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- Japans Abfall: Zwei Fallstudien zu Entsorgung und Verwertung aus Shibushi und Kamikatsu
- China's New Energy Geopolitics: The Shanghai Cooperation Organization and Central Asia
- Climate Protection Governance and Participation in the People's Republic of China
- The Cosmopolitization of Remembrance – The Kwangju Uprising and the UNESCO "Memory of the World" Register
- Verdruss statt Feierlaune: Japan und Südkorea am Vorabend des 50. Jahrestags der Aufnahme diplomatischer Beziehungen
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REFERIERTE WISSENSCHAFTLICHE ARTIKEL

- Agathe T. Okumura und Gabriele Vogt 5
 Japans Abfall: Zwei Fallstudien zu Entsorgung und Verwertung aus
 Shibushi und Kamikatsu
- Ralph M. Wrobel 24
 China's New Energy Geopolitics: The Shanghai Cooperation Organization
 and Central Asia

RESEARCH NOTES

- Berthold M. Kuhn 52
 Climate Protection Governance and Participation in the People's Republic
 of China
- Hannes B. Mosler 72
 The Cosmopolitization of Remembrance — The Kwangju Uprising and
 the UNESCO "Memory of the World" Register

ASIEN AKTUELL

- Nadia Galati 89
 Verdruss statt Feierlaune: Japan und Südkorea am Vorabend des
 50. Jahrestags der Aufnahme diplomatischer Beziehungen
- Sang-tu Ko und Olaf Leiß 101
 Südkorea und die EU: Die europäische Finanzkrise aus asiatischer Sicht

KONFERENZBERICHTE

- Managing Empires: Cooperation, Competition, Conflict,
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 Gerner and Chih-Wen Kuo) 109
- Treffen des DoktorandInnennetzwerks Vietnam, Kambodscha, Laos,
 Bonn, 25.–26. Januar 2014 (Elin Yang-Romberg) 110
- Rethinking Business History in Modern China, Workshop der FU Berlin,
 Hannover, 12.–14. Juni 2014 (Emmelie Korell) 112
- Exploring the Role of Informal Institutions for Economic Coordination in
 East Asia, Seoul, 16.–17. Juni 2014 (Sven Horak und Markus Taube) 113
- Situated Practices on China's Changing Internets: From the Users of Mobile
 ICTs and Apps to Weibo Posters and Social Networkers,
 Hong Kong, 18.–21. June 2014 (Gabriele de Seta) 115
- The Impact of World War I on China's Modern History,
 Vienna, 03.–05. July 2014 (Astrid Lipinsky) 117
- Manoeuvring Through Physical and Virtual Spaces: Mobility and New
 Media in Asian Cities, Singapore, 04.–05. August 2014 (Tabea Bork-
 Hüffer, Sun Sun Lim, Brenda Yeoh, Cheng Kwan Yee Queenie) 118

REZENSIONEN

- Claudia Derichs, Mark R. Thompson (Hgg.): *Dynasties and Female Political
 Leaders in Asia. Gender, Power and Pedigree* (Carmen Schmidt) 120
- Pankaj Mishra: *From the Ruins of Empire. The Revolt against the West and
 the Remaking of Asia* (Oul Han) 121

Janet Kursawe, Verena Brenner (Hgg.): Konfliktfaktor Religion? Die Rolle von Religionen in den Konflikten Südasiens (Ines Budarick)	123
Cornelia Mallebrein: Die vertauschten Götter. Religionswechsel in Indien (Thomas K. Gugler)	124
Raphael Susewind: Being Muslim and Working for Peace. Ambivalence and Ambiguity in Gujarat (Nadja-Christina Schneider)	125
Rolf Jordan, Gunnar Stange (Hgg.): Aktuelle Herausforderungen der internationalen (Entwicklungs-)Zusammenarbeit in Südostasien. Nothilfe, Wiederaufbau und Entwicklung im Diskurs (Daniel Bultmann)	127
Georg Noack: Local Traditions, Global Modernities. Dress, Identity and the Creation of Public Self-Images in Contemporary Urban Myanmar (Dagmar Hellmann-Rajanayagam)	129
Lena Henningsen, Martin Hofmann (Hg.): Tradition? Variation? Imitation? (Christian Schmidkonz)	131
Sigfrido Burgos Cáceres: China's Strategic Interests in the South China Sea. Power and Resources (Jann Christoph von der Pütten)	132
Peter J. Katzenstein (ed.): Sinicization and the Rise of China. Civilizational Processes beyond East and West (Lin Hang)	133
Einhard Schmidt-Kallert, Peter Franke (Hgg.): Livelihood Strategies of Multi- locational Households in the People's Republic of China (Nora Sausmikát)	135
Benjamin Nixdorf: Japanische Freihandelsabkommen und ostasiatische Wirtschaftsintegration. Zugleich ein Beitrag zu den normativen Vorausset- zungen wirtschaftlicher Integration und den Anforderungen der Art. XXIV GATT und Art. V GATS (Albrecht Rothacher)	137
NEUERE LITERATUR	140
AUTORINNEN UND AUTOREN DIESER AUSGABE	147

