experts also describe how China's territorial concerns have triggered its own 'peripheral diplomacy' (周边外交) and reprioritization of its relations with its neighbours.[2]

Yet, these changes have been more gradual than such analyses suggest. In 2013, Russia and China both issued official statements that indicate the pre-existence of such leanings and diplomatic shifts. At the St Petersburg International Economic Forum, Russia's President Vladimir Putin emphasized the need for a further orientation towards Asian markets.[3] During the Peripheral Diplomacy Symposium, China's President Xi Jinping promoted a move away from an over focus on the West towards prioritizing relations in China's own neighbourhood.[4]

Despite this intersection of Chinese and Russian approaches, their partnership does not yet constitute an alliance.[5] The case studies in this report suggest that it instead represents an 'axis of convenience' (section 2.2). While 'China-centrism' in Russia's current orientation is often emphasised, there is a great deal more complexity to Russian engagement with regional powers, as seen with its expanding projects in South East Asia (section 6.2), its ongoing military ties with India (section 11.2) and its newer strategic engagement with Pakistan (section 10.2).

When it comes to China, whether it is called 'peripheral diplomacy' or 'neighbourhood policy' (section 2.2), its relations with its surroundings are recalibrating. China is playing a greater role in exporting its development model under the Belt and Road Initiatives (BRI). Yet, it also faces significant challenges in building 'strategic resiliency' (section 3.1). Furthermore, the sustainability of these projects is driven by more than simply authoritarian convergence between China and Russia. Both have been impacted by 'potassium wars' in Belarus (section 5.2), mis-

[1] *The Economist*, 'Russia's pivot to Asia: Vladimir Putin is leaning east, but his engagement is superficial', 26 Nov. 2016, <http://www.economist.com/news/asia/21710832-vladimir-putin-leaning-east-his-engagement-superficial-russias-pivot-asia>; and Filippov, D. and Marino, P., 'What happened to Russia's "pivot to Asia"?', *East Asia Forum*, 19 May 2016, <http://www.eastasiaforum.org/2016/05/19/what-happened-to-russias-pivot-to-asia>.

[2] Kurlantzick, J., Gabuev, A., Chellaney, B., Reilly, J., Snyder, S.A. and Varrall, M., 'Beijing's Asia pivot in 2016', Council on Foreign Relations, 5 Jan. 2016, <http://www.cfr.org/china/beijings-asia-pivot-2016/p37409>; and Ranade, J., *China's New Policy of Peripheral Diplomacy* (Centre for China Analysis and Strategy: May 2014), <http://ccasindia.org/no._policy.php?ipid=14>.

[3] Bordachev, T. and Kanaev, E., [To appease the west, counterbalance to the east: the new Russian strategy in Asia], *Russia in Global Affairs*, 3 Sep. 2014, <http://www.globalaffairs.ru/number/uspokoit-zapad-uravnovesit-vostok-16929> (in Russian).

[4] Xinhua.net, '习近平在周边外交工作座谈会上发表重要讲话' [Xi Jinping delivers an important speech at the peripheral diplomacy symposium], 25 Oct. 2013, <http://news.xinhuanet.com/politics/2013-10/25/c_117878897.htm>.

[5] There are still voices in China that argue the advantages of such an alliance. 阎学通 [Yan, X.], [I do not understand why Russia does not insist on forming an alliance with China], Kommersant, 17 Mar. 2017, <http://www.kommersant.ru/doc/3243633> (in Russian).

aligned expectations in Kyrgyzstan (section 4.2) and growing crossover in each other's traditional spheres of interest in the Arctic and the South China Sea (sections 6.1, 6.2 and 7.2)

While intersection between China and Russia is starting to appear in non-traditional security domains, currently the most tangible avenue for these convergences remains traditional security. This report's case studies suggest a growing similarity between the two countries in the cyber, advanced conventional and nuclear weapon spheres. This intersection is occurring in cyberspace and hypersonic glide technologies and postures (sections 8.1, 8.2 and 13.2), as well as with Chinese and Russian responses to missile defence and US military modernization (section 13.1).

The growing willingness of Russia to supply more advanced weapon platforms to China (section 11.1), combined with the two countries' increasing military engagement with Pakistan (sections 10.2 and 11.2), illustrate that the traditional arms trade has begun to break the mould and to be challenged by new geopolitical realities. This enhanced comfort level for overlap in the security sphere is likely to lead to further groupings and initiatives that extend beyond existing regional forums, such as the Shanghai Cooperation Organization.

Overall, the case studies in this report provide a window into specific dimensions of ever-changing Russian and Chinese engagement. To better analyse the importance of these shifts and their tangible impact, this report seeks to turn China and Russia from the subjects into the objects of inquiry. Each essay offers insights into how regional actors view the impact of Chinese and Russian activities on their strategic domains in North East Asia, South East Asia, South Asia, Central Asia and Europe. In doing so, the report seeks to provide an expansive, but detailed, overview of the current issues shaping China–Russia rapprochement and regional engagement.

2. Redefining Russia's Pivot and China's Peripheral Diplomacy

This chapter explores the conceptual framework for Russia's 'pivot to Asia' and China's 'peripheral diplomacy'. Sergey Lukonin questions the basic concept of a 'pivot', arguing that Russia's engagement with Asia has been a gradual trend, the start of which preceded the crisis in Ukraine by several years. Yang Cheng uses the term 'eastward pivot' to describe Russia's approach to Asia and argues that its geographical coverage and interest in engagement extend well beyond China. Niklas Swanström provides a case study to analyse Chinese diplomatic engagement in Russia's traditional sphere in Central Asia. He argues that while the two may experience some friction, China is unlikely to adopt an exclusionary stance.

2.1. Sergey Lukonin[1]

Introduction

Russia's pivot to Asia does not exist. An 'eastern policy' is a more accurate characterization of Russia's activities to rebalance its external economic relations, which remain overly concentrated on the European Union (EU). In this way, Russia is compensating for the losses caused by sanctions. However, this eastern policy is not an alternative to Russian–European cooperation. The growth in economic and political ties between Russia and China, as well as with Japan and South Korea, has not replaced Russia's relations with the EU.

Russia's eastern policy formally began in 2012, when the Asia-Pacific Economic Cooperation (APEC) Summit was held in Vladivostok. The main aim of this event was to create the potential for external economic cooperation between the Far Eastern Federal District of the Russian Federation and the leading countries of North East Asia—China, South Korea and Japan. The summit was intended to support the achievement of the federal social and economic development programme in Russia's Far Eastern Federal District and Baikal Region by 2025 and to balance Russian–European links.

In 2014, Russia's eastern policy received new impetus with the onset of the crisis in Ukraine. Amid the fallout from events there, Russia began to augment its outreach to North East Asia to compensate for the downturn in relations with the EU and the United States. Diplomatic contacts were activated with China and these were combined with contacts with South Korea and Japan, in part to balance Russia's ties with China.

Despite these activities, Russia's nascent eastern policy is incomplete. There has been no considerable increase in the volume of Russia's external trade with the East, no serious growth in inbound or outbound foreign direct investment and

[1] Sergey Lukonin is the Director of the Centre for Economic and Political Studies of China in the Russian Academy of Sciences at the Primakov Institute of World Economy and International Relations.

no substantial increase in Russian political influence in North East Asia. Thus, it is too early to speak of success. Another three to five years will be needed before there is any tangible evidence of enhanced cooperation.

This leads to the lingering question of what does exist. Russia and China are clearly exhibiting closer relations, which could be called a rapprochement. In part, this rhetoric is used to establish a counterbalance to Russian relations with the EU and the USA. Nonetheless, while a number of analysts continue to use the term 'pivot to China', in official Russian circles there are concerns about the potential for excessive dependence on China. These misgivings are manifesting themselves in how Russia engages with North East Asia, South East Asia, South Asia, Central Asia and Europe.

Priorities of Russian and Chinese foreign policy

When discussing Europe and Asia, it is still crucial to factor in Russia's main priority, which is forming a new type of relationship with the USA on such issues as the lifting of sanctions and strategic stability on non-proliferation and missile defence. In attempting to achieve breakthroughs in these spheres, however, the perception remains in Russia that there is almost no solution to the Ukraine issue.

Russia's basic aims include the following: the full integration of Crimea and resolution of its ongoing dispute in eastern Ukraine. These two fundamental issues have spillover effects for Russia's foreign policy. The dispute over Ukraine has adversely affected Russia's counterterrorism operations in Syria, Afghanistan and Central Asia, where there are demands to establish an effective Eurasian Economic Union (EAEU). It has also accelerated Russia's overtures to North East Asia, where Russia is seeking to balance its relations with China, on the one hand, and Japan and South Korea, on the other.

When compared with Russia, China's foreign policy prioritizes smoothing relations with the USA, particularly in the light of the latter's potential imposition of trade barriers that could adversely affect Chinese investments and activities. In hard security terms, China is also assessing the possible impact of the intended US deployment of Terminal High Altitude Area Defense (THAAD) in South Korea.

Beyond its relations with the USA, China is seeking to equalize its global political position with its economic power. This means ensuring support beyond its borders for the development of its domestic economy and the security of its external economic projects. China's Belt and Road Initiatives (BRI), which carve land- and sea-based corridors through South East Asia, South Asia, Central Asia and Europe, are part of this policy. Chinese diplomacy is no longer peripheral, but instead global. As a result, it is coming into greater contact with Russian interests. For a better understanding of this evolution, the sections below provide an overview of Russian and Chinese convergence and divergence in foreign policy.

Europe

For Russia's relations with Europe, the main zone of tension remains Ukraine, specifically eastern Ukraine and Crimea. However, this instability also affects China and its economic interests. Ukraine was considered part of China's BRI, in particular the Silk Road Economic Belt (SREB). Under this initiative, Chinese enterprises had planned construction and reconstruction of deep-water ports in Crimea and Odessa. However, the crisis in Ukraine has altered the nature of many of these plans.[2]

Moreover, the global sanctions imposed on Russia following the crisis put at risk the activities of Chinese companies not only in Russia, but also throughout the globe. Despite these costs, China will not legitimize Russia's actions in Crimea or support its reunification with Russia, since it faces its own territorial disputes in the Xinjiang Uygur Autonomous Region, Tibet and Taiwan. Nor will it escalate the issue. Instead, it is likely to offer Russia a degree of strategic space. This space will play out not only in Europe, but also in other regions where the two are intersecting.

North East Asia and South East Asia

In North East Asia, the main arenas of Russia–China cooperation are the North Korea nuclear issue and shared opposition to THAAD. While South Korea's ties to the USA and plans to deploy THAAD may not be a direct threat to Russia, they are viewed as a threat to the regional balance of power. In South East Asia, Russia has expanded its relations with the Association of South East Asian Nations (ASEAN) countries. It has cooperated with Viet Nam on extracting natural resources from the bed of the South China Sea, negotiated an EAEU-Viet Nam free trade agreement and attempted expand cooperation with Indonesia.

In the wake of enhanced Russian interest in North East Asia and South East Asia, China has engaged in a campaign to involve Russia in the settlement of its maritime disputes. Joint Russian–Chinese military exercises have been conducted near the Senkaku/Diaoyu islands, which remain in dispute with Japan. The Chinese media has also reported Russian support for China's position on the South China Sea. Much of this occurred at the time of an interview with the Russian Foreign Minister, Sergey Lavrov, which was interpreted as pro-China.[3]

Lavrov's rejection of the internationalization of the South China Sea issue and the ruling of the Permanent Court of Arbitration at The Hague strengthened the Chinese position and its attempt to resolve territorial issues in accordance with its own rules. Nonetheless, while many Russian experts see this as an example of cooperation, it can also be interpreted as an area of contradiction.

[2] For more information on these shifting infrastructure deals following the Ukraine crisis see Kozak, M., 'Ukraine joins the Silk Road', *Central European Financial Observer.eu*, 16 Feb. 2016, <http://www.financialobserver.eu/cse-and-cis/ukraine/ukraine-joins-the-silk-road/>.

[3] *Xinhua.net*, 'China applauds Russian FM remarks on South China Sea', 13 Apr. 2016, <http://news.xinhuanet.com/english/2016-04/13/c_135275822.htm>.

Russia wants to balance its own engagement and shift towards China by also developing its relations with Japan, South Korea and ASEAN. However, this approach may falter, in part due to its support for China in its maritime disputes. Given the inherent risks to Russia's other regional ties, the likelihood of deeper and more sustained Russian–Chinese cooperation in South East Asia appears to be limited to non-existent.

South Asia and Central Asia

In South Asia, Chinese–Russian cooperation is more expansive, but so are some of the contradictions. India and Pakistan each signed a memorandum of obligations to the Shanghai Cooperation Organization (SCO) on 24 June 2016, beginning the formal process of joining as full members. However, there are ongoing tensions between India and Pakistan, and between China and India. Russia, which maintains relations with all these parties, could encounter challenges in the SCO in the years ahead. When it comes to counterterrorism, the advantages of cooperation are clearer for Russia, particularly in its relationships with Afghanistan and Pakistan. Afghanistan's internal stability has a strong impact on Central Asia, the Russian Caucasus and the entirety of southern Russia.

As the connectivity of these interests spreads into Central Asia, China is also seeking to create a secure zone for the SREB and the Xinjiang Uygur Autonomous Region. Nonetheless, the increase in Chinese influence in Central Asia may be a source of economic competition between Russia and China in the future. China's SREB has the potential to exacerbate this trend, which is already reflected in Russia's unwillingness to create a free trade zone within the SCO and China's bilateral cooperation with EAEU countries. This competition has led to a political and economic 'game' among Central Asian states, which seek to use any tensions between China and Russia to their advantage.

Moreover, while there are areas of cooperation between China and Russia to ensure the economic development and safety of the region, there are also misgivings. The SREB route connecting China, Kazakhstan and Russia is lucrative, but less profitable than it would be if it solely traversed Russian territory, for example through the Russian city of Zabaikalsk. Russian companies are also careful to avoid direct competition when investing in Central Asia. It is therefore crucial that China does not seek open confrontation with Russia in the Central Asia region.

Takeaways

Russia's eastern policy exists, but it is not an alternative to Russian cooperation with the EU. Moreover, this policy does not represent a pivot to the East, but rather an attempt to balance against and to compensate for the losses caused by international sanctions. Russia–China rapprochement could technically be called a strategic partnership. In other words, this growing level of interaction offers both countries an opportunity to objectively discuss how to strengthen their level

of mutual confidence. This cooperation with China is a long-term and sustainable priority for Russia.

However, when it comes to certain issues, the Russian–Chinese strategic partnership could be short term. The number of tensions between Russia and China will continue to grow as the political role of China in regional and global affairs increases. Overall, Russia and China will try to use each other in a political game to strengthen their negotiating position with the USA. In large part, the future of Russian–Chinese relations depends on their level of cooperation or confrontation with the USA.

Still, there are areas of cooperation and engagement among Russia, China and the USA. First among these is the potential for bilateral or trilateral dialogues about nuclear weapons and strategic stability. China is not yet ready to disclose data on the size of its nuclear arsenal. However, sooner or later, China will join such negotiations and the mechanisms established by the USA and the former Soviet Union. Furthermore, it is important for the parties to engage with and cooperate on the North Korea nuclear issue, such as in five-party talks which would exclude North Korea.

In other arenas of collaboration, implementation of the SREB requires cooperation between Russia and China in Central Asia to maintain security and stability. Beyond economic frameworks, China, Russia and Europe should establish a security mechanism to counter terrorism, drug trafficking and non-traditional security threats. These economic and security initiatives, when placed in a conceptual framework that recognizes shifts in policies rather than 'pivots', will make it easier to facilitate cooperation that recognizes the potential benefits of Russia–China rapprochement in Europe and Asia.

2.2. Yang Cheng[4]

Introduction

Russian official documents increasingly discuss the concept of an 'eastward pivot'. This is regarded by the international community as an important symbol of Russian President Vladimir Putin's overall strategic shift. However, there is no consensus among academics or in decision-making circles on how to evaluate this foreign policy. The existing research on Russia's new strategy emphasizes that its identity has shifted from being a part of Europe to being separate from it. 'Eurasia' is invoked as the label for civilizational self-identification in Russia. In this sense, Russia's turn to the East has emerged as a strategic pillar of Putin's great diplomatic transformation.

Irrespective of these trends, there is also a prevailing counter-narrative that maintains that despite its role as a peripheral European civilization, Russia is part of the West. These analyses favour the idea that Russia does not share an Asian identity, which makes it impossible for Russia to turn to the East. This line of rea-

[4] Yang Cheng is a Professor of International Relations at the School of International Relations and Public Affairs of Shanghai International Studies University.

soning posits that the crisis in Ukraine serves as the fundamental motivation for Russia's shift to the East.

According to this view, Russia is still pursuing a traditional balance of power strategy. As such, its orientation to the East is subordinate to its Western diplomacy. In other words, it is only a tool or bargaining chip to reduce diplomatic pressure from the West. Even so, there are still many doubts about whether Russia can successfully achieve this strategy because of its political, economic and cultural priorities in Europe. These two prevailing arguments for Russia's turn to the East make it worthwhile to explore the domestic and international drivers and their impact on China–Russia relations.

Russia's eastward pivot

The assumption that an eastward pivot is Russia's primary strategy raises the central question of how the East should be defined in terms of both geographic and imagined maps in the Kremlin. Throughout Russian history, major debates have occurred within an 'East–West' narrative framework. East, however, does not only refer to the Asia-Pacific region. Historically, the Westernizers, the Slavophiles and the Eurasianists all lacked the contemporary concept of 'Asia'.

The Westernizers advocated integration into Europe, while the Slavophiles and the Eurasianists supported a return to their own. Currently, the Russian mental map of the East contains not only the Asia-Pacific region, but also South East Asia, South Asia, Central Asia and the Middle East. Thus, Russia's turn to the East, at the diplomatic level, equates with strengthening its fundamental cooperation with non-Western countries, while retaining its traditional identity as part of European or Western civilization.

According to Russian official and academic documents, turning to the East does not mean leaving Europe or joining Asia instead of Europe. The elites believe that Russia is incompatible with Asia's culture and development path. They also believe that Russian culture is so unique that it cannot be integrated with either the tradition of Asian centralization or European liberalism. They argue that Russia should have an independent status in the world. Russia's Prime Minister, Dmitry Medvedev, has pointed out that Russia needs to be more active in the East, for geographical and geopolitical reasons.[5] However, he has also emphasized that Russia will not leave Europe politically, economically or psychologically.

Asia and Europe do not represent two alternatives for Russia. Instead, they are both consistently factored into its geostrategic calculations. Both East and West represent important directions of Russian foreign policy. Russia requires multifaceted diplomacy and diversified economic cooperation with its external partners. Judging from these arguments, Russia's turn to Asia can operate only in the diplomatic but not the civilizational or cultural sense. Russia's so-called eastward

[5] Beyond BRICS Blog at *The Financial Times*, 'Guest post by Dmitri Medvedev: Russia must look east', 2 Nov. 2012, <http://blogs.ft.com/beyond-brics/2012/11/02/guest-post-by-dmitry-medvedev-russia-must-look-east>.

pivot is not to discover or rediscover Asia. Its primary meaning is to strengthen relations between Russia and non-Western countries.

Domestic and international drivers

Russia has long been part of the East and turning in this direction is not a new idea of Russian diplomacy. Russian academic literature has discussed this process since the 1990s, but it was not seriously implemented as an eastward pivot until 2006. It predated the Ukraine crisis, and involves domestic and international factors. At the domestic level, its commercial content includes development of the Russian Far East and Siberia, with a focus on utilization of the region's massive resource wealth. This has been a dream in Russia since Tsarist times and is frequently reiterated by President Putin. Its political meaning is to ensure that Russia can retain long-term control of these territories. As the last frontier, these regions are important as both a new source of wealth and an impetus for Russia's future prosperity.

At the international level, Russia's economic goal is to integrate itself into Asian markets, while its political goal is to develop closer relations with Asian countries to maintain Russia's role as a great power in the region. The crisis in Ukraine has had an unintended impact on Russia's turn to the East. Russia has realized that its economic lifeline is fragile in the face of Western sanctions. This situation has prompted Russia to seek cooperation with Asian countries to strengthen Russia's international position and to compensate for the damage caused by Western sanctions. After the crisis in Ukraine, Russia gave its pivot to the East too much strategic significance as a hedging tool against the West. In the context of the sanctions and the economic crisis, it has pursued immediate results and an influx of funds from the East to offset the damage done by Western sanctions. This has been achieved by attempting to accelerate the entry of Russian energy into the Asian market, among other initiatives.

However, readjusting an entire economic and trade structure is not an easy task. It is a lengthy and turbulent process. Political will cannot replace the laws of commerce overnight. Thus, while the current eastward pivot is more serious in content and nature than past such initiatives, it will take decades to implement even with the substantial amount of planning invested by Putin. The main challenges in determining the nature and orientation of this strategy, however, are derived from within Russia. To become a member of Asia, Russia will require a more comprehensive understanding of its changing perceptions and identities.

China–Russia cooperation under the pivot

Objectively speaking, Russia's turn to the East will create more opportunities for its cooperation with China, especially in the economic sphere. But these will be based on the actual needs and interests of the two countries. Promotion of a shared value system, maintenance of a security community and development of a stable regional and international order are traditionally identified as key signs

of success. China–Russia relations are subject to this same logic. One of the key factors is their similarity of regime type. Similar to 'democratic peace' theory, we are witnessing an 'authoritarian peace' between China and Russia. Their achievements in recent years are not simply by-products of the Ukraine crisis. Instead, they have accelerated their bilateral cooperation, largely based on the consistent logic of their development priorities.

It is not correct to describe China and Russia as asymmetric partners: 'asymmetric symmetry' and 'symmetric asymmetry' both exist. Asymmetric symmetry refers to both gross domestic product (GDP) and the determinants of comprehensive national power (CNP). The GDPs of China and Russia are imbalanced, and the latter lags far behind.[6] However, in terms of CNP, Russia remains on an equal footing with China. Russia continues to surpass China in military power and Russia still has a strong legacy in global governance. Russia's international influence in security is also greater than that of China, such that the latter is still working to propel new international regimes forward from a starting point of zero. Symmetric asymmetry means that although China and Russia regard each other as equal partners, their level of bilateral cooperation in various fields is not symmetrical. China–Russia cooperation on strategy, politics and security is, for the time being, far superior to their economic cooperation.

Takeaways

Russia's eastward pivot does not mean a turn towards China. China is an important part of the East, but does not represent its entirety. Sinocentrism is a misleading concept and downplays the extent of Russia's penetration into Asia. Russia's Asia policy has always been the pursuit of relatively balanced pluralism and multi-vectorism.

Nonetheless, faced with its diminished overall national power, Russia lacks adequate leverage in Asia. In this regard, while China is not the sole focus of its turn to the East, Russia has had to rely on enhanced cooperation to compensate for its limited strategic impact—and this is likely to continue for the foreseeable future.

2.3. Niklas Swanström[7]

Introduction

As the rise of China progresses and the West's post-Crimea tensions with Russia continue unabated, it has become increasingly important for international observers to grasp the character of the Chinese–Russian relationship. There is an emerging narrative that the East-West rivalry as well as sanctions against Russian officials and institutions, which China has denounced, have brought China and Russia closer together. This is exemplified most vividly by the USD $400 bil-

[6] World Bank, 'GDP growth (annual %)', <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>, accessed 2 Mar. 2017.

[7] Niklas Swanström is the Executive Director of the Institute for Security and Development Policy.

lion China–Gazprom energy deal in 2014.[8] A sober analysis of their interaction in recent years, however, will find that this warming trend may not be reflected in several important areas.

Above all, China and Russia are on collision course in Central Asia, a region that has long been considered, and as far as Russia is concerned still is, its 'backyard'. Since the early 2000s, this region has attracted China's attention through its Western Development Strategy, which under the current administration has been expanded and rebranded as the Belt and Road Initiatives. Bilateral relations in Central Asia are a weathervane for Chinese–Russian relations and even if the short- to medium-term weather seems settled, the long-term indications are for storms.

The future strengthening or weakening of Chinese–Russian relations will arguably influence Central Asia more than any other region, as China and Russia are by far the two most important actors there. The development of their respective approaches to these countries, combined with their level of cooperation, will affect the well-being of Central Asia's populations. Their strategic relationship will also have an impact on the ability of other powers, primarily India, Japan, the USA and the EU, to wield influence in the region.

The current ambiguous levels of trust and common interest between China and Russia date to Putin's first term in office. At the time, he espoused a relatively pro-Western attitude, as reflected in Russia's participation in the so-called war on terror and welcome for the US military presence in Central Asia. This serves to remind China that their geopolitical interests may not align as much in the time ahead as they did during the years of the former Russian President, Boris Yeltsin. This type of ambiguity continues to plague Chinese–Russian relations.

Restricted trade and arms sales

Despite headlines claiming the opposite, economic exchange has long been mutually dissatisfying for China and Russia. Often derided as a 'petrostate', Russia's exports to China have overwhelmingly consisted of raw materials and energy, while they would much rather export technology and machinery. China, despite its numerous energy deals, still faces a multitude of restrictions in the Russian energy industry, where it would like to explore more freely for gas and oil deposits. Progress in this arena has generally been slow throughout the past decade.

China has traditionally been an important customer for Russia's weapons industry. Upset with China's reverse engineering of its products, however, Russia has imposed an informal ban on selling high-technology arms systems since 2004. The deals in 2014 for S-400 missile systems and in 2016 for Su-35 fighter aircraft could signal a lifting of this restriction.[9] If so, this would suggest a notable con-

[8] Paton, J. and Guo, A., 'Russia, China add to $400 billion gas deal with accord', *Bloomberg*, 10 Nov. 2014, <https://www.bloomberg.com/news/articles/2014-11-10/russia-china-add-to-400-billion-gas-deal-with-accord>.

[9] *Sputnik News*, 'In demand: why China purchases Russian Su-35 fighter jets', 7 Feb. 2016, <https://sputniknews.com/military/201602071034376032-china-russia-fighter-jets-purchase/>.

cession on Russia's part. Nonetheless, as China's own weapons industry develops, Russia will have less and less to offer.

Sinicization fears

Another source of concern for Russia is the increasingly deep impact China is having on Central Asian economies and societies. There has been a large influx of Chinese products into Central Asian markets, consisting primarily of low-quality commodities and an increasing number of Chinese workers. This type of 'sinicization' of the Central Asian countries, which consolidates China's status as a stakeholder in the region, poses a strategic challenge to the Russian leadership.

Sinicization is also under way in Russia itself. Siberia has witnessed a large influx of Chinese migrant workers. Moreover, Chinese border province populations dwarf the local Russian population. There is a fear that Russia's Far East could at some point be viewed as a 'near north' by China. Ever mindful of history, China has not forgotten that the Amur region, bordering the modern-day north-eastern Chinese province of Heilongjiang, was taken from the Qing dynasty. The legitimacy of Russia's rule over this territory rests on the 1860 First Convention of Peking, which was later denounced as one of the 'unequal treaties'.[10]

Security cooperation

The multilateral SCO has taken on the primary role in China and Russia's security cooperation. The six-nation grouping—soon to be eight, after the accession of India and Pakistan in 2017—serves as a forum for security discussions. Some concrete results have been achieved: the group for instance now conducts military exercises together. It has also set up a permanent anti-terrorism branch, the Regional Anti-Terrorist Structure, headquartered in Tashkent, Uzbekistan. However, more than 15 years after the SCO's founding, the level of cooperation remains shallow. Political gridlock has hindered progress, in part reflecting the fact that Russia was never enthusiastic about it, reluctantly joining as a founding member despite favouring the Collective Security Treaty Organization as the region's primary security body.

Weak multilateral security organizations mean that military affairs are conducted on a unilateral and bilateral basis. While it is plausible that China will tilt its resources westwards at some point, current planning is skewed towards the coastal areas, with significant risk of high-prestige conflicts in all adjacent waters. The new Western Command Theatre, which was announced in February 2016 as one of the five war zones of the People's Liberation Army (PLA), is modestly equipped given the vast area under its protection.[11] It does not have the resources

[10] *Stratfor*, 'Competing interests on the mighty Amur River', 10 Aug. 2016, <https://www.stratfor.com/analysis/competing-interests-mighty-amur-river>.

[11] *Global Times* via *China Military News*, 'Two air forces merged in Western Command', 8 Apr. 2016, <http://english.chinamil.com.cn/news-channels/china-military-news/2016-04/08/content_6996677.htm>.

to exert power beyond its borders but given the rapid build-up of the PLA, this may change in the not-too-distant future.

Takeaways

Beyond the official rhetoric, the reality is that mistrust between China and Russia obstructs cooperation on many fronts. Given the likely continuation of China's rise, the political importance that the Xi Jinping Administration has attached to the BRI and the vital role of Central Asia in these projects, conflicts of interest in the region are set to increase further. Other than as an energy supplier, China has little to gain from Russia. Given the multiple challenges, it will be difficult to improve other forms of cooperation on such a weak foundation.

If history is any guide, China will be less aggressive in taking an exclusionary stance towards foreign involvement in Central Asia. This is partly a consequence of its unwillingness to shoulder the responsibilities expected of countries that undertake more pronounced leadership roles, including providing security and a well-functioning setting for commercial activity. Inevitably, this would entail promoting measures against corruption in both business and government circles, which is a difficult task for China and even more so for Russia, both of which struggle with such issues at home.

Despite the friction between China and the West—which is likely to increase under the Administration of President Donald J. Trump—the conditions for general agreement are ultimately better. Further integration of China into the international financial system and market norms, accompanied by toned down rhetoric among the Western leadership that is currently berating China, would markedly improve relations. However, this is only a possible trajectory, not a certain one.

3. The Belt and Road Initiatives and new geopolitical realities

This chapter provides a foundation for understanding the Belt and Road Initiatives (BRI) in both theory and practice. As China takes on a more forward-leaning regional and international role, Christer Ljungwall and Viking Bohman explore whether land- and sea-based projects under the BRI will offer China the 'strategic resiliency' needed to thwart future isolation in the event of tensions or even conflict. Their work is paired with that of Ma Bin, who uses statistical analysis to explore the extent of linkages between China's accelerated foreign direct investment (FDI) and the land-based Silk Road Economic Belt. He finds that China's investment patterns in Central Asia do not necessarily match the rhetoric surrounding such diplomatic initiatives.

3.1. Christer Ljungwall and Viking Bohman[1]

Introduction

The BRI, made up of the land-based Silk Road Economic Belt (SREB) and the sea-based 21st Century Maritime Silk Road (MSR), is the most important international project to be launched by China in recent decades. It is the core of current Chinese foreign policy. In essence, the BRI is a development project that aims to connect Asia, Europe and Africa.

Researchers have long debated the motives behind the BRI and its potential effects on China and the world. Economists have, among other things, pointed out that the BRI is a way for China to increase its exports, boost growth in its western regions, increase international use of its currency, reduce overcapacity in certain industrial sectors and facilitate a general economic transformation.[2] Analysts in other disciplines have suggested that the initiative serves geopolitical purposes, such as securing China's strategic energy supply routes and increasing its political influence over other countries.[3]

This section puts forward an alternative and clear-cut driver for the BRI and presents a framework in which to understand the initiatives. In short, it posits that the BRI is a way for China to increase its 'strategic resilience', which is defined as its ability to prevent, withstand or recover from economic isolation.

[1] Christer Ljungwall is an Associate Professor in the Asia Research Centre at the Copenhagen Business School and the Head of Office of the Swedish Agency for Growth Policy Analysis. Viking Bohman is a Master of Science degree candidate at the London School of Economics and Peking University.

[2] Huang, Y., 'Understanding China's Belt and Road Initiative: Motivation, framework and assessment', *China Economic Review*, vol. 40 (2016), pp. 314–21; Lo, C., 'China's Silk Road Strategy', *International Economy*, vol. 29, no. 4 (2016), pp. 54–55, 71; and Luft, G., 'China's infrastructure play: Why Washington should accept the New Silk Road', *Foreign Affairs*, vol. 95, no. 5 (2016), pp. 68–76.

[3] Len, C., 'China's 21st century maritime Silk Road Initiative: Energy security and SLOC access', *Maritime Affairs: Journal of the National Maritime Foundation of India*, vol. 11, no. 1 (2015), pp. 1–18; and Wang, Y., 'Offensive for defensive: The Belt and Road initiatives and China's new grand strategy', *Pacific Review*, vol. 29, no. 3 (2016), pp. 455–63.

Why China needs strategic resilience

It has been widely noted that China is seeking to assume a stronger and more important role in global and regional affairs. China is staging a military build-up that will allow it to better protect its interests abroad. Meanwhile, inter-state tensions surrounding territorial claims in China's neighbourhood remain prominent, particularly at sea. China has overlapping claims with a number of states in the South China Sea and with Japan in the East China Sea.

The Taiwan issue remains unresolved and China has made clear that it would be willing to use military force if Taiwan decided to push for independence. Yet, as China challenges South East Asian nations in the South China Sea, Japan in the East China Sea and Taiwan along its eastern coast, it faces a major difficulty—the looming threat of economic isolation.

The United States is heavily invested in these territorial disputes and if China were to invade islands in the South or East China Sea or to stage a military takeover in Taiwan, the USA and its allies would not remain idle.[4] Military confrontation would almost certainly follow, which would bring about some level of economic isolation for China in the wake of the subsequent turmoil and disrupted trade.

Most importantly, the external world would be likely to impose economic sanctions on China, just as the West did against Russia when it annexed Crimea in 2014. US President Donald J. Trump's remarks that China should be denied access to its constructed islands in the South China Sea confirm that such a conflict scenario is not impossible.[5] While the European Union (EU) might be unwilling to impose sanctions because of its economic dependence on China, it may be forced to support any US initiative to sanction China in order to be able to count on US support against Russia in Europe.

This is a major concern for the Chinese leadership because the country would be largely incapable of dealing with the fallout from economic isolation. China's economy is highly vulnerable to interruptions in energy supply and trade, particularly in the South China Sea.[6] Substantial economic sanctions or a major conflict at sea would have disastrous consequences that would bring a sudden halt to China's economic development.[7]

Because economic stability and growth are closely linked to the legitimacy of the Chinese Communist Party (CCP), such a scenario poses a real threat to the political system. Since the Tiananmen Square protests of 1989, the CCP has kept political instability and demands for reform at bay by operating on a promise to raise the living standards of its population. The isolation of China would therefore

[4] Gompert, D., Stuth Cevallos, A. and Garafola, C., *War with China: Thinking Through the Unthinkable* (RAND Corporation: Santa Monica, 2016).

[5] De Luce, D., 'Trump's China policy: "This is how you stumble into a crisis"', *Foreign Policy*, 26 Jan. 2017, <http://foreignpolicy.com/2017/01/26/trumps-china-policy-this-is-how-you-stumble-into-a-crisis/>; and *Reuters*, 'China says will protect South China Sea sovereignty', 24 Jan. 2017, <http://www.reuters.com/article/us-usa-china-southchinasea-idUSKBN1572M4>.

[6] Len (note 3).

[7] Gompert, et al. (note 4).

be highly problematic for the leadership. The people would be likely to suffer a real drop in living standards, primarily due to a decline in trade and access to energy.

This would greatly increase the likelihood of social unrest and political instability.[8] Populations experiencing a steep decline in living standards are more prone to riot against authority and to question government policy. The CCP is already facing growing protests linked to economic problems. [9] If the economic conditions of the population unexpectedly worsened, the situation could deteriorate to a point where the legitimacy of the whole political system would be thrown into question. Because the paramount goal of the CCP is to maintain legitimacy, and thus to avoid such risks to stability, it appears highly unlikely that the leadership would act in any way that could lead to drastic economic decline.[10] This leads to the conclusion that China will continue to refrain from aggressive, decisive actions in its neighbourhood if the economic isolation resulting from such actions poses an existential threat to the CCP.

China could break free from this constraint by increasing its resilience to isolation, or 'strategic resilience'. Increased strategic resilience would give China an option to act more assertively as it operates abroad, without having to worry about economic isolation which would badly damage its economy and could lead to political instability (see figure 3.1.1). In other words, if China is serious about using force to annex Taiwan and islands in the South and East China Sea, it must develop a certain amount of strategic resilience to withstand the consequences of such actions.

Strategic resilience as an analytical framework

'Strategic resilience'—defined above as the ability to prevent, withstand and recover from economic isolation—serves the primary purpose of thwarting political instability. To do so, it depends on economic and political factors (see figure 3.1.2).[11] At the economic level, the goal of the state is to maintain economic activity and the living standards of its population. Failure to do so would substantially increase the likelihood of, and potentially provide the reason for, social unrest. It is essential that the state and its people have access to energy, food, water, basic services and the commodities vital to economic activity.

Another crucial factor is import- and export-based trade, since they are essential to maintaining economic activity and stability. In a crisis, unless the national market is highly independent and self-sufficient, some level of trade with the outside world needs to be sustained to maintain economic stability. Beyond trade, industrial resilience is important. This is determined by the ability to maintain a

[8] Gompert et al. (note 4).

[9] Denyer, S., 'Strikes and workers' protests multiply in China, testing party authority', *Washington Post*, 25 Feb. 2016, <https://www.washingtonpost.com/world/asia_pacific/strikes-and-workers-protests-multiply-in-china-testing-party-authority/2016/02/24/caba321c-b3c8-11e5-8abc-d09392edc612_story.html?utm_term=.a82031b75859>.

[10] Shirk, S., *China: Fragile Superpower* (Oxford University Press: New York, 2007), pp. 52–53; and Ringen, S., *The Perfect Dictatorship: China in the 21st Century* (Hong Kong University Press: Hong Kong, 2016).

[11] The factors in economic and political strategic resilience are not fixed.

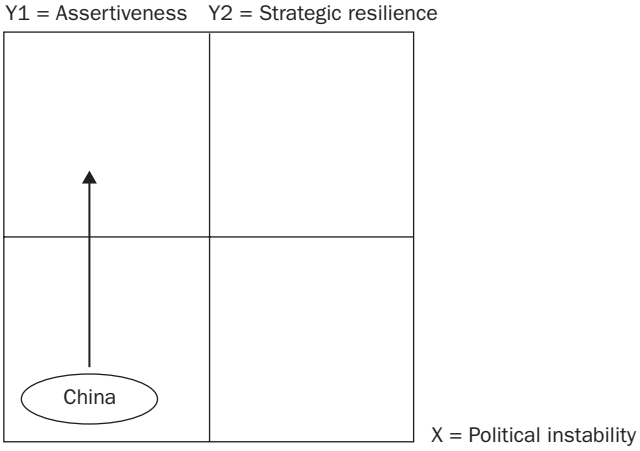

Figure 3.1.1. Mapping assertiveness and strategic resilience

Note: China wants to be able to act assertively (climb the Y1-axis), while resisting political instability (resist moving right on the X-axis). To do this, it must develop a certain level of 'strategic resilience' (climb the Y2-axis) to withstand the economic isolation brought on by increased assertiveness.

Source: The authors.

high level of industrial activity, even when faced with issues such as under supply. Financial and market stability are also crucial when it comes to avoiding financial crises and maintaining a well-functioning payment and transfer system in the economy.

At the political level, a distinction is made between international and domestic resilience. Internationally, the task must be to use influence and leverage to prevent and circumvent sanctions. If other states are economically or politically dependent on a state that is, or is about to be, economically isolated, then the state facing isolation can leverage the dependent states to make sure that sanctions are either not imposed or less strictly implemented.

Domestically, the goal is to maintain support and cohesion among key population groups. This is the 'last line of defence' of strategic resilience. When this line of defence falters, political instability is likely to follow. This effectively nullifies the main purpose of strategic resilience, which is thwarting political instability.

How the BRI is increasing China's strategic resilience

Hypothesis and theoretical predictions

The core hypothesis of this section is that the aim of the BRI—a key component of contemporary Chinese foreign policy—is to increase China's strategic resilience. The thought processes behind this assessment are based on the theory of opportunity cost, which posits that for every decision, there is a cost. In economics, the term 'there is no such thing as a free lunch' is often used to illustrate this

Table 3.1.2. Factors in economic and political strategic resilience

Economic strategic resilience	Political strategic resilience
Energy. Ability to maintain a steady supply of energy	**International political strategic resilience.** Ability to use political influence over other actors and states to prevent and/or circumvent isolation and sanctions
Livelihood. Ability to provide food, water and vital services, such as health care	
Vital commodities. Ability to maintain a steady supply of commodities and goods vital to the economy	**Domestic political strategic resilience.** Ability to maintain political support and cohesion in key population groups, such as the middle class, rural populations, and ethnic and religious minorities, among others
Trade. Ability to maintain trade flows with the outside world	
Industrial resilience. Ability to maintain industrial activity when faced with an undersupply or a lack of certain factor inputs	
Financial and market stability. Ability to maintain market activity and stability faced with such problems as reductions in trade or sanctions	

Source: The authors.

concept.[12] While something might appear to be cost free, there is always a price, no matter how indirect or hidden. The same applies to the countries that accept Chinese investment under the BRI, even though it often appears that the cost of the investment and aid flowing from China to foreign countries is borne solely by China, such as when China offers favourable loans to the host country or invests in infrastructure.

Many BRI states require significant foreign investment and access to new markets. By building infrastructure and extending financial means to these countries, the BRI is making them dependent on Chinese capital and markets for their exports and imports. This puts them in debt to China and creates economic dependence, thereby creating an implicit cost for countries that accept Chinese investment under the BRI.

Dependency makes these countries less prone to isolate China economically, and makes it harder for them to refuse demands from China, such as a request to supply it with important resources or goods. Meanwhile, connectivity projects under the BRI diversify and expand China's trade network with the outside world, making it harder to isolate it. In short, this is how the BRI is most likely to increase China's strategic resilience.

Evidence from the Silk Road Economic Belt

An initial examination of the land-based portion of the BRI, the SREB, provides evidence to support the claim that the initiative is increasing China's strategic resilience. The SREB consists primarily of large trade infrastructure projects in

[12] Friedman, M., *There's No Such Thing as a Free Lunch* (Open Court Publishing: Chicago, 1975); and Dunning, J. H., *Re-evaluating the Benefits of Foreign Direct Investment* (University of Reading: Berkshire, 1994).

the form of railways, roads and pipelines for energy transportation. Economic corridors are being constructed to increase connectivity between China and a variety of countries, such as Pakistan, Afghanistan, Russia, Kazakhstan and Poland. These projects are often directly or indirectly financed by the Chinese state.

The land routes decrease China's heavy dependence on maritime trade routes and chokepoints in the South China Sea, which could be blocked by a conflict or a foreign power determined to isolate China.[13] In addition, by expanding trade networks with proximate countries China is becoming less dependent on the EU and the USA for its economic well-being. This is important because both actors could try to economically isolate China in a serious crisis. Taken together, the SREB is creating alternative land-based 'lifelines' that could ensure the supply of important goods and resources to China if it were to become isolated.

However, to make effective use of these lifelines, pressure would probably need to be applied on the countries hosting them. This is where it is useful to China that many countries along the SREB, such as Pakistan or Afghanistan, are becoming indebted to and dependent on China. China could use this point of leverage to make countries act in ways that ensure a steady supply of important goods and resources. The most obvious way to do this would be to demand that countries export to China. Countries could also be leveraged to vote against sanctions on China in international forums such as the United Nations or in the EU.

Takeaways

This study has presented an alternative driver for the BRI and a framework in which to understand it. China is using the BRI to increase its resilience to economic isolation—strategic resilience—which by extension will give it the option to act assertively abroad while maintaining political stability at home.

While the BRI and an increasingly resilient China will not necessarily make the country more aggressive, such a possibility is worth examination. Further research on this topic could hypothesize that once China attains a certain level of strategic resilience, it will be more prone to act assertively abroad, because the consequences of such action would no longer threaten the Communist Party's legitimacy and China's domestic stability.

3.2. Ma Bin[14]

Introduction

Central Asia is at the centre of China's investments in regional capacity and infrastructure along the land-based corridor known as the SREB. China's FDI grew

[13] Len (note 3); Luft, G., *It Takes a Road: China's One Belt One Road Initiative, an American Response to the New Silk Road* (Institute for the Analysis of Global Security, Nov. 2016), <http://www.iags.org/Luft_BRI.pdf>.

[14] Ma Bin is a Research Fellow in the Centre for Russian Studies at the Centre for International Studies at Fudan University.

at a marked rate in the three years following the announcement of the BRI in Astana, Kazakhstan in 2013. The increase was greatest in 2016, when the amount of FDI reached USD $170.1 billion.[15]

However, a deeper investigation of the SREB and China's investment patterns reveals that these figures give a misleading impression, particularly where individual countries are concerned. This section tracks China's FDI flows and patterns in Central Asia, identifying the main changes over the past three years and the role played by the SREB in Chinese investment in Central Asia.

The SREB is not the investment accelerator

The SREB is not the primary accelerator propelling China's investment in Central Asia. While showing an upward trend for several years, a closer look at individual years reveals fluctuations. China's investment in Central Asia grew in the two years following the announcement of the SREB, but its FDI flows to Kazakhstan were negative in 2015. Moreover, China's total investment in Central Asia since 2013 has declined, and the most recent three years of Chinese investment in Central Asia followed the same trajectory found in the previous decade. In sum, the SREB did not significantly change the trend in China's investment in Central Asia.

To better understand these patterns, it is useful to compare China's investment in Central Asia before and after 2013, when it launched the set of initiatives now known as the BRI. Prior to 2013, China's investment in countries along the land-based SREB did not constitute a high proportion of its total amount of FDI. In other words, China's outbound FDI was mainly invested in countries not located along the SREB. According to the Chinese Government's statistics, China invested USD $18.93 billion in the countries along the SREB in 2015, accounting for 13 per cent of its FDI that year.[16] In 2016, China invested USD $14.53 billion along the SREB, which was only 8.5 per cent of China's overall FDI—a fall rather than an increase.[17] Regardless of the year, the SREB's percentage of China's overall FDI was low.

Second among these trends, China's investment in the SREB in 2016 was inversely correlated with the nation's growth in total FDI. Thus, while China's investment in the SREB in 2015 showed rapid growth of 38.6 per cent, which is twice the global rate of growth in investment, in the following year China's investment in SREB countries decreased by 23.2 per cent, while its outbound FDI rose by 44.1 per cent.[18] In other words, while FDI targeting the SREB countries decreased, China's total FDI increased.

[15] Organisation for Economic Co-operation and Development, 'FDI flows' <https://data.oecd.org/fdi/fdi-flows.htm>, accessed 17 Mar. 2017; and United Nations Conference on Trade and Development, *World Investment Report 2016: Investor Nationality, Policy Challenges* (United Nations: New York, 2016), <http://unctad.org/en/PublicationsLibrary/wir2016_en.pdf>.

[16] Ministry of Commerce [商务部], People's Republic of China [中华人民共和国], <http://www.mofcom.gov.cn>.

[17] Ministry of Commerce [商务部] (note 16).

[18] Ministry of Commerce [商务部] (note 16).

There are at least two reasons for the decrease. At one level, China's financial situation and that of the global economy remain grim. China experienced many challenges in 2016, including a continuing slowdown in growth and exchange rate pressures. Meanwhile, many of the countries along the SREB were unsuccessful in avoiding this round of economic difficulties. Thus, neither China nor the SREB countries were able to promote further development of the initiative during this period.

At another level, the SREB had passed through its initial honeymoon phase. Many of the initial achievements attributed to the SREB were projects that had been under way for some time and had undergone a great deal of advance preparation. This made the progress of the SREB appear very fast. However, once these projects were announced and their statistics calculated, a great deal of new effort and time were needed to gain the same level of achievement. The diminution in the number of projects and the amount of time required for each negotiation mean that China's investment level has understandably decreased.

While the Chinese Government has lauded the achievements of its SREB over the past three years, these obstacles remain unresolved and are only likely to increase. Thus, 2017 will be a pivotal year for evaluating the development and sustainability of the SREB. In this endeavour, the International Cooperation Summit Forum on the BRI to be held in May 2017 will be a significant measure of the SREB's progress.

The effect on investment in Central Asia

While there was a sharp increase in China's FDI following the announcement of the SREB, it is necessary to re-evaluate the impact of these projects on Chinese investments in Central Asia at the structural and individual levels. As discussed above, the SREB is not an efficient and necessarily sustainable accelerator of China's investment in Central Asia.

At the structural level, Chinese state-owned enterprises (SOEs) have played and continue to play the primary role in its investment strategy in Central Asia. However, with the announcement of the SREB, private companies have become increasingly active. While natural resources have been, and are likely to remain for the foreseeable future, the main arena for China's investment in Central Asia, Chinese companies have begun to invest in other economic sectors, such as agriculture. An evaluation of these two trends requires a statistical analysis and comparison of SREB investments with China's overall pattern of FDI.

China's FDI in Central Asia is relatively concentrated on the oil and gas industry, including exploration and development in Kazakhstan, Turkmenistan and Uzbekistan. By contrast, its engagement in Kyrgyzstan and Tajikistan remains relatively small in scale. China's direct investment in the Central Asian market is also characterized by variability. Monthly statistics show sharp increases and decreases, as well as a sharp decline in 2015. Overall, when compared with China's investment in markets such as Europe, the Association of South East Asian

Nations (ASEAN) member states and the USA, its FDI in Central Asia remains limited.

Promotion of investment cooperation

Following the announcement of the SREB, there were many recommendations on how best to promote cooperation between China and the Central Asia states. Some of these advocated expanding China's scale of investment in non-energy fields. It is undeniable that investment diversification is an important way to expand economic cooperation. However, the ability to achieve diversification depends on the market, businesses and the respective governments. China's FDI and Central Asian markets are constrained by their economic realities, meaning that they will be very difficult to change in the short term. Although a 'Silk Road economic zone' could provide new impetus for China and the Central Asian countries to expand and diversify their investment cooperation, this remains a longer-term goal.

While diversification is important for improving cooperation between China and Central Asia under the SREB framework, optimization is critical. To enhance the quality of cooperation under the SREB, China and the Central Asian countries should focus on three aspects of change in the field of investment cooperation: changes to the model, changes in the investment environment and changes in investment processes and roles.

First, in terms of changes to the investment model, market-driven investment is the fundamental force driving cooperation between China and Central Asia. Political goodwill cannot replace the market in making investment decisions. This risk was greatly increased with the announcement of the SREB. If China and the Central Asian countries use the SREB as the main mode of investment cooperation, this could undermine the potential for more organic economic cooperation among them. Thus, while one of the main actors in the process of investment cooperation remains the government, other private channels must also be made available.

Second, changes in the investment environment in terms of financial risk and governance are among the key problems faced by Chinese enterprises entering Central Asia. It is important for governments and industry associations to be able to provide specialized services. If the Chinese Government cannot play such a role, it will be difficult to ensure the long-term development of Chinese and Central Asian enterprises.

Third, there will need to be changes in investment processes and roles. China's economic cooperation with Central Asia tends to be discussed in a unidirectional manner, that is, the way in which Chinese enterprises invest in the region. While one-sided investment may be feasible in the short term, such an approach will not ensure healthy long-term development. It could, for example, stimulate nationalist sentiment. Therefore, in future cooperation between China and Central Asian countries under the framework of the SREB, the Central Asian countries should

consider how to enter the Chinese market. China and Kazakhstan's logistics base in Lianyungang provides a good example.[19]

Takeaways

Overall, the SREB has not markedly affected the trends in Chinese investment in Central Asia over the past three years. The structural level changes to the system combined with the enhanced need for changes to the investment model, environment, processes and roles mean that there will be numerous challenges ahead. Nonetheless, if greater importance is given to optimization in these areas, the integration of the SREB into Chinese and Central Asian economic development will become more equitable and sustainable.

[19] *Xinhua* via *China.org.cn*, 'China-Kazakhstan logistics terminal opens in Lianyungang', 20 May 2014, <http://www.china.org.cn/business/2014-05/20/content_32434429.htm>.

4. Eurasian Economic Union Policies and Practice in Kyrgyzstan

This chapter explores the interplay between the Eurasian Economic Union (EAEU) and the Silk Road Economic Belt (SREB). Richard Ghiasy outlines how Russia and China are cooperating through a 'forced marriage' in terms of their regional economic engagement and development models. Damir Esenaliev and Gulzhan Asylbek Kyzy analyse how this interaction is playing out in Kyrgyzstan. They find that misaligned domestic expectations of EAEU membership have provided avenues for enhanced openness to Chinese investment and infrastructure projects.

4.1. Richard Ghiasy[1]

Introduction

The phenomenon of Russia linking its EAEU with China's SREB stems from a variety of factors.[2] Among the most compelling and instrumental reasons behind this decision is a convergence of the limitations of Russia's geo-economic scope with its national interests to preserve and promote the EAEU. To better understand these trends, this section examines Russia's broader geo-economic environment and discusses the drivers of Russia's decision to pursue EAEU-SREB cooperation, as well as the impact of this cooperation on Asia and Europe.

Russia's geo-economic scope

Since the break-up of the Soviet Union, the European Union (EU) and Russia have failed to create adequate formal institutional ties. This has contributed to limiting Russia's geo-economic space and 'pushed' it eastward. The fallout from the crisis in Ukraine means that Russia's prospects have further diminished.

Russia has observed ongoing economic bloc formation endeavours in all directions. To its west, Russia has witnessed EU efforts to set up the Transatlantic Trade and Investment Partnership (TTIP). To its east, it has been met with the prospect of a Trans-Pacific Partnership (TPP). To its south-east, Russia faces China's Belt and Road Initiatives (BRI), in particular the land-based portion known as the SREB. Russia has been excluded from all these economic blocs except the BRI.

[1] Richard Ghiasy is a Researcher in the China and Global Security Programme at SIPRI.

[2] For more information see Ghiasy, R. and Zhou, J., 'The Silk Road Economic Belt: Considering security implications and EU-China cooperation prospects', Stockholm International Peace Research Institute and Friedrich-Ebert-Stiftung, Feb. 2017, <https://www.sipri.org/sites/default/files/The-Silk-Road-Economic-Belt.pdf>, pp. 39–42.

Drivers of EAEU-SREB cooperation

When analysing the motives behind Russia's decision to endorse the SREB and pursue cooperation between the SREB and the EAEU, nine key drivers stand out. First, linking up the EAEU with the SREB expands the former's international recognition and status. The EAEU had received little external attention until its cooperation with the SREB was declared in May 2015.[3] Second, cooperation with the SREB is both a symbolic and a practical supplement to Russia's 'turn to the East' policy. Third, the SREB's ambition and scope are simply too large for Russia to avoid. Fourth, despite persistent undercurrents of strategic mistrust, cooperation between the EAEU and the SREB paves the way for closer economic collaboration with China.

Fifth, in economic bilateral terms there is a substantial asymmetry between China and Russia, such that negotiations under the SREB and EAEU framework offer Russia an edge. Sixth, the SREB is an important means to bring in much-needed investment capital, which will translate into development projects and could contribute to domestic job creation. When it comes to Central Asia, these trends could help to sustain order and stability in the face of the rising threat of Islamist extremism, instability radiating from Afghanistan and the danger of 'colour revolutions'. The stability of the current regimes in Central Asia is of the utmost importance to Russia.[4]

Seventh, cooperation with the SREB undermines the relevance of US aid and integration efforts in Central Asia, which bypass Russia and weaken its position vis-à-vis these states. Eighth, it is anticipated that the interplay between the SREB and the EAEU will strike a balance between globalism and regionalism.[5] The SREB offers international connectivity, while the EAEU provides a regional market focus. The merger of the two could provide a balance for the Central Asian states in terms of regional and global integration. Finally, ninth, Russia considers the SREB to be a mechanism that further facilitates the transit of Central Asian energy resources to China, thereby increasing the EU's dependence on Russian energy.

Despite this wide range of drivers, it should be noted that the envisaged cooperation between the EAEU and the SREB is something of a 'forced marriage'. While senior political approval is in place, the actual avenues for cooperation barely exist. Russia and China are seeking practical projects for joint work, but setting the framework and the conditions for Chinese investment in Russia through the SREB is still under discussion. These negotiations are likely to take time. Furthermore, international observers highlight the two entities' diametrically oppo-

[3] *Russia Today*, 'Russia, China agree to integrate Eurasian Union, Silk Road, sign deals', 8 May 2015, <www.rt.com/business/256877-russia-china-deals-cooperation/>.

[4] Bordachev, T., [Russia and China in Central Asia: the great win-win game], *Russia in Global Affairs*, 1 July 2016, <http://www.globalaffairs.ru/valday/Rossiya-i-Kitai-v-Tcentralnoi-Azii-bolshaya-igra-s-pozitivnoi-summoi-18258> (in Russian); and Vorobyev, V., [Docking on the strategic orbit], *Russia in Global Affairs*, 8 Sep. 2016, <http://www.globalaffairs.ru/number/Stykovka-na-strategicheskoi-orbite-18347> (in Russian).

[5] Safranchuk, I., [When stakes have failed], *Russia in Global Affairs*, 25 Sep. 2016, <http://www.globalaffairs.ru/number/Esli-stavki-ne-sygrali-18390> (in Russian).

site institutional designs.[6] How this intended cooperation dynamic will play out, therefore, remains to be seen. The constraining impact of the EAEU's exclusive nature and limited internal and external trade should also not be underestimated. Internal EAEU trade is of little significance to Russia, while total EAEU trade with third countries constitutes only 3.7 per cent of global exports and only 2.3 per cent of global imports.[7]

Takeaways

Cooperation between the EAEU and the SREB adds to the perceived legitimacy of both initiatives and could help to achieve their respective objectives. To Central Asian states, their cooperation has the advantage that it largely avoids the need to choose between the two initiatives. Moreover, their integration has the potential to strike a balance between regionalism and globalism. To the EU, or rather to the West, this cooperation might contribute to the erosion of its ability to continue to set the 'rules of the game' in economics, trade and investment standards, particularly in Asia. It also limits the EU's opportunities to exploit Russia–China economic divisions to its advantage.

4.2. Damir Esenaliev and Gulzhan Asylbek Kyzy[8]

Introduction

Kyrgyzstan's experience as a member of Eurasian Economic Union from mid-2015 to late 2016 has been largely frustrating. While favourable employment conditions have been created for Kyrgyz labour migrants, the anticipated increased access to the markets of the EAEU member states and large-scale capital investments are yet to materialize. The prospects for Kyrgyzstan's membership of the EAEU may become more favourable in the short term, but this depends on whether the EAEU functions as envisaged. Kyrgyzstan's membership of the EAEU will serve as a testing ground to explore the grouping's effectiveness and scope for future expansion, as well as the capacity of the Kyrgyz Government to navigate this multilateral structure.

While facing EAEU inefficiencies, China has become the primary creditor of Kyrgyzstan in recent years. Even though imports and subsequent re-export opportunities have diminished, China's role in funding large-scale infrastructure projects through direct lending to the Kyrgyz Government, as well as foreign direct investment (FDI) and regional initiatives, is expected to increase in importance.

[6] Cooley, A., *The Emerging Political Economy of OBOR: The Challenges of Promoting Connectivity in Central Asia and Beyond* (Centre for Strategic and International Studies: Washington, DC, Oct. 2016).

[7] See the statistics on the official Eurasian Economic Union website, <www.eaeunion.org/?lang=en#about>.

[8] Damir Esenaliev is a Senior Researcher in the Life in Kyrgyzstan Project at SIPRI. Gulzhan Asylbek Kyzy is a Research Assistant in the Life in Kyrgyzstan Project at SIPRI.

Kyrgyzstan before and after joining the EAEU

After becoming a member of the World Trade Organization (WTO) in 1998, Kyrgyzstan adopted a liberal trade regime. This gave it the ability to benefit from massive re-exports of Chinese goods to neighbouring countries and Russia.[9] Within this framework, the trade sector became a driver of economic growth and a source of employment for about 15 per cent of the Kyrgyz labour force. Following its decision to join the EAEU, however, it became clear that this re-export activity would cease, given the anticipated end of the differential in import tariffs.

Initially, there was some opposition to joining the EAEU within Kyrgyzstan, particularly from some officials, business organizations and non-governmental organizations (NGOs). They argued that membership would make Kyrgyzstan dependent on Russia not only economically, but also politically.[10] Despite these misgivings, President Almazbek Atambaev and the Kyrgyz Government signed the EAEU membership agreement in May 2015. Kyrgyz officials argued that joining the EAEU was not only the only viable option, but also a highly promising avenue for development.[11] In this way, they raised public expectations too high.

On accession to the EAEU, Kyrgyzstan became the fifth member along with Armenia, Belarus, Kazakhstan and Russia. However, this coincided with a sharp decline in oil prices and the imposition of economic sanctions on Russia, which contributed to the depreciation of the Kyrgyz currency and the contraction of its economy. These events affected Kyrgyzstan's trade, remittances and investment inflows.

Currency appreciation and depreciation

The less discussed feature of this period is the appreciation of the Kyrgyz Som against both the Russian Rouble and the Kazakh Tenge, which induced an increase in imports of goods from EAEU member states. Kazakhstan's Central Bank depreciated the Tenge to maintain its previous parity with the Rouble, but the Kyrgyz National Bank did not follow suit. It intervened heavily to keep the national currency strong for fear of harming its highly dollarized economy.

Therefore, instead of exporting its agricultural products, Kyrgyz producers suddenly faced competition from Kazakh, Russian and Belorussian companies in its domestic market. This created public disillusionment with the Kyrgyzstan Government's decision to join the EAEU, even though the exchange rate developments were not directly connected to integration efforts. These negative sentiments have intensified with the continued struggles of agricultural exporters, whose exports have been banned by both Kazakh and Russian regulatory bodies

[9] Mogilevskii, R., 'Re-export activities in Kyrgyzstan: issues and prospects', Working Paper 9, Institute of Public Policy and Administration, University of Central Asia, 2012.

[10] Sarabekov, Z., [The EAEU for Kyrgyzstan: A difficult choice] *Institute of Asian Studies*, vol. 3, no. 97 (Aug. 2015), <http://www.asiakz.com/eaes-dlya-kyrgyzstana-slozhnyy-vybor> (in Russian).

[11] Putz, C., 'Kyrgyzstan gripes about EEU access', *The Diplomat*, 18 Nov. 2016, <http://thediplomat.com/2016/11/kyrgyzstan-gripes-about-eeu-access>.

on the grounds of food quality and safety.[12] A further frustration is Russia's inability to continue with the construction of a hydroelectric station, which resulted in the termination of the agreement. In all these cases, the reality has not lived up to the expectations.

Among the more positive developments, labour migration statistics show that as of 2016, more than 25 per cent of Kyrgyzstan's total workforce was employed in Russia.[13] Remittances account for 30 per cent of Kyrgyzstan's total gross domestic product, and over 90 per cent come from Russia. Between 2015 and 2016, the inflow of remittances increased by 22 per cent to USD $1.6 billion.[14] These figures contrast with Uzbekistan and Tajikistan, which have witnessed a reduction in the number of labour migrants in Russia combined with an ongoing decline in remittances.[15] It may be assumed that Kyrgyz labour migrants also possess more formal rights and fewer restrictions on employment in EAEU countries, although there is no evidence to confirm this assertion.

Another advantageous trend is visible in the Kyrgyz–Russian Development Fund, established in November 2014 with USD $500 million, which aims to boost investment in Kyrgyzstan.[16] The fund increased its level of activity in 2016 by crediting the private sector and promoting import-substitution sectors of the economy, such as agriculture, food processing, construction and textiles. By the end of 2016, the fund had extended loans of USD $175 million, but the total effect of these loans and investments is yet to be fully evaluated.[17]

Russia has a strong footprint in Kyrgyzstan, but China's role as a development actor and investor in Kyrgyzstan has been growing exponentially in recent years. China became a major donor by funding large infrastructure and energy projects and providing budget support. Prominent projects funded by China include USD $389 million for the Datka-Kemin energy transmission line, USD $386 million for reconstruction of a Bishkek energy company and USD $400 million for construction of the Bishkek-Torugart road, as well as construction of an alternative route linking the north and south of the country.[18]

[12] Sharsheev, I., 'Analysis of the main outcomes of Kyrgyzstan's membership in EAEU', *Central Asian Bureau for Analytical Reporting*, 24 June 2016, <http://cabar.asia/en/iskender-sharsheev-analysis-of-the-main-outcomes-of-kyrgyzstan-s-membership-in-eaeu/>.

[13] National Bank of the Kyrgyz Republic, 'Remittances of individuals made through the money transfer system', <http://nbkr.kg>, accessed 14 Mar. 2017.

[14] National Bank of the Kyrgyz Republic (note 13).

[15] Mogilevskii, R., 'Labour migration in Kyrgyzstan', Presentation prepared for the workshop 'Connectivity in Central Asia', Vienna Institute for International Economic Studies, Vienna, 15–16 Dec. 2016.

[16] *Times of Central Asia*, 'Kyrgyzstan and Russia set up $500 million development fund', 25 Nov. 2014, <http://www.timesca.com/index.php/news/14690-kyrgyzstan-and-russia-set-up-500-million-development-fund>.

[17] *Kyrgyz Agriculture Bulletin* via *ISSUU*, '#35 Kyrgyzstan Agriculture Bulletin, BFC', 7 Feb. 2017, <https://issuu.com/bfc-pub/docs/_bfc-kyrgyzstan-agri-bulletin-35-ja>.

[18] Baktygulov, S., 'China and Kyrgyzstan', *Central Asian Bureau for Analytical Reporting*, 5 Apr. 2015, <cabar.asia>. International Monetary Fund, 'Kyrgyz Republic: Medium-term development programme-poverty reduction strategy paper', IMF Country Report no. 12/112, May 2012, <https://www.imf.org/external/pubs/ft/scr/2012/cr12112.pdf>.

The extent of such projects is only likely to grow. The Export-Import Bank of China became Kyrgyzstan's largest creditor in 2016.[19] It has outstanding credits of USD $1.3 billion, which accounts for almost 40 per cent of external public debt. There is also growing interest from public and private Chinese companies in FDI in the energy, airline and construction sectors to access the EAEU market.[20] Given the expansive nature of these, albeit nascent, trends, China is poised to rewrite the rules and alter domestic attitudes to FDI and infrastructure development in Kyrgyzstan.

Takeaways

Overall, it is difficult to assess the benefits of Kyrgyzstan's accession to the EAEU, as its membership has coincided with regional economic and political shocks. The economic prospects for Kyrgyzstan as an EAEU member may be favourable, but it must fulfil the outstanding requirements of EAEU membership. In the meantime, China is clearly increasing its strategic and economic interests in Kyrgyzstan, leading to questions over how the latter will balance its longer-term cooperation with Russia.

[19] Osmonova, N., 'China—largest creditor of Kyrgyzstan—forces KR to abandon sovereign immunity in courts', *24.kg News Agency*, 15 Sep. 2016, <http://eng.24.kg/vlast/181951-news24.html>.

[20] Frolovskiy, D., 'Amid Russian downturn, Kyrgyzstan turns to China', *The Diplomat*, 14 July 2016, <http://thediplomat.com/2016/07/amid-russian-downturn-kyrgyzstan-turns-to-china/>.

5. Balancing Resource Expectations in the Russian Far East and Belarus

This chapter offers a parallel set of case studies that explore China's entry into Russian territory and markets. Jiayi Zhou discusses the penetration of Chinese labour migrants of Russia's Russia's Far East Federal District (RFE), juxtaposing their commercial interests with local fears of land grabbing. She finds that these trends are more often guided by 'mercurial politics' than by regulations and institutions. Henrik Hallgren describes Chinese–Russian interaction in Belarus and how their divergent approaches have played out during such incidents as the 'potassium war'. In the longer-term, he maintains that while the Belarus Government might promote greater Chinese involvement, this is unlikely to directly challenge Russian interests.

5.1. Jiayi Zhou[1]

Introduction

Chinese agricultural engagement and land acquisitions in Russia's RFE in the past three decades show that media reports of Chinese 'land grabbing' and other unsavoury practices are more hype than reality. China and Russia share a long eastern border of over 3000 kilometres in Russia's far east—a region that constitutes one-third of Russia's territory but contains only 4 per cent of its population. Virtually all of the RFE's arable land is concentrated in its southernmost border provinces. At present, Chinese companies—either directly or indirectly through joint ventures with Russians—lease or own some 20 per cent of that land—amounting to about 670 000 hectares—on which they produce vegetables, grains and livestock, and engage in post-production processing.

Since the liberalization of the Sino-Soviet border in the late 1980s, Chinese labourers—predominately from Heilongjiang province—have been actively engaged in the RFE agricultural sector. They came first as agricultural workers to fill a labour gap, and later as more entrepreneurial and independent farmers. By the late 1990s and early 2000s, this flow had turned into a 'farm rush' (种地捞金), marked by robust networks of Chinese migrant farmers and farm workers capitalizing on opportunities in much more land-abundant Russia.

Relatively small-scale farmers rented from Russian rural residents, restructured the collective farms (колхозы) and state farms (совхозы), or leased from the state's regional land funds on relatively short-term leases of one, five or 20 years. In 2002, Russian legislation was altered to allow foreigners to lease Russian agricultural land for up to 49 years, including the purchase of land by Russian-majority shareholder companies. This, in conjunction with China's 'Going Out' (走出去) strategy, which encouraged Chinese enterprises to invest abroad, led to more reg-

[1] Jiayi Zhou is a Researcher in the China and Global Security Programme at SIPRI.

ularized investment in agriculture by state-affiliated and large corporate actors from China. As a result, these companies were able to acquire and develop much larger agricultural land concessions.

Commercial motives

In contrast to the discourse surrounding China's land-grabbing and food security imperatives over the years, Chinese farming in the RFE has been overwhelmingly commercial in motive. Chinese produce for the local Russian market rather than for the Chinese market, capitalizing on higher market demand and greater profitability. Policy barriers and transportation costs are additional factors.

Far from being an extractive case of exploitative land-grabbing to support foreign markets, Chinese activity has actively contributed to the consumer market in the RFE, with Chinese supplying anywhere from half to two-thirds of the vegetable consumer market. These activities have driven down prices substantially. In this regard, Chinese investment and engagement in the RFE parallels other cases of Chinese cross-border agricultural investment—including in South East Asia and Central Asia—in that they are more reflective of the individual behaviour of enterprises and a desire to make profits, rather than any governmental macro-strategy.

It is important to note that China's Going Out in the agricultural sector is in many respects still quite a limited phenomenon. It still lacks any strategic coordination at the national level on bringing large-scale imports of products back into China. However, this picture may be changing. One of the first large-scale shipments of soya beans—the only major agricultural commodity and grain crop in which China is less than 50 per cent self-sufficient—from Chinese production bases in Russia into China occurred in 2014. Such exports from Russia to China quickly rose from around 80 000 tonnes in 2014 to around half a million tonnes in 2015.

Higher-level agricultural deals by corporate and state actors in Russia and China have also been agreed. In May 2015, during a state visit to Moscow by China's President, Xi Jinping, a USD $2 billion investment fund was announced to finance agricultural projects between the two countries. National companies such as the China National Cereals, Oils and Foodstuffs Corporation, China's largest grain-trading state-owned enterprise (SOE), are showing increasing interest in the Russian agricultural market. As of the first quarter of 2015, however, Russian supply accounted for only 1 per cent of China's total agricultural imports.

The human dimension

Unique to Russia, however, is the human dimension of Chinese actors not only as corporate investors, but also as migrant farmers and farm labourers. In this regard, the phenomenon goes well beyond investment to touch upon Chinese–Russian migration dynamics. Beyond economic liberalization and profit-seeking, there have also been other more political drivers at play. Chinese local govern-

ment and local labour bureaus continue to work to find outlets for surplus rural labour, increase rural incomes and create off-farm employment. Labour exports to foreign countries have been one means of achieving this, although governmental support for these activities has diminished in the past decade.

As for where Russia's own policies and drivers fit into this picture, the Chinese media has labelled Russia's attitude to China 'tangled and fickle'. Such assessments detail Russia's dependence on and welcome for external sources of labour and investment, which are often limited by securitization imperatives and nationalistic or xenophobic discourses at home. At the investment level, Russia has been very welcoming of foreigners penetrating their agricultural market. This was evident at the Asia-Pacific Economic Cooperation (APEC) Summit hosted by Russia in Vladivostok in 2012, which focused on global food security.

At the summit, Russia unveiled an investment plan offering some 20 projects to outside investors, some involving 150 000–200 000 hectares of agricultural land. It was notable that while the Deputy Minister for Economic Development, Andrey Slepnev, listed Viet Nam, Singapore, Thailand and Japan as among the countries able to benefit from this tender process, he conspicuously failed to mention China. Around the same time, the Minister of Development of the Russian Far East, Viktor Ishayev, openly stated that in the field of agriculture, Russia preferred cooperation with Japan and South Korea to working with China.

Takeaways

In practice, despite cases in which China has been left out of deals or targeted in official statements, there has been no real barrier to Chinese penetration of the RFE and the Russian land market. In contrast, labour migration, which is still poorly regulated and institutionalized, continues to be subject to more mercurial politics. For example, in 2013, the Amur Oblast and Krasnoyarsk outright banned Chinese agricultural labourers by providing them with no allotments as part of the foreign labour quota. This decision was attributed to alleged evidence of Chinese use of banned chemical additives, fungicides, insecticides and other toxic chemicals on Russian soil. While some of these cases of exclusion may have some foundation, linked to Chinese farming methods or other empirical data, the extent to which perception continues to drive these trends should not be underestimated.

5.2. Henrik Hallgren[2]

Introduction

Strategically sandwiched between Russia and the European Union (EU), Belarus is marked by rigid state-intervention in its economy and lacks substantial natural resources of its own. As such, it has remained politically and economically dependent on Russia since independence. Despite this reliance, the country is

[2] Henrik Hallgren is the Programme Manager for Eastern Europe and Central Asia at the International Council of Swedish Industry.

increasingly becoming a strategic hub for Chinese economic interests in Western Eurasia. While Belarus is not an arena for open competition between Russia and China, its recent history highlights some of the current and potential limits of Chinese–Russian cooperation and some of its effects on third countries.

Russia–Belarus Union State

Since the creation of the 'Russia–Belarus Union State' in 1996–1997, a construct with no equivalent in the post-Soviet space, Belarus has consistently been the European country with the closest ties to Russia in both political and economic terms. Relations, however, have always been uneven. The absence of significant exportable natural resources, reduced industrial competitiveness and lack of political liberalization combine to create a low level of participation in European structures and undiversified trade with the EU, despite its shared borders with three EU member states.

All this has made Belarus economically dependent on Russia. It could further be argued that the only factor preserving Belarus as an independent state is its political balancing act between Russia and the EU. This effort has often been antagonistic, but for the most part has been skilfully played by the Belarusian leadership. This role vis-à-vis Russia has demanded that key industrial assets are kept from privatization, while sufficient concessions are made to political projects led by the Kremlin. Belarus was a founder member of the Collective Security Treaty Organization and the Customs Union. Compared with the economic development of neighbouring Ukraine, the strategy seemed to be working well, at least until the Russian economy ran into serious problems.