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Refereed article

China's New Energy Geopolitics: The Shanghai Cooperation Organization and Central Asia

Ralph M. Wrobel

Summary

As China is dependent on oil and gas imports to maintain its high growth rates, the Shanghai Cooperation Organization (SCO) and Central Asia have become increasingly important for the country's economic development. In May 2014, China and Russia signed a new gas deal, for example, and in recent years China has been able to improve its energy security by making several oil and gas agreements with Central Asian countries. This paper focuses on the growth of trade in energy resources from Central Asia and Russia to China. It discusses why energy security, Central Asia and the SCO are so important to the Chinese political elite. Is the PRC's energy security leading to a shift of geopolitical power in the region and what advantages and disadvantages can this shift have for the various parties concerned? The paper shows that the balance of power in the region has basically shifted in China's favour.

Manuscript received on 2014-07-04, accepted on 2014-09-26

Keywords: Central Asia, China, Russia, energy security, gas industry, Great Game, natural resources, oil industry, SCO

Introduction

In May 2014, Russia's Gazprom and China National Petroleum Corporation (CNPC) signed a long-term gas contract. As a result, Russia will supply 38 billion cubic metres (bcm) of natural gas a year to its eastern neighbour China starting around 2018. To achieve this, a pipeline from eastern Siberia to north-east China is to be constructed. The deal has been ten years in the making. Over this period, China has found other gas suppliers, including Turkmenistan and Myanmar, who started to export natural gas to China in 2013 (BBC 2014). Additionally, Kazakhstan has become one of China's most important oil suppliers as China's first direct oil-import pipeline to Kazakhstan is allowing oil to be imported from Central Asia. The PRC has been able to diversify its energy imports in recent years, fundamentally reducing its dependence on the Middle East and on shipping routes like the Strait of Malacca.

Central Asia again needs to be viewed through the prism of geopolitics as it was entangled in the 19th century's struggle between the colonial British and Tsarist Russian empires for dominance in Eurasia, known as the "Great Game" (Das 2013:

107). While geopolitics can be understood as the study of the effects of geography on international politics and international relations (Devetak et al. 2012: 492), methods of commerce are increasingly displacing military methods as key strategies. Additionally, a more actor-oriented perspective needs to be chosen today. Following Taylor (1993), an actor-centred approach analyses the reasons for the behaviour and strategies of the individuals and groups that play an active role in conflicts. An actor-oriented approach in geopolitics “deconstruct[s] the ways in which political elites have depicted and represented places in their exercise of power” (Dodds/Sidaway 1994: 515). In this paper, the strategy used by the Chinese political elite to enlarge China's economic influence in Central Asia will be analysed. Nowadays, a “New Great Game” is being played in the region (Altuglu 2006; Shirayayev 2008). The main actors now seem to be the political and economic elites in the PRC and Russia. The main focus is not on colonial power, however, but on energy issues. China's political elite is the main driving force here because, with it being a fast-growing economy, China is currently facing the problem of needing to achieve energy security by tapping foreign energy resources.

To implement its strategies, the Chinese elite used the Shanghai Cooperation Organization (SCO), a Eurasian political, economic and military organisation, which was founded by the leaders of China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan in Shanghai in 2001. The SCO primarily focuses on Central Asian security-related concerns. A framework agreement to enhance economic cooperation was signed by the SCO member states on 23 September 2003. Since 2005, the SCO has prioritised joint energy projects including the oil and gas sector, the exploration of new hydrocarbon reserves and the joint use of water resources (Yiğit 2012: 14). Within the SCO, Kazakhstan and Uzbekistan are of greatest interest to the Chinese policy-makers because of the large supplies of oil and gas these countries can have at their disposal. Turkmenistan — a non-member of the SCO — is also being focused on by China because of its affluent natural resources. Last but not least, Russia can be seen as China's main competitor in the Central Asian region, but it is also a potential supplier of resources to China, too.