A special relationship?

'Comprehensive strategic partnership' is not a concept that exists in the official Belarusian vocabulary, but it has been used by China to label its relations with select countries around the world. In the case of Belarus, these relations have existed since 2013. In a sign of the importance of bilateral relations, President Aleksander Lukashenko issued a presidential directive in 2015, only the fifth in a series of strategic command documents and the only one to involve foreign relations. This document tasks government officials with boosting bilateral relations with China.[3] Given the close security cooperation between Russia and Belarus, the rationale cited for cooperation emphasized security and stability. As such, the agreement includes military industry cooperation and joint military exercises.

Meanwhile, China's economic influence, including its foreign direct investment, has been the core of its cooperation with Belarus. Russian direct investment is estimated to exceed that of China by approximately 50 times, but this does not factor in the substantial Chinese credits provided through the Export-Import Bank

[3] Official Internet Portal of the President of the Republic of Belarus, [Directive no. 5 of 31 Aug. 2015: On the development of bilateral relations between the Republic of Belarus and the People's Republic of China], 31 Aug. 2015, <http://president.gov.by/uploads/documents/5dir.pdf> (in Russian).

of China.[4] The China–Belarus Industrial Park (CBIP), or 'Great Stone', developed by state-owned Sinomach and the China Merchants Group and managed jointly with the Belarusian authorities, is a key Chinese investment in Europe.

In fact, the CBIP is reported to be the largest overseas industrial park with Chinese involvement anywhere in the world.[5] Its projected significance for the Belt and Road Initiatives (BRI) is twofold. It serves as a logistics hub for the European Union terminus of the Silk Road Economic Belt (SREB) and as a manufacturing site primarily for production intended for the Eurasian Economic Union (EAEU). Belarus, the only remaining country in the EAEU that is not a member of the World Trade Organization (WTO), offers several investment incentives as part of the special economic zone (SEZ) established for the industrial park. However, these efforts have, thus far, provided only limited attraction for non-Chinese investors.

Citing social stability as the most important factor in economic development, President Lukashenko claims to have 'adopted China's step-by-step reform process'.[6] However, the reform programme is not only dependent on the applicability of this model to Belarusian economic conditions, but also constrained by the government's political agenda. This has resulted in limited and selective implementation. Thus, it appears that the Chinese model for SEZs pioneered in Suzhou has been cited, in part, because it allows some isolation of economic experiments.

Significantly, Chinese workers constitute the largest group of new labour migrants to Belarus, ahead of Ukrainians.[7] This has had some unexpected consequences, such as in the summer of 2015 when approximately 200 Chinese workers employed at a Chinese-owned paper factory in the Homel region began a march on Minsk to protest about unpaid salaries. This was a rare event in Belarus, which had to be contained by an intervention by the police and the Chinese Embassy.[8] Questions remain, however, about whether such incidents might become more common if not in Belarus, then at other outposts along the SREB.

The potassium factor

Belarus is not a resource-rich country, but it does possess one natural resource in internationally significant quantities—potash, or potassium salts. This caused one of the most serious recent strains on relations with Russia. Potash is an important fertilizer on the global market and state-owned Belaruskali is one of the leading

[4] National Bank of the Republic of Belarus, 'Foreign direct investment in the reporting economy for 2010–2015', <https://www.nbrb.by/engl/statistics/ForeignDirectInvestments/>, accessed 3 Mar. 2017.

[5] *China Daily*, 'Sinomach: China merchants build "a pearl on Silk Road" in Belarus', 28 Dec. 2015, <http://europe.chinadaily.com.cn/business/2015-12/28/content_22835888.htm>.

[6] *Xinhua.net*, 'Interview: Belarus willing to be platform for China's Silk Road Initiative, Lukashenko', 10 May 2015, <http://news.xinhuanet.com/english/2015-05/10/c_134225399.htm>.

[7] Gavrusheva, V., [Belarus Segodnya, borderline state: migrants fill the gap in labour market], 11 Nov. 2016, <http://www.sb.by/articles/pogranichnoe-sostoyanie-migranti.html> (in Russian).

[8] Dzesiatava, G., 'Made in Belarus: by the Chinese', *Belarus Digest*, 29 Sep. 2016, <http://belarusdigest.com/story/made-belarus-chinese-27244>.

global producers. Until 2013, a consortium of Belaruskali and a Russian registered stock company, Uralkali, accounted for some 40 per cent of the global supply.

However, when Uralkali left the consortium after mutual accusations of contract breaches, this pushed global prices lower. What followed was the unexpected arrest in Minsk of the Russian managing director of Uralkali. A short 'potassium war' or 'fertilizer war' ensued that same year, when Russia imposed trade restrictions. The issue was resolved only after the leadership of Uralkali was replaced.[9]

Belaruskali is not just an important source of revenue: it also represents an exception to the rapid increase in the number of loss-making SOEs.[10] SOEs are vital to the Belarusian economy in that under normal circumstances they represent around 70 per cent of gross domestic product (GDP) and employ around one-third of the economically active population. To the Belarusian Government, managing potash exports is a matter of national stability. As a result, the 2013 'potassium war' and the subsequent Chinese response can be seen as tests of Chinese–Russian accommodation.

China is the world's largest potash importer and is normally able to set the annual price floor. In 2013, the China Investment Corporation, a sovereign wealth fund, bought a stake in Uralkali in a rare investment in Russian natural resources and helped facilitate a deal with the Belarusian Government. By 2016, the China Development Bank had provided USD $1.4 billion for development of the long-prospected, high-yield Slavkali potash mine, an investment venture controlled by the well-known Russian billionaire businessman, Mikhail Gutseriyev. According to President Lukashenko, Slavkali will make Belarus the 'complete master of the potash market'.[11]

For China, its interventions in what was already a tense market were part of a pattern to secure sufficient availability and to restrain global price levels. Chinese engagement made use of the dynamics constraining smooth economic and political cooperation between Russia and Belarus to strengthen its political position in the latter, as well as its foothold in the global market of a strategic natural resource.

Takeaways

Chinese engagement in Belarus is heavy, but clearly not solely driven by access to natural resources. Nor is Belarus at the centre of competing integration projects driven by Russia and China. Nonetheless, in a more indirect way than the resource-rich states of Central Asia, Belarus is becoming a test of Chinese–Rus-

[9] Yeliseyeu, A. and Autushka-Sikorski, A., *Belarus's Potash Sector: Reasons for and Consequences of Break-Up with Uralkali*, Research Study SA 1/2015 EN (Belarusian Institute for Strategic Studies: 16 Apr. 2015).

[10] The proportion of loss-making SOEs rose sharply from 4.8 per cent to 26.3 per cent between 2012 and 2016. Mazol, A., *Plans for a Miracle: Digest of Belarus Economy*, Belarusian Economic Research and Outreach Centre (BEROC), 29 June 2016, <http://belarusdigest.com/story/plans-miracle-digest-belarus-economy-26323>.

[11] *CTV Stolichnoe Televidenie*, 'President Lukashenko on Belaruskali-Uralkali row and possible reunion', 23 June 2016, <http://en.ctv.by/en/1466677998-president-lukashenko-about-belaruskali-uralkali-row-and-possible-reunion>.

sian competition and cooperation. This is also true in that Belarus is a key outpost along the BRI land route.

However, its vital role in the initiative is dependent on the success of wider Eurasian integration. This includes expanded China–Russia cooperation in formal formats, such as the BRI-EAEU integration, as well as its more informal aspects, exemplified by the 'potassium war'. The Belarusian leadership is actively striving to promote China as a new vector among its foreign policy options. However, unlike the balancing act with the EU, Belarus' engagement with China is unlikely to run counter to Russian interests.

6. Patterns of and Incentives for Entry into the Arctic and South East Asia

This chapter explores Chinese and Russian entry pathways into regions that have historically been in each other's purview: the Arctic and South East Asia. Ekaterina Klimenko discusses Russian and Chinese interests in the Arctic region and how these have changed over time with enhanced access to transport corridors and natural resources. She argues that while there are cases of cooperation on specific projects, such as the Yamal Peninsula, Russia has been reluctant to allow Chinese investment in upstream projects. Imes Chiu provides a detailed account of political, economic and military deals in South East Asia to illustrate how Russian engagement has steadily expanded and could start to challenge some traditional Chinese holdings.

6.1. Ekaterina Klimenko[1]

Introduction

It is thought that the Arctic contains 30 per cent of world's undiscovered reserves of oil and gas. Climate change has accelerated the melting of the Arctic ice, making these resources more available. Climate change has also forced Russia to expand its presence in the region. In the past decade, Russia has been actively developing Arctic resources and shipping routes, while boosting its military presence. China has also been increasing its engagement in the Arctic and it sees cooperation with Russia as its 'way in' to Arctic affairs. While Russia has traditionally looked to Western countries for energy cooperation, including in the Arctic, a number of factors have led Russia to reconsider its approach to development in the Arctic region.[2]

Interests in the Arctic

Russia's Arctic strategy identifies the following core national interests: (*a*) use of the Arctic Zone of the Russian Federation as a strategic resource base; (*b*) safeguarding the Arctic as a zone of peace and cooperation; and (*c*) use of the Northern Sea Route as a national integrated transport-communication system for Russia in the Arctic. Among these goals, the development of offshore and onshore oil and gas resources is a top priority. The Russian economy is largely dependent on revenues from oil and gas. At least 50 per cent of federal budget revenue is generated from exports of energy resources. Most of Russia's oil and gas production is concentrated in the traditional areas of western Siberia. However, their depletion

[1] Ekaterina Klimenko is a Researcher in the Conflict and Peacebuilding in the Caucasus Project at SIPRI.

[2] For more information see the forthcoming paper, Klimenko, E. and Sørensen, C., *Emerging Chinese and Russia Cooperation in the Arctic: Possibilities and Constraints*, SIPRI Policy Paper no. 46 (Stockholm International Peace Research Institute: Stockholm, forthcoming 2017).

over the past decade means that the geography of production has been shifting to new regions to the north of western Siberia, including the Yamal Peninsula and the Arctic seas.

To date, China's focus and activities in the Arctic region have been primarily concentrated on its scientific interests, particularly those that relate to how the melting ice and changing climate in the Arctic will affect China. However, over the past five years, China's activities have begun to concentrate on economic interests and concerns about energy and resource security. Furthermore, China is interested in the Arctic region due to its importance in relation to international governance and institution building. As a result, China has sought to build strong economic partnerships in the region, including on developing resources and testing the North East Passage.

Drivers of cooperation in the Arctic

Major shifts in world energy markets have significantly affected the development of Russia's Arctic shelf resources and the expansion of the current onshore resources of the Yamal Peninsula. At least four key factors have led to a significant overproduction of natural gas in Russia: (*a*) an overall decrease in demand for natural gas among the European Union (EU) member states; (*b*) an undermining of EU confidence in Russia as a reliable supplier following the Ukraine gas crises of 2006 and 2009; (*c*) EU plans to prioritize the diversification of gas suppliers in the European market; and (*d*) difficult relations with Ukraine, which is the third largest consumer of Russian gas. The shale gas revolution has also resulted in the loss of other potential markets. This in turn has delayed the development of gas resources on the Arctic shelf.

Estimates suggest that the fall in oil prices has made development of the Arctic shelf oilfields unprofitable. This will continue to be the case while the price of oil stays below USD $100 per barrel. However, perhaps the decisive factor in the need for Russian companies to diversify their partnerships has been the geopolitical tensions between Russia and the West in the wake of the crisis in Ukraine. The United States and the EU introduced sanctions against Russia in 2014 after Russia's annexation of Crimea.

Among these sanctions, the third package, which was introduced in July 2014, has had significant implications because it concerns the transfer of technologies. US and EU sanctions include a ban on the transfer of equipment and technology for deep drilling below 150–152 metres, as well as on exploration and development of Arctic shelf shale oil reserves. These sanctions forced ExxonMobil, Statoil and other Western companies to suspend their cooperation with Russia in the Artic. The third package of sanctions also introduced strict financial restrictions, applied to loans of longer than 30 days. The largest Russian banks and corporations in Russia, such as Rosneft, Transneft, Gazpromneft, Gazprom, Novatek, Lukoil and Surgutneftegaz, remain under sanctions. This has made it difficult to seek financing for Arctic projects in the Western financial markets.

Seen from China, Russia, as the biggest Arctic state, is a 'gatekeeper' and 'necessary partner' for non-Arctic states. According to Chinese calculations, there is no way to avoid getting along with Russia in the Arctic. Despite the lower growth rate of the Chinese economy in recent years, its demand for energy and resources continues to grow and its state-owned enterprises (SOEs) are continuously encouraged to identify and establish new areas for exploration and extraction. China sees the Russian Far East, Siberia and the Russian Arctic as sources of energy resources, as export markets and as new shipping and trading routes, as well as recipients of and partners in infrastructure and other development projects. These activities have synergies with China's high-profile Belt and Road Initiatives (BRI), through which China is seeking access to vital European markets through Central Asia and Russia. China is also seeking to take advantage of Russia's current geostrategic and geo-economic vulnerabilities, and its need of China as a partner to develop the Russian Arctic, to gradually strengthen its overall presence and relationships in the Arctic.

Prospects for and limitations on emerging Arctic cooperation

Development of the Arctic shelf

In February and March 2013, during a round of oil delivery negotiations, Rosneft and the China National Petroleum Corporation (CNPC) discussed opportunities for cooperation on shelf projects in the Arctic Barents Sea and Pechora Sea, with a particular focus on the Zapadno-Prinovozemelsky, Yuzhno Russky, Medyskoe Sea and Varandeyskoe Sea deposits.[3] Among these, the Medyskoe Sea and Varandeyskoe Sea are the most promising, containing an estimated 3.9 million and 5.5 million tonnes of oil per year, respectively.[4] Although the head of Rosneft, Igor Sechin, confirmed a commitment to work with China on the Arctic shelf early in 2014, however, no official confirmation or details have yet to emerge.[5]

In late 2015, Russia's Deputy Energy Minister reiterated that Rosneft was still 'negotiating' and 'discussing' its participation in Arctic shelf energy and extraction projects with China.[6] The relative lack of progress over nearly two years could indicate that China is either reluctant to invest or trying to get a better deal. Moreover, the fact that China did not invest in the Vankor deposit in East Siberia and did not buy Rosneft's shares could demonstrate that its interest in the Russian upstream has decreased, or that it cannot accept Rosneft's conditions. It could

[3] Zagorodnov, A., 'Rosneft to attract Chinese, Korean investment to Arctic shelf', *Russia Beyond the Headlines*, 19 Feb. 2013, <http://rbth.com/news/2013/02/19/rosneft_inks_memorandum_with_sinopec_on_possible_oil_delivery_increase_23037.html>; Topalov, A., [Shelf for China: 'Rosneft' is negotiating with Chinese corporations to participate in the development of the Russian Arctic shelf], *Gazeta.ru*, 18 Feb. 2012, <http://www.gazeta.ru/business/2013/02/18/4972145.shtml> (in Russian).

[4] [Bogoyavlenskiy, V.I., Bogoyavlenskiy, I.V. and Budagova, T.A], [Ecological safety and rational management of natural resources in the Arctic and the oceans], *Drilling and Oil*, Dec. 2013 (in Russian).

[5] *Arctic Info*, [Rosneft is waiting for the Chinese on the Arctic shelf], 7 Feb. 2014, <http://www.arctic-info.ru/News/Page/-rosneft_--jdet-kitaicev-na-sel_fe-arktiki> (in Russian).

[6] *Sputnik*, 'Rosneft, Beijing in talks on China Arctic energy participation', 16 Nov. 2015, <https://sputniknews.com/business/201511161030170034-rosneft-china-arctic/>; and *Kommersant*, [Chinese oil bubble], 18 Nov. 2015, <http://kommersant.ru/doc/2849786> (in Russian).

also be argued that the Russian oil and gas delivery deals that China secured in 2013 and 2014 have reduced its overall interest in the Russian upstream, including in the Arctic. Nonetheless, analysts continue to claim that China wants not just to be part of, but a managerial stake in these Arctic projects.[7]

Another unanswered question is the extent to which Chinese companies can replace the work of Western partners on the Arctic shelf, particularly their technological assistance. Despite such concerns, Russia and China have increased their technological cooperation in the oil and gas sectors since the imposition of sanctions. In September 2015, for example, China Oilfield Services Limited (COSL) signed deals with Rosneft and Norwegian Statoil to drill two exploration wells in the Sea of Okhotsk, which has similar conditions to the Arctic. Igor Sechin noted that the agreements unlocked new potential for cooperation on oil and gas resource exploration by industry leaders in Russia, Norway and China. The extent to which this potential will affect the Arctic remains to be seen.

Cooperation on the Yamal Peninsula

If offshore projects remain a question for the future, onshore cooperation in the Arctic is already advancing. In February 2013, the head of Novatek visited China as part of an official Russian delegation to discuss opportunities for cooperation on its main Arctic project, Yamal liquefied natural gas (LNG). As a result of this visit and several subsequent rounds of negotiations, on 5 September 2013, Novatek and CNPC signed a contract for the sale of a 20 per cent stake in Yamal LNG. The agreement includes a long-term contract for the supply of not less than 3 million tonnes of LNG per year to China, which is 18 per cent of total capacity.[8] The deal was approved by the Russian Government in November 2013 and signed in January 2014.[9]

Following the breakout of the crisis in Ukraine, Novatek became the target of sanctions and Yamal LNG faced further financial difficulties. Novatek was forced to seek further engagement with foreign partners and China was among the few remaining alternatives. In September 2015, Novatek sold the Silk Road Fund, a Chinese sovereign fund, a further 9.9 per cent of Yamal LNG for approximately EUR €1.09 billion. In December 2015, as part of the deal, Novatek received a loan from the Silk Road Fund of EUR €730 million for a period of 15 years to finance the project.[10] As a follow-up to these advances, on 29 April 2016 Yamal LNG announced the signing of agreements with the Export-Import Bank of China and

[7] Henderson, J. and Mitrova, T., *Energy Relations Between Russia and China: Playing Chess with the Dragon*, (Oxford Institute for Energy Studies: Oxford, Aug. 2016), <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/08/Energy-Relations-between-Russia-and-China-Playing-Chess-with-the-Dragon-WPM-67.pdf>.

[8] *Vedomosti*, ['Novatek' and CNPC have agreed terms on the purchase of 'Yamal LNG' gas project], 22 Oct. 2013, <http://www.vedomosti.ru/newsline/news/17761011/novatek-i-cnpc-dogovorilis-ob-usloviyah-pokupki-gaza-s> (in Russian).

[9] Knodyakova, Y., ['Novatek' has closed a deal to sell 20% of 'Yamal LNG' to China's CNPC], *Vedomosti*, 15 Jan. 2014, <http://www.vedomosti.ru/companies/news/21288661/novatek-prodal-20-yamal-spg-kitajskoj-cnpc>.

[10] *Arctic Info*, ['Yamal LNG' gets on to the Silk Road], 16 Mar. 2016, <http://www.arctic-info.ru/news/16-03-2016/-amal-spg--vstal-na-selkovii-pyt_/> (in Russian).

the China Development Bank on two 15-year credit facilities of a total amount of EUR €9.3 billion to finance the project.[11] China will therefore provide up to 60 per cent of the necessary capital to implement the project.

Despite this impressive track record of cooperation on Yamal LNG, two problems reveal the limits of possible cooperation. First, Novatek had serious difficulties in securing Chinese financing for the project. The deal was only concluded after numerous delays and negotiations. Second, China also received huge benefits from the deal, since up to 80 per cent of the equipment for Yamal LNG will be produced in Chinese shipyards.[12] This shows that despite China's interest in the Arctic, Russia remains eager to garner a Chinese partnership. Still, from a Russian perspective, there may be a number of difficulties ahead. Chinese companies will only work on projects in which they are interested and under conditions that they find acceptable—and their partners have little choice but to accept their demands.[13]

Takeaways

Russia has historically been defensive about non-Arctic states playing a big role in the Arctic. It has been reluctant to allow Chinese investment in upstream projects. While geopolitical shifts have pushed Russia towards greater acceptance of non-Arctic state involvement, there has still been little progress in Russia's cooperation with China in the Arctic.

Russia can no longer be just a gatekeeper. Its companies must also offer good conditions for developing this cooperation. The slowdown in China's economy as well as alternative oil and gas delivery deals have reduced China's interest in the Russian upstream. Nonetheless, in the long term, China's broader interest in accessing the Northern Sea Route and ice-breaking technologies, as well as in participation in Arctic governance, seem likely to compel its ongoing participation in Arctic projects.

6.2. Imes Chiu[14]

Introduction

New patterns of cooperation and competition are emerging in the securing of energy supplies in South East Asia. Rapid environmental, economic and demo-

[11] Yamal LNG, 'Yamal LNG signs loan agreements with the Export-Import Bank of China and the China Development Bank', Press release.

[12] *Lenta.ru*, [Yamal LNG plant to be built from Chinese parts], 5 May 2016, <https://lenta.ru/news/2016/05/05/yamallng/> (in Russian).

[13] Maxie, J., 'Russia's Arctic dreams have Chinese characteristics', Pacific Energy Summit, 18 Oct. 2016, <http://pacificenergysummit.org/2016/10/18/russias-artic-dreams-have-chinese-characteristics/>.

[14] Imes Chiu is a Social Scientist in the Information Generation and Management Branch of the Geospatial Research Laboratory, at the Engineering Research Development Centre of the US Army Corps of Engineers. The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of any agency of the US government. Examples of analysis performed in this article are only examples. The assumptions made in the analysis are not reflective of the position of any US

graphic transitions in the region continue to shape the dynamics of these engagements. While energy resource endowments, human capital and technological capability differ vastly across the distinct South East Asian countries, the larger sociological, demographic, economic and geopolitical forces affecting the entire region are compelling new means of cooperation and competition.

Within these trends, Russia is emerging as a stakeholder, albeit one still perceived as a minor player when compared with China and the USA. However, Russia's presence in the region needs to be understood not solely in terms of its economic magnitude and military power, but also as a counterbalancing component within South East Asia's security architecture. This is particularly the case as the region grapples with securing a steady supply of energy in prosperous, but uncertain, times.

Game changers

The economy

South East Asia's energy landscape will dramatically change in the coming decades as its sustained economic growth, fuelled by a steady 80 per cent increase in energy demand by 2040,[15] partly motivates resource engagements with Russia. The Office of the US Director of National Intelligence predicts that Asia will eventually surpass North America and Europe in global economic power.[16] Regionally, Asia will rise to contribute in excess of 50 per cent of global gross domestic product (GDP), a trend that began in the 20th century with Japan and South Korea and has accelerated with China, India and Indonesia.[17] Based on the projections of the Economist Intelligence Unit, Asia is poised to pass the 50 per cent mark around 2050.[18] GDP growth in emerging Asia,[19] that is South East Asia, China and India, is forecast to average 6.2 per cent per year in the period 2017–2021,[20] and its GDP is projected to triple in size by 2040 or 2050.[21]

government entity.

[15] International Energy Agency, Directorate of Global Energy Economics, '*South East Asia Energy Outlook, 2015: World Energy Outlook Special Report*' (IEA Publications: Paris, 2015), <https://www.iea.org/publications/freepublications/publication/WEO2015_SouthEastAsia.pdf>, p. 9.

[16] Office of the Director of National Intelligence, 'Global trends 2030: alternative worlds', National Intelligence Council, accessed 3 Mar. 2017, <https://www.dni.gov/index.php/about/organization/global-trends-2030>.

[17] Economist Intelligence Unit, 'Developing economies grow stronger by 2050', 2015, <http://pages.eiu.com/rs/783-XMC-194/images/Long-termMacroeconomicForecasts_KeyTrends.pdf>.

[18] Economist Intelligence Unit (note 17).

[19] The 10 member countries of the Association of South East Asian Nations (ASEAN) are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam.

[20] Organisation for Economic Co-operation and Development, 'Economic Outlook for South East Asia, China and India 2017: Addressing Energy Challenges', preliminary version, <http://www.oecd.org/dev/asia-pacific/SAEO2017_PV.pdf>.

[21] International Energy Agency (note 15), p. 9.

Demography

Natural resources in the region such as oil, gas and coal will be strained due to growing demand, owing partially to the increase in global population from 7.1 billion today to an estimated 8 billion by 2030. To emphasize the exponential population growth in South East Asia, its total population in 2010 was an estimated 593 million and had doubled in the 44-year period from 1972 to 2016.[22] In a more aggressive approximation, a 50-year demographic study of East Asia and South East Asia in the period 1950–2000 found 850 million inhabitants in 1950, and that it took only 35 years for its population to double.[23] Current projections by the Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency (IEA) estimate that South East Asia's population will reach 760 million by 2040.[24] As China reduces production of its labour-intensive goods, South East Asia's abundant labour reserves mean it is poised to take China's place.[25]

The environment

However, these economic and demographic drivers also bring stresses to an environment already suffering from the most damaging effects of climate change. Climate change is often identified as the greatest threat facing the Asia-Pacific region in the coming decades.[26] South East Asia faces risks from rapid uncontrolled urbanization, extreme sudden and slow-onset climate-induced crises such as coastal and river flooding, water and food shortages following drought, and heat-related mortality. About one million people along the coasts of South East Asia would be at risk of flooding due to projected sea-level rise.[27] The resulting societal and infrastructural disasters often aggravate already volatile situations, particularly pre-existing intrastate conflicts occurring concurrently with the increasing depletion of natural and state resources. Demand for food is set to rise by 35 per cent and for energy by 50 per cent over the next 15–20 years.[28] While there are high levels of access to electricity in Brunei Darussalam, Malaysia, Thailand and Singapore, currently only 75 per cent of the population in Cambodia,

[22] Jones, G. W., 'The population of South East Asia', ARI Working Paper no. 196 (Asia Research Institute, Jan. 2013), <http://www.ari.nus.edu.sg/wps/wps13_196.pdf>.

[23] Attané, I. and Barbieri, M., 'The demography of East and South East Asia from the 1950s to the 2000s: a summary of changes and a statistical assessment', *Population,* no. 64 (2009), p. 209.

[24] International Energy Agency (note 15).

[25] International Monetary Fund, 'World Economic Outlook', Oct. 2016, <http://www.imf.org/external/pubs/ft/weo/2016/02/pdf/text.pdf>.

[26] United Nations Information Centre, Canberra, 'IPCC presents climate change findings in South East Asia', Press release, 17 Aug. 2015, <https://un.org.au/2015/08/17/ipcc-presents-climate-change-findings-in-southeast-asia/>.

[27] Hijioka, Y., Lin, E., Pereira, J.J., Corlett, R.T., Cui, X., G. Insarov, G.E., Lasco, R.D., Lindgren, E. and Surjan, A., 'Asia', ed. V. R. Barros, *Climate Change 2014: Impacts, Adaptation and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change,* (Cambridge and New York: Cambridge University Press, 2014), pp. 1327–70.

[28] Office of the Director of National Intelligence, *'Global Trends 2030: Alternative Worlds',* National Intelligence Council, <https://www.dni.gov/index.php/about/organization/global-trends-2030>, accessed 3 Mar. 2017.

Myanmar, the Philippines and Indonesia has access to electricity.[29] As of 2016, 346 million people in emerging Asia still did not have access to electricity.[30]

Emerging regional paymaster

Towards a symbiotic relationship

Russia looks to the Indo-Asia-Pacific region to diversify its industry, revitalize its economy and reduce its economic dependence on the West. The key drivers include the global financial and eurozone crises, plunging global oil prices and, most recently, sanctions by the USA and the EU, among others, following Russia's annexation of Crimea in 2014 and its continued support to pro-Russian rebels in eastern Ukraine. South East Asia, on the other hand, seeking to lessen its dependency on China, turns to Russia as a potential energy partner.[31] Russia garnered regional attention in 2012, when the state-owned State Atomic Energy Corporation, Rosatom, secured a contract to build the first two nuclear power plants in Viet Nam, which it is projected will be completed in 2024.[32]

Nuclear

Russia has been helping Viet Nam to repair its nuclear reactor since the 1980s. In 2015, Rosatom in partnership with the Viet Nam Atomic Energy Institute conducted a workshop to transfer knowledge on nuclear and radiation safety to local staff.[33] Recently, it began educating Vietnamese students on nuclear technology at the Russian National Research Nuclear University (MEPhI). The first group graduated in 2017.[34] While Viet Nam continues to be Russia's key partner,[35] Russia has begun reaching out to other South East Asian nations and has offered to share its advanced civilian nuclear technology with Myanmar, Indonesia and Cambodia.[36] It is conceivable that the pressures on energy demand in the years to come, aggravated by resource scarcity and burgeoning populations, could push South East Asian nations to follow in Viet Nam's footsteps as they hedge against China's build-up in the South China Sea.

[29] Office of the Director of National Intelligence (note 28).

[30] International Energy Agency, '*World Energy Outlook 2016: Electricity Access Database*', <http://www.worldenergyoutlook.org/resources/energydevelopment/energyaccessdatabase/>, accessed 3 Mar. 2017.

[31] Buszynski, L., 'Russia and South East Asia: a new relationship', *Contemporary South East Asia: A Journal of International and Strategic Affairs*, vol. 28, no. 2 (Aug. 2006), p. 276.

[32] Hutt, D.,'A look at Russia's own "pivot to Asia"', *South East Asia Globe*, 16 Sep. 2016, <http://sea-globe.com/russia-asia-pivot/>.

[33] Press Service of the Rosatom International Network, 'Rosatom and Vietnam Atomic Energy Institute hold a workshop on ecological and social aspects of nuclear power', 27 Oct. 2015, <http://archive.rosatom.ru/en/presscentre/news/0d32c3804a5cdbcfbe24beb2bf8a1cca>.

[34] *Vietnam Breaking News*, 'Vietnamese students graduate in nuclear technology from Russia', 23 Feb. 2017, <https://www.vietnambreakingnews.com/2017/02/vietnamese-students-graduate-in-nuclear-technology-from-russia/>.

[35] Storey, I., 'The Russia–China strategic alignment: consequences for South East Asian security', *ISEAS Perspective*, 26 Oct. 2016, <https://www.iseas.edu.sg/images/pdf/ISEAS_Perspective_2016_59.pdf>.

[36] Storey (note 35).

Natural gas

Despite Russia's official position of taking no sides in the South China Sea dispute, Gazprom, the corporation created out of the former Soviet Ministry of the Gas Industry in 1989 and in which the Russian Government maintains a majority stake, entered an agreement with the state-owned PetroVietnam in 2006 to explore hydrocarbons in four offshore gas fields that lie within the contested nine-dash line. A USD $1 billion joint venture, PVGazprom Natural Gas for Vehicles, followed between the two giants in 2015, after gas production began in 2013. This new company focused on producing engines fuelled by compressed natural gas in Viet Nam.[37] In early March 2016, the Russian state-controlled oil group Rosneft began drilling its first international offshore well as sole operator off the south coast of Viet Nam.[38] In May 2016, Gazprom and PetroVietnam launched new oil and gas projects, signing a memorandum of understanding before the prime ministers of the two countries.[39] Just three months later, Rosneft declared that it had discovered gas of an undisclosed volume.[40]

Other sectors

In addition to energy, Russia has been supplying increasing amounts of weapons to South East Asia over the past decade.[41] On 4 January 2017, two Russian warships docked in the Philippines on a four-day visit to discuss future joint exercises.[42] Russia also began to reach out to other South East Asian countries outside the energy and defence industry. For instance, it entered into an agreement with Thailand to collectively invest USD $3.7 billion in Russian dairy ventures in May 2017.[43] Russia hopes to double bilateral trade with Viet Nam, Thailand and Indonesia in the coming years.[44] The Regional Comprehensive Economic Partnership (RCEP) has the potential to be an alternative to the now defunct Trans-Pacific Partnership (TPP) and some analysts argue that Russia and China could take the

[37] *Tuoi Tre News,* 'Russian petroleum giant sets up $1bn joint venture in Vietnam', 21 Oct. 2015, <http://tuoitrenews.vn/business/31111/russian-petroleum-giant-sets-up-1bn-joint-venture-in-vietnam>.

[38] Farchy, J. 'Rosneft to solo drill first international offshore well', *Financial Times,* 6 Mar. 2016, <https://www.ft.com/content/cedcc2e0-e390-11e5-a09b-1f8b0d268c39>.

[39] *Kallanish Energy Daily News and Analysis,* 'Gazprom, PetroVietnam to launch new O&G, power plants', 18 May 2018, <http://www.kallanishenergy.com/2016/05/18/gazprom-petrovietnam-oil-gas-power-projects/>.

[40] *Upstream Online,* 'Rosneft reveals Vietnam discovery', 11 Aug. 2016; and Graeber, D., 'Rosneft taps into Vietnamese gas field', *United Press International,* 12 Aug. 2016, <http://www.upi.com/Rosneft-taps-into-Vietnamese-gas-field/5471471002845/>.

[41] *Deutsche Welle,* 'Asian security fears fuelling global arms trade', 21 Feb. 2016, <http://www.dw.com/en/asian-security-fears-fueling-global-arms-trade/a-19054185>.

[42] Parameswaran, P., 'Why are the Russian warships in the Philippines?', *The Diplomat,* 4 Jan. 2017, <http://thediplomat.com/2017/01/why-are-russian-warships-in-the-philippines/>; Lendon, B., 'Russian warships visit Philippines: Admiral suggests wider exercises', CNN.com, 4 Jan. 2017, <http://www.cnn.com/2017/01/03/asia/russia-philippines-exercises-south-china-sea/>; and Reuters, 'Philippines says finalizing deal to observe Russian military drills', 9 Jan. 2017, <http://www.reuters.com/article/us-philippines-russia-idUSKBN14T14B>.

[43] Trinkett, N., 'Can Russia ride China's trade lead in South East Asia?', *Global Risks Insights,* 11 Dec. 2016, <http://globalriskinsights.com/2016/12/can-russia-ride-chinas-coattails-southeast-asia/>.

[44] Tsvetov, A., 'Russia and ASEAN: in search of economic synergy and political consensus', *Russian International Affairs Council*, 10 June 2016, <http://russiancouncil.ru/en/inner/?id_4=7713#3>.

lead on the call for a broader Asia-Pacific free-trade zone.[45] A study on perceptions of Russia among the young educated elite in South East Asia shows positive views of its government, economy and culture, and of the country as a Eurasian great power.[46]

Solidifying institutional partnership

Further demonstrations of South East Asia's favourable view of Russia can be found in the increasing political and security cooperation between the Association of South East Asian Nations (ASEAN) and Russia. In its official documents, ASEAN traces Russia's engagement in the region back to July 1991, when the Deputy Prime Minister of the Russian Federation attended the opening session of the 24th ASEAN Ministerial Meeting in Kuala Lumpur with the support of the Malaysian Government.[47]

A significant step forward in this relationship was taken when Russia acceded to the Treaty of Amity and Cooperation in South East Asia in 2004. With Malaysia's support, the first ASEAN–Russian Federation Summit was held in December 2005. This was highlighted by the signing of the Joint Declaration of the Heads of State of the Member Countries of ASEAN and the Russian Federation on Progressive and Comprehensive Partnership, as well as the ratification of the ASEAN–Russian Federation Economic and Development Cooperation Agreement.[48]

The second significant step towards this partnership occurred in 2010 at the second ASEAN–Russia Summit in Hanoi, where a public declaration of the two parties' commitment consolidated a comprehensive and wide-ranging partnership that brought Russia closer to the emerging Asia-Pacific regional security architecture. A commemorative summit in 2016 in Sochi, Russia, resulted in a framework on the way forward, with an emphasis on economic cooperation, socio-cultural cooperation and areas such as food security, energy, disaster management, health, infrastructure development and research.[49]

Takeaways

Cooperation between Russia and South East Asia is underdeveloped and has the potential to grow in the coming years. In the fields of energy and trade, Russia and South East Asia could find compelling reasons to establish closer ties as economic and population growth drive demand for natural resources. Energy secu-

[45] Trinkett (note 43); Tsvetov, A., 'Russia's Asian trade game', *The Diplomat*, 8 Feb. 2017, <http://thediplomat.com/2017/02/russias-asian-trade-game/>.

[46] Bukh, A., 'Can Russia win friends and influence people in South East Asia?', *East Asia Forum*, 17 Feb. 2017, <http://www.eastasiaforum.org/2017/02/17/can-russia-win-friends-and-influence-people-in-south-east-asia/>.

[47] Association of South East Asian Nations, 'Overview: ASEAN-Russia dialogue relations', Aug. 2016, <http://asean.org/storage/2012/05/Overview-ASEAN-Russia-August-2016-r4cl.pdf>.

[48] Association of South East Asian Nations, 'Chairman's Statement on the First ASEAN-Russian Federation Summit', Kuala Lumpur, 13 Dec. 2005, <http://asean.org/?static_post=chairman-s-statement-of-the-first-asean-russian-federation-summit-kuala-lumpur-13-december-2005-2>.

[49] Association of South East Asian Nations (note 48).

rity has always been a key strategic concern for South East Asian nations, as well as China, Japan, South Korea and India. The dynamics of resource engagement among old members of and new entrants to the energy sector will be determined in the coming years as macroeconomic, demographic and environmental forces continue to shape the region. While South East Asia's long-term energy security remains uncertain, strengthening the regional cooperation found in entities such as ASEAN and new forms of partnerships could signal new patterns of cooperation and collaboration. In this context, Russia, with its assertive foreign policy, appears poised to play an enhanced role.

7. Shifting Concepts of Territory and their Impact on the South China Sea

This chapter provides two vantage points for analysing Chinese and Russian shifts on the issue of the South China Sea. Masafumi Iida offers a historical overview of China's development of its activities in the region. He maintains that while China's approach to the South China Sea has hardened, there may be some opportunities for engagement. Igor Denisov delves into the view from Russia, asserting that while it has moved towards policies that support China's stance on the South China Sea, there have been external misperceptions of the Russian position. He maintains that Russia has its own misgivings about China's instrumental use of the Shanghai Cooperation Organization (SCO), as well as concerns over the longer-term impact on the United Nations Convention on the Law of the Sea (UNCLOS).

7.1. Masafumi Iida[1]

Introduction

Territorial disputes over islands and rocks, as well as overlapping claims on maritime resources in the South China Sea are among the major sources of instability in South East Asia. China, as one of the largest and most powerful claimants, has not been reluctant to use military force to expand its control. China's People's Liberation Army (PLA) attacked the South Vietnamese Army stationed in the western half of the Paracel Islands and established full control over the islands in 1974. It also exercised its muscle against the Vietnamese Army and seized six rocks and shoals from Hanoi in 1988 and took the Mischief Reef from the Philippines by force through intimidation in 1995. China is the only country to have used military force against other claimants to expand its control over the South China Sea.

Shifts in approach to maritime claims

China has not always taken such a muscular approach to the South China Sea. In the 1990s, it demonstrated a cooperative approach to territorial issues there. Following the Asian Financial Crisis in 1998, China emphasized cooperation with regional countries. In so doing, it engaged in dialogues on its disputes with Association of South East Asian Nations (ASEAN) member states and agreed on the Declaration on the Conduct of Parties in the South China Sea in 2002, which stipulates peaceful resolution of problems, respect for the freedom of navigation and the eventual adoption of a code of conduct.[2] Moreover, China began joint seismic research on seabed resources with the Philippines and Viet Nam in 2005.

[1] Masafumi Iida is a Senior Fellow in the China Division of the Regional Studies Department at the National Institute for Defence Studies.

[2] For more information on China's militarization in the South China Sea see US Department of Defense,

By 2008, however, China had returned to its assertive approach. In these efforts, China's Maritime Law Enforcement (MLE) agencies play a leading role in expanding China's control. MLE patrol vessels have intensified their activities to enhance Chinese claims and interests. They have expelled foreign fishing boats from lucrative waters, taken the Scarborough Shoal from the Philippines and in 2014 rammed Vietnamese patrol vessels and fishing boats to protect the state-owned China National Offshore Oil Corporation oil exploration rig, Haiyang Shiyou 981, which was operating in waters disputed with Viet Nam.

The PLA has also enhanced its military presence in the South China Sea. The PLA Navy (PLAN) frequently conducts large-scale, live-fire exercises in the area. In July 2016, more than 100 surface warships, as well as tens of naval aircraft and coastal defence units conducted a realistic combat exercise, launching around 100 missiles and torpedoes into the South China Sea. In August 2016, the South Sea Fleet of the PLAN conducted a massive landing exercise in the South China Sea, with the participation of a 20 000-tonne landing ship, hovercraft, helicopters and an amphibious unit. The PLA Air Force (PLAAF) also conducts exercises in the area. In July and August 2016, bombers, fighter aircraft, Airborne Warning and Control Systems (AWACs), reconnaissance aircraft and air-refuel tankers jointly flew over the Spratly Islands and the Scarborough Shoal to conduct 'combat air patrols' over the South China Sea. The PLAAF announced that this combat patrol would become a routine operation.[3]

Beyond these measures, the PLA has taken a significant step to strengthen its military presence in the South China Sea by pursuing a massive reclamation of seven shoals and low tide elevations to create artificial islands. China has been constructing a variety of military facilities on these islands, such as large harbours, 3000-metre airstrips, logistical facilities, radar systems, anti-air weapons and hospitals. With these new facilities, the PLA will be able to drastically increase its military presence in the air and water.[4] China's unilateral militarization of the South China Sea causes serious concerns over China's assertiveness among regional countries and the United States.

Challenges to existing rules and norms

In the South China Sea, China is clearly challenging the rules and norms shared by the international community and the region. The PLA has repeatedly obstructed the air and maritime surveillance operations of US military forces, carried out in the South China Sea in accordance with international law. Dangerous manoeuvres by the PLA against US aircraft and warships outside of Chinese territorial waters are clear violations of globally shared rules of freedom of overflight and navigation in international space. China has also challenged international mari-

'Annual Report to Congress: Military and security developments involving the People's Republic of China', May 2016, pp. 7–20.

[3] ASEAN, '2002 Declaration on the Conduct of Parties in the South China Sea', 4 Nov. 2002, <http://asean.org/?static_post=declaration-on-the-conduct-of-parties-in-the-south-china-sea-2>.

[4] *Xinhua*, 'PLA Air Force conducts combat air patrol in the South China Sea', 19 July 2016.

time law by rejecting the July 2016 ruling of the Permanent Court of Arbitration at The Hague on the South China Sea. As a signatory to the UNCLOS, China has an obligation to obey this ruling. China's actions and behaviour in the South China Sea pose serious challenges not only to the security and stability of the region, but also to international rules and norms, including the rule of law.

Takeaways

Despite these challenges, there is an opportunity for China to provide the region with a means to manage the risk of confrontation in the South China Sea. First, China has not closed the window on negotiations with other claimants and ASEAN. In November 2016, China's President, Xi Jinping, agreed with the President of the Philippines, Rodrigo Duterte, to resume dialogue on territorial issues and improve bilateral relations. China's Ministry of Foreign Affairs has also reiterated its intention to pursue negotiations with ASEAN on adopting a code of conduct on the South China Sea.

Second, the Chinese leadership places strong emphasis on China's international reputation as a 'responsible major power'. This motivates the Chinese Government to take conciliatory approaches on South China Sea issues to mitigate international criticism of China. In this respect, an enhancement of international and regional voices demanding that China abide by international rules and norms might persuade China to adopt more peaceful policies on the South China Sea.

7.2. Igor Denisov[5]

Introduction

Given the deteriorating relations with the West and sanctions over Ukraine, it is a widely-held belief that Russia is excessively tilting towards China. This has led to arguments that the Russia–China quasi-alliance is gradually losing its 'quasi' nature and turning into a full-scale military bloc, based on common interests, an aligned strategic vision and joint actions to counter threats. When making such claims, the South China Sea is frequently cited as an example of the converging interests of the two states. However, there are questions over whether this reading of Russia's attitude to China's South China Sea claims is accurate.

Drivers of tension and modernization

Overlapping claims in the South China Sea are one of the key drivers of the arms trade and military modernization in South East Asia. As such, the potential for the South China Sea to become the next global flashpoint is great. Russia and China share convergent and divergent interests in the Asia-Pacific region, with a

[5] Igor Denisov is a Senior Research Fellow in the Centre for East Asian and Shanghai Cooperation Organization Studies at the Moscow State Institute of International Relations.

focus on the South China Sea. Thus, it is useful to draw up a balance sheet of their respective visions of the territorial problems in this maritime domain.

As Russia–China relations grow closer, there are signs that Russia's stance on the territorial disputes between China and its neighbours is shifting away from its long-standing policy of neutrality and non-interference. This is not only the case in the South China Sea, but also for the India–China border dispute and Japan–China tensions over the Senkaku or Diaoyu islands. Nonetheless, a number of Russian official pronouncements contradict the popular narrative that Russia and China are headed towards an alliance. These statements are set against the backdrop of mounting tensions and contested sovereignty claims. Flawed perceptions of Russia's policy on the South China Sea can be attributed to six main causes.

First, there is an emphasis on Russia's relative economic weakness vis-à-vis China. This argument maintains that the current economic situation in Russia is leading to its growing dependence on China. However, the increasing asymmetry of the two countries' economic cooperation does not necessarily mean that Russia can easily accept the role of junior partner in Russia–China relations.

Second, there is an overestimation of China's intentions towards a more active Russia in the South China Sea. Even at the height of the tensions there, China has proved to be more interested in Russia's support in terms of soft power, rather than hard power. Increased China–Russia interaction occurred just after the decision by the Permanent Court of Arbitration at The Hague. However, this was a part of China's worldwide campaign to gain support from the international community against the ruling.

Third, Russia's own interests in the Asia-Pacific region have been underestimated. Although the Russian 'pivot to the East' is progressing more slowly than anticipated, its priorities in the region are more nuanced than simply serving as China's junior partner. Russia does not intend to risk undermining its relations with other Asian players, which include important buyers of Russian arms.

Fourth, there is an over reliance on the narrative of the growing assertiveness of Russia and China. The two countries have different approaches to the interpretation of international law, but this is often ignored. Within the prevailing discourse, it is presumed that Russia and China have an inherently offensive, rather than defensive approach, such that they seek to challenge the existing world order. However, as a signatory to UNCLOS, Russia relies on this document to defend its own maritime claims. Moreover, some Chinese interpretations of UNCLOS do not fit with Russia's own interests.

Fifth, there is ignorance of the differences between Russian and Chinese views on the role of the Shanghai Cooperation Organization (SCO) in the South China Sea. Russia does not object to China's use of the SCO to engage in a general discussion on the South China Sea, even though it is certainly not in the zone of responsibility of the organization. Nonetheless, Russia is quite irritated by the 'excessively instrumental' use of the SCO by China.

Sixth, the Russian–Chinese naval exercises in the South China Sea have been misinterpreted. These exercises, held on 12–19 September 2016, were characterized by many observers as a sign of Russia's clear support for China's position.

Russia tried its best to reduce the political effect of the exercises, but China interpreted its participation as unequivocal support. To this end, the Joint Sea-2016 navy drills were held far from the conflict area and the flagship of Russia's Pacific Fleet, *Varyag*, did not participate in the manoeuvres. This could be interpreted as a kind of consolation to Russia's other partners in the region, particularly Viet Nam.

Takeaways

The evolution of Russia's position on the South China Sea has been closely monitored in the region. Russia is trying to balance between China and other regional actors, emphasizing that it is not a party to the disputes and does not intend to become involved in them. Russia is neither an actual nor a potential stakeholder in the South China Sea territorial dispute. Thus, its cooperation with China in the region is much more nuanced than the current discourse suggests. Its partnerships with China's neighbours are also important and affect Russia's overall security calculus.

8. New Domains of Crossover and Concern in Cyberspace

This chapter maps out the crossover between China and Russia in cyberspace. Amirudin Bin Abdul Wahab offers an overview of their growing complementarity of positions on cyber governance and norms. He notes with concern the overall direction of cyberwarfare operations, the lack of common definitions and agreement, and the implications for Malaysia. Lora Saalman explores the appropriation of cyberspace as the newest domain for hybrid warfare, citing cases of alleged cyber intrusion and attack from Ukraine to the South China Sea. Acknowledging the difficulties of attribution, she argues that such cases illustrate a potential growing Chinese–Russian convergence on responding to external threats and shaping their security environment through cyberspace.

8.1. Amirudin Bin Abdul Wahab[1]

Introduction

Chinese and Russian interactions in cyberspace are marked by considerable crossover. The first Russia–China Information and Communication Technologies Development and Security Forum, held in Moscow in April 2016, demonstrated their expanding cooperation on cyber governance. It emphasized the 'separate sovereignty of each nation in cyberspace'. This notion of cyber sovereignty, which advocates that each state control information flows, has gained increasing acceptance among a number of states in regions such as South East Asia. This guiding concept has also been criticized for potentially heralding the fragmentation of the Internet. As the debate over approaches continues, China and Russia's common vision aims to support their respective cyber-related social and economic interests, focusing on the security and governance of Internet communication structures, general data security and social development.

Dynamics in cyberspace

China's interest in cyberspace is far-reaching and ambitious. Among its various aspects, China's Belt and Road initiatives (BRI) underline China's intention to focus on global connectivity and economic cooperation, in part through what has come to be known as the Digital Silk Road. To support these efforts, China has launched its new satellite navigation services and expanded its e-commerce, industrial networks and Internet banking abroad. These initiatives indicate China's intention to achieve superiority in cyberspace, with cybersecurity as one of its top priorities. China is likely to leverage all necessary means to protect its information security, including use of its military. China is not alone in this approach.

[1] Amirudin Bin Abdul Wahab is the Chief Executive Officer of CyberSecurity Malaysia.

When it comes to protecting and penetrating networks, both China and Russia will seek to enhance their global cyber surveillance to mitigate threats.

Within this growing connectivity, experts already acknowledge the existence of cyber aggression conducted by states and state-sponsored actors. It should come as no surprise that such acts of aggression, including cyber espionage, system intrusion and high-scale cyberattacks, are being performed with ever-growing technical sophistication. Cyberspace has become a new battlefield for various hostile activities and acts of exploitation often involving China, Russia and the United States. The USA regularly claims that its critical systems have come under attack, allegedly from Chinese and Russian hackers. In response, the US Government has declared its critical infrastructure a strategic national asset, making any attack on these computer networks an act of war.

At the same time, leaks of classified information from the US National Security Agency (NSA) by the former contractor for the US government, Edward Snowden, have captured global attention as they expose expansive US activities in cyberspace. Current Chinese, Russian and US tensions demonstrate the alarming threat of cyberwarfare. While this concept remains poorly defined, a war in cyberspace is no longer simply an issue of intangible data theft or undetected attacks. Instead, the cyber intrusions and attacks of the future could have disastrous effects on industrial critical processes, jeopardizing the operation of generators and machinery and causing physical destruction.

From Malaysia's perspective, the global community has yet to derive a suitable approach to dealing with the pressing issues of cyber aggression involving the superpowers of China, Russia and the USA. Cyberwarfare is not currently being openly or adequately addressed. The fact that cyberwarfare has long been part of traditional national and military doctrines presents obstacles to future cooperation. China, Russia and the USA are reluctant to talk about their cyberwarfare programmes and this makes the world far less transparent. Despite this lack of clarity, there are current global collaborative efforts on cybersecurity and these should be used as opportunities to begin to build a greater understanding of the divergence of viewpoints on what constitutes cyberwarfare.

Takeaways

Cyberspace is both a national asset and a global common. There is, therefore, a need to protect both national and global interests. Any cyber conflict should be resolved diplomatically through the various international platforms, such as the United Nations and the Association of South East Asian Nations (ASEAN) Regional Forum. For such collaboration to begin, cultivating a better understanding of national and regional definitions of cyberwarfare will serve as a crucial first step. Currently, the Tallinn Manual contains one of the few multilaterally developed definitions of cyberwarfare. However, given its origins under the auspices of the North Atlantic Treaty Organization, this definition lacks the perspective of powers in Asia, particularly South East Asia. It is essential that countries respect each other's stance, recognizing that acts of cyber aggression can threaten trust in

cyberspace. In this regard, Malaysia supports any global efforts to ensure cybersecurity. If cyberwarfare escalates and takes on kinetic dimensions, this will be damaging to the world as a whole.

8.2. Lora Saalman[2]

Introduction

In the wake of the crisis in Ukraine and Russia's annexation of Crimea, Western analyses have paid relatively sparse attention to the impact of these geopolitical shifts on Chinese views on territorial and peripheral stability. This essay uses 434 Chinese-language documents as a baseline to analyse how experts in China have internalized the lessons learned from the crisis in Ukraine.[3] Understanding how Chinese academics, economists, engineers, officials and military personnel view Russian tactics and strategy in Ukraine offers insights into how the concept of hybrid warfare and the use of proxies might factor into China's future calculations. This analysis suggests that beyond allegations of employing its own 'little green men' on land and 'little blue men' at sea to enforce its territorial claims, China may be trending towards a more holistic and Russian view of hybrid and proxy warfare in a new territory—cyberspace.

Hybrid warfare and cyberspace

Hybrid and proxy warfare are hardly new concepts in China. Decades ago, China followed Russia in supporting a revolution that spanned the breadth of society. More recently, in 2003, China's Central Military Commission and Communist Party codified the 'three warfares' as psychological, media and legal operations. Beyond the similarity with Russian views on holistic campaigns that penetrate multiple levels of society, the Deputy Secretary General of the China National Security Forum has noted that, similar to Ukraine, in the Asia-Pacific, '...small to medium scale military conflict or tensions are difficult to completely rule out, particularly given the US soft war of economic penetration and political subversion of China, combined with instigation of proxy warfare against China by neighbouring countries with which it has historical disputes...'.[4]

While hybrid warfare may be a well-worn concept, a new key element in this 'soft war' and the future of hybrid warfare is cyberspace. An expert in the Unit of Engineers in China's National Security Policy Committee points to 'network warfare' (网络战) conducted by the West in Ukraine through its use of cyberspace to: (*a*) control and manipulate public opinion and attack the government; (*b*) con-

[2] Lora Saalman is the Director of and a Senior Researcher in the China and Global Security Programme at SIPRI.

[3] For more information see Saalman, L., 'Little grey men: China and the Ukraine crisis', *Survival*, vol. 58, no. 6, (2016), <http://www.tandfonline.com/doi/abs/10.1080/00396338.2016.1257201?needAccess=true&-journalCode=tsur20>.

[4] 彭光谦 [Peng, G.], '冷战后欧亚大陆首次出现地缘战略逆袭' [The first appearance of geostrategic counterattack in Eurasia following the end of the cold war], 经济导刊 [*Economic Herald*] (July 2014), pp. 85–86.

duct network monitoring and information attacks on government and military systems; and (*c*) provide substantial funding and information to support opposition groups.[5] His use of the term 'warfare' when describing these activities suggests China's application of a broader Russian definition to characterize conflict in cyberspace.

Using this broadened definition of warfare, Chinese experts denounce the negative impact of Western influence through ethnic and religious nationalism and democratic principles that are spread through exchange students, non-governmental organizations and economic interactions in a globalized market economy.[6] These trends are all facilitated by information flows through cyberspace. Over a quarter of the Chinese analyses surveyed cover the role of external propaganda and elections in Ukraine. Some pinpoint how the USA has utilized its own proxies in the form of non-governmental agencies and online propaganda to infiltrate and influence local opinion.[7] Others provide detailed analyses on how Facebook, Twitter, Vkontakte and YouTube, among others, were leveraged for the Euromaidan movement.[8] Given this basis, China and Russia have become increasingly aligned on such issues as Internet sovereignty and the control of information flows.[9]

In fact, experts from China's Second Artillery and the National Security Policy Committee, among others, have directly linked instability in Ukraine to US and European cyberattacks to control and manipulate online content, opposition parties and domestic public opinion.[10] In the face of the revelations of Edward

[5] Yu Zhonghai is a Senior Fellow in the Unit of Engineers in China's National Security Policy Committee. 于中海 [Yu, Z.] ed., 'Ukraine first disintegrated online' [乌克兰首先在网络被瓦解], *Theory Herald* [理论导报], p. 63.

[6] 葛汉文 [Ge, H.] and 丁艳凤 [Ding, Y.], '乌克兰民族主义: 历史演进、政治诉求与极端发展' [Ukrainian nationalism: historical evolution, political demands and extreme development], 俄罗斯研究 [*Russia Studies*], no. 3, June 2014, pp. 62–76; Zhang Yanbing is Deputy Director of the International Institute for Strategic and Development at the School of Public Management. Zeng Zhimin is a graduate student at Tsinghua University. 张严冰 [Zhang, Y.] and 曾志敏 [Zeng, Z.], 乌克兰危机及其对中国发展的启示 [The Ukraine crisis and its impact on China's development], 和平与发展 [*Peace and Development*], no. 1 (Jan. 2015), pp. 72–83.

[7] Zhu Zhihua is Deputy Director of the Association of Contemporary International Studies. 朱志华 [Zhu, Z.], '乌克兰危机背后折射的大国博弈及教训启迪' [Reflections on the great power game and lessons behind the Ukraine crisis], 战略决策研究 [*Strategic Decision Making Studies*], no. 6 (June 2014), pp. 20–29.

[8] Internet Lab consists of Fang Xingdong, Pan Feifei, Liu Kaiguo and Zhang Qing. 方兴东 [Fang, X.], 潘斐斐 [Pan, F.], 刘开国 [Liu, K.] and 张静 [Zhang, Q.], '互联网在乌克兰冲突中的作用' [The use of the Internet in the Ukraine conflict], '警惕社交网络安全风险暗流涌动' [Simmering societal alerts and network security risks], 网事纵横 [*Network Latitude*], 焦点 [*Focus*] (July 2014), pp. 67–71; and Hu Yong and Li Na are affiliated with Peking University's School of Journalism and Communication. 胡泳 [Hu, Y.] and 李娜 [Li, N.], '社交网络与乌克兰抗议运动' [Social networking and the Ukraine protests], 社交媒体与公共事件 [*Social Media and Public Events*], no. 6 (June 2014), pp. 17–24.

[9] '尊重国家网络主权 [Respect National Network Sovereignty], 中华人民共和国 [The People's Republic of China], 17 Feb. 2016, <http://www.gov.cn/zhengce/2016-02/17/content_5042042.htm>; Bazylev, S. I. et al., *The State and Prospects of Russian Military Cooperation on International Information Security*, (Ministry of Defence of the Russian Federation: Moscow:, 2014).; 俞晓秋 [Yu, X.], '新冷战"条件下网络空间的应对之策' [Cyberspace countermeasures under 'new cold war' conditions], 观点 [*Viewpoint*], July 2014, p. 117.

[10] Yang Chengjun holds a doctorate and is a professor and researcher in the Army Research Department of the Second Artillery Command. He has also held affiliations with the Ministry of Foreign Affairs and the National Security Policy Committee, as a PLA reviewer of military discipline, army equipment theorist, missile technology expert, nuclear strategy and arms control expert, military theorist and historian. 杨承军 [Yang, C.], '从乌克兰剧变看网络战对国家安全的影响' [Ukraine's upheaval: viewing the impact of cyberwarfare on national security], 世界观 [World View], 祖国 [*Motherland*], Mar. 2014, pp. 14–15; 于中海 [Yu, Z.] ed., 'Ukraine first disintegrated online' [乌克兰首先在网络被瓦解], *Theory Herald* [理论导报], p. 63.

Snowden on US cyber espionage programmes, the prevailing sense in China is that it remains particularly vulnerable and needs to make advances in not just detection, but also defence, retaliation and offence.[11] These analysts argue that the USA sees China as a 'new rival' (新对手) on a par with or even exceeding Russia, citing Western references to a 'new cyberspace cold war' (网络空间新冷战).[12] In so doing, they mimic Russian sources by referring to threats from 'external cyberterrorism' (外部网络恐怖主义) and 'Western hacker attacks' (西方网络黑客的攻击).[13]

At the national level, Chinese experts decry how the West has used cyberspace to control civilian networks and infrastructure, to demonize national leaders and their policies and to spread rumours that result in ethnic conflicts and social disorder.[14] Zhu Zhihua, Deputy Director of the Association of Contemporary International Studies, highlights how external powers have used such incidents as the 5 July 2009 unrest in Xinjiang, the 3 July 2011 railway incident in Wenzhou and the 8 March 2014 Malaysian Airlines flight disappearance to wage online campaigns to undermine China.[15] Zhu notes that the stronger cyber capabilities of the Five Eyes countries—Australia, Canada, New Zealand, the United Kingdom and the USA—allow them to work in concert with the US Rebalance to the Asia-Pacific to attack the Chinese Communist Party and the Central People's Government from within by fabricating rumours, inciting extreme emotions, intensifying ethnic conflicts and encouraging social chaos.[16]

At the regional level, Chinese analysts see cyberspace as a key mechanism used by the USA to reinforce its hegemonic role, exacerbating a spectrum of concerns over Taiwan, Xinjiang and Tibet, as well as the East China Sea and South China Sea. They argue that China must learn from how the USA and European powers infiltrated and controlled Ukraine's government and military networks. In confronting these threats, Chinese experts emphasize the development of civil-military integration and interoperability in cyber command countermeasures and mitigation techniques, as well as in cyber reconnaissance and cyberattack capabilities.[17] They advocate China strengthen its public and private networks, exert greater control over content and harden its broadband networks to close the technical loopholes used by other countries to undermine China's 'sovereignty security' (主权安全), 'political security' (政治安全) and 'social stability' (社会稳定).

Overall, Chinese analysts note that in the face of Western encirclement on land, sea and now in cyberspace, China must follow Russia's example by placing a greater emphasis on the reputation and modernization of its own military to

[11] 江凌飞 [Jiang, L.], '面对世界乱局,中国要沉着应付' [Facing chaos in the world: China should calmly confront it], 当代世界 [*Contemporary World*] (May 2014), pp. 19–21.

[12] 俞晓秋[Yu, X.], '新冷战"条件下网络空间的应对之策' [Cyberspace countermeasures under 'new cold war' conditions], 观点 [*Viewpoint*] (July 2014), p. 117.

[13] 方兴东 [Fang, X.], 潘斐斐 [Pan, F.], 刘开国 [Liu, K.] and 张静 [Zhang, Q.], '互联网在乌克兰冲突中的作用' [The use of the Internet in the Ukraine conflict], '警惕社交网络安全风险暗流涌动' [Simmering societal alerts and network security risks], 网事纵横 [*Network Latitude*], 焦点 [*Focus*] (July 2014), p. 69.

[14] 于中海 [Yu, Z.] ed. (note 5).

[15] 朱志华 [Zhu, Z.] (note 7).

[16] 朱志华 [Zhu, Z.] (note 7).

[17] 于中海 [Yu, Z.] ed., 'Ukraine first disintegrated online' [乌克兰首先在网络被瓦解], *Theory Herald* [理论导报], p. 63.

ensure its security and national interests. In the words of Chu Maoming, a Counsellor in China's Ministry of Foreign Affairs, China must learn from Russia's actions in Ukraine to be confident in its theory, its path and its system in order to unswervingly forge ahead with its 'emergence' (复兴).[18] To this end, Russia's own prioritization and modernization of its military could be equated with that which Chinese official and non-official discourses label its 'Strong Military Dream' (强军梦), an extension of the 'China Dream' (中国梦).[19]

Cyber convergence

As the China Dream and Strong Military Dream play out in cyberspace, China's and Russia's tactics and strategies are showing signs of convergence. Beyond China's alleged use of what could be deemed their own variant of 'little green men' with nomads and paramilitaries at land borders, or 'little blue men' with fishermen and coastguard vessels at maritime borders,[20] Chinese and Russian views are becoming increasingly aligned on cyberspace, which cuts across both spheres. The holistic nature of cyberspace lends itself to more pervasive and ultimately punishing political, economic and military campaigns against broader populations and non-combatants.

Moreover, non-combatants do not exist in cyberspace, making it the perfect environment to carry out hybrid warfare. Despite the centrality of this sphere for future proxy activities, it remains the least understood.[21] This is, in part, due to the difficulty of attribution and the number of patriotic hackers and proxy entrants in this field. Determining whether actions are those of a proxy individual or group as

[18] 方兴东 [Fang, X.], 潘斐斐 [Pan, F.], 刘开国 [Liu, K.] and 张静 [Zhang, Q.] (note 13), p. 71.

[19] The increase in the use of the term 'emergence' (*fuxing*) in connection with both China and Russia is noteworthy, since it indicates not only greater connectivity between the two but also how 'rise' (*jueqi*) has increasingly fallen out of favour in describing China. Chu Maoming is a Counsellor in China's Ministry of Foreign Affairs. 储茂明 [Chu, M.], '乌克兰危机与中国的选择' [The Ukraine crisis and China's options], 战略决策研究 [*Strategic Decision Making Studies*], no. 3 (Mar. 2014), p. 11.

[20] 储茂明 [Chu, M.] (note 19); Zhang Jinying is affiliated with Unit 69223 as a Deputy Political Teacher and as a PhD candidate at Xian's Political School. Nan Weihua is an instructor at the Academy for Boder Defence and Training. 张金英 [Zhang, J.] and 南卫华 [Nan, W.], '强军兴军是中国军队的唯一选项-乌克兰动荡的反思' [Building a powerful army is the only option for the Chinese military: Reflections on Ukraine's turmoil], 军事政治学研究 [*Military Political Study*], no. 1 (Jan. 2014), pp. 146–49; and '2015中国国防白皮书 "中国的军事战略" (全文)' [China's 2015 National Defence White Paper, 'China's Military Strategy' (Complete Text)], 中国日报 [*China Daily*], 26 May 2015, <http://world.chinadaily.com.cn/2015-05/26/content_20821000.htm>.

[21] *Express Tribune*, 'Chinese pressure sees Pakistan mull constitutional status of Gilgit-Baltistan', 7 Jan. 2016, <http://tribune.com.pk/story/1023523/chinese-pressure-sees-pakistan-mull-constitutional-status-of-gilgit-baltistan>; Lam L., 'The thugs of mainland China', *New Yorker*, 8 Oct. 2014, <http://www.newyorker.com/news/news-desk/thugs-mainland-china-hong-kong-protests>; Porter, T., 'Hong Kong: "hired Triad thugs attacked demonstrators" claims legislator', *International Business Times*, 4 Oct. 2014, <http://www.ibtimes.co.uk/hong-kong-hired-triad-thugs-attacked-demonstrators-claims-legislator-1468529>; Popham, P. and Legge, J., 'Beijing allegedly call hired thugs to incite Hong Kong riots', *Morning Bulletin*, 4 Oct. 2014, <http://www.themorningbulletin.com.au/news/beijing-allegedly-call-hired-thugs-incite-hong-kon/2408957/#/0>; Rajagopalan, M., 'China trains "fishing militia" to sail into disputed waters', *Reuters*, 30 Apr. 2016, <http://www.reuters.com/article/us-southchinasea-china-fishingboats-idUSKCN0XS0RS>; Bussert, J., 'Chinese maritime assets enforce ocean territorial claims', *Signal Magazine*, 1 July 2014, <http://www.afcea.org/content/?q=chinese-maritime-assets-enforce-ocean-territorial-claims>; and Leaf, P., 'Learning from China's oil rig standoff with Vietnam', *The Diplomat*, 30 Aug. 2014, <http://thediplomat.com/2014/08/learning-from-chinas-oil-rig-standoff-with-vietnam>.

opposed to a military or government remains difficult. This is a point frequently made by Chinese analysts such as Dong Qingling at Beijing's University of International Business and Economics when discounting allegations against Russia and China, pertaining to alleged cyber intrusions and cyberattacks in Ukraine or on other networks.[22]

With the enhancement of forensics, such dilemmas could diminish in the future. In the meantime, civilian and military analysts in China have pushed for and made improvements to cybersecurity, military and civilian integration and legal structures, and enhanced regulation of and joined up working on cyberattack and defence mechanisms.[23] They have also advocated comprehensive cyberwarfare practices that emphasize counterattack capabilities and interference, as well as improved protection and monitoring of networks through defensive and offensive exercises.[24]

There are also indications that China's integration of proxies into information operations is already under way, with the alleged involvement of domestic universities, foundations and industries—thought to often have support from the PLA or Ministry of State Security—in broader campaigns that intrude on networks of multiple countries in South East Asia and South Asia, as with Advanced Persistent Threat 30 (APT30).[25] The latter series of incidents, alleged given its scope duration and focus on the South China Sea to have originated from within China, lasted over 10 years and compromised government, media and industry in 17 countries.[26]

[22] Wang Zhijun is a Professor of International Law in the Department of Military and International Law. Zhang Yaowen is a lecturer in the Department of Military Law and International Relations at the Nanjing Army Command College. 王志军 [Wang, Z.] and 张耀文 [Zhang, Y.], '西方地缘战略理论批判与中国地缘战略理论构建' [Critique of Western geostrategic theory and construction of China's construction geostrategic theory], 学术探索 [*Academic Exploration*], no. 2 (Feb. 2015), p. 32.

[23] Based on a Chinese-language panel moderated by Lora Saalman on '网络安全与军备控制' [Cyber Security and Arms Control] at Tsinghua University's [2016年政治学与国际关系学术共同体会议' [2016 Annual Conference of the Chinese Community of Political Science and International Studies], '三月国际网络和信息安全发展动态' [March International Networks and Information Security Developments], 信息安全与通信保密 [*Information Security and Communications Privacy*], no. 4 (Apr. 2014), pp. 14–17.

[24] Chen Hongchao, Duan Benqin and Li Tao are affiliated with the 1st Military Representatives Office of the Communications Division at PLA General Staff Headquarters in Tianjin. 陈洪超 [Chen, H.], 段本钦 [Duan, B.] and 李涛 [Li, T.], '21世纪战争新概念-网络战' [New concept of wars in the 21st century: network war], 军事通信技术 [*Journal of Military Communications Technology*], no. 4 (Apr. 2001).

[25] 于中海 [Yu, Z.] (note 17); 马良荔 [Ma, L.], 吴清怡 [Wu, Q.], 苏凯 [Su, K.] and 任伟 [Ren, W.], eds, '物联网及其军事应用' [*The Internet of Things and its Military Applications*], (北京: 国防工业出版社 [Beijing: National Defence Industry Press], 2014), p. 187; Zhang Yongjun is affiliated with the Shaanxi Fenghuo Communication Group Co., Ltd. 张勇军 [Zhang, Y.], '物联网及其军事应用' [Internet of Things and its Military Applications], 智能处理与应用 [Intelligent Processing and Application], 物联网技术 [*Internet of Things Technology*], no. 7, 2012, pp. 77–79; 郭若冰 [Guo, R.], 军事信息安全论 [*Military Information Security Theory*], (北京: 国防大学出版社 [Beijing: National Defence University Press, Jan. 2013]), p. 101; 唐跃平 [Tang, Y.], 赵伟峰 [Zhao, W.], 谷麦征 [Yu, M.], 孙建 [Sun, J.], 韩平 [Han, P.], 唐晓婧 [and Tang, S.], 科技信息云服务及军事应用 [*Science and Technology Information of Cloud Services and Military Applications*], (北京: 国防大学出版社 [Beijing: National Defence University Press, Jan. 2015]), p. 258; 宋忠平 [Song, Z.], 大国武器 [*Major Power Weapons*], (北京: 新世界出版社 [Beijing: New World Press, Sep. 2013]); and 宋航 [Song, H.], 物联网技术及军事应用 [*Internet of Things: Technology and its Military Use*], (北京: 国防工业出版社 [Beijing: National Defence Industry Press, 2013]), p. 140.

[26] FireEye, 'APT30 and the mechanics of a long-running cyber espionage operation: how a cyber threat group exploited governments and commercial entities across South East Asia and India for over a decade' (Apr. 2015), <https://www2.fireeye.com/rs/fireye/images/rpt-apt30.pdf>; and Krekel, B., Adams, P. and Bakos, G., 'Occupying the information high ground: Chinese capabilities for computer network operations and cyber espionage', Paper prepared for the US-China Economic and Security Review Commission by

Much like hybrid warfare in the Russian context, which prioritizes controlling and shaping the flow of information, such campaigns are likely to become more common in the future. They allow for military operations short of war and for information to be leveraged prior to and during conflict. They take forward the US model studied from the first Iraq war of Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) and look to shape it to Chinese requirements both on and off the battlefield. Since cyberspace does not discriminate in the same way between combatants and non-combatants, this new realm of engagement allows for a 24/7 campaign.

The connectivity of persistent multi-layered tactics, cyber command countermeasures and cyberattack capabilities between China and Russia also appears to be growing. Similar malware campaigns are alleged to have emerged from within both China and Russia with an emphasis on using spearphising, man-on-the-side, man-in-the-middle and watering-hole attacks to exploit browser, VPN and social engineering vulnerabilities.[27]

Among these, a 2015 distributed denial of service (DDoS) attack allegedly using an Adobe Flash vulnerability was conducted against the website of the Permanent Court of Arbitration at The Hague, while adjudicating the Philippines' case against China on the South China Sea.[28] Although often considered a nuisance attack to take down systems, this type of DDoS attack can also be used to weaken the perimeter of the system to gain access and to potentially exfiltrate information. While differing in tactic, the nature of this incident is comparable with a 2015 intrusion and theft of data allegedly using a fake VPN server against the Dutch Safety Board investigating the MH17 crash, which was thought to have come from the hacker group Pawn Storm in Russia.[29]

By 2016, the mass theft of data from the Democratic National Committee, comparable to the exfiltration of an estimated 25 million US employees' clearance data from the US Office of Personnel Management discovered in 2015, highlighted again a basic form of cyber intrusion—spearphishing and remote access Trojans—as an inroad to domestic crises of confidence, damaged political systems and potential future blackmail.[30] From The Hague to Washington, DC, these cases illustrate

Northrop Grumman Corporation, 7 Mar. 2012, <http://nsarchive.gwu.edu/NSAEBB/NSAEBB424/docs/Cyber-066.pdf>.

[27] The countries thought to have been compromised by the APT30 campaign are Bhutan, Brunei, Cambodia, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, the Philippines, Saudi Arabia, Singapore, South Korea, Thailand, the USA and Viet Nam.

[28] Spearphishing constitutes email fraud that targets an individual or organization to gain unauthorized access to confidential data. A man-on-the-side attack and a man-in-the-middle attack are similar. However, in the former case, rather than controlling a network node as in the latter case, the attacker has regular access to the communication channel, allowing him or her to read the traffic and to insert new messages, rather than modifying or deleting messages sent by other participants. A watering-hole exploit compromises a specific group of end users by infecting websites that members of the group are known to visit, so that the attacker can gain access to the network at the target's place of employment.

[29] TruShield, 'Nation-state sponsored cyberwarfare campaign', 2 Nov. 2015, <https://trushieldinc.com/wp-content/uploads/2015/11/TS_Advisory_11022015_AD.pdf>.