In this paper, the Chinese strategies regarding these countries will be analysed in detail to explain the geopolitical rise of Chinese economic and political power in the region. The following questions will be answered: Why are energy security, Central Asia and the SCO so important to the Chinese political elite? Is China's energy-security policy leading to a shift of geopolitical power in the region? And what advantages and disadvantages does this shift have for the various parties involved? In order to achieve this, the importance of energy security to China and the country's basic strategy of diversification in all its energy-policy fields will be highlighted. A focus also needs to be placed on China's energy policy regarding SCO states and Central Asia in particular. As will be shown, the financial and economic

crisis in 2008 and the Ukraine crisis in 2014 have enabled China's elite to improve its strategic position in terms of becoming more powerful in the "Great Game" regarding energy resources in the Central Asian region.

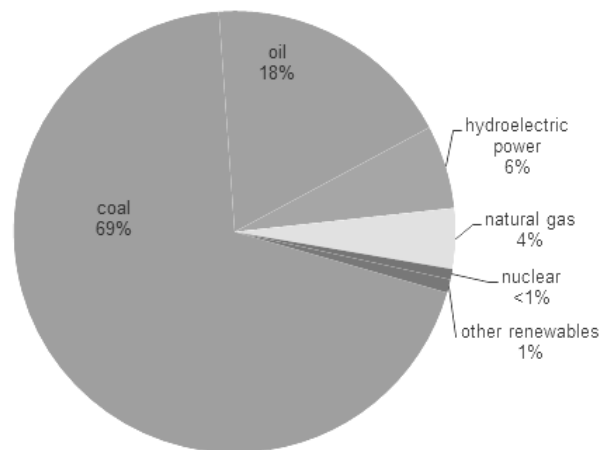
China's energy-security dilemma: the need for energy security in the eyes of China's political elite

According to the International Energy Agency, energy security can be defined as "uninterrupted physical availability at a price which is affordable, while respecting environment concerns" (IEA 2011). Energy security can be improved through two different main strategies, first by promoting diversity, efficiency and flexibility and by remaining prepared to respond to energy emergencies ("inward dimension"), and secondly by expanding international cooperation in the global energy market ("outward dimension") (Yiğit 2012: 12). For several years now, China has been one of the fastest-growing economies in the world. Its "reform and opening" policy has attracted foreign direct investment (FDI) to China. Although economic growth has slowed down recently, the growth rate of China's energy demand has remained very high due to its energy-intensive industries such as steel, aluminium, cars, electronics and chemicals. China now accounts for about 35 per cent of the world's steel production and approximately half of the world's cement production. By 2030, the number of cars in China is expected to increase to 400 million, from 27 million in 2004, creating considerably more energy consumption (Fazilov and Chen 2013). China's modernisation and rise as a superpower depends on its access to natural resources, especially energy. In the current stage of industrialisation, energy security is essential for economic security. In turn, economic security is an important element of national security. Hence, it is an existential objective of Chinese foreign policy (Zhang 2011: 10). Additionally, it must be seen that economic and social security are fundamental ways in which the Chinese Communist Party (CCP) administration — the political elite in mainland China — can maintain and sustain its one-party rule in the country. Foreign policy and especially energy-security policy are made to serve these objectives by sustaining an international environment supporting economic growth and stability in China (Das 2013: 101).

For the Chinese political elite, maintaining energy security is crucial. While China became the world's largest energy producer in 2007, it ironically became the world's largest energy consumer in 2010 (EIA 2014a: 1). Apart from coal, the other main energy sources are oil, hydroelectric power and natural gas, but coal has been China's dominant energy resource in domestic consumption for several decades. In 1952, coal accounted for 96 per cent of the country's primary-energy use. Yet in 2011, coal accounted for 69 per cent of China's total energy consumption, followed by oil at 18 per cent and hydroelectric power at 6 per cent (see figure 1). Despite this drop, production growth has made China the world's largest coal producer and coal importer, fuelled by lower coal prices in international markets. Its imports of coal

reached a record level of 9.43 million tons in 2009, doubling the imports of 2008. As a result, China has become a net coal importer since 2009 (Zhang 2011: 8). However, the Chinese government plans to reduce coal use to less than 65 per cent of total primary-energy consumption by 2017 in an effort to reduce heavy air pollution from which several regions of the country have suffered in recent years. Additionally, China is the world's leading energy-related CO₂ emitter due to its coal consumption (EIA 2014a: 2). In comparison, coal accounted for 24 per cent of Germany's primary-energy consumption in 2012 (EIA 2014c). Air pollution and carbon emissions are important threats for the Chinese political elite, the former in relation to the Chinese people, the latter in relation to the country's international reputation and that of its ruling elite.