[30] Hacquebord, F., 'Pawn storm targets MH17 investigation team', *TrendMicro*, 22 Oct. 2015, <http://blog.trendmicro.com/trendlabs-security-intelligence/pawn-storm-targets-mh17-investigation-team/>.

organizations and individuals with a politically and legally significant impact on China and Russia finding themselves subject to cyber intrusion and cyberattack.

Other similar malware campaigns thought to emanate from within China and Russia include the Clandestine Fox and Russian Doll, which are both thought to exploit spearphishing campaigns and Adobe Flash vulnerabilities to target aerospace and defence, construction and engineering, high-tech industry, telecommunications and transport infrastructure.[31] In these cases, the tactics and intent behind the campaigns are not only convergent, but also likely to become increasingly commonplace. The challenges associated with identification of the perpetrators—whether at the technical attribution level or the political diplomatic level—suggest that cyberspace will be the crux of future hybrid warfare.

An example of how this future is expanding from simple data exfiltration to kinetic attacks on critical infrastructure came in a 2015 cyberattack on electricity utilities in Ukraine. Forensic reports on the malware, staging and coordination suggest that the hackers were either based in or supported by Russia.[32] DarkEnergy malware, used in combination with denial of service attacks and the wiping tool KillDisk, not only cut electricity for an estimated 225 000 people, but also created an air of confusion and panic over the restoration of services among providers and users. Studies suggest that the motivation behind the attack was not simply to test out the ability to comprehensively take down critical infrastructure, but also to elicit embarrassment.[33]

Thus, while this campaign lasted only four hours and was mitigated in part by the ability to use the analogue equipment in the facilities to restore functionality, it is telling how cyberattacks can be used in broader campaigns to cut vital services to a populace and to raise questions over the competence of first responders and the respective government. Given the level of penetration of such campaigns as APT30 into South East Asia and South Asia, the likelihood of similar tactics appearing in the Asia-Pacific region is high. Whether from government entities or patriotic hacker proxies, campaigns that target the entirety of society can greatly supplement the conduct of more conventional military campaigns by supporting a shutdown not only of basic services, but also of critical infrastructure from electricity plants to nuclear facilities.[34]

[31] Fisher, M., 'Why security experts think Russia was behind the DNC breach' *The Interpreter* in *New York Times*, 26 July 2016, <http://www.nytimes.com/2016/07/27/world/europe/russia-dnc-hack-emails.html>; *Wired*, 'Here's what we know about Russia and the DNC hack', 27 July 2016, <https://www.wired.com/2016/07/heres-know-russia-dnc-hack>; and *Threat Connect*, 'OPM breach analysis' (2015), <https://www.threatconnect.com/blog/opm-breach-analysis-update>.

[32] FireEye, 'Pinpointing targets: exploiting web analytics to ensnare victims' (Nov. 2015), <https://www2.fireeye.com/rs/848-DID-242/images/rpt-witchcoven.pdf>.

[33] SANS Institute Industrial Control Systems and the Electricity Information Sharing and Analysis Centre, 'Analysis of the cyber attack on the Ukrainian power grid: defence use case', 18 Mar. 2016, pp. 1–23, <https://ics.sans.org/media/E-ISAC_SANS_Ukraine_DUC_5.pdf>.

[34] SANS Institute Industrial Control Systems and the Electricity Information Sharing and Analysis Centre (note 33).

Takeaways

Currently, China's rhetoric and activities do not meet the level of violence found in the 'little green men' litmus test of the proxy war that Russia has allegedly waged in Ukraine. Nonetheless, enough parallels have been drawn by China's own academics, engineers, military personnel and officials to suggest that China may transform this model and craft it into a more penetrating and persistent campaign.

Beyond the terrestrial and maritime implications of this methodology, confrontation in cyberspace poses new challenges for how analysts define and confront hybrid warfare. Arguments emanating from China on how it is being targeted with propaganda and destabilizing influences from cyberspace and civil society are often a mirror image of what is being alleged by Russia.

Both find the US 'dark hand' (黑手) to be manipulating public sentiment and conditions on the ground, whether on Ukraine or the South China Sea. Given their solidarity and concerns over this 'interference' (干涉) in their own domestic and regional spheres, it should not come as a surprise if China's own tactics and responses increasingly fall along similar lines to those of Russia.[35] Moving beyond appreciation of Russia's willingness to stand up to the USA, Chinese adaptation to Russia's alleged tactics and strategy on hybrid warfare is likely to increase.

[35] For more information see Saalman, L., 'Pouring "new" wine into new bottles: China–US deterrence in cyberspace', *Seton Hall Journal of Diplomacy and International Relations* (Fall/Winter 2015).

9. Creating Frameworks to Confront Terrorism in Central Asia

This chapter uses two separate prisms to build an analytical framework for understanding counterterrorism trends in Central Asia. Iskander Akylbayev provides an overview of the terrorism-related challenges faced by regional powers. He argues that rather than China replacing Russia or the two countries engaging in a division of labour, Central Asia would benefit most from 'inclusive responsibility', involving active engagement by both countries that is responsive to the inputs of regional powers. Zhang Weipeng provides a systematic breakdown of terrorism trends in each state in the region, arguing that the Shanghai Cooperation Organization (SCO) continues to play a vital role in establishing the 'rules of the game' and the institutionalism needed to combat terrorism.

9.1. Iskander Akylbayev[1]

Introduction

Russia and China's shared interest in a stable Central Asia is not new. Both players are trying to increase their bilateral ties through security agreements and multilateral mechanisms. At the same time, these two countries share a mutual understanding of the importance of limiting the US presence in the region. Indeed, during the Brazil, Russia, India, China and South Africa (BRICS) Summit in October 2016, China's President, Xi Jinping, and Russia's President, Vladimir Putin, stressed that no power would be allowed to interfere in Central Asian affairs.[2] However, such pronouncements may increasingly be affected by events on the ground.

Central Asia's security environment

The terrorist attacks in Kazakhstan in the summer of 2016, considered to be the most stable and prosperous state in Central Asia, followed by the assault on the Chinese Embassy in Kyrgyzstan, exposed the vulnerability of the domestic and regional security environment. These activities, accompanied by the ongoing political instability in Afghanistan, Taliban activity at the border with Tajikistan and Uzbekistan and the limited presence of the Islamic State of Iraq and Syria (ISIS), raise serious security questions among geopolitical heavyweights such as Russia and China.

One of the greatest concerns of the Russian, Chinese and Central Asian elites is the possible return of combat-trained foreign fighters. They are also plagued

[1] Iskander Akylbayev is a Researcher in the Department of Foreign Policy and International Security at the Kazakhstan Institute for Strategic Studies.

[2] [Putin discusses Syria with Xi Jinping], Gazeta.ru, 15 Oct. 2016, <https://www.gazeta.ru/politics/news/2016/10/15/n_9222863.shtml> (in Russian).

by the continuing security turmoil and political instability in Afghanistan. While the ongoing conflicts in Syria and Iraq attract most of the international security attention, a number of Central Asian countries remain prone to radicalism and outbreaks of terrorism. As the situation in the Middle East changes, there is a real possibility of a return of foreign fighters to Central Asia. In fact, the June 2016 attack at Atatürk airport in Istanbul and the January 2017 attack on the famous Turkish club, 'Reina', demonstrate a growing trend for Central Asian fighters to become more actively involved in terrorist activities abroad, specifically in Turkey.

For the Central Asian states, the main threat is the penetration of militants into the war zone and their potential return to Central Asia. In both cases, Turkey is one of the key points of transit. This process is simplified by the visa-free policy between Turkey and the countries of the region. The deterioration in the internal security situation in Turkey, since the failed coup and related drastic changes in the security and military agencies, cannot be ignored. The very fact of participation by Central Asian citizens in the fighting in Syria and Iraq on the side of al-Qaeda or ISIS signals the increased attention of major terrorist groups on the Central Asia region.

While the Central Asian states tend to differ in their approach to military and terrorist operations, the potential remains for their citizens to rise to key positions in the hierarchy of al-Qaeda or ISIS. As this occurs, there is a real danger that these groups will start to reorient towards Central Asia. For regional elites, Afghanistan is still perceived through a lens of instability and danger. The political situation remains tense and military activities by the Taliban in Afghanistan's northern, eastern and southern border provinces also meet a limited presence of al-Qaeda and ISIS supporters.

Given this proximity and their aims, there are elements of competition between the Taliban and ISIS in Afghanistan. In many cases this rivalry is overestimated, since in contrast to the long-established authority of the Taliban, ISIS has less of a base for its activities in the area. However, even light competition between the two organizations motivates the Taliban to evolve its tactics and expand its use of technology in its military actions. At the same time, the uncertain state of the coalition government, delays in holding parliamentary and local elections, as well as the ongoing tensions among elites represent a serious test for the country. Military and political instability in Afghanistan will remain the focus of international attention. Despite the US tendency to group it with South Asia, the global focus on Afghanistan actualizes the regional security agenda for Central Asia.

Shifting security guarantees

By combining increasing security challenges in Central Asia with Russia's gradual economic stagnation and its difficult relations with the West, China is seeking to gradually upgrade its status in the regional security framework. China's recent activity in security affairs challenges the established notion of the 'division of labour', in which Russia acts as the security guarantor and China is responsible for economic development in Central Asia. There has been a gradual transfor-

mation of China from a mainly economics-oriented to a more security-conscious power.

Among these developments, China and Tajikistan agreed in 2016 to establish a bilateral counterterrorism centre in Dushanbe. Tajik–Chinese cooperation also led China to announce plans to build military outposts on the Tajik–Afghan border. In August of the same year, China set up a counterterrorism cooperation mechanism in Urumqi, with the participation of Pakistan, Afghanistan and Tajikistan. Despite the continuing deadlock in the Afghan peace talks, China's membership of the Quadrilateral Coordination Group demonstrates its willingness to engage with other significant powers on the question of Afghanistan's future.

China also has its own channels for negotiating with the Taliban, and periodically invites its members for talks in Beijing. More worrying for Russia, however, is the fact that China may also be gradually moving into the arms market, which used to be dominated by Russia. In 2015, China reportedly supplied Turkmenistan and Uzbekistan with the HQ-9 air defence system for the first time. After the night club attack in Istanbul, China stressed that East Turkistan Uighur fighters may also have been connected with it. Given the intersection between China's domestic, regional and international security, it is anticipated that China will become an increasingly assertive player in the counterterrorism sphere in Central Asia.

Takeaways

For Central Asian states, a change in the regional status quo in which China replaces Russia is not an ideal option, nor is the concept of 'a division of labour' match Central Asian aspirations. It will be more important to establish 'inclusive responsibility', where both Russia and China play a more comprehensive role in Central Asia. Meanwhile, the power transition in Uzbekistan and the growing trend for soft rapprochement in the regional polity and civil society have the potential to encourage more robust inter-regional security cooperation. Central Asian elites must become indispensable partners for both powers. Under a more integrated regional security approach, all Central Asian stakeholders could more actively define their own positions in this scheme and engage with Russia and China in a more balanced way.

9.2. Zhang Weipeng[3]

Introduction

China–Russia relations have been put on a fast track. They share broad common interests and shoulder important responsibilities in safeguarding peace and stability. In this regard, the signature by Russia's Prime Minister, Dmitry Medvedev, and China's Prime Minister, Li Keqiang, of the Joint Communiqué of the 21st Reg-

[3] Zhang Weipeng is a Visiting Scholar at the University of Copenhagen and a PhD candidate at Zhejiang University in China.

ular Meeting on 18 November 2016 was an important milestone. China and Russia face many new but similar counterterrorism challenges in Central Asia.

The Shanghai Cooperation Organization (SCO) has historically served as an effective framework, but terrorist threats continue to proliferate. In China, the border areas have seen increases in terrorist activity that have adversely affected the national economy. For Russia, terrorism, separatism and extremism all threaten its border security. It is therefore necessary to promote the exploration of cooperation institutions based on mutual trust among China, Russia and Central Asian countries.

New characteristics and tendencies of terrorism

Terrorism constitutes organized or calculated violence that harms innocent civilians, causes panic and threatens society for political purposes. It has become one of the most threatening non-traditional global security issues, cutting across geopolitics, culture, politics, economics and social psychology. The structural violence that results has had a deep influence on the political ecology of Central Asia. Despite the long-standing nature of terrorism, three new characteristics have emerged in the Central Asian context.

First, the adaptability and expansiveness of terrorist organizations bridge regions and even, at times, religious doctrines. With the emergence of such groupings as ISIS, global terrorism and violence have reached unprecedented levels of cruelty. Such groups aspire to create their own state and seek to consolidate their influence. Despite their frequent geographic attachment to Iraq and Syria, even in their name, Central Asia remains a target for expansion.

Second, terrorists are updating their operational methods. Among the increasingly common set of tactics are 'lone wolf' attacks carried out by individuals, 'wolf pack' attacks involving small groups, and 'multi-point serial' attacks, which constitute a series of operations. Uniting these methods is an increasingly strategic rationale that allows terrorist campaigns to morph over time and spread without the organization necessarily having to travel to remote destinations to carry out attacks.

Third, the return of foreign fighters to their countries of origin poses challenges in terms of outmoded legal frameworks and detection methods. Even for those individuals who have not travelled abroad, the suppression of domestic recruiting activities by international terrorist organizations using social networks and emissaries sent to Central Asia is difficult. Given these new trends, table 9.2.1 provides an overview of the challenges in each country and their current proposed political and legal remedies.

Engagement with counterterrorism in Central Asia

Counterterrorism activities under the SCO are not a product of strategic competition, but rather the outcomes of strategic cooperation. This security mechanism provides its two main members, China and Russia, with a means to coexist in

Central Asia. There is no denying that Central Asia is viewed as Russia's sphere of influence, but it is also a key outpost of China's Silk Road Economic Belt (SREB). The enactment of declarations, statements, treaties and conventions within the framework of the SCO promotes the 'rules of the game' and an institutionalism that guarantees China–Russia security relations and the success of such projects as the land-based SREB.

Furthermore, the 'wider' conceptualization of security by the SCO, which focuses on non-traditional security threats rather than military threats between states, is emphasized in all SCO statements and programmes. The regional threat of terrorism has long been the primary target of the organization, which benefits Central Asia. Since the first joint military exercises in the border areas between China and Kyrgyzstan were held in 2002, more than 20 bilateral and multilateral counterterrorism exercises have been conducted within the framework of the SCO. Moreover, the counterterrorism centre in Bishkek, combined with a range of member state agreements, serves as an integral base for joint activities

As China's SREB strategy proceeds, the SCO has enriched cooperation to better realize the organization's economic potential and advance common interests. Central Asia is an overlapping area of the China-led SREB and the Russia-led Eurasian Economic Union (EAEU), meriting the protection of increasing numbers of migrants from and projects by both countries. These migrants can be the target of terrorist attacks or recruitment. Therefore, a transformation of police cooperation is imperative and should include the construction of information sharing platforms, safety monitoring mechanisms, early warning systems, joint police training programmes and coordinated efforts to block terrorist funding.

Formulas and spillover in future engagement

Terrorism is one of the most severe non-traditional security issues in Central Asia. In the light of this fact, the following equation merits greater consideration: S×C=E×R, where S stands for 'scope', meaning the scale of issues; C stands for 'coverage', meaning those affected; E stands for 'effectiveness' and R for 'resources'. Using this formula as a guide, counterterrorism requires the expansion of cooperation among regional leaders to pool resources and to increase political will. This approach plays out in numerous domains, including cybersecurity. Russia is particularly adept at leveraging cyberspace to counter threats to the state, preserve economic and social security, and combat terrorism and other criminal threats.[4]

Using this baseline, China has also increasingly sought to use cyberspace in its counterterrorism efforts. China's Huawei Technologies and Lenovo have begun cooperation with Russia's Rostelecom and Bulat on servers and data store systems as well as other technologies applicable to China's counterterrorism laws.[5]

[4] Russian Ministry of Foreign Affairs, *Foreign Policy Concept of the Russian Federation*, 1 Dec. 2016, <http://www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptICkB6BZ29/content/id/2542248>.

[5] For more information on the interaction between China's counterterrorism law and cyberspace, see the following English-version of the draft law, which is linked to the Chinese-version of the final law. China

Table 9.2.1 Characteristics of terrorism and counterterrorism in Central Asia

Foreign policy	Terrorism situation	Countermeasures
The Republic of Kazakhstan		
Balanced, peaceful diplomatic strategy; Prioritizes relations with Russia, China, the USA, Islamic countries; and Expanding exchange with Asia-pacific states; 'Path of Light' Plan	'Yellow' security risk warning; Traditional domestic terrorist forces; Permeability to international terrorist organizations, such as ISIS; 'Three Evils', forces of ethnic separatism, religious extremism and violent terrorism; and Transmission of extremist thought and recruitment of members through the Internet, including to women and children	Draft State Programme on Counteracting Religious Extremism and Terrorism for 2013-2017; Regional security cooperation, SCO (Shanghai Convention on Combating Terrorism, Separatism and Extremism), Collective Security Treaty Organization (CSTO); and 64 acts of terrorism were stopped in 2011–16[a]
The Kyrgyz Republic		
Balanced, pragmatic foreign policy; and Developed relations with Commonwealth of Independent States, big powers	'Three Evils', forces of ethnic separatism, religious extremism and violent terrorism (Islamic Movement of Uzbekistan, Turkistan Islamic Party, Hizb ut-Tahrir al-Islami); Separatism linked to large numbers of cross-border nationalities; and Unstable southern border with Tajikistan and Afghanistan	Regional security cooperation, SCO (Shanghai Convention on Combating Terrorism, Separatism and Extremism, Centre for Anti-terrorism in Bishkek), CSTO; and Supplement and amendment to Kyrgyz legislation on measures of anti-terrorism and anti-extremism
The Republic of Tajikistan		
Open-door policy, foreign policy strategy of balance of power; and Developed relations with Commonwealth of Independent States, big powers	'Three Evils', forces of ethnic separatism, religious extremism and violent terrorism (Islamic Movement of Uzbekistan, Hizb ut-Tahrir al-Islami, Allah believer community); Separatism linked to cross-border situation of the Tajik nationality in Uzbekistan; Unstable situation of the southern border with Tajikistan and Afghanistan, many small terrorists groups, poverty; and Transmission of extremism and recruitment through the Internet	Regional security cooperation, SCO (Shanghai Convention on Combating Terrorism, Separatism and Extremism, Centre for Anti-terrorism in Bishkek), CSTO; Anti-terrorism law; and Law of Freedom of Religious Belief and Religious Organizations

Foreign policy	Terrorism situation	Countermeasures
The Republic of Uzbekistan		
Balanced geopolitical and diplomatic strategy; Developed relations with Russia; Sophisticated relations with other Central Asian countries; and Attaches importance to relations with the United States	Three Evils', forces of ethnic separatism, religious extremism and violent terrorism (Islamic Movement of Uzbekistan, Hizb ut-Tahrir al-Islami); and Separatism linked to cross-border situation	Regional security cooperation, SCO (Shanghai Convention on Combating Terrorism, Separatism and Extremism); and SCO Regional Anti-terrorism Institute in Tashkent
Turkmenistan		
Permanent neutrality; and Multiple Balance Diplomacy	'Three Evils', forces of ethnic separatism, religious extremism and violent terrorism (Islamic Movement of Uzbekistan, Hizb ut-Tahrir al-Islam); and Separatism linked to conflicts between main ethnic groups and smaller ethnic groups	Regional security cooperation
The Islamic Republic of Afghanistan		
Attaches importance to relations with surrounding countries; and Limits foreign interference in internal affairs	Ceaseless civil war; Output of radical Islamist forces; Severe problems with separatism; Taliban forces; and Branches of ISIS	Management and control is weak; and Regional security cooperation, SCO (Shanghai Convention on Combating Terrorism, Separatism and Extremism)

[a] 汪嘉波 [Wang Jiabo], '哈国近5年制止64起恐袭预谋' [Kazakhstan has stopped 64 premeditated attacks in nearly five years], 光明日报 [*Guang Ming Daily*], 23 Sep. 2016, <http://epaper.gmw.cn/gmrb/html/2016-09/23/nw.D110000gmrb_20160923_7-12.htm>.

Source: The author.

This demonstrates the advantages of technical cooperation in arenas that include Internet monitoring, data collection and combatting terrorist recruitment through social media. Combined with education from books, videos, images, memoirs and interview notes,[6] these cyberspace tools offer greater national penetration to demonstrate the damage wrought by terrorism.

Law Translate, 'Counterterrorism law (Initial draft)', 11 Aug. 2014, <http://www.chinalawtranslate.com/ctldraft/?lang=en>; and Blanchard, B., 'China passes controversial counter-terrorism law', *Reuters*, 28 Dec. 2015, <http://www.reuters.com/article/us-china-security-idUSKBN0UA07220151228>.

[6] Hansen, L., *Security as Practice: Discourse Analysis and the Bosnian War* (Routledge: Oxford, 2006), pp. 49–55.

Takeaways

Relations between China and Russia serve as the guarantee of the SCO and their engagement has a substantial impact on counterterrorism. Nonetheless, as table 9.2.1 shows, each Central Asian country has its own characteristics in terms of counterterrorism that must be integrated into and correlated with Chinese and Russian national security and grand strategies. The SCO is the best framework for this approach. It has remained effective, despite the role of the USA and competition between the BRI and the CSTO. To mitigate the impact of externalities on the effective functioning of counterterrorism cooperation in Central Asia, it is essential to map out these relationships and better understand the convergences and divergences of approach.

10. Exploring Security Engagement with Pakistan and Afghanistan

This chapter provides an in-depth view of the central role that Afghanistan and Pakistan play in regional security, combined with the shifting geopolitics that are altering their ties to Russia and China. B. K. Sharma provides a detailed analysis of regional counterterrorism alignments, with insights into new formations, such as the China–Russia–Pakistan Summit, and their implications for India. Sitara Noor continues this discussion of new groupings by analysing the drivers behind Russia's growing outreach to Pakistan. While she concludes that this shift is more tactical than strategic, she notes that Russia's likely support for the China–Pakistan Economic Corridor (CPEC) could expand its ties with both Pakistan and China.

10.1. B. K. Sharma[1]

Introduction

The Afghanistan–Pakistan region and its neighbourhood form part of the same strategic space. The 'Old Silk Route' was a conduit for shared prosperity and cross-fertilization of faiths and civilizations among the Indian sub-continent, Central Asia, West Asia and China. Since the dawn of history, the region has witnessed many invasions of the subcontinent. The region was the scene of Great Game in the 19th century between Great Britain and Russia. By the 20th century, asymmetric conflict between the Saudi Arabia–Pakistan–United States axis and the Soviet Union legitimized the use of Islamist Jihad as state policy. Since then, the region has become the epicentre of international terrorism, posing a grave risk to regional and global security.

On the positive side, the Afghanistan–Pakistan region forms a strategic bridge between Eurasia and South Asia, connecting the two regions through an emerging network of trade and energy corridors. The Silk Road Economic Belt (SREB), the 21st Century Maritime Silk Road (MSR), CPEC, the International North-South Transport Corridor, the Chabahar-Zaranj-Delaram-Central Asia Axis, and the Turkmenistan–Afghanistan–Pakistan–India and Iran–Pakistan–India and Central Asia-South Asia power grids all constitute projects that can promote peace and prosperity in the region. However, in the face of an inability to curb terrorism, the risk of state collapse and inter/intrastate conflicts in the region will increase.

Ecology of terror in the Afghanistan–Pakistan region

Given its ranking on indices of global terrorism, human development and fragile states, the Afghanistan–Pakistan region is particularly vulnerable to the spread of

[1] B. K. Sharma is Deputy Director of Research and Head of the Centre for Strategic Studies and Simulation at the United Service Institution of India.

terrorism.[2] According to a US Department of Defense briefing of December 2016, of the 98 US-designated terrorist groups globally, 20 are in the Afghanistan–Pakistan region.[3] These groups are adherents of a militant Salafi-Wahabi ideology that seeks to establish a Caliphate of Khorasan, a mystical state encompassing the territories of Afghanistan–Pakistan, the Indian subcontinent and Central Asia. Jihadis are following the concept of 'Takfeer', an aggressive form of Jihad that propagates the killing of apostate and non-Sunni Muslims. There are many radical Islamist groups active in the region with bases in Afghanistan, China, Iran, Pakistan, Central Asia and the Caucasus.[4]

Using a strategy of protracted warfare, these groups use a variety of methods and funding sources, including suicide attacks, cyberterrorism, narcoterrorism, charity donations, the drugs trade, extortion, illegal arms trades and fake currency, and possess an ever-expanding potential to use other tactics even including nuclear terrorism. Among the various groups, the Islamic State of Iraq and Syria (ISIS) appeared in the region in 2014. It had an estimated strength in Afghanistan of 1000–3000 fighters in 2015,[5] primarily comprised of defectors from Tehrik e Taliban of Pakistan, elements of the Islamic Movement of Uzbekistan and other foreign militant groups.

General John W. Nicholson, Commander of Resolute Support and US Forces Afghanistan, has asserted that the Islamic State of Khorasan Province (ISKP) wants to set up a Caliphate in Nangarhar and Kunar provinces, with the help of migrant fighters from Iraq and Syria. Nonetheless, there are simmering differ-

[2] Afghanistan ranks second and Pakistan 13th when it comes to global terrorism, compared with India's rank of 16th, China's 22nd and Russia's 23rd. Even more tellingly for stability in the region, Iraq and Syria stand at first and fourth in the global terrorism rankings, propelling the spread of ISIS into Afghanistan and Pakistan. Combined with the Ferghana Valley in Central Asia, which is another potential future bastion of Jihadi terrorism, the countries in this region are also vulnerable due to their position on the human development index. Out of 187 countries, Afghanistan stands at 169th, Pakistan 146th, Uzbekistan 116th, Kyrgyzstan 125th and Tajikistan 133rd. In terms of fragile states, Afghanistan ranks ninth, Pakistan 14th, Uzbekistan 60th, Kyrgyzstan 64th and Tajikistan 58th. They also perform poorly on economic indicators and corruption rankings, making the region fertile ground for the spread of terrorism. 'Global Terrorism Index 2016', <http://economicsandpeace.org/wp-content/uploads/2016/11/Global-Terrorism-Index-2016.2.pdf>; 'UNDP Report, 2013–14', <http://hdr.undp.org/en/content/table-1-human-development-index-and-its-components>; 'Fragile State Index, 2016', <https://en.wikipedia.org/wiki/List_of_countries_by_Fragile_States_Index#2016>.

[3] Nicholson, J., 'Department of Defense press briefing by General Nicholson in the Pentagon Briefing Room', Press operations, US Department of Defense, 2 Dec. 2016, <https://www.defense.gov/News/Transcripts/Transcript-View/Article/1019029/department-of-defense-press-briefing-by-general-nicholson-in-the-pentagon-brief>.

[4] There are at least eight factions of the Afghan Taliban Haqqani network and Islamic State of Khorasan Province (ISKP) active in Afghanistan. Tehrik e Taliban of Pakistan (TTP) and Jundullah and Jamaat-ul-Ahrar are fighting the Pakistan Government, whereas, groups such as Lashkar e Taiba (LeT), Hiz ul Mujahideen (HuM), Jaish e Mohamed (JeM) and Jamat-ud-Dawa (JuD) are alleged protégés of Pakistan's Inter-Services-Intelligence (ISI) directed against India. The al-Qaeda Indian subcontinent (AQIS) operates against India and other South Asian countries. The Sunni militant groups Sipah-e-Sahaba and Lashkar-e-Janghvi indulge in the killing of Shia Muslims and other minorities in Pakistan and Afghanistan. Groups such as the Islamic Movement of Uzbekistan (IMU) and Hizb e Tehrir (HuT) are active in Central Asia. Jaish al Muhajireen-wal-Ansar is active in the Caucasus and the East Turkistan Islamic Movement (ETIM) operates in the Xinjiang province of China. Militant groups such as Jundullah and Baloch target Iran.

[5] *New York Times*, 'ISIS building "little nests" in Afghanistan, US Defense Secretary warns', 18 Dec. 2015, <https://www.nytimes.com/2015/12/19/world/asia/afghanistan-ash-carter.html?_r=0>.

ences among the ISKP, the Taliban and al-Qaeda, leading Afghanistan's President Ashraf Ghani Ahmadzai to declare in March 2016 that Afghanistan will become a graveyard for ISIS. Whether this can come to pass in a region of such diverse and ever-shifting groupings remains to be seen.

Geopolitics undermines counterterrorism

In the light of these significant counterterrorism challenges, at the 2016 Warsaw Summit, the USA and the North Atlantic Treaty Organization (NATO) agreed to funding projected at up to USD $5 billion a year through 2020 to support Afghan National Security Forces (ANSF).[6] In Brussels the same year, international donors committed USD $15.2 billion for peacebuilding in Afghanistan.[7] At the Sixth Ministerial Conference of the Heart of Asia in India, this process continued as Brazil, Russia, India, China and South Africa (BRICS) and the Shanghai Cooperation Organization (SCO) vowed to: (*a*) combat terrorism in all its manifestations in the form of the Comprehensive Convention on International Terrorism, under the aegis of the United Nations; (*b*) support an Afghan-led and Afghan-owned peace process; (*c*) facilitate reconciliation efforts under the aegis of the Government of Afghanistan; (*d*) contribute to the capacity building of the ANSF; and (*e*) jointly combat narcoterrorism, cyberterrorism, nuclear terrorism, the arms trade and the finance of terrorism.

Throughout these meetings, there was general agreement on harmonizing the efforts of the SCO, the BRICS, the Collective Security Treaty Organization (CSTO) and NATO to promote peace in the region. However, in practice, major players are adopting contradictory approaches to dealing with the Taliban and Pakistan. The level of US and NATO engagement remains uncertain even though the NATO Secretary-General, Jens Stoltenberg, reaffirmed that the US-led alliance will maintain its presence in Afghanistan for 'a long time'. All eyes are now set on how the Administration of US President Donald J. Trump will deal with Afghanistan.

China perceives security in the Afghanistan–Pakistan region from the perspective of mitigating the threat to Xinjiang posed by the East Turkistan Islamic Movement, promoting the BRI, maintaining energy corridors and securing investment in mining and oil exploration projects in Aynek and North Amu Darya. The CPEC has become a strategic rallying point to consolidate the Pakistan–China nexus and to solicit Russian participation. The underlying aim appears to be to countervail the US and NATO presence in Eurasia and to limit India's influence in Afghanistan. Meanwhile, China is also pursuing its objectives in Afghanistan through bilateral strategic partnerships and under multilateral mechanisms such

[6] *Military.com*, 'US, NATO agree to $5 billion in annual funding for Afghan forces', 10 July 2016, <http://www.military.com/daily-news/2016/07/10/us-nato-agree-to-5-billion-in-annual-funding-for-afghan-forces.html>.

[7] *BBC News*, 'Afghanistan aid: donors promise $15.2bn in Brussels', 5 Oct. 2016, <http://www.bbc.com/news/world-asia-37560704>.

as BRICS, the SCO, the Quadrilateral Coordination Group and the Russia–Pakistan–China Trilateral Dialogue.

Russia perceives the rise of the ISKP and the escalation of terrorism in the Afghanistan–Pakistan region as a threat to the Commonwealth of Independent States southern security belt. While Russia has opposed the Taliban for many years, calling them terrorists, and supported the 'Northern Alliance', according to Russia's Ambassador to Afghanistan, Alexander Mantitsky, one reason to open channels with the Taliban is to protect the security of political offices and consulates.[8] In another shift, Zamir Kubalov—the special representative for Afghanistan of the President of Russia, Vladimir Putin—has labelled ISIS in Afghanistan a bigger threat than the Taliban.[9] Given this reorientation, a senior Russian diplomat declared in December 2015 that the Taliban's objective interests coincide with Russia's interests in combatting ISIS and that his country and the Taliban have channels for exchanging information. Taliban sources have also confirmed that the group's representatives met Russians inside Russia and 'other' countries several times over the past two years.[10]

Beyond its concerns over the rise and spread of ISIS, Russia has also trained its sights on the long-term US presence in Afghanistan. In part, this is because US infrastructure in Afghanistan is viewed as a threat as it enables the USA to deploy 100 000 troops in under four weeks. To forestall such threats, Russia has its own range of potential response mechanisms, such as arming the Taliban and directing them to force a US withdrawal or leveraging its influence with the Taliban to extract concessions. Russia is in a better position militarily to combat terrorism in the region, due to its deployment of troops along the Tajikistan–Afghanistan border, airbases in Central Asia, Regional Anti-terrorist Centre at Bishkek and direct access to CSTO Rapid Reaction Forces.

Beyond Russian and US interactions, Iran-Taliban relations have recently become the subject of debate. Iran is concerned about Sunni encirclement by Syria and Iraq in the east, as well as ISIS and the Taliban from Afghanistan in the west. As such, Iran perceives the US presence in Afghanistan as inimical to its national interests. Iran's Ambassador to Afghanistan, Mohd Rena Behrami, has confirmed that Iran publicly hosted Taliban leaders at the Islamic Unity Conference in 2016.[11] Conspiracy theories in Russia, China and Iran paint ISIS as a US or Western creation aimed at destabilizing their countries. Like Russia, Iran supported the anti-Taliban groups in the 1990s. Iran also cooperated with the US-led international coalition to topple the Taliban regime in late 2001. At the same time, however, Taliban sources say Iran sent them a message that it was willing to sup-

[8] Atlantico, 'Afghanistan: Russia and Iran support the Taliban', 31 Dec. 2016, <http://www.atlantico.fr/pepites/afghanistan-russie-et-iran-soutiennent-taliban-2922700.html>.

[9] The Wire, 'Pakistan critical to defeating ISIS, says Russian special rep. to Afghanistan', 12 May 2016, <https://thewire.in/84672/pakistan-isis-afghanistan-russia/>.

[10] BBC News, 'World powers jostle in Afghanistan's new "Great Game"', 12 Jan. 2016, <http://www.bbc.com/news/world-asia-38582323>.

[11] *The Tower*, 'Report: Iran hosting Taliban leaders at Islamic unity conference', 15 Dec 2016, <http://www.thetower.org/4302-report-iran-hosting-taliban-leaders-at-islamic-unity-conference/>.

port them against the USA.[12] These trends suggest just a few of the complexities of multilateral cooperation to combat regional terrorism.[13]

Russia–China–Pakistan trilateral talks on Afghanistan

In a dramatic shift, China, Russia and Pakistan held secretary-level trilateral talks in Russia on 27 December 2016 to discuss regional stability and restoration of peace in Afghanistan. These three countries agreed to adopt a flexible approach to removing some segments of the Taliban from the United Nations Security Council sanctions list and to foster peaceful dialogue between the Afghan Government and the Taliban.[14] While the Afghan Government did not approve of this meeting and expressed displeasure over its absence from it,[15] the Taliban are thought to have welcomed the initiative, particularly from their Qatar office.

Two broad alignments are currently emerging in Afghanistan. The first is a grouping of Afghanistan, Japan and the USA. The second features China, Pakistan, Russia and Iran. Russia's policy shift on Pakistan has four pillars: cooperation on CPEC, the supply of military hardware, the building of a USD $1 billion gas pipeline and the conduct of joint military training. China's embrace of Russia involves support for the latter's position on Syria combined with a common view that the position of the USA in Afghanistan has been weakened, leaving China and Russia to play a bigger role. To this end, Russia could help the Taliban to oust the USA from the northern areas and assist with infrastructure development to foist a pro-Russia regime.

By contrast, the USA contends that Russia, China, Pakistan and Iran's engagement with the Taliban is inimical to US and Afghan interests. Strategic experts opine that another phase of the 'New Great Game' is unfolding in Afghanistan. These developments do not augur well for the fight against terrorism or efforts to foster stability in Afghanistan. The Jihadi forces must be defeated and Pakistan must be deterred from indulging in cross-border terrorism. The one silver lining in this cloud could be that the new US Administration may be willing to work with President Putin to smooth their vexed relations and cooperate on Afghanistan.

[12] *BBC News*, 'World powers jostle in Afghanistan's new "Great Game"', 12 Jan. 2016, <http://www.bbc.com/news/world-asia-38582323>.

[13] Reconciliation talks under the QCG were stalled after the death in May 2016 of the leader of the Taliban, Mullah Akhtar Mohammad Mansoor. Since then the Qatar Peace Process has taken over the headlines, with the ISI inviting a reported three members of Quetta Shura and two to three members from the Taliban office in Doha, perhaps inspired by the Hizb-e-Islami deal. The Afghanistan Government is also reportedly engaged in direct secret talks with Taliban senior leaders in Qatar, but these have been inconclusive due to continuing demands by the Taliban leadership for the withdrawal of foreign troops.

[14] *Global Times*, 'China, Russia, Pakistan hold trilateral talks on Afghanistan', 27 Dec. 2016, <http://www.globaltimes.cn/content/1026031.shtml>.

[15] *Aljazeera*, 'Kabul deplores exclusion from trilateral meeting', 28 Dec. 2016, <http://www.aljazeera.com/news/2016/12/afghanistan-angry-exclusion-security-talks-161227142344221.html>.

Takeaways

India strongly supports an 'Afghan-owned and Afghan-led' peace process. It further supports the endeavours of the National Unity Government for politico-ethnic reconciliation with all stakeholders and on electoral and administrative reform. India has invested USD $2 billion in civil infrastructure projects and pledged an additional USD $1 billion contribution to ANSF capacity building. India advocates a multilateral, collaborative approach to restoring peace and stability in Afghanistan. To this end, there is a need for close cooperation on Afghanistan among all countries in the SCO, the CSTO and NATO. China and Russia are integral to these efforts.

However, attempts to remove the Taliban from the UN sanctions list run contrary to Indian efforts to declare the founder and leader of the UN-designated terrorist group Jaish-e-Mohammed, Masood Azhar, and other Jihadi leaders in Pakistan international terrorists under the aegis of UN Security Council Resolution 1267. Such initiatives are against the spirit of decisions taken at the Heart of Asia, BRICS and SCO summits to combat terrorism in a collaborative framework, with the Afghan Government in the lead role. They further weaken efforts to moderate Pakistan's role in perpetuating cross-border terrorism against India and Afghanistan. India's strategic partnership with Afghanistan, the India-Iran-Afghanistan trilateral agreement, the India–Afghanistan–USA dialogue and its membership of the SCO are all testimony to India's resolve and commitment to fight terrorism.

10.2. Sitara Noor[16]

Introduction

There is a lack of permanence among geopolitical alliances and partnerships, particularly given current shifting global political priorities and relations. Within this spectrum of geopolitical manoeuvring, the gradual softening of relations between historical rivals Russia and Pakistan has emerged as a new political reality. Pakistan and Russia had strained relations during the cold war, which continued even after the break-up of the Soviet Union. However, new openings in Pakistan–Russia relations are on the horizon, heralded by the major political shifts taking place in Asia.

Pakistan–Russia warming of ties

Russia's 'Foreign Policy Concept', published in 2008, declared Pakistan one of the key regional powers with which it intended to develop relations at the bilateral and multilateral levels.[17] However, it was not until 2014 that Russia signed a mili-

[16] Sitara Noor is a Research Fellow at the Vienna Centre for Disarmament and Non-proliferation (VCDNP). The views expressed are those of the author and do not necessarily reflect the views of the VCDNP.

[17] Russian Federation, Russian Federation Foreign Policy Concept, 14 July 2008, <http://kremlin.ru/acts/news/785>.

tary cooperation agreement with Pakistan, during a visit to Islamabad by Russia's Defence Minister, Sergey Shoygu. This visit resulted in Russia officially lifting its decades-old arms embargo on Pakistan.

Following this shift, Russia and Pakistan held their first joint military exercise, 'Friendship-2016' (Druzhba-2016), in Pakistan's Khyber-Pakhtunkhwa province. The exercise involved combat troops from both sides and was followed by the announcement of a second joint military exercise to be held in 2017. The joint military exercise took place despite severe resistance from India, following a militant attack on Indian forces in Kashmir, which allegedly originated in Pakistan. Russia and Pakistan also held two naval exercises, 'Arabian Monsoon-2014' and 'Arabian Monsoon-2015', which primarily focused on combatting crime and the trafficking of narcotics.

Since these various exercises, Pakistan and Russia have deepened their defence relations and signed a variety of defence deals. One major outcome from these interactions has been an agreement on the transfer of Russian-made Mi-35M fighter aircraft, which are scheduled for delivery in 2017 to replace US-manufactured AH-1 Cobra fighter aircraft.[18] There are also reports that Pakistan intends to directly import Klimov RD-93 engines from Russia for the JF-17 Thunder multi-role fighter, which were previously to be routed through China.[19] This expansion of relations into something more direct and less affected by third parties represents a dramatic shift.

The change naturally raises the question of what is drawing Russia and Pakistan closer together. Their common vulnerabilities are a likely driving factor. Following its annexation of Crimea, Russia has faced international isolation and economic sanctions, and is struggling to regain its political relevance. Beyond territorial issues, Russia is also in the process of losing its traditional arms buyers. China is integral to these shifting arms transfer dynamics, moving away from being a major recipient of Russian military equipment to the indigenization of its weapon capabilities.[20] Russia has increasingly been compelled to find new buyers for its arms exports. Pakistan, in turn, has faced shifts in its military suppliers. Given the changes to traditional US military support, Pakistan has been looking for affordable defence deals to diversify its arms suppliers beyond China.

The deteriorating security situation in Afghanistan has also played an important role in determining Russia's strategic turn to Pakistan. Russia remains concerned about the spillover effects of terrorism, particularly when it comes to the spread of ISIS, and about the drugs trafficked from Afghanistan into the Central Asian region.[21] Following the US military drawdown, Russia has sought a bigger

[18] Tikhonova, P., 'Pakistan, Russia and China boost military ties further', *Value Walk*, 25 Dec. 2016, <http://www.valuewalk.com/2016/12/pakistan-russia-china-army-ties/>.

[19] Mitra, J., 'Russia, China and Pakistan: An emerging new axis?", *The Diplomat*, 18 Aug. 2015, <http://thediplomat.com/2015/08/russia-china-and-pakistan-an-emerging-new-axis/>.

[20] Pulipaka, S., 'Russia's new approach to Pakistan: all about arms sales', *The Diplomat*, 28 Sep. 2016, <http://thediplomat.com/2016/09/russias-new-approach-to-pakistan-all-about-arms-sales/>

[21] Roy, R., 'Russia's military cooperation agreement with Pakistan: an assessment', Institute for Defence Studies and Analysis, 15 Dec. 2014, <http://www.idsa.in/idsacomments/RussiasMilitaryCooperationAgreement_rroy_151212>.

role in regional security and recognizes Pakistan's important role in Afghanistan, especially in combating the challenges posed by ISIS.[22] The recent trilateral dialogue involving Pakistan, China and Russia on the issue of Afghanistan is an indication of this convergence of interests. These trends also represent push factors for Pakistan's full membership of the SCO.[23]

Impact on regional security

As relations between Pakistan and Russia warm, there is discussion of a probable nexus developing among China, Russia and Pakistan. Pakistan and China have enjoyed a decades-long relationship based on a shared regional outlook, particularly in their views on India. By contrast, Russia is a traditional ally of India and the two countries share a long history of cooperation. It is therefore erroneous to assume that Russia will develop its relations with Pakistan at the expense of the Russia–India relationship, which continues to stand on solid ground despite talk of an India–USA strategic partnership.

Furthermore, India remains a primary market for Russian weapons exports. Stockholm International Peace Research Institute estimates suggest that India's defence imports from Russia amounted to USD $1.96 million in 2015, which is a 15 per cent increase on 2005.[24] Moreover, on the sidelines of the BRICS summit in India in 2016, Russia agreed to lease a second Akula class submarine to India, along with the export of S-400 air defence systems and 200 multi-role Ka-226T helicopters. India and Russia also agreed on the development of the BrahMos missile and the manufacture of four Admiral Grigorovich class (Project 11356) guided-missile stealth frigates. Both countries are also cooperating extensively on nuclear power.[25]

By contrast, Pakistan–Russia ties are not based on mutually shared values and long-term interests. Their deepening of relations does not yet qualify as a strategic shift, but remains a tactical move for the time being. Given these dynamics, India is likely to use its leverage to challenge planned defence deals between Russia and Pakistan. However, its failure to curtail the first ever Pakistan–Russia military exercise in 2016 showed India that there are limits to this approach. This milestone caused great discomfort in India and is likely to be a harbinger of cooperation to come.

If the recent confirmation hearings on the US Secretary of State, Secretary of Defence and Director of the Central Intelligence Agency are any guide, South Asia is likely to occupy a lower position among the policy priorities of the Trump Administration.[26] Combining these US shifts with Russia's relations with India

[22] Mitra, D., 'Pakistan critical to defeating ISIS, says Russian special rep. to Afghanistan', The Wire, 5 Dec. 2016, <https://thewire.in/84672/pakistan-isis-afghanistan-russia/>.

[23] Roy (note 21).

[24] SIPRI, 'India's defence import data, 2011–25', <http://armstrade.sipri.org>, accessed 3 Mar. 2017.

[25] Topychkanov, P., 'Moscow and New Delhi disconnect', Carnegie Moscow Centre, 28 Oct. 2016, <http://carnegie.ru/2016/10/28/moscow-and-new-delhi-disconnect-pub-64989>.

[26] Topychkanov, P., 'Trump's presidency: a new opportunity for Russia in South Asia', Carnegie Moscow Centre, 20 Jan. 2017, <http://carnegie.ru/2017/01/20/trump-s-presidency-new-opportunity-for-russia-in-

and growing interest in Pakistan, Russia is likely to have an opportunity to play a bigger role in South Asian security dynamics. Among the potential arenas for Russia to exert a greater influence would be in resolving issues between India and Pakistan, particularly regarding Afghanistan. While India has historically not accepted mediators in its bilateral issues with Pakistan, both states have in the past relied on third parties for crisis de-escalation. Russia may have an opportunity to serve this function in the future.

Takeaways

To benefit from the strategic opening offered by geostrategic shifts in Asia, Pakistan should enhance its diplomatic and economic relations with Russia. While the volume of bilateral trade between Russia and Pakistan remains low and even decreased by 13 per cent in 2015,[27] Russia's probable engagement in CPEC could be extremely beneficial to Pakistan. This expanded involvement in South Asia could prove to be a game changer for Pakistan–Russia relations and would provide the foundation for a much broader relationship that extends beyond military sales and exercises into the economic and political realms.

south-asia-pub-67753>.

[27] Topychkanov, P., 'Why Russia must come clean on its Pakistan policy', *RBTH*, 16 Jan. 2017, <http://rbth.com/opinion/2017/01/16/why-russia-must-come-clean-on-its-pakistan-policy_682071>.

11. Impact of Shifts in Arms Trade and Exercises on South Asia and Europe

This chapter focuses on the changing security environment and its impact on South Asia and Europe. Siemon Wezeman uses a statistical overview of decades of shifts in arms sales to explore the reduction in China's dependence on Russian arms over the past decade. He discusses the trends pushing Russia's willingness to sell more advanced military platforms in recent years. Rajeswari Pillai Rajagopalan uses a case study to highlight how Russian sales of more advanced systems to China and increasing Russian military engagement with Pakistan may be shifting security dynamics in South Asia. Ian Anthony offers his assessment of how military exercises and miscalculation could alter the landscape in Europe.

11.1. Siemon T. Wezeman[1]

Introduction

Following the end of the cold war and the break-up of the Soviet Union, there were rapid decreases in Russian military budgets. Soviet military expenditure had stood at almost USD $350 billion in 1988. However, by 1992 it had fallen to USD $60 billion and in 1998 was only USD $19 billion. The more flexible parts of the budget suffered the most, such as those for procurement and operations. At the same time, the Russian arms industry saw several major clients for its weapons disappear, chief among them the former Warsaw Pact members and Iraq. By 1992, the arms industry Russia had inherited from the Soviet Union was in serious trouble. Most of its internal market and part of its export market was gone.

In parallel with this development, China was embarking on a serious military modernization. Boosted by its rapidly growing economy, it began to implement a long-planned reorganization of its armed forces and the acquisition of advanced weaponry.[2] Chinese military spending has increased almost every year since 1989, the first year of Stockholm International Peace Research Institute (SIPRI) data for China, from USD $21 billion in 1988 to USD $215 billion in 2015. With this surge, China overtook Russia's spending in 1998 and within five years had become the second largest spender globally behind the United States (see figure 11.1.1).

Mutual export and import dependencies

Because Chinese arms design capabilities had been relatively stagnant since the late 1960s, based on outdated Soviet designs and technologies, its industries sought the help of foreign suppliers and designers of equipment and components.

[1] Siemon T. Wezeman is a Senior Researcher in the in the Arms and Military Expenditure Programme at SIPRI.

[2] This modernization had been planned since the 1970s and was given extra impetus by the poor performance of China's armed forces against Viet Nam in 1979.

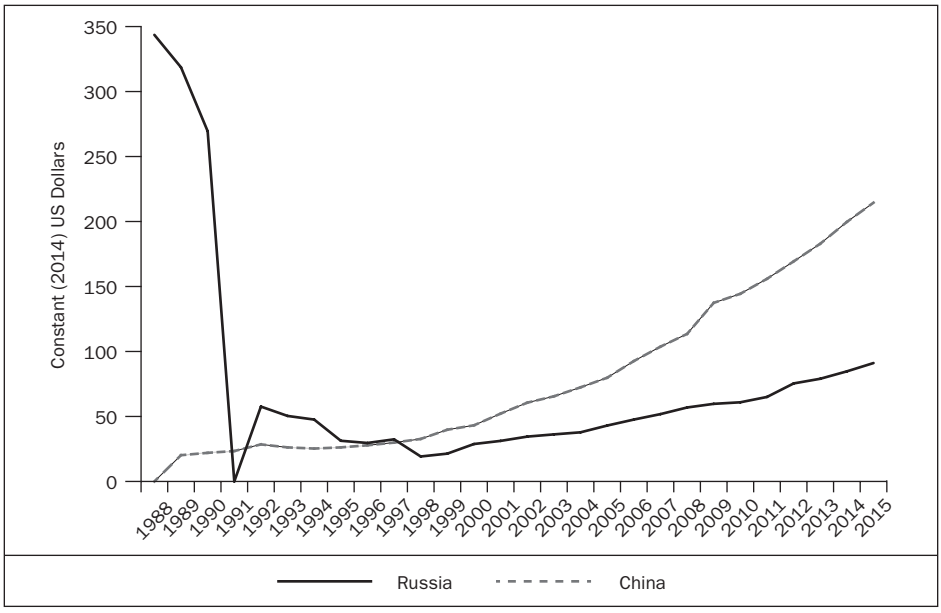

Figure 11.1.1. Russian and Chinese military spending, 1988–2015

Notes: Russian data for 1988–91 is for the Soviet Union; no data available for 1991. No data on China was available for 1988.

Source: SIPRI Military Expenditure Database, 2016, <https://www.sipri.org/databases/milex>.

In the 1970s and 1980s, these specialists came primarily from Europe and the USA. However, these Western sources were largely closed off in 1989, primarily due to events in Tiananmen Square. Under these constraints, China began a search for alternatives.

By coincidence, rather than design, Russia and China found themselves in desperate need of a market and a source of military equipment respectively. During the 1990s and early 2000s, Russia's arms industry survived largely because of its exports of newly produced combat aircraft, armoured vehicles and warships. China played a crucial role during this period. China was Russia's largest client between 1999 and 2006, accounting annually for 34–60 per cent of the volume of Russia's exports of major weapons (see figure 11.1.2).

The decision to sell weapons to China, however, was not without opposition in Russia. There were warnings that Russia would be arming a potential adversary that many suspected had its eyes on the Russian Far Eastern Federal District. Moreover, concerns were expressed that China would copy, without permission and without paying royalties, whatever Russia delivered. In the longer term, worries grew that China might soon become a serious competitor in the global arms market, often in the same countries and regions as Russia. However, the fact that China needed significant numbers of a variety of weapons—and was willing and able to pay in cash—won the argument. At its peak in 2005, China accounted for 60 per cent of all Russian deliveries of major weapons.

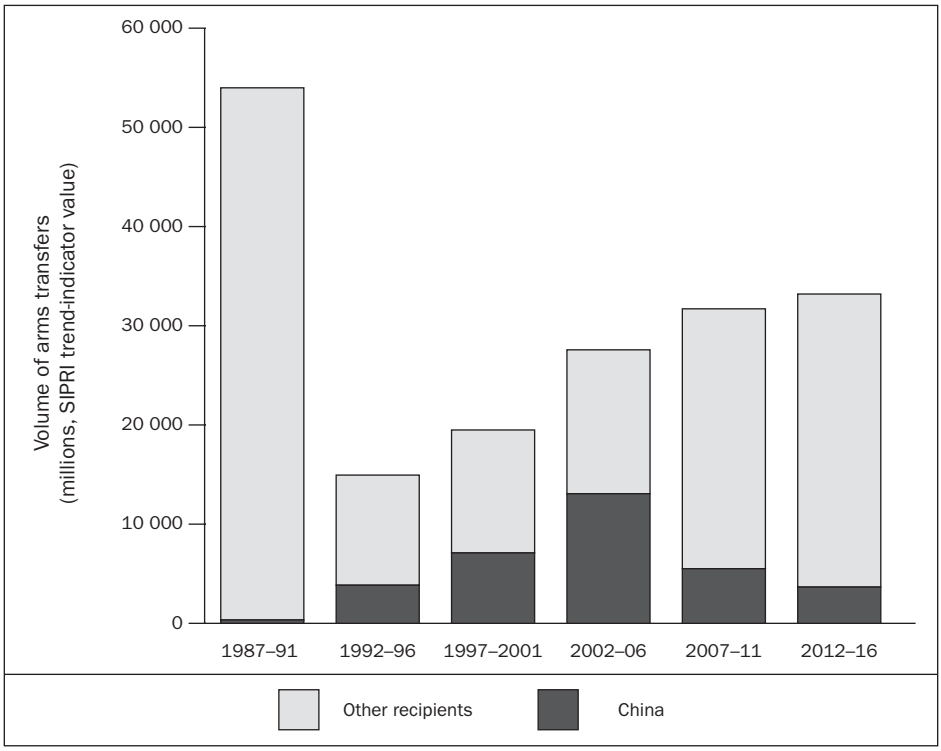

Figure 11.1.2. Exports of major weapons by Russia to China, 1987–2016

Notes: Volumes in SIPRI trend-indicator value millions; 1987–91 data is for the Soviet Union.

Source: SIPRI Arms Transfers Database, 2017, <https://www.sipri.org/databases/armstransfers>.

By 2006, however, the mutually beneficial export-import relationship between Russia and China had begun to shift. China's share dropped to below 25 per cent between 2007 and 2009. Moreover, since 2010, the share has halved again to approximately 10 per cent. By that time, however, Russia had consolidated some of its other traditional markets in countries such as India and Algeria and received large orders from newer markets, such as Venezuela. Improvements in the Russian economy also meant that its military spending began to allow for larger orders for its domestic arms industry, reducing the need for exports.

Reverse engineering and market shifts

China's shift away from Russian exports was in part linked to its own growing manufacturing capabilities. In line with Russia's original concerns over the potential for reverse engineering by China, copies were made without permission of a variety of Russian weapon systems. Just a few years after Russia delivered the Sukhoi-27 (Su-27) combat aircraft, for example, China released the Jian-11 (J-11). While this aircraft was labelled 'indigenous', it was a near-copy of the Su-27. Similarly, new Chinese surface-to-air missiles (SAMs) looked very much like

Table 11.1.1. Major Russian weapons delivered to China, 1987–2016

Years	Combat aircraft	Helicopters	Warships	Long-range SAM systems	Aircraft engines
2012–16	4	62			424
2007–11	11	106		16	202
2002–2006	145	72	8	4	70
1997–2001	79	55	4		4
1992–96	45	30	2	4	
1987–91	3	24			

SAM = surface-to-air missile

Notes: Number of items delivered in selected weapon categories.

Source: SIPRI Arms Transfers Database, 2017, <https://www.sipri.org/databases/armstransfers>.

S-300 platforms from Russia. Moreover, Chinese submarines sported features of the Russian Project-877 and Project-636 Kilo class submarines supplied by Russia.

China also started to field its own advanced weapons, such as the Jian-10 (J-10) and J-11 combat aircraft, various air-to-air and air-to-ground missiles, and several types of warship. Thus, the emphasis of Chinese imports from Russia switched from complete weapon systems to components, such as engines. Only in the field of helicopters were Chinese efforts to develop indigenous systems slow, mainly because China had not yet mastered the production of propulsion systems, such as engines, transmissions and rotors. In this one area, imports of helicopters from Russia have remained significant (see table 11.1.1).

Beyond the diminished need for Russian imports, China also rapidly transitioned into a major arms exporter. This resulted in Chinese forays into markets in which Russia was active, including Algeria, Nigeria, Venezuela, Indonesia and even the former Soviet state of Turkmenistan.[3] Compounding initial Russian concerns over reverse engineering and loss of market potential, China's L-15 supersonic training and light attack aircraft and the Hongqi-9 (HQ-9) SAM system have also shown signs of 'borrowing' from Russian weapons.

New phase or last spasm?

After almost five years of difficult negotiations, Russia and China moved to a new level of arms trade in 2015. Russia finally agreed to sell China 24 Sukhoi-35 (Su-35) combat aircraft and four S-400 SAM systems for approximately USD $7 billion. These are currently among the most advanced weapons Russia produces. This agreement marked a turning point. It was the first significant sale of Russian major weapons to China since the mid-2000s, representing a sizeable addition to Russia's total annual value of arms exports, which has hovered between USD $13.5 billion and USD $15 billion in recent years.

The agreement could herald a new phase of large sales of Russia's most sophisticated arms to China. However, it could also be viewed as a last chance for Russia to gain some income from arms sales to China before the latter becomes self-suf-

[3] India and Viet Nam are the only important markets where Russia does not face Chinese competition.

ficient. The first scenario would fit the picture of warming Russian–Chinese relations, following the crisis in Ukraine. The second scenario is more tightly bound to Russian financial hardships and the difficulties in its arms industry since 2015. This sale could well be the last chance for Russia to engage in a major sale of military equipment to China. At the same time as the Su-35 and S-400 are due for delivery, China will be introducing its own more advanced Jian-20 (J-20) combat aircraft, as well as its own advanced jet engines, large transport aircraft, helicopters and long-range SAM systems—many of which are on a par with or even better than Russian systems.

Takeaways

When it comes to the arms trade, China has not only learned from Russia, but succeeded in challenging it. Given its financial and defence industrial base, China is likely to have more chances to develop new military technologies than Russia. China's electronics, composites, advanced materials and shipbuilding industries are all more advanced than those in Russia. The size of the Chinese economy means that it has many more resources and much more manpower to invest in research and development. Thus, it is more than likely that China's military technology will surpass that of Russia on all levels.

11.2. Rajeswari Pillai Rajagopalan[4]

Introduction

Russian–Chinese relations have undergone many shifts over the years. While the current phase is relatively stable, Russia remains wary of China's increasingly assertive power so close to its borders. Despite this fact, Russia's shifting geopolitical situation and military sales of more capable systems to China indicate that significant changes are occurring. Against this backdrop, Russia's intention to sell China Sukhoi-35 (Su-35) fighter aircraft and other advanced military platforms merits greater attention and analysis, particularly regarding its impact on South Asia.

Post-2005 phase in Russia–China arms trade

As noted in section 11.1, the Russia–China arms trade that began in the early 1990s was driven by mutual necessity. However, it peaked around 2005 (see figure 11.2.1). There were two key reasons for the subsequent fall.

First, by the mid-2000s, China had already established a reasonably strong indigenous defence technological base and was beginning to reduce its dependency on foreign partners. Second, China was concerned that it was not receiv-

[4] Rajeswari Pillai Rajagopalan is a Senior Fellow and Head of the Nuclear and Space Policy Initiative at the Observer Research Foundation.

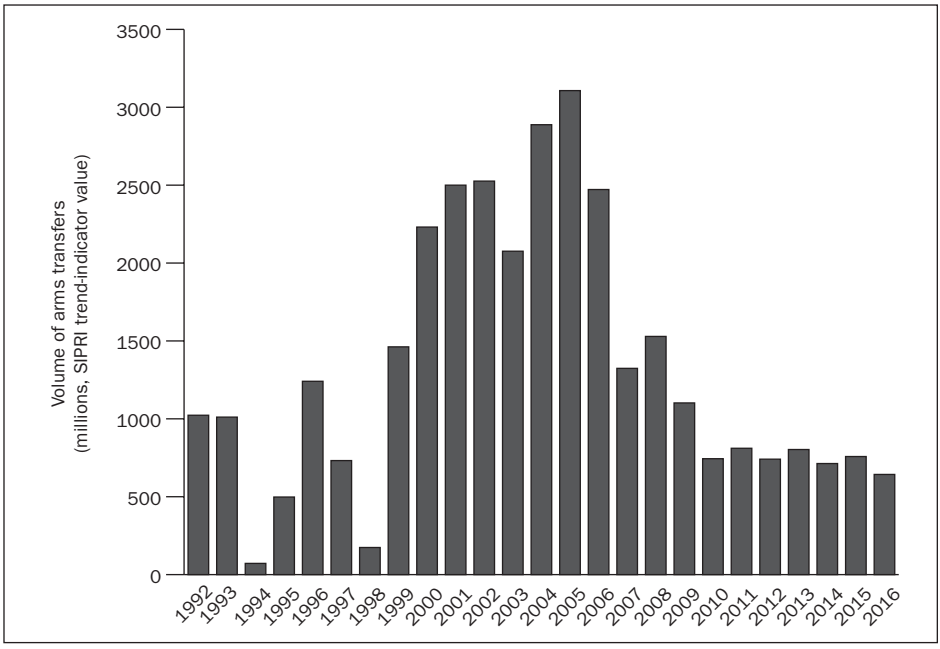

Figure 11.2.1. Russian arms sales to China, 1992–2016

Source: SIPRI Arms Transfers Database, 2017, <https://www.sipri.org/databases/armstransfers>.

ing the most technologically advanced equipment, which Russia was supplying to India.

Concurrently, China's demands for joint production and licensed production also dampened Russian enthusiasm for the arms trade relationship. Russia was concerned that concessions to China on licensing would reduce Chinese dependence on Russia, make China a more competitive military power and, in the long term, reduce the financial benefits to Russia. Russia faced the prospect of competing with Chinese reverse-engineered versions of its own platforms in the global arms market, including in Africa and Latin America.

As just one example, China had been promoting sales in Africa of the J-11 combat aircraft, a reverse-engineered version of the Russian SU-27. Thus, Russia and China did not sign any new agreements on arms transfers between 2006 and 2013. However, by the time of the Ukraine crisis, a new impetus had emerged in China's arms trade with Russia. The latter has tried hard to reach out to China since the crisis and these efforts have been converted into lucrative arms deals.

Sukhoi platforms and more advanced sales

Russia's intention to sell Su-35 fighter aircraft to China is significant by any measure of enhanced capabilities. As an improved version of the high-performance Su-27 and Su-30, the SU-35 is a single seat, twin-engine, manoeuvrable, multi-role fighter aircraft. The aircraft has a new advanced airframe, as well as new avi-

onics, propulsion and weapon systems. The Su-35 comes with the Irbis-E passive electronically scanned array radar, which can detect an aerial target with a 3 m2 radar cross section at a distance of 350 km.

These platforms can track 30 airborne targets and engage eight of them simultaneously. Their durability has been enhanced by the extensive use of alloys, offering 6000 service hours and increasing their maximum take-off weight to 34.5 tonnes. Supply of the Su-35 could dramatically enhance China's airpower, although it is surprising that China is still buying Russian jets given that it is also developing the J-20 and Jian-31 (J-31), which are claimed to be on a par with US F-22 and F-35 fighter aircraft.

More than enhancing basic airpower for China, the Russian sale of the Su-35 could have a significant effect on South Asia. For one, it could alter the balance of power between India and China. Until now, India had been assured that it had technologically more advanced equipment to match China's numerical superiority, especially in terms of combat aircraft. With the advent of the Su-35, this is no longer the case.

If China chooses to reverse engineer some of its systems and pass them on to Pakistan, this platform could also eventually change the balance of airpower between India and Pakistan. This could lead to greater instability in the region, because India will be forced to enhance its own air combat potential, beyond the replacement of obsolete equipment that it is currently undertaking.

These dynamics will have wider international political ramifications. Closer Russia–China arms trade relations could lead to a new axis in the region, binding Russia, China and Pakistan closer together. The newest manifestation of this is the developing arms trade relationship between Russia and Pakistan, which is China's strategic partner and India's strategic competitor.

While these ties are in their early stages, there are suspicions in India that the Russia–Pakistan relationship is an outgrowth of the Russia–China relationship. The larger concern is that this might have spillover effects by not only enhancing Pakistan's military capability, but also weakening India's geopolitical relationships. India may no longer be able to depend on Russia when it comes not only to India–China relations, but also India–Pakistan relations.

Overall, these developments could undermine Russia–India relations, which have been in a steady quasi-alliance for over 50 years. Such a development could accelerate the growth of closer India–USA relations. These ties have been slower to develop, in part due to India's concerns over their negative impact on its ties with Russia. If this is no longer a concern, the India–USA partnership could develop far more rapidly. A tightening of these various alliances could lead to greater tensions overall in the region.

Takeaways

The Russian–Chinese arms trade relationship is already beginning to affect Russia's relations with India. There are several indicators of this burgeoning relationship. Russia's plans to sell advanced fourth generation jet fighter aircraft to China

were solidified in 2014, when President Vladimir Putin visited Beijing. During his stay, Russia signed a memorandum of understanding on the sale of Su-30 MKK and Su-30 MK2 fighter aircraft, which are more advanced than the Su-30 MKI that had previously been sold to India.

There are also reports that Russia confirmed the sale of 24 Su-35s to China. It is believed that this platform will also come with the more advanced S-108 communications system, the production of which has already begun. Russian sources suggest that the decision to sell China the Su-35 has already been taken, and supply will begin in the fourth quarter of 2016.[5] Also part of Russia's intended transfers to China are advanced Kilo class submarines and advanced Russian air defence systems, such as the S-400.

Improved Russian–Chinese relations combined with Russia's enhanced military collaboration with Pakistan mean that India is facing fundamental shifts in its threat perceptions and traditional alliances that extend well beyond the traditional arms trade sphere. This will have major security implications in South Asia and beyond.

11.3. Ian Anthony[6]

Introduction

In various corners of Europe, states are currently increasing their investment in defence capabilities, modernizing their armed forces and rethinking how they approach their national defence. The highest political authorities of the states concerned have deemed that these programmes are necessary and will continue to be implemented. However, there is no reason why they should be undertaken in ways that are perceived as provocative or create additional tensions. One of the issues that future dialogues must address is how to ensure that current modernization plans are implemented in ways that avoid a further corrosion of the European security system.

To test the results of their military modernization and reform programmes, states are increasingly organizing a diverse range of exercises. The question is whether these exercises reduce, rather than enhance, security. Russia organizes major military exercises in its western, eastern, central and southern regions, on a four-year cycle. The last such exercise in the west was in 2013.

It was therefore not a surprise when Russia announced a major military exercise to be held in 2017. Known as Zapad-2017, this exercise is intended to test strategic readiness in the western military district and cooperation with its partners in the Collective Security Treaty Organization, in particular Belarus.[7] In addition to the responses that Zapad-2017 might elicit, it could shed light on a number of

[5] Majumdar, D., 'China to get Russia's lethal Su-35 fighter this year', *The National Interest*, 20 Jan. 2016, <http://nationalinterest.org/blog/the-buzz/china-get-russias-lethal-su-35-fighter-year-14968>.

[6] Ian Anthony is the Director of the European Security Programme at SIPRI.

[7] TASS via RBTH, 'Next strategic military exercise due in 2017 in western Russia', 14 Sep. 2016, <http://rbth.com/news/2016/09/14/next-strategic-military-exercise-due-in-2017-in-western-russia_629817>.

key issues arising out of Russia's military modernization programme, including its progress under the 'New Look' military reforms. However, depending on how it is carried out, the exercise could also exacerbate threat perceptions through misinterpreted signalling.

Sabre rattling and war cries

Both Russian and European channels are lamenting the rise of destabilizing trends throughout the region. Russia's Foreign Minister, Sergei Lavrov, noted at the Organization for Security and Co-operation in Europe (OSCE) Ministerial meeting in Belgrade in December 2015 that 'today's Europe evokes associations with the period shortly before the First World War, when politicians lacked the wisdom to deal with the impending disaster, and geopolitical ambitions prevailed, no longer sound exotic'.[8]

The German Foreign Minister, Frank-Walter Steinmeier, has echoed this alarm, stating that 'loud sabre-rattling and shrill war cries' could fuel a new arms race in Europe and that increased levels of armament might magnify the dangers if political control is lost in a crisis.[9] In response to the perspective that risks are already reaching unacceptable levels, OSCE participating states agreed to launch a structured dialogue on current and future challenges and risks to security at the December 2016 OSCE Ministerial meeting in Hamburg.[10] Given these trends, close attention will be paid to the Zapad-17 exercise.

However, Russia is not the only country engaged in military exercises. The North Atlantic Treaty Organization (NATO) is also being highly active on this front. In 2017, 26 exercises of different kinds will be conducted to test and improve NATO command structures. Furthermore, NATO members plan to hold another 32 national exercises involving participation by other states.

The number of exercises carried out by both NATO and Russia must be viewed in a broader context. After the annexation of Crimea by Russia in 2014, NATO designed both assurance measures, increasing the military presence and activities in the eastern part of the alliance, and adaptation measures. These long-term changes to military posture and capabilities are intended to permit a timely response to any contingency that may arise to the east or south of NATO territory. All 28 NATO members contribute to the measures, but perhaps the most significant change has been the decision to reconfigure US European Command, which had become a support system for operations in the Middle East and Afghanistan.

In announcing the Zapad-17 exercise, Russia's Defence Minister, Sergei Shoigu, stated that the scenario underpinning the exercises would take account of 'the situation related to increased NATO activity at the border of the "Russia–Belarus

[8] Foreign Minister Sergey Lavrov's remarks at the 22nd OSCE Ministerial Council, Belgrade, 3 Dec. 2015, <http://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/1963925>.

[9] Reuters, 'German minister warns NATO of "saber-rattling" against Russia', 18 June 2016, <http://www.reuters.com/article/us-nato-russia-germany-idUSKCN0Z40LE>.

[10] Organization for Security and Co-operation in Europe, Doc 4, 'From Lisbon to Hamburg: Declaration on the Twentieth Anniversary of the OSCE Framework for Arms Control', Vienna, 9 Dec. 2016, <http://www.osce.org/cio/289496>.

Union State'".[11] It is debatable whether Shoigu's characterization of Zapad-17 represented a change in substance. In Zapad-13 the scenario was described as a generic counterterrorism operation, with no specific enemy. However, the exercise encompassed escalation from a terrorist attack to a major conflict. In doing so, it tested large-scale combined and joint operations across a wide area, including the mobilization of reservists.

The scale of Zapad-17, compared to the exercise in 2013, is unclear.[12] Russia is implementing plans to reinforce the armed forces in the western and southern military districts. The reactivation of the Russian 1st Guards Tank Army was completed in February 2016 after forces received more up-to-date equipment.[13] Plans also include the formation of three new divisions—a tank division and a motorized infantry division in the western military district and a motorized infantry division in the south.

These measures far outweigh current NATO assurances in terms of manpower and equipment.[14] After many years during which US combat troops were deployed elsewhere, the US military presence in Europe is becoming larger, more active and more visible. Under current NATO assurance measures a US armoured brigade has begun to deploy in Poland and the equipment needed for a second brigade will also be prepositioned.

A division headquarters and an artillery brigade are also being stood up, which would allow the US to deploy a full armoured division at short notice.[15] In addition, four multinational battalions under British, Canadian, German and US command are being deployed, one to each of the Baltic states and Poland.[16] However, while the structure of military formations is not symmetrical in Russia and among the NATO member states, the recent Russian reinforcement of the western military district is adding roughly three times more forces than NATO currently plans.

[11] Sabak, J., 'Major deployment of Russian equipment to Belarus expected in 2017: Exercise, aggression or a new military base?', *Defence24*, 29 Nov. 2016, <http://www.defence24.com/500156,major-deployment-of-russian-equipment-to-belarus-expected-in-2017-exercise-aggression-or-a-new-military-base#>.

[12] According to some reports the exercise will be much larger, although other sources suggest an exercise of roughly the same size. Sivitski, A., 'Will Russia occupy Belarus in 2017?', *Belarus Digest*, 29 Nov. 2016, <http://belarusdigest.com/story/will-russia-occupy-belarus-2017-28101>; and Gelagaev, A., 'Russian Defense Ministry has commented on the order of 4000 cars in Belarus', *Nasha Niva*, 5 Feb. 2017, <http://nn.by/?c=ar&i=184897>.

[13] Novichkov, N., 'Russia completes reformation of 1st Guards Tank Army', *IHS Jane's Defence Weekly*, 9 Feb. 2016, <http://www.janes.com/article/57828/russia-completes-reformation-of-1st-guards-tank-army>.

[14] Shlapak, D. and Johnson, M., *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics* (RAND Corporation: Santa Monica, CA, 2016), <http://www.rand.org/pubs/research_reports/RR1253.html>.

[15] Office of the Under Secretary of Defense, European Reassurance Initiative, US Department of Defense Budget, Fiscal Year 2016, Feb. 2015, <http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2016/FY2016_ERI_J-Book.pdf>; and Tilghman, A., 'Pentagon plans for more troops in Europe', *Military Times*, 14 July 2016, <http://www.militarytimes.com/story/military/2016/07/14/pentagon-plans-more-troops-europe/87078792/>.

[16] Dahlburg, J. and Scislowska, M., 'NATO chief: 4 battalions going to Baltic states, Poland', Associated Press, 13 June 2016, <http://bigstory.ap.org/article/8c3a6a689d19465895880ec9ca3f69f4/nato-chief-alliance-will-agree-week-deploy-four-battalions>.

International responses to exercises

Exercising newly created major army formations, along with their associated air support and logistics, is a logical avenue to pursue. However, aspects of the Zapad-17 exercise have caused concern in Belarus, Poland and Ukraine. For Belarus, tight integration into Russian military planning is problematic in terms of both domestic and foreign policy. Opening new economic ties could dilute Belarus' current high dependence on Russia. Moreover, Belarus has made tentative steps to normalize relations with its Western neighbours. It has not recognized the annexation of Crimea and has tried to maintain a neutral position towards the conflict between Russia and Ukraine. In doing so, Belarus has sought to strengthen relations with Ukraine without bringing about a negative reaction in Moscow. Zapad-17 may further complicate relations to its west and the south.

Some in Belarus fear that closer military integration could become a more direct threat to Belarusian sovereignty, in part due to the Russian references to Zapad-17 being a test arrangement to defend the 'Russia–Belarus Union State'. Founded in the mid-1990s through a bilateral treaty, the significance of this bipartite construct appeared limited until roughly 2007. From this point forward, Russian statements increasingly emphasized closer integration through a confederation with a single constitution. By 2011, President Vladimir Putin described such a confederation as 'possible and very desirable'.[17]

Furthermore, following the events of 2014, Belarus has taken steps to increase its national military preparedness. These could be interpreted as efforts to prepare to defeat the kind of 'hybrid war' that has been waged against Ukraine or to respond to incursions across the porous Belarus–Ukraine border.[18] Nonetheless, in spite of efforts by Belarus to strengthen its independent military capability, military-technical cooperation with Russia is extremely tight. Based on a 2009 agreement, Russia and Belarus have created an Integrated Regional Air Defence System, which is thought to have become operational in 2016.[19] The two countries are also said to have developed a single framework for electronic warfare, including an integrated system for secure digital communications. Still, Belarus has resisted a permanent Russian military presence in the country. Russian attempts to establish a military airbase in Belarus have been unsuccessful.[20]

For Poland, the primary concerns are the proximity of large and highly capable Russian armed units close to a particularly sensitive part of the Polish external

[17] Ostaptschuk, M. and Yurin, V., 'Belarus rejects Putin's call for unification with Russia', Deutsche Welle, 4 Aug. 2011, <http://www.dw.com/en/belarus-rejects-putins-call-for-unification-with-russia/a-15295158>.

[18] Hansbury, P., 'Brothers in arms: Russia in Belarus's new military doctrine', *Belarus Digest*, 5 Sep. 2016; and Sivitski, A., 'Belarus is preparing for a Donbass-like hybrid war conflict', *Belarus Digest*, 28 Sep. 2016.

[19] Marin, A., 'Trading off sovereignty: the outcome of Belarus's integration with Russia in the security and defence field', *Centre for Eastern Studies*, 29 Apr. 2013, <https://www.osw.waw.pl/en/publikacje/osw-commentary/2013-04-29/trading-sovereignty-outcome-belaruss-integration-russia>; and TASS, 'Belarus gets Russia fourth battalion of Russian S-300 air defense systems', 5 May 2016, <http://tass.com/defense/874170>.

[20] On 18 Sep. 2015, Russian President Vladimir Putin issued a Presidential Order tasking the Ministry of Defence and Ministry of Foreign Affairs with gaining the agreement of Belarus to its offer to establish a Russian airbase on the territory of the Republic of Belarus.

Figure 11.3.1. Strategic location of Kaliningrad

border. It also faces the potential impact of a future close integration of Russian and Belarus armed forces. As indicated in figure 11.3.1, the enclave of Kaliningrad, a part of Russia that is bordered by Lithuania and Poland, is a strategic Russian vulnerability. This is because it would be very difficult, if not impossible, to defend using conventional means in a conflict with NATO without the active engagement of Belarus. Statements on sovereignty notwithstanding, if Belarus is a de facto strategic staging post for the Russian armed forces, it would make it much easier to open a corridor to the enclave of Kaliningrad in any future conflict. Such a corridor would separate the Baltic states from Poland. For this reason, recent attention has largely focused on the vulnerability of the so-called Suwalki gap as a potential flashpoint in a crisis between NATO and Russia.[21]

Given this background, there is the potential for increased concern and heightened tension during the Zapad-17 exercise. This is likely to be the case if Poland does not fully understand the scenario on which it is based, if the exercise is not carried out with full transparency or if there appears to be a significant mismatch between the stated scenario and the forces deployed. Ukraine also has several concerns about Zapad-17. As indicated in figure 11.3.2, if it is organized in the south of Belarus, the exercise could involve the deployment of large and capable Russian forces very close to Kyiv.

This reaction on the part of Russia's neighbours is understandable. Russia organized large-scale exercises in the proximity of Georgia immediately before

[21] Grigas, A., 'NATO's vulnerable link in Europe: Poland's Suwalki gap', Atlantic Council, 9 Feb. 2016, <http://www.atlanticcouncil.org/blogs/natosource/nato-s-vulnerable-link-in-europe-poland-s-suwalki-gap>.

Figure 11.3.2. Potential proximity of Zapad-17 to Kyiv

the 2008 conflict and in the proximity of Ukraine prior to the conflict in Donbas. The 2008 and 2014 activities were so-called snap exercises, organized at short notice and unannounced. However, an exercise on the scale of Zapad-17 might still be cover for a military operation, even if it is planned and notified well in advance. The major strategic exercise in 2016, Kavkaz-16, heightened tension between Russia and Ukraine because it included activities in Crimea, and there was the potential to use the exercise as cover for an intervention on behalf of separatist forces in eastern Ukraine.[22]

For Ukraine, concern about the Zapad-17 exercise is also linked to the build-up of Russian armed forces and military infrastructure in Crimea and along the Ukraine–Russia border.[23] Among the changes to the Russian order of battle in 2016, a new motorized rifle division was formed near Voronezh, to the east of Ukraine, as part of a significant increase in modern forces in the Russian Southern Military District. If Russia established a major military presence in Belarus—or was able to

[22] Dyner, A. M., 'Kavkaz 2016: The next test of Russia's Armed Forces', *PISM Bulletin*, no. 61 (20 Sep. 2016), <http://www.pism.pl/publications/bulletin/no-61-911>.

[23] Tomkiw, L., 'Russia-Ukraine war update: Putin full-scale invasion is possible, Poroshenko says', *International Business Times*, 18 Aug. 2016, <http://www.ibtimes.com/russia-ukraine-war-update-putin-full-scale-invasion-possible-poroshenko-says-2403592>; and Marson, J. and Grove, T., 'Russia builds up army near Ukraine border', *Wall Street Journal*, 19 Aug. 2016, <http://www.wsj.com/articles/russia-builds-up-army-near-ukraine-border-1471537008>.

move large formations quickly through Belarus to the Belarus–Ukraine border—Ukraine would face the prospect of attack from the north and east by numerically and technologically superior forces in any future Russia–Ukraine conflict. The deployment of Russian forces at the Belarus–Ukraine border would exert immediate military pressure on Kyiv.[24] The concerns raised by the possible implications of Zapad-17 reflect questions that Russia's neighbours increasingly ponder: will their sovereignty be respected and will observed tendencies to exploit military modernization for political gain continue?

Exercises in the context of confidence-building measures

Europe is the only region to have created an integrated conventional arms control system with legally binding treaty restrictions on conventional armed forces, a binding and verifiable set of confidence-building measures (CBMs) and a legally-binding commitment to facilitate overflight of sovereign territory to enhance transparency. In this context, the Vienna Document agreed by the Commission on Security and Cooperation in Europe participating states in 1990 consists of an extensive set of measures on the exchange of military information, risk reduction, military-to-military contacts, prior notification of military activities and the observation of military activities by teams of observers, as well as a verification system based on inspections and an evaluation mechanism to assess overall compliance of implementation with agreed measures.

Subsequent adaptations to the Vienna Document have led to substantive changes, most notably a requirement for two years of prior notification for military exercises that involve more than 40 000 troops or 900 tanks. These changes further stipulate that only one such activity is allowed per state during that period, and restrict the annual number of exercises involving more than 13 000 troops or 300 tanks to six per country. They have further expanded the General Exchange of Military Information (GEMI) to include a wider spectrum of defence planning and broadened military-to-military contacts. None of these instruments has been cancelled but their effectiveness is impaired by issues over compliance.

Overall, the Vienna Document was designed to increase transparency and predictability across the whole of Europe. However, its effectiveness depends on participating states understanding, well in advance, the military plans and programmes of their peers. The procedures associated with the document provide an opportunity to observe, inspect and, if necessary, challenge the information related to military activities that states find unusual or of potential concern. Nonetheless, there have been a number questions regarding the level of compliance with the Vienna Document, which suggests that the manner of adherence to the document undermines confidence building.

The main concerns about implementation refer to the sequencing of exercises below notification thresholds to avoid the need for reporting and external observation. There is also frequent use of the provision exempting 'snap exercises' from

[24] The distance from Kyiv to the border with Belarus is approximately 70 kilometres.

advance notification, as well as abuse of the provision for additional voluntary inspections. Further concerns surround the provision of outdated, incomplete or incorrect information about military exercises and the failure to use the consultation mechanisms provided for in the document.

In a recent statement General Valery Gerasimov, the Chief of Staff of the Russian Armed Forces, noted that Russia 'continues to inform all countries, including NATO members, of all major events related to the operational and combat training of the Russian Armed Forces', and that 'Russian and foreign media outlets cover all major military exercises'.[25] While useful, however, this kind of unilateral and controlled information release is not equivalent to the use of the Vienna Document CBM provisions, which detail the information that states should provide in connection with exercises and which allow other states opportunities to observe, question and challenge the host state.

Gerasimov also noted that the Russian Ministry of Defence invited external observers to the final stage of the Kavkaz-16 strategic exercises. However, this 'á la carte' approach is also problematic, because states will question whether dividing an integrated activity into separate parts, and inviting observation of some parts but not others, is consistent with the purpose of the Vienna Document.[26]

Zapad-17 and its potential demonstration of capabilities

When it comes to Russia's reporting on Zapad-17, states will pay close attention to activities to assess what they indicate about Russian military capabilities. Since 2008, Russia has been implementing a major military modernization and reform programme. While Russia has launched several initiatives to reform and remodel its armed forces since the end of the cold war, the New Look reforms after 2008 are the most sustained and ambitious.[27] Many indicators suggested that the combat effectiveness of the Russian armed forces was degrading and the New Look military reforms were intended to produce a more professional and effective fighting force.

One objective was to increase the flexibility of the armed forces by transforming a system based on rigid formations to one based on units that can be combined in different configurations. A second objective was to promote more integrated joint operations across the different parts of the Russian armed forces. The reform programme also included an equipment modernization programme, launched in

[25] TASS, 'Chief of Staff says Russia informs NATO of all its military activities', 15 Dec. 2016, <http://tass.com/defense/919691>.

[26] This was an issue in the context of Zapad-13, where outside commentators asserted that the notified elements of the exercise only described a relatively small part of the overall activity. Neretnieks, K., 'Zapad 13: observations and perspective', *Försvar och Säkerhet*, Royal Swedish Academy of War Sciences, 12 Oct. 2013, <http://kkrva.se/zapad-13-observations-and-perspective>.

[27] Forss, S., Kiianlinna, L., Inkinen, P. and Hult, H., *Rysslands Militärpolitiska Utveckling och Finland* [Russia's military-political developments and Finland] (Strategiska Institutionen, Försvarshögskolan: Helsinki, 2011), <https://www.reservilaisliitto.fi/yhdistyspalvelut/yhdistysten_ja_piirien_kotisivut/helsingforsnejdens_svenska_reservunderofficerare/verksamhet/gamla_nyheter/rysslands_militarpolitiska_utveckling_och_finland.18167.news>.

the 2010 State Armaments Programme, to ensure that by 2020 'modern weapons' would make up 70 per cent of the inventory of the Russian armed forces.

Zapad-17 will test the different elements of the New Look reforms to see if Russia can mount large-scale, complex military operations. Given Russian plans for new army formations, it seems that the Russian military still believes the expression attributed to Joseph Stalin, former leader of the Soviet Union, that 'quantity has a quality all of its own'. The newest exercise is likely to test the capacity of the 1st Guard Army to conduct operations along with the newly formed tank and motorized rifle divisions and multiple infantry formations.

After a long period in which Russia's armed forces have purchased very few new conventional weapons, the newly formed army divisions mainly seem to be armed with tanks, artillery and armoured vehicles designed in the 1980s and 1990s. These were ready for serial production at the point when the New Look reforms were established. Russian missile brigades are now progressively updating their inventories, replacing their SS-21 surface-to-surface missiles with Iskander missiles that have more than twice the range of the weapons they are replacing.

Perhaps more important than the introduction of new but not particularly modern weapons is the extent to which Russia can take advantage of the significant advance in the capacity to network capabilities, combining weapons to enhance firepower at specific locations.

Concentrating firepower by using a mix of weapons—some located at the point of combat and others participating from a great distance—in coordinated attacks that involve long-range missiles, armed unmanned air vehicles, long-range combat aircraft, tactical combat aircraft and artillery of different kinds has been enabled by the digital revolution that occurred after the end of the cold war. Without modern methods of surveillance, situational awareness, targeting and real-time communications, the types of coordinated attack that have been a feature of recent conflicts would not be possible.

Coordinated attacks using a mix of weapons have been a feature of Russian military operations in Syria and Zapad-17 may indicate how this capability might be used in a European conflict. In relation to the more networked approach, the degree to which Russia now employs a mix of advanced, precision weapons alongside less capable weapons will be the object of close attention.

Observers will also be analysing the role, if any, that nuclear weapons play in Zapad-17. A relatively large number of Russian weapons are believed to be dual-capable and equipment that could have a nuclear mission participated in both Zapad-09 and Zapad-13. An assessment of the Zapad-09 exercise by the USA suggested that the use of dual-capable missiles 'may have simulated the use of tactical nuclear weapons' against Poland and Lithuania.[28] Yet, the assessment of the role Russian nuclear weapons may have played in these previous exercises is extremely general. Therefore, it could be argued that it is no different from the participation of dual-capable aircraft in NATO exercises.[29]

[28] Wikileaks release of a Cable from the US Mission to NATO, 23 Nov. 2009.

[29] In Apr. 2016, 12 US Air Force F-15E Strike Eagle fighter aircraft participated in a NATO exercise in the eastern Mediterranean. Pawlyk, O., 'USAF F-15s move across Europe for exercises: Here's where they are',

The more frequent activity by Russian dual-capable forces has prompted speculation that the threshold for nuclear-use could be lower than suggested by the public version of Russia's military doctrine.[30] However, the most recent public version of the doctrine tends to emphasize the role of long-range, conventionally armed cruise missiles launched from heavy bombers, submarines and surface ships in war fighting and conventional deterrence. As noted above, this capability is one that has been used in Syria.[31]

The deployment and use of nuclear-capable stand-off weapons does not necessarily indicate intent to use nuclear weapons in a conflict. Nonetheless, as long as nuclear weapons remain in the Russian arsenal, their possible use is increasingly likely to be assessed both in scenarios where Russia is 'winning' on the battlefield to prevent a counter-offensive or where Russia is 'losing' on the battlefield to signal resolve. The latter would stress the risk of strategic weapon use if an attack on Russian forces were to become an existential threat to the state. Zapad-17 will no doubt be analysed to see whether it provides any additional information on this nuclear dynamic.

Takeaways

Despite the increase in defence budgets, modernization of equipment and restructuring of armed forces, the degree of militarization in Europe remains far below cold war levels. Still, Europe is not at peace. There are deep and persistent divisions over political-military security that have the potential to cause high levels of tension and, under certain conditions, conflict. In the eyes of many European countries, Russia has violated core principles that are at the heart of a stable European security system. Russia, meanwhile, interprets NATO policy as 'coercive containment' as part of an effort to create a new European security system not with, but against Russia.

These deep differences are unlikely to be overcome in the near future. For the time being, the focus will be on limiting the risk of escalation, strengthening deterrence and establishing effective defences. There is a need to focus on the potential for military exercises to increase tension at specific times and in particularly sensitive locations, as well as to think carefully about how such risks can be reduced or managed. In this context, the Zapad-17 exercise has the potential to play a central role. At one level, its scale and nature may cause a degree of destabilization through misinterpreted signals by Russia's neighbours. At another level, this exercise may serve a vital function in providing insights into how Russia views its security environment and the extent to which it is willing to exert conventional and nuclear force to protect its interests.

Air Force Times, 4 Apr. 2016, <https://www.airforcetimes.com/articles/usaf-f-15s-move-across-europe-for-exercises-heres-where-they-are>.

[30] Durcalek, J., 'Nuclear-backed 'little green men': nuclear messaging in the Ukraine crisis', Polish Institute of International Affairs, July 2015, <http://www.stratcomcoe.org/jdurkalec-nuclear-backed-little-green-men-nuclear-messaging-ukraine-crisis>.

[31] TASS via Defence-Aerospace.com, 'Kalibr SLCMs in Syrian theater of operations', 26 Oct. 2016, <http://www.defense-aerospace.com/articles-view/feature/5/178397/naval-cruise-missiles-and-russian-operations-in-syria.html>.

12. Nuclear Modernization and Changing Postures on Escalation

This chapter pairs evaluations of changes in Chinese and Russian nuclear modernization programmes. Vasily Kashin offers an analysis of how China's nuclear build-up and development of long-range strike capabilities is shaping US and Russian responses. He acknowledges that while these developments might challenge US threat perceptions, Russia's and China's shared concerns over hypersonic weapons, directed-energy weapons and ballistic missile defence could push the two towards closer cooperation. Yu Koizumi reviews the status of Russia's tactical and strategic nuclear forces, with a focus on how these systems fit into its nuclear doctrine. He analyses whether Russian use of nuclear weapons to 'de-escalate' a conflict is a genuine operational policy.

12.1. Vasily Kashin[1]

Introduction

China's strategic nuclear forces are undergoing a major transformation, from their associated command and control systems to the defence industry that underpins them. In the next few years, Chinese nuclear forces will completely change their modus operandi and will be significantly expanded in size. Their close integration with conventional ballistic and cruise missile forces will also serve as factors affecting Russian and US behaviour.

Chinese trends in nuclear modernization

China's shifts in nuclear strategy and platforms began in the 1990s and some programmes are even traceable back to the late 1980s. In fact, a number of China's major investments in the field, such as the creation of nuclear-powered ballistic missile submarine (SSBN) infrastructure on Hainan Island, occurred many years ago in a completely different political environment. Implementation of these strategies has been long term and is not in reaction to any of the actions or initiatives of the administrations of former US presidents Barack Obama or George W. Bush.

Throughout this modernization process, there has been a slow but steady growth in the production capacity and payroll of such key institutions as the Chinese Academy of Engineering Physics, responsible for nuclear warhead development and production, and the academies of the China Aerospace Science and Technology Corporation (CASC,中国航天科技集团公司) and the China Aerospace Science and Industry Corporation (CASIC, 中国航天科工集团公司), responsible for ballistic missile production. Relevant organizations generally exhibited a

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25–40 per cent growth in personnel numbers, but it must be emphasized that the education of professionals in the nuclear and missile industries takes time. It is estimated, for example, that just 20 per cent of the workforce in the nuclear weapons assembly facility known as Factory 903 has a doctorate.

After years of underestimating Chinese nuclear capabilities, US experts and officials are slowly changing their attitudes. However, current Chinese conventional long-range strike capabilities seem to affect US policy to a far greater extent. The suspected growth in China's anti-access area-denial (A2AD) capabilities served as one of the key drivers of the development of the Third Offset Strategy by the United States, which has the potential to bring highly disruptive technological advances into the world affecting not just the military, but also the economic fields.

Russia is paying increased attention to the possible consequences of the US Third Offset Strategy. Chinese conventional intermediate-range ballistic missile (IRBM) development has already triggered a US discussion about the utility of the 1987 Intermediate-Range Nuclear Forces Treaty (INF Treaty), and there have been calls to deploy land-based missiles in Asia and use suspected Russian violations as an excuse to renegotiate the treaty.

The US Department of Defense is also focusing on the modernization of China's nuclear forces. Its assessment is that the number of Chinese intercontinental ballistic missiles (ICBMs) is growing. Still, even while recognizing these developments as problematic, the new Trump Administration will probably see space for further reductions in nuclear stockpiles and is likely to pursue a 'Reaganist' policy towards China. This suggests that the USA will try to achieve overwhelming military superiority, concentrating these efforts in such areas as conventional naval armaments and ballistic missile defence.

It is likely that the USA does not have an established opinion about the final goal of China's nuclear build-up. While some US experts express reasonable concerns that China might be aiming for a 'leap to parity' in terms of nuclear weapon numbers with the USA and Russia, they are likely to anticipate that they would have ample time to react. The overall aim in the USA seems to be to reduce the cost of the inevitable large-scale nuclear modernization, while concentrating resources on other areas.

The Russian situation is different. Russia started the process of nuclear modernization earlier than the USA and is now already in the midst of these developments. Russia currently has significant technological advantages in this field, but it has fewer resources to react to future nuclear developments, in part due to its smaller economic base. With the potential for a Chinese-US arms race at some point between 2020 and 2030 to destroy current arrangements in the arms control field, Russia is likely to prefer to make its preparations early.

Impact of China's nuclear modernization on Russia and the USA

Overall, the impact of China's nuclear build-up on Russia will be twofold. In terms of direct influence, new Chinese capabilities must be factored into Russian

nuclear planning. However, there may be an even greater indirect influence, since the Chinese nuclear build-up will start to affect the behaviour of the USA.

In recent years, China has restarted the programme to build a network of ground-based radar, known as a Ballistic Missile Early Warning System (BMEWS), which was terminated in the 1980s. As of September 2015, there are also allegations that China has started to build a space-based missile attack early warning system, by launching an experimental Communications Engineering and Test Satellite equipped with missile detecting infrared sensors from the Xichang Satellite Launch Centre.

The creation of a large-scale BMEWS programme, comparable only with those of Russia and the USA is not an isolated phenomenon. China is also developing multilayered strategic missile defence systems, which include ballistic missile mid-course interceptors. With the new generation of road-mobile solid-fuel Intercontinental Ballistic Missiles (ICBMs) as the main arm of China's strategic nuclear forces, and the added appearance of a functional nuclear naval component, a complete change to existing Chinese practice of maintaining its nuclear arsenal appears inevitable.

Historically, China claimed to store its nuclear warheads separate from its delivery systems, under the control of a special unit of the Second Artillery Force known as Base 22 and its detachments. The development of the early warning and strategic missile defence capabilities, together with the deployment of functional SSBNs on patrol, mean that this approach must change. China is likely to put its nuclear forces on alert in the near future. In fact, leaked sections of *The Science of Second Artillery Operations* (第二炮兵战役学) indicate that adoption of launch on warning has been under consideration in China for many years.[2]

A massive military reform is currently being implemented in China. The renaming of the Second Artillery Force as the PLA Rocket Force, the replacement of the former General Staff Department with the Central Military Commission Joint Staff and the launch of the Central Military Commission Joint Battle Command Centre are all tailored to these new strategies. The early years of a change in China's alert status are going to be difficult, as witnessed by the US and Soviet experience during the cold war. The probability of mistakes and malfunctions is high. The fact that this transition is happening in a situation of deteriorating political relations between the USA and China makes matters worse.

Lack of clarity and the ample resources possessed by China make it necessary to factor China's nuclear arsenal into any strategic calculations. Russia's government and defence establishments do not see China as a likely source of threat, as long as the current political system in China persists. However, China's current research and development of defence technology and its procurement programmes represent long-term shifts, particularly in the nuclear field. Given this fact, even low probability scenarios should be considered. While none of these major pro-

[2] Kulacki, G., Union of Concerned Scientists, translation of excerpt from 第二炮兵战役学 [The science of second artillery operations], (北京: 解放军出版社 [Beijing: People's Liberation Army Press, 2004]), pp. 294–96, <http://www.ucsusa.org/sites/default/files/attach/2014/09/Kulacki-Translation%20of%20Coercion%20section%209-22-14.pdf>.

grammes should be attributed to the deterioration in Chinese–US relations in recent years, over the South China Sea among other issues, they will nonetheless have implications for a range of Chinese and US interactions.

Takeaways

China's strategic weapons development, combined with security concerns in the Asia-Pacific region, contribute to Russia's desire to maintain diversified, technologically-advanced nuclear forces. These trends also compel Russia to take a more reluctant approach to any nuclear arms reductions agreements. Russia might be interested in including the Chinese in the Russian–US nuclear dialogue, but it is extremely unlikely that such an initiative would be successful. The success of the Third Offset Strategy in the areas that most affect strategic stability, including hypersonic weapons, directed-energy weapons and ballistic missile defence, could push Russia and China towards closer cooperation in these sectors to restore the balance.

12.2. Yu Koizumi[3]

Introduction

Russia is vigorously pursuing nuclear modernization. Russia's state armaments programme to 2020 (GPV-2020) places its highest priority on a 'triad' of strategic nuclear forces that includes ICBMs, SSBNs and submarine-launched ballistic missiles (SLBMs), as well as heavy bombers complemented by other components of nuclear deterrence such as early warning systems and command and control systems. Still, from the first iteration of its military doctrine to its 2014 version, Russia has argued that the likelihood of large-scale interstate war, including the use of strategic nuclear weapons, is limited. This poses the natural question: why is there such a seeming contradiction between Russia's strategic doctrine and its modernization?

Russia's nuclear force modernization

Strategic nuclear forces

According to the most recent data exchange under the new Strategic Arms Reduction Treaty (START),[4] Russia currently possesses 508 strategic nuclear delivery vehicles, or ICBMs, SLBMs and heavy bombers. A total of 1796 strategic nuclear warheads are deployed on these delivery vehicles. While Russia has been working on state-of-the-art delivery vehicles, such as Type 955/955A SSBNs, equipped with RSM-56 Bulava SLBMs and RS-24 Yars ICBMs, the total number of strategic delivery vehicle deployments has not changed significantly. This is largely

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[4] US Bureau of Arms Control, Verification and Compliance, 'New START Treaty aggregate numbers of Strategic Offensive Arms', 1 Oct. 2016, <https://www.state.gov/t/avc/rls/2016/262624.htm>.

because obsolete delivery vehicles have been retired at approximately the same rate as the new ones have been introduced.[5]

Nonetheless, the proportion of new delivery vehicles in Russia's overall nuclear infrastructure is increasing. This is particularly evident in the backbone of its strategic nuclear forces, Russia's Strategic Rocket Force (Ракетные войска стратегического назначения, RVSN). The proportion of RS-24 Yars ICBMs equipped with multiple independently targetable re-entry vehicles (MIRVs) has increased significantly. As of the beginning of 2017, these platforms occupied 24 per cent of Russia's deployed ICBMs and their nuclear payloads constituted 28 per cent of the total number of ICBM warheads. Moreover, all six active Type 667BDRM Delfin SSBNs have been modernized for conversion to the new RSM-54 Sineva SLBMs.

Tactical nuclear forces

Russia's deployment of its Iskander-M tactical missile complex is progressing at the rate of two brigades per year. Of the 10 tactical missile brigades in the Russian Ground Forces, nine had been re-equipped with the Iskander-M by the end of 2016 and the final missile brigade in Kaliningrad was due to start its re-equipping process. The Russian Ministry of Defence's official statement on the intended rate of deployment of the Iskander-M by 2020 suggests that the number of tactical missile brigades will be increased from 10 to 17. Tactical nuclear-capable aircraft are also being deployed at a fast rate. Among the most noteworthy has been the deployment of the Sukhoi-34 (Su-34) and Sukhoi-30SM (Su-30SM), which have been deployed at the considerable pace of 16–20 per year. These platforms are important indicators of Russia's prioritization of its tactical nuclear modernization.

Evolution of nuclear strategies

Belgrade with nuclear weapons

The pace and scale of this modernization raise the question of why Russia is focusing on nuclear modernization even after the end of the cold war. There are two possible explanations: to compensate for the weakness of its conventional forces and to guarantee its ability to intervene to defend its 'sphere of interest'. On the first rationale, the Soviet Union's conventional forces enjoyed advantages over those of the North Atlantic Treaty Organization (NATO), but the break-up of the Soviet Union changed the situation dramatically. In the 1990s, Russia's conventional forces dropped into an inferior position to NATO's, which at that time was in the midst of the revolution in military affairs.

Russia's first military doctrine, which dates to 1993, emerged under these uneasy strategic circumstances. The document declared a doctrine of 'first use'

[5] Kristensen, H. M. and Norris, R. S., 'Russian nuclear forces', *Bulletin of the Atomic Scientists*, published annually.

of nuclear weapons, which marked a departure from the Soviet Union's 'no-first-use' declaration of 1982. The doctrine also adopted a strategy based on massive retaliation, claiming that any nuclear use would escalate to a catastrophic nuclear war. These positions were further elaborated in the years that followed, as the concept of 'regional deterrence' (региональное сдерживание) gained currency among Russian pundits. This could be interpreted as the Russian version of NATO's 'flexible response' strategy from the cold war, which advocated supplementing conventional force weaknesses with tactical and theatre nuclear forces while maintaining a strategic level nuclear deterrence with longer-range, heavier-payload systems.

NATO's air campaign against Yugoslavia in 1999 in 'Operation Allied Force' raised serious concerns in Russia. The operation was conducted without a United Nation's mandate, where Russia has veto powers. Furthermore, it was carried out with full spectrum use of precision-guided munitions. Alexei Arbatov, Head of the Centre for International Security at the Institute of World Economy and International Relations, noted that NATO's high-tech airpower demonstrated in the Yugoslavia campaign provoked concerns of 'today Yugoslavia: tomorrow Russia'.[6] At that time, Russia had only limited capability to counter NATO's air power, which further increased the importance of nuclear deterrence.

While it could be argued that Russia's second military doctrine in 2000 adopted 'regional deterrence' as its own response to NATO's 'flexible response' and the strategic circumstances described above, this was not explicitly declared in Russian policies. Yet, this new iteration of doctrine did argue that Russia would use nuclear weapons to repel aggression, even if the enemy had not engaged in nuclear use. Furthermore, Russia's national security concept, published in the same year, stipulated the following principles for the exercise of military force: (*a*) employment of all the manpower and resources in its possession, including nuclear weapons, when faced with the need to repulse an armed aggressor, if all other measures to resolve the crisis have been exhausted or proved ineffective; and (*b*) use of military force in strict conformity with the national constitution and federal law in such contingencies where there is a threat to the lives of citizens, to national territorial integrity or the menace of a forcible change of the constitutional system.

James Quinlivan, a senior operations research analyst at RAND, and Olga Oliker, a senior adviser and director of the Russia and Eurasia programme at the Centre for Strategic and International Studies, interpret these statements as an intention to use nuclear weapons on Russian territory.[7] This implies that the 'regional deterrence' concept has been incorporated into Russia's defence strategy.

[6] Arbatov, A., 'The transformation of Russian military doctrine: lessons learned from Kosovo and Chechnya', *Marshall Centre Papers*, no. 2 (George C. Marshall European Centre for Security Studies: Garmisch-Partenkirchen, 2000).

[7] Quinlivan, J. and Oliker, O., *Nuclear Deterrence in Europe: Russian Approach to a New Environment and Implications for the United States* (RAND Corporation: Santa Monica, CA, 2011), p.17.

De-escalation

Russia revised its military doctrine in 2010 and 2014, making major changes to its nuclear strategy. While these are not seen as declaratory policies, there are some indications that Russia underwent a considerable change in its operational policy with the adoption of 'de-escalation'. The first Ministry of Defence document in which this term appears is *The Priority Tasks of the Development of the Armed Forces of the Russian Federation*, published in 2003. It defines de-escalation as forcing the enemy to halt military action by the threat or actual delivery of strikes of varying intensity that rely on conventional and/or nuclear weapons.

Although this definition overlaps with NATO's de-escalation concept, there is an important difference. NATO's de-escalation is intended to deter vertical escalation, or to de-escalate a conflict that is already under way. In contrast, Russia's de-escalation concept focuses on the deterrence of horizontal escalation, or prevention of a third party's intervention in a conflict, particularly in the post-Soviet space. As Nikolai Sokov, senior research associate at the James Martin Centre for Non-proliferation Studies, explains, Russia's concept is not directed at 'inflicting unacceptable damage on an enemy', but rather 'infliction of "tailored damage", defined as "damage [that is] subjectively unacceptable to the opponent [and] exceeds the benefits the aggressor expects to gain as a result of the use of military force"'.[8]

While the concept of de-escalation appeared during the 1990s,[9] and in Russia's Ministry of Defence documents as early as 2003, it was not until the late 2000s that it was considered a genuine option. In 2009, Nikolai Patrushev, the secretary of Russia's Security Council, made an interesting remark about nuclear strategy in a long interview in *Izvestiya*.[10] He asserted that Russia's next military doctrine, published in 2010, would include nuclear use in local and regional conflicts. He further maintained that in a situation critical to Russia's national security, preventive nuclear attack against invaders should not be excluded. These remarks suggested an intention to adopt de-escalation as an operational policy.

It was of considerable consequence that this interview was given in the year after the 2008 Georgian War. This event marked Russia's first military intervention to defend its 'sphere of influence' and its deterrence of a NATO intervention was a critical condition for its success. By the time the Crimea crisis erupted in 2014, Russia had adopted a more sophisticated approach. It initiated what is commonly called 'hybrid warfare' using elite special operations forces, paratroopers, residents and militias, all operating under a nuclear umbrella.[11] Nonetheless,

[8] Sokov, N., 'Why Russia calls a limited nuclear strike "de-escalation"', *Bulletin of the Atomic Scientists*, 13 Mar. 2014.

[9] Levshin, V. I., Nedelin, A. V. and Sosnovskiy, M. Y., [The use of nuclear weapons for de-escalation in military operations], *Military Thought*, vol. 4–5, no. 3 (1999), pp. 34–37 (in Russian); Brezkun, S., [Potential containment], *Military-Industrial Courier*, vol. 81, no. 14 (Apr. 2005) (in Russian); and Kovalev, V., [Nuclear weapons and security of Russia in the 21st century], Centre of Scientific and Political Thought and Ideology (2014), <http://rusrand.ru/analytics/jadernoe-oruzhie-i-bezopasnost-rossii-v-xxi-veke>.

[10] [Russia is changing and its military doctrine is changing], *Izvestiya* 14 Oct. 2009 (in Russian).

[11] Kroenig, M., 'Facing reality: Getting NATO ready for a new cold war', *Survival*, vol. 57, no. 1 (Feb.–Mar. 2015), pp. 49–70.

while seemingly occurring in practice, the concept of de-escalation was not officially discussed in the later versions of Russia's military doctrine published in 2010 and 2014.

On Russia's operational policy, General Anatoly Nagovitsyn, then deputy chief of Russia's General Staff, assisted preparations for the third edition of Russia's military doctrine of 2010. He has asserted that the classified portion of the document included the use of nuclear weapons as a means of deterrence.[12]

Debate over de-escalation

Despite this background, Oliker, among others, has expressed scepticism that Russia has adopted de-escalation as its operational policy.[13] She maintains that had Russia operationalized such an aggressive nuclear strategy, it would be clearly declared within its official military doctrine, but this is not the case. This argument maintains that the very existence of Russian officials and experts who claim that classified versions of the military doctrine contain de-escalation serves as evidence that the concept has not been officially adopted and operationalized.

Criticizing the discourse that couples the concepts of 'hybrid warfare' and de-escalation, Jacek Durkalec, an analyst in the European Security and Defence Economics Project at the Polish Institute of International Affairs, reaches a similar conclusion to that of Oliker. He insists that experts have overestimated Russia's active nuclear use policy and that this practice is just classic sabre rattling. In addition, he points out that there is no concrete basis on which Russia could assume it could avoid NATO retaliation if it were to conduct a nuclear strike under the precept of de-escalation.[14]

These divergent viewpoints illustrate the need for further discussion. Operational policy is not necessarily an official document listing criteria for nuclear use. Instead, it can be understood as a concept or an idea. Given that there is debate over the potential for Russia to engage in the active use of nuclear weapons, this serves as a 'pseudo' declaratory policy. In other words, even without an official declaration, others are compelled to factor in the potential existence of de-escalation when shaping their decision-making processes. Moreover, even operational policies can experience a considerable degree of flexibility when faced with a crisis or war. Given the existence of this concept and the nuclear assets to support it, a scenario could emerge in which Russia operationalized de-escalation in practice. The precedent for this occurred during the Crimean crisis, when Russia deployed hybrid warfare without any pre-existing officially declared doctrine.

[12] [Nagovitsyn speaks about the secret of the military doctrine of the Russian Federation], *Interfax-AVN*, 14 Aug. 2009 (in Russian).

[13] Oliker, O., 'Russia's nuclear doctrine: what we know, what we don't and what that means', Centre for Strategic and International Studies, 2016, <http://csis.org/files/publication/160504_Oliker_RussiasNuclearDoctrine_Web.pdf>

[14] Durkalec, J., 'Nuclear-backed "little green men": nuclear messaging in the Ukraine crisis', Polish Institute of International Affairs (June 2015), pp.15–19.

Takeaways

Whether de-escalation is an operational change in nuclear strategy or simply a bluff, Russia's biggest motivation for modernizing its nuclear forces is to compensate for the inherent weaknesses of its conventional forces. While Russia is rapidly modernizing its conventional forces, their quality and quantity are not comparable to those of NATO. Thus, it is highly likely that Russia's external policies will continue to be accompanied by the prospect of nuclear use for the purposes of de-escalation in a crisis.

13. Calculus on Missile Defence and Hypersonic Glide

This chapter uses technological advances in the fields of missile defence and hypersonic glide to explore the implications of such platforms for Chinese and Russian nuclear deterrence. Zhao Tong discusses common Chinese and Russian concerns over US missile defence, which is viewed as threatening their respective nuclear deterrents, and the measures both are taking in response. Lora Saalman provides the context for how similar threat perceptions are manifested in China's development of hypersonic glide capabilities. She argues that increased identification with Russia has filtered into Chinese research on hypersonic glide vehicles, such that China may similarly pursue missile defence as the target and nuclear warheads as the payload for its platforms.

13.1. Zhao Tong[1]

Introduction

Russia and China have similar threat perceptions when it comes to the potential impact of US missile defence on their respective nuclear deterrents. While some foreign analysts doubt that the two countries' concerns are genuine, an in-depth examination of the Chinese understanding of US missile defence reveals that a number of factors—including some serious misperceptions—make China deeply wary of these systems. If the similarities between the Chinese and Russian political systems and their decision-making dynamics are taken into account, as well as their deep mistrust of the United States, it is likely that Russian concerns about US missile defence will similar to those of China; and these must be adequately addressed.

Common concerns over missile defence

From a technical perspective, Russia and China evaluate the US missile defence threat based on a variety of basic assumptions. The USA could launch a comprehensive disarming first strike, after which only a small number of their respective nuclear weapons would survive. These could then be neutralized by a layered US missile defence system. Major technological breakthroughs such as the potential US development of the Multiple Kill Vehicle and laser interception technology could further improve the efficacy and efficiency of future US missile defence systems.[2]

[1] Zhao Tong is a Fellow in the Nuclear Policy Programme at the Carnegie-Tsinghua Centre for Global Policy in China.

[2] Vladimir Pyriev and Vladimir Dvorkin have written that the discontinuation of MKV development indicates the extent to which some US programmes continue to receive attention in the Chinese literature even after their demise. Pyriev, V. and Dvorkin, V. (English version, Bubnova, N., ed.), 'The US/NATO programme and strategic stability', Arbatov A. and Dvorkin, V., eds., *Missile Defence: Confrontation and Coop-*

Russia's and China's deep-rooted political mistrust of the USA causes them to embrace worst-case scenarios. This tendency has only grown over time and leads to concerns over the reliability of their respective nuclear second-strike capabilities. These issues are coupled with the geographical dilemma that both Russia and China are located next to North Korea.[3] Any US strategic missile defence system that can intercept North Korean intercontinental ballistic missiles (ICBMs) would also potentially be capable of engaging Russian and Chinese ICBMs launched from North East Asia towards the USA. In addition, US theatre missile defence systems deployed in North East Asia would inevitably affect Chinese and Russian security interests.

Both countries also worry that the USA has been using missile defence cooperation to strengthen its extensive network of alliances. Russia views US deployment of missile defence systems in Romania and Poland as efforts to draw these Eastern European countries closer into the US orbit. From China's vantage point, US installation of Terminal High Altitude Area Defense (THAAD) in South Korea and the export of missile defence systems to Taiwan and Japan have caused major political difficulties for mainland China. Furthermore, US efforts to engage countries such as Australia and India in missile defence cooperation are viewed as a strategy to bring these countries into the US-led security network.

Such shared concerns serve as the foundation for Russia and China to find areas of common interest, mutual support and cooperation. Increasingly, the two countries are cooperating to voice strong opposition to US development of strategic and theatre missile defence systems and their deployment close to Russian and Chinese borders. In June 2016, both countries' presidents issued a joint statement on strengthening global strategic stability and further consolidating their coordination and cooperation against the USA and its allies over missile defence. More substantive cooperation to strengthen their own missile defence capabilities has made rapid progress. The first Russia–China joint missile defence computer simulation exercise took place in 2016 and a second joint exercise has been announced for 2017.

Bilateral cooperation

The room for joint Russian–Chinese cooperation is considerable. Russia has already sold advanced air and missile defence systems to China, such as the S-300, and has signed a contract to sell China the S-400. More information sharing about common missile threats and better coordination of each other's military communication systems is another area for possible cooperation. China is presumably also interested in learning from Russian experiences of developing advanced missile defence countermeasure technologies. In anticipation of increasing tensions with the USA over its missile defence deployment in North East Asia, Chinese experts believe that Russia has long and positive experience of opposing US mis-

eration (Carnegie Moscow Centre: Moscow, 2013), pp. 183–202.

[3] China and Russia are also not far away from Iran, another major target of US missile defence deployment.

sile defence politically on the international stage—and can therefore offer valuable lessons to China.

Despite these convergences, a lack of deep mutual trust remains between Russia and China, which limits the scope and depth of their cooperation. Without being military allies, Chinese experts doubt how far the cooperation can go. Deep cooperation requires full transparency on some of their most sensitive military technologies and a degree of integration of military command and control systems. This is unlikely to occur in the near future. Beyond their borders, both countries have divergent and even competing interests in other parts of the world. Both have developed advanced theatre missile defence systems and are actively marketing them to foreign buyers. In some cases, such as in Turkey, the Russian S-400 and the Chinese HQ-9 systems have become major competitors.

Even more importantly, Russian experts have privately expressed security concerns about China's rapidly growing medium- and intermediate-range missile capabilities. Russia is aware of the fact that much of its own territory is vulnerable to China's large stockpile of ballistic and cruise missiles, which might become a threat should bilateral relations deteriorate. Russia also has different security relations with China's main rivals such as India. Some believe that China's development of mid-course ballistic missile defence technology is at least partially driven by the growing missile threat from India, whereas Russia has been cooperating with India on developing advanced missile capabilities.

In the future, Russia and China will continue to take similar measures to counter the perceived threat from US missile defence. Such measures will have significant security implications not only for these countries, but also for other stakeholders in Asia, Europe and across the globe. Russia and China will continue to strengthen their nuclear capabilities as the most important countermeasure against US missile defence. In this case, China's much smaller nuclear arsenal makes it even more concerned than Russia, forcing China to undertake more dedicated measures to modernize its nuclear programme.

Both countries stress the importance of multiple independently targetable re-entry vehicles (MIRVs) and are working to improve the rapid response capabilities of their nuclear forces. This will have implications for crisis stability. Russian officials have publicly threatened to attack the missile defence assets of the USA and some European countries. Some Chinese experts have made similar threats against THAAD in South Korea. Given that Russian and Chinese analysts tend to downplay the danger of misunderstandings and inadvertent escalation during crises, the risk of miscalculation leading to a regional conflict or war could increase.

Takeaways

A new US president and a new security landscape in Asia make the Russia–China–USA trilateral interaction over missile defence more complex. China has been able to avoid direct confrontation with the USA on the issue, while Russia has waged political battles against missile defence in Europe. However, as the Trump Administration looks to engage with Russia and North Korea's nuclear and missile

capabilities drive the USA, South Korea and Japan to deploy more missile defence systems in North East Asia, the risk of US–Chinese confrontation over missile defence will continue to increase. The 2017 US National Defence Authorization Act mandates the US Department of Defense to develop a layered missile defence system across the globe. Meanwhile, the new US President has surrounded himself with policy advisers deeply committed to missile defence. The future of great power relations is bound to be greatly affected by their decisions on the future of missile defence.

13.2. Lora Saalman[4]

Introduction

Hypersonic glide vehicles are a growing factor in strategic stability calculations.[5] Given their speed, precision and manoeuvrability, these systems are well suited to defeating missile defences.[6] This section takes the current dyadic approach to US–Chinese competition in the field and inserts Russia as a factor that is shaping Chinese views on the subject. Presenting the key takeaways from 872 of 1675 surveyed Chinese-language texts, the author reviews more than a decade of research on hypersonic and boost-glide technologies to reveal growing Chinese interest in Russia. Combining this trend with both countries' shared concerns over US missile defence suggests that it is time to start factoring in how Russia's calculations on its own prompt global strike programme might shape China's decisions on future nuclear and conventional payloads, and the targets and range of its own hypersonic glide vehicle programme.

Strategic intersection

In China, as in Russia, the US prompt global strike programme is discussed as an inherently pre-emptive and destabilizing system. Both countries make the worst-case scenario assumption that the USA will deploy a prompt global strike system that places their arsenals and command and control infrastructures at risk, whether on intercontinental ballistic missiles, air- and submarine-launched hypersonic cruise missiles, or kinetic weapons launched from an orbiting space

[4] Lora Saalman is Director of and a Senior Researcher in the China and Global Security Programme at SIPRI.

[5] For more information see Saalman, L., 'Factoring Russia into the US-Chinese equation on Hypersonic Glide Vehicles', *SIPRI Insights on Peace and Security*, no.1 (Stockholm International Peace Research Institute: Stockholm, Jan. 2017), <https://www.sipri.org/sites/default/files/Factoring-Russia-into-US-Chinese-equation-hypersonic-glide-vehicles.pdf>.

[6] Hypersonic glide vehicles are characterized by speed, precision and manoeuvrability, which can be applied to defeat missile defences. Traditional calculations of strategic stability rely on the ability to undermine an opponent's nuclear deterrent capability and hypersonic glide vehicles are viewed as providing this assurance. On reaching near space, the systems are ejected from their missile boosters to begin their glide phase, during which they can accelerate to upwards of Mach 5 or 6138 kilometres per hour. The glide phase allows them to manoeuvre aerodynamically to evade interception and extends the range of their booster missiles. Unlike conventional re-entry vehicles, which follow a predictable ballistic trajectory, hypersonic glide vehicles are almost impossible to intercept using conventional missile defence tracking systems.

platform. In the light of these concerns, it is not surprising that both China and Russia are exploring similar capabilities to offset or deter decapitation of their arsenals by the USA.

The timing of China's flight test of its DF-ZF (previously designated as the WU-14) in April 2016 further highlights integration as a factor. China's hypersonic glide vehicle test was reportedly a success and occurred just days after Russia carried out its own test. Its proximate timing to that of Russia recalls China's previous flight tests, which often came on the heels of those conducted by the USA. This is more than mere coincidence. A review of more than a decade of Chinese writing on hypersonic and boost-glide technologies reveals growing interest in and research on Russia's hypersonic glide vehicle programme.[7] Combining this trend with both countries' shared concerns over US missile defence suggests that it is time to start factoring in how Russia's calculations on its own prompt global strike programme might shape China's decisions on future nuclear and conventional payloads and targets, as well as the range of its own hypersonic glide vehicle.

Russia and China are not simply linked by China's increased interest in Russia's hypersonic glide developments. China's renaming of its Second Artillery Corps as the People's Liberation Army Rocket Force (PLARF) and the publication of its 2015 Military Strategy White Paper also hint at a growing convergence.[8] The full implications of this name change and restructuring, which seemingly mirror Russia's own Strategic Rocket Force, are unclear but there is an emerging similarity between the two forces. The PLARF commands all three legs of China's nuclear triad and is now thought to be on an equal footing with the People's Liberation Army (PLA), Navy and Air Force.

In addition, while China's 2015 White Paper might not be as specific as Russia's 2015 Military Doctrine, it emphasizes a similar vision of a global revolution in military affairs tied to long-range, precise, smart, stealthy and unmanned weapons in both outer space and cyberspace. It also details how the Second Artillery, now the PLARF, 'seeks to improve nuclear and conventional forces and long-range precision strike capability' and 'is building systems of reconnaissance, early-warning, command and control, as well as medium- and long-range precision strike

[7] Zhang Shaofang, Wu Kunlin and Zhang Hongna are affiliated with the China Haiying Science and Technology Information Institute. 张绍芳 [Zhang, S.], 武坤琳 [Wu, K.] and张洪娜 [Zhang, H.], '俄罗斯助推滑翔高超声速飞行器发展' [Russia's boost-glide hypersonic flight development], 飞航导弹 [*Winged Missile Journal*], no. 3 (Mar. 2016), pp. 20–22; Zhang Lingjun, Qin Daguo and Yuan Yuqing are affiliated with the Department of Graduate Management and Space Command at the Equipment Academy of China. 张令军 [Zhang, L.], 秦大国 [Qin, D.] and袁玉卿 [Yuan, Y.], '基于精确打击体系的卫星系统及其发展探析' [Analysis of satellite systems based on precision strike systems and their evolution], 装备学院学报 [*Journal of Equipment Academy*], no. 6 (June 2015), pp. 58–62; '俄罗斯多管齐下反制美国PGS计划' [Russia's multi-pronged plan to counter US PGS], *Conmilit*, [n.d.], pp. 71–74; and Wang Jinyun and Wei Sujun are affiliated with the 368 Factory of the China Shipbuilding Industry Corporation. 王金云 [Wang, J.] and魏素军 [Wei, S.], '美俄未来高超声速飞航导弹技术发展动向' [Future US and Russian hypersonic manoeuvrable missile technology development], 飞航导弹 [*Winged Missile Journal*], no. 9 (Sep. 2012), pp. 25–29.

[8] State Council Information Office of the People's Republic of China, '"中国的军事战略" 白皮书 (全文)' [China's Military Strategy White Paper (Full version)], 26 May 2015, <http://www.scio.gov.cn/zfbps/gfbps/Document/1435341/1435341.htm>.

capabilities'.[9] Finally, it advocates the development of 'independent new weapons and equipment' and fielding 'a lean and effective nuclear and conventional missile force'.[10]

Thus, Chinese experts from such organizations as the China Airborne Academy in Luoyang and the China School of Aerospace Engineering at the China Institute of Technology already place a high priority on near-space attack systems as the future of warfare.[11] China has also been increasing the manoeuvrability of its hypersonic glide vehicles, conducting simulations that leverage near space and heat reduction to allow for successful re-entry, and researching more powerful engines and better trajectory optimization to expand the range of its hypersonic glide vehicles.[12] While the majority of these papers involve technological mirroring of US advances, a number also highlight the arc of Russia's hypersonic and boost-glide pursuits.[13] Chinese research into aerodynamic properties, manoeuvrability and the G-force effects on the fuselage at high speeds often feature overviews of Russia's programmes, including its Project 4202 which spawned the Yu-70 (102E or 15Yu70) and the more evolved Yu-71 and Yu-74.[14]

As both Russia and China seek to deploy their own version of a hypersonic glide system, they are confronted with many of the same considerations faced by the USA in distinguishing between a conventional and a nuclear payload. Nonethe-

[9] State Council Information Office of the People's Republic of China (note 7).

[10] State Council Information Office of the People's Republic of China (note 7).

[11] Li Yake, Liang Xiaogeng and Guo Zhengyu are affiliated with the China Airborne Academy in Luoyang. 李亚轲 [Li, Y.], 梁晓庚 [Liang, X.] and 郭正玉 [Guo, Z.], '临近空间攻防对抗技术发展研究' [Near space attack-defence confrontation technology], 四川兵工学报 [*Sichuan Ordnance Journal*], no. 5 (May 2013), pp. 24–30; and Chang Jianlong, Zhao Liangyu and Li Keyong are affiliated with the China School of Aerospace Engineering at the China Institute of Technology. 常建龙 [Chang, J.], 赵良玉 [Zhao, L.] and 李克勇 [Li, K.], '临近空间平台与空天飞机在未来战争中的协同作用' [Synergies of the near space platform and space planes in future wars], 飞航导弹 [*Winged Missile Journal*], no. 9 (Sep. 2012), pp. 81–85.

[12] Zhang Xiangyu, Wang Guohong, Zhang Jing and Liu Yuan are affiliated with the Institute for Information Fusion at the Naval Aeronautical and Astronautical University. 张翔宇 [Zhang, X.], 王国宏 [Wang, G.], 张静 [Zhang, J.] and 刘源 [Liu, Y.], '临近空间高超声速助推—滑翔式轨迹目标跟踪' [Tracking hypersonic boost-glide trajectory targets in near space], 宇航学报 [*Journal of Astronautics*], no. 10 (Oct. 2015), pp. 1125–32; 邱翔宇 [Qiu, X.], '再入滑翔式近空间飞行器飞行姿态控制系统研究' [Re-entry-glide near space vehicle flight attitude control systems], Master's Thesis, School of Information and Control, Nanjing University of Information Engineering, May 2013; 李强 [Li, Q.], '高超声速滑翔飞行器再入制导控制技术研究; 孟令赛 [Meng L.], '高速临近空间飞行器跳跃飞行轨迹优化研究' [Optimization of leap trajectory for near space vehicles at hypersonic speed], Master's Thesis, Harbin Institute of Technology, June 2009; and 陈法龙 [Chen, F.] '高超声速滑翔飞行器弹道快速规划研究' [Rapid trajectory planning for hypersonic glide vehicles], Master's Thesis, National University of Defence Technology, Jan. 2012.

[13] Among the systems mentioned by Chinese analysts are the Soviet Union/Russia's 'Eagle' (Ying), 'Hammer' (Tiechui), GosMKB (Raduga or Caihong-D2) and Kholod or GLL-8 (Igla or GLL-VK) programmes. Wu Xuzhong was a graduate student at the China Institute of Technology while writing this thesis: 吴旭忠 [Wu, X.], '滑翔式飞行器再入制导与控制方法研究' [Entry guidance and control algorithm for glide vehicles], China Institute of Technology (Jan. 2015), p. 9. Cao Zhi was a graduate student at the Nanjing University of Aeronautics and Astronautics while writing this thesis: 曹智 [Cao, Z.], '高超声速无人机基于特征模型的机动飞行控制研究' [Manoeuvring and flight control based on the characteristic model for hypersonic UAVs], Master's Thesis, Nanjing University of Aeronautics and Astronautics (Feb. 2012), p. 4.

[14] Zhang Sihu was a graduate student at the Aerospace Research Institute of the Harbin Institute of Technology while writing this thesis: 张四虎 [Zhang, S.], '高超声速飞行器再入热环境分析及弹道优化设计' [Heat environment analysis and trajectory optimization for hypersonic vehicles], Master's Thesis, Harbin Institute of Technology (June 2013), p. 7. An Hao was a graduate student at the Harbin Institute of Technology while writing this thesis: 安昊 [An, H.], '高超声速飞行器建模及控制方法研究' [Modelling control methods for hypersonic vehicles], Harbin Institute of Technology (July 2013), pp. 5–6.

less, Russia's reported testing of its hypersonic glide vehicle on the UR-100N and the potential mounting of it on the heavy liquid-propelled RS-28 ICBM to defeat US ballistic missile defences suggest that it is making its intentions clear.[15] Given the focus on defeating US missile defences, a nuclear payload would be the most likely option. By contrast, China has been hedging on whether its DF-ZF will be conventional or nuclear. Current discussions on mounting hypersonic glide vehicles on the DF-21 medium-range ballistic missile (MRBM) and the DF-26 intermediate-range ballistic missile (IRBM) indicate a regional contingency. This has elicited a profusion of Western analyses of China's use of its systems for anti-access area-denial (A2AD) to complicate US regional intervention in a crisis.[16]

What these studies disregard, however, is that roughly a quarter of the Chinese technical studies on hypersonic glide vehicles remain focused on US missile defences, rather than any A2AD agenda. Some Chinese experts are even beginning to allege that the very existence of A2AD is a fabrication by Western analysts.[17] Roughly half the Chinese studies surveyed on hypersonic glide vehicles and related technologies concentrate on countering or developing longer-range systems, such as space planes. This suggests that the future uses of China's hypersonic glide vehicles will extend well beyond a conventional payload and a regional conflict. The fact that they place a similar focus on Russia's intended use of these systems to defeat US missile defences in response to US withdrawal from the Anti-Ballistic Missile (ABM) Treaty also suggests identification with Russia when confronting this threat.

Thus, when it comes to the question of whether the DF-ZF, or the Yu-71 and the Yu-74, would be used to overcome theatre missile defence (TMD) or national missile defence (NMD), Chinese and Russian analyses have similar perspectives. They do not distinguish between regional and national missile defence.[18] Much as in Russian discussions of US deployment of TMD in Eastern Europe, Chinese debates over TMD in East Asia concentrate on how these systems serve larger US NMD reconnaissance and intercept goals, thereby threatening its strategic deterrent. This has recently come to the forefront of Chinese concerns over the intended stationing by the USA of THAAD in South Korea, in terms of both enhanced radar and intercept capabilities. Moreover, US X-Band radar deployment in Japan has been a concern for a number of years. The fact that both Chinese and Russian

[15] Zhang Shaofang, Wu Kunlin and Zhang Hongna are affiliated with China's Haiying Science and Technology Information Institute. 张绍芳 [Zhang S.], 武坤琳 [Wu K.] and张洪娜 [Zhang H.], '俄罗斯助推滑翔高超声速飞行器发展' [Russia's boost-glide hypersonic flight development], 飞航导弹 [*Winged Missile Journal*], no. 3 (Mar. 2016), pp. 20–22.

[16] Heath, T. and Erickson, A. S., 'Is China pursuing counter-intervention?', *Washington Quarterly* (Fall 2015), pp. 143–56; Gompert, D. C., 'Responding to China's anti-access strategy', US–China Economic and Security Review Commission, Testimony, 24 Jan. 2014, <http://www.uscc.gov/sites/default/files/Gompert_Testimony1.30.14.pdf>; and Heath, T. R., Gunness, K. and Cortez, C. A., *The PLA and China's Rejuvenation* (Rand Corporation: Santa Monica, 2016), pp. 1–61, <https://www.rand.org/content/dam/rand/pubs/research_reports/RR1400/RR1402/RAND_RR1402.pdf>.

[17] Chinese expert on nuclear affairs, conversation with the author, Conference of the Chinese Community of Political Science and International Studies, Tsinghua University, 2016.

[18] Saalman, L., 'The China factor', eds A. Arbatov and V. Dworkin, *Missile Defence: Confrontation and Cooperation* (Carnegie Moscow Centre: Moscow, 2013), pp. 226–52.

developments in prompt high-precision systems are trending towards the targeting of US missile defences and a nuclear payload makes the postural crossover of these countries all the more relevant.

System integration

If China's DF-ZF is intended as a conventional weapon to be used against a non-nuclear target, then the chances of use are likely to increase. This stems from the inherent difference between conventional weapons and nuclear weapons posited by Li Bin, professor and director of the arms control programme at Tsinghua University, who argues that countries do not intend nuclear weapons for actual use, but rather for coercion—or bargaining in the case of the USA.[19] Unlike nuclear weapons, hypersonic glide vehicles are viewed in a much more utilitarian way in Chinese texts. In part, this stems from their current use, which Western analysts assume is to be mounted on medium-range missile systems to thwart US regional intervention.

When it comes to Chinese technical and official analyses, however, China appears to be extending hypersonic glide range and utility from the regional conventional systems to be deployed on DF-21D MRBMs and DF-26 IRBMs, to longer-range nuclear systems that put US missile defences at risk. Given the pre-existing utilitarian concept of these systems as conventional weapons, building hypersonic glide vehicles into China's strategic deterrent creates the potential for them to erode the nuclear taboo, increasing the likelihood of their use even if mounted with nuclear payloads.

The utilitarian posture in China towards hypersonic glide vehicles, which may at some point carry over to nuclear payloads, creates worrying challenges in terms of escalation and overall strategic stability. Exacerbating these challenges is the co-mingling argument made by James Acton at the Carnegie Endowment for International Peace, which posits that a conventional strike against co-located nuclear and conventional command and control centres could trigger a nuclear response.[20] In this case, China's own control architecture poses the greatest challenge.

China's assumed conventional and nuclear co-location deters an adversary from launching an attack. Yet, the likelihood of such facilities being compromised in a conventional conflict remains and could result in rapid escalation. If China's DF-ZF system is launched in response to what has been deemed a 'first-use' attack on a co-mingled facility, there is a chance of nuclear escalation. That is why the

[19] Based on the writing and speeches of Li Bin, Director and Professor at the Arms Control Programme of the Department of International Relations at Tsinghua University and Senior Research Associate at the Carnegie Endowment for International Peace; and Li, B., 'China's potential to contribute to multilateral nuclear disarmament', Arms Control Association, 3 Mar. 2011, <https://www.armscontrol.org/act/2011_03/LiBin#4>.

[20] Acton, J. M., *Silver Bullet? Asking the Right Questions About Conventional Prompt Global Strike* (Carnegie Endowment for International Peace: Washington, DC, 2013), <http://carnegieendowment.org/files/cpgs.pdf>.

impact of Russia's posture on China—as it pertains to its own hypersonic glide vehicles and tactical nuclear weapons—is so critical.

To this end, further exploration of the concept of 'rapid response' (快速反应) should be part and parcel of understanding this postural evolution in China. Although Zhao Tong has noted in previous publications that this term could be associated with launch-on-warning, there are indicators that it could just as easily be referring to prompt global strike capabilities.[21] The concept of 'rapid response' appeared in roughly a quarter of the Chinese texts surveyed for this section. In most cases, it was paired with near space, space-based weapons and prompt global strike capabilities.

As just one example, in China's 2015 Military White Paper, rapid response appears on a list that contains 'strategic warning' (战略预警), 'command and control' (指挥控制), 'missile penetration' (导弹突防) and 'survivability protection' (生存防护).[22] While its inclusion on a list with 'strategic warning' could point towards launch-on-warning, the positioning of 'rapid response' between 'missile penetration' and 'survivability protection'—combined with the importance of early warning in countering prompt global strike—suggest that this reference could also be applied to hypersonic glide vehicles, space planes and the future of strategic stability.

At the military level in China, US space planes such as the X-37B and X-51 are also frequently paired with discussions of 'rapid response' (快速反应) and 'rapid strike' (快速打击).[23] While the latter term correlates with prompt strike systems as a direct translation to Chinese, the postural implication of 'rapid response' is less clear. In Chinese texts, prompt global systems, such as near space aircraft, are viewed as providing platforms for reconnaissance, missile defence, electromagnetic countermeasures, transportation, communication and space weapons.

For example, 'rapid response' appears in Harbin Institute of Technology theses to describe the use of near space aircraft as space weapon platforms and serves as part of a longer list that includes such capabilities as long-range attack, wide-range, high-mobility, precision-strike capabilities or, in other words, the 'fifth dimension' (五位一体) of joint operations.[24]

Chinese technical studies on hypersonic glide vehicles and related technologies emulate what they call US 'rapid response' programmes, such as the Defence Advanced Research Projects Agency (DARPA) Falcon project, with its the common aero vehicle and affordable rapid response missile demonstrator.[25] While the

[21] Zhao, T., 'Strategic warning and China's nuclear posture', *The Diplomat*, 28 May 2015, <http://thediplomat.com/2015/05/strategic-warning-and-chinas-nuclear-posture>.

[22] State Council Information Office of the People's Republic of China (note 7).

[23] Li Li is affiliated with China's National Defence University. 李莉 [Li, L.], 'X-37B: 遮遮掩掩为哪般?' [X-37B: Why so exceedingly secretive?], 解放军报 [*People's Liberation Army Daily*], 3 Jan. 2011, p. 8; 李亚轲 [Li, Y.], 梁晓庚 [Liang, X.] and 郭正玉 [Guo, Z.], '临近空间攻防对抗技术发展研究' [Near space attack-defence confrontation technology], 四川兵工学报 [*Sichuan Ordnance Journal*], no. 5, May 2013, pp. 24–30.

[24] Li Xuefei was a graduate student at the Harbin Institute of Technology when this thesis was written. 李雪飞 [Li, X.], '高超声速飞行器气热弹多场耦合数值模拟' [Hypersonic vehicle: thermoelastic numerical simulation of multi-field coupling], Master's Thesis, Harbin Institute of Technology (June 2011), pp. 9–11.

[25] Chen Yingshuo, Ye Lei and Su Xinxin are affiliated with the China Aerospace Science and Industry Corporation, Third Institute, Department 310. 陈英硕 [Chen, Y.], 叶蕾 [Ye, L.] and 苏鑫鑫 [Su, X.], '国外吸气

USA and other foreign powers such as Russia dominate these Chinese studies, they also focus on China's own ambitions when it comes to hypersonic glide vehicles and related systems.

Beyond papers advocating that China develop more active prompt global systems, a number also detail China's own efforts to obtain 'rapid response' capabilities. These include: (*a*) hypersonic aircraft ground tests and wind tunnel tests by China North Industries Corporation; (*b*) a robust adaptive approach to near space vehicles based on trajectory linearization control at Nanjing University of Aeronautics and Astronautics; and (*c*) designs and simulations using terminal guidance laws, gas thermo-elastic multi-field coupling and thermal protection for reusable hypersonic vehicles at the Harbin Institute of Technology.[26]

If the postural interpretation of the term 'rapid response' is retaliatory and supports 'active defence' (积极防御), a case could be made that it diminishes the chances of pre-emption on the part of China. However, the larger question becomes: to what are these systems responding? If China's hypersonic glide vehicles are to be deployed regionally to serve as A2AD systems mounted on the DF-21D or the DF-26 but with greater delegation of launch authority, this indicates a conventional payload and pre-emptive use.

However, if the goal of China's hypersonic glide systems is more in line with that of Russia and targeted on defeating US missile defences, this suggests a nuclear payload. This latter trend could alter not only how 'rapid response' and 'active defence' are defined, but also how experts interpret China's postural bedrock of no first use. This bedrock is being eroded by the very systems identified in the US Nuclear Posture Review as the USA's deterrent against China and Russia—missile defence and prompt global strike.[27]

Takeaways

Given that hypersonic glide tests conducted by China, Russia and the USA have not yet led to deployment, there is still an opportunity for greater analysis of how these technologies will affect the postural evolution of these three countries. Not

式高超声速飞行器发展现状' [The status of foreign air-breathing hypersonic vehicle development], 飞航导弹 [*Winged Missile*], [n.d.]; Dang Aiguo, Li Xiaojun and Xu Bao are affiliated with the Department of the General Staff Corps of Engineers. 党爱国 [Dang, A.], Li, X. [李晓军] and徐宝 [Xu, B.], '外军快速全球打击能力发展动态' [Developments in foreign military prompt global strike capabilities], 飞航导弹 [*Winged Missile Journal*], no. 7 (July 2012), pp. 51–54.

[26] Tian Jianming, Jing Jianbin and Han Guangqi are affiliated with the Test and Measuring Academy of China North Industries Corporation. 田建明 [Tian, J.], 景建斌 [Jing, J.] and韩广岐 [Han, G.], '高超声速飞行器地面试验方法综述' [Overview of hypersonic aircraft ground test methods], no. 5 (Oct. 2013), pp. 57–60. Xue Yali was a graduate student at the National Defence Science and Technology University when this thesis was written. 薛雅丽 [Xue, Y.], '基于轨迹线性化方法的近空间飞行器鲁棒自适应控制研究' [A robust adaptive approach to near space vehicles based on trajectory linearization control], Doctoral Dissertation, National Defence Science and Technology University Research Institute (June 2010); and 李雪飞 [Li, X.] (note 24), pp. 9–11.

[27] Even the voices reaffirming China's commitment to no first use, such as PLA Major General (Retd) Yao Yunzhu and Tsinghua University's Li Bin, highlight the impact of concerns in China over US missile defence and prompt global strike. Yao, Y., 'China will not change its nuclear policy', *China US Focus*, 22 Apr. 2013, <http://www.chinausfocus.com/peace-security/china-will-not-change-its-no-first-use-policy>; and Li, B., 'Chinese thinking on nuclear weapons', Arms Control Association, 3 Dec. 2015, <https://www.armscontrol.org/ACT/2015_12/Features/Chinese-Thinking-On-Nuclear-Weapons>.

taking the time to assess the potential outcomes of a technology-driven posture could lead to greater strategic instability and arms racing. As part of this process, beyond the US–Chinese paradigm, more emphasis needs to be placed on integrating Russia into analyses of China's hypersonic glide vehicle development. This would provide a more nuanced analysis than the current bilateral calculations, which often simplify nuclear relations.

Chinese and US experts already meet on strategic nuclear issues at the academic and semi-official levels, although prompt global strike is generally a smaller and newer portion of the agenda.[28] Expansion to a trilateral discussion that includes China, Russia and the USA at a more official level would mean moving beyond the idea that China's asymmetrical disadvantage in nuclear warhead numbers precludes its involvement in US–Russian strategic stability talks.[29] As China's advances in hypersonic glide vehicle technology grow and its arsenal size responds to missile defence expansion in the Asia-Pacific region, the excuse of asymmetric disadvantage diminishes and the argument for trilateral engagement grows.

[28] The China Foundation for International and Strategic Studies, the Pacific Forum of the Centre for Strategic and International Studies, the Institute of Applied Physics and Computational Mathematics and the Nuclear Threat Initiative are all active in this sphere.

[29] Some laudable efforts have been made by the Carnegie Endowment for International Peace to stimulate these trilateral exchanges at the Track II level, but these exchanges and studies require greater systematization and frequency. On these dialogues and seminars see Burns, W. et al., 'The future of arms control and strategic stability', Carnegie Endowment for International Peace, 15 Sep. 2016, <http://carnegieendowment.org/2016/09/15/future-of-arms-control-and-strategic-stability-event-5358>; and Saalman, L., 'China–Russia–US strategic stability and missile defence', Carnegie Endowment for International Peace, 31 Jan. 2013, <http://carnegieendowment.org/2013/01/31/china-russia-u.s.-strategic-stability-and-missile-defence-event-3999>.

14. Conclusions

From Russia's eastward shift to China's neighbourhood diplomacy, both countries have been engaged in actively redefining their strategic environment. While some of their actions can be attributed to responses to a 'rebalance' under US President Barack Obama or the 'America first' agenda of the Trump Administration, China and Russia are facing numerous internal push and external pull factors that drive their expanded diplomatic rapprochement and regional engagement.

For Russia, diminished financial capacity and increased isolation following the crisis in Ukraine have accelerated its pre-existing lean towards Asia. At the same time, these trends have deepened its dependencies on China to maintain its international status as a shaper of norms and governance. For China, a slowing domestic economy and overcapacity in terms of workforce and infrastructure have driven it outwards not only to seek out new markets, but also to promote its internal development model abroad. While divergent in their origins, the intersection of these two agendas means that China and Russia are likely to continue their collaboration, even in the face of shifting US priorities.

Nonetheless, convergence does not mean that China and Russia are in perfect alignment. They are still navigating the interaction among, and in some cases integration of, a variety of regional groupings. Among these, the China-driven Silk Road Economic Belt (SREB) within the Belt and Road Initiatives (BRI) and the Russia-driven Eurasian Economic Union (EAEU) offer two differing development models and visions for the region. China has made efforts to engage Russia on the SREB to mitigate concerns over it supplanting the EAEU, but in countries such as Belarus and Kazakhstan that are seeking sustainable and dependable sources of investment, China has been making steady inroads into Russia's traditional geographic domain.

In the cases of the Shanghai Cooperation Organization (SCO) and the Collective Security Treaty Organization (CSTO), the presence of Russia mitigates the perception that China has designs on supplanting Russia's traditional security role. However, China's delivery of surface-to-air missile systems to Turkmenistan and the advocacy by its People's Liberation Army Chief of General Staff of a counterterrorism grouping made up of Afghanistan, China, Pakistan and Tajikistan could be interpreted as a Chinese shift to a greater security role that challenges Russia and the CSTO. Still, such forays must be weighed against China's implicit acceptance of Russia's increasing military engagement with Pakistan through the transfer of engines and combat aircraft, as well as military exercises. These trends challenge the prevailing view that China is the economic provider and Russia the security provider in the region.

Beyond the arms trade and counterterrorism, there are indications that a variety of other Chinese and Russian traditional spheres are overlapping. From the Arctic to the South China Sea, both are engaged in greater outreach and have sought out the other to legitimize and support their territorial and resource claims. However, this does not mean that each country is always supportive of the other's tactics

and aims. In the case of Russia, its role as a 'gatekeeper' in the Arctic has led to a degree of friction with Chinese entities that seek better negotiating leverage on entry into the region. In the case of China, its pushing of its maritime claims in the South China Sea in forums such as the SCO puts Russia in an awkward position in expressing its support for China's stance while attempting not to alienate its expanding range of regional partners in South East Asia.

In harder security arenas, the connectivity of Chinese and Russian threat perceptions is even more apparent. While often lamenting the 'cold war thinking' of other countries, China and Russia are thought to adhere to traditional conceptual frameworks such as mutually assured destruction, while engaging in technological advances to bolster their deterrence and strike capabilities. Whether viewed from posture or practice, Chinese and Russian analyses continue to target the United States as their primary adversary. To this end, Chinese researchers are examining the benefits of emulating Russia and mounting nuclear payloads on hypersonic glide platforms to defeat US missile defences. Forensic reports also indicate that both countries may be using cyber intrusions and cyberattacks to engage in hybrid warfare campaigns.

In contrast to non-traditional security arenas, where China and Russia are navigating often-conflicting interests and structures, both are working to shape governance and norms in the traditional security sphere. Much has been made of Russian concerns about Chinese military modernization, but the reality is that both countries share similar threat perceptions and worldviews that outweigh their bilateral misgivings. This is particularly true in cyberspace, where both place an emphasis on the control of information flows and cyber sovereignty. Chinese and Russian definitions are much closer in line with the national policies of any number of South East Asian, South Asian and Central Asian countries, given their own concerns over terrorism, insurgency and instability. While their definitions may diverge from those found in North East Asia and Europe, China's and Russia's roles as permanent members of the United Nations Security Council put them in a strong position to transfer these regional norms to the global level.

Given the medium- to long-term impact of these intersecting non-traditional and traditional security trends, it is crucial to establish a more granular and nuanced understanding of China–Russia interactions. These case studies are intended as a baseline for further in-depth research into a range of issues, such as sustainability and strategic resilience under the BRI, integration of the EAEU and the SREB in Eurasia, labour migration and economic penetration in the Arctic and South East Asia, territoriality and the South China Sea, hybrid warfare and cyber sovereignty, frameworks for counterterrorism in Afghanistan and Pakistan, the arms trade and its impact on South Asia, shifts in military exercises and signalling in Europe, nuclear modernization and escalation, as well as the deterrence effect of missile defence and hypersonic glide. To this end, this report aims to move beyond conceptual generalizations to explore concrete examples of China's and Russia's engagement with Asia and Europe, focusing on the actions and reactions of regional stakeholders in shaping their own security environment.