Fig. 1: Total energy consumption in China by type, 2011

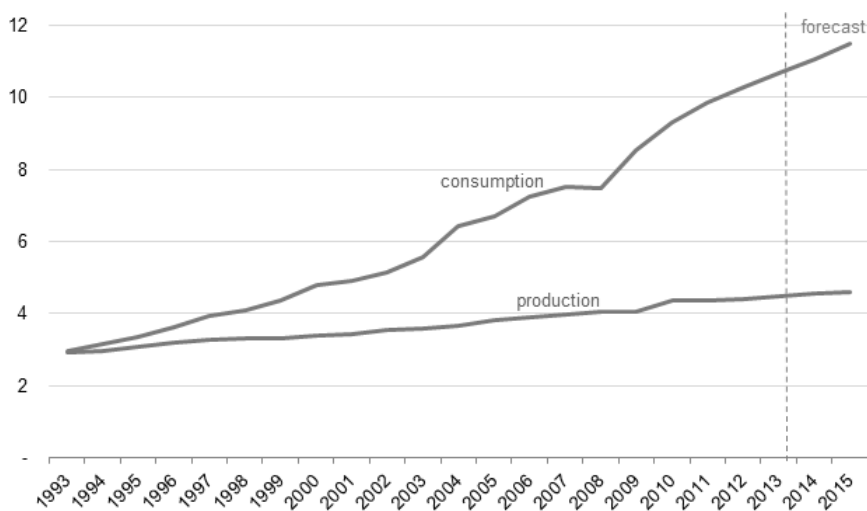



Note: Numbers may not add due to rounding.
 Source: U.S. Energy Information Administration *International Energy Statistics*.

Renewable forms of energy and nuclear power are useful alternative energy resources in the bid to reduce carbon emissions, but both sectors are still in their infancy. Only hydroelectric power accounts for a considerable part of energy consumption, as mentioned above. Because of its cost-effectiveness and large resource potential, hydroelectricity has become the main renewable energy resource in China. The PRC became the world's largest producer of hydroelectric power back in 2011. In contrast, nuclear power and other renewables merely account for around one per cent of energy consumption each. In 2011, China generated 83 terawatt hours (TWh) of nuclear power, which amounted to only 2 per cent of the total net power it produced. And wind energy generated 73 TWh in 2011, making China the second-largest wind-energy producer worldwide. The expansion of this capacity is limited because of shortcomings in the transmission infrastructure (EIA 2014a: 34–35). By finding

new energy sources besides coal, the Chinese elite has been quite successful in improving energy security from a domestic perspective, but with regard to the immense increase in the demand for power in China, it is simply not enough. The outward perspective has therefore gained more and more importance. The oil and gas sectors are particularly affected in this respect.

Fig. 2: China's oil production and consumption, 1993–2015
(million barrels per day)



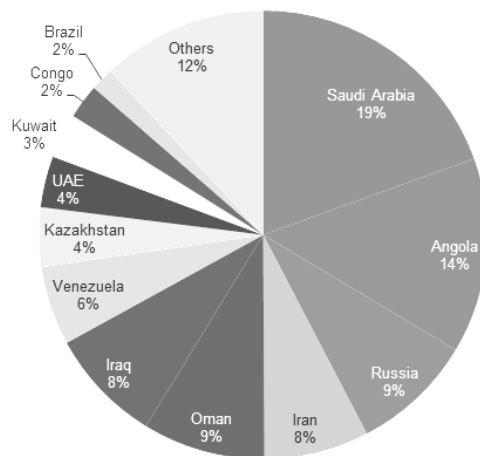
 Source: EIA *International Energy Statistics and Short-Term Energy Outlook*, January 2014.

Although China produces a large amount of domestic energy, especially by using coal, it has still been looking abroad for additional sources of oil and gas. The country is the fifth-largest crude-oil producer in the world, but since 1993 its domestic production has not been able to meet the country's demand (see fig. 2). Between 1965 and 2008, for instance, China's oil production increased 17-fold while its oil consumption rose 37-fold. In 2008, China became the world's second-largest consumer of oil after the US as well as the third-largest net importer of oil (Petersen and Barysch 2011: 11). The U.S. Energy Information Administration has forecast that China will overtake the US as the largest net oil importer by 2014 (EIA 2014a: 1). Additionally, the China News Agency has estimated that the country's oil imports will exceed those of Europe as a whole by 2025 (Cheng 2013: 1–2).

Currently, China depends on foreign imports for over 50 per cent of the oil it consumes. Additionally, the vulnerability of energy security is not only reflected through energy demand, but also through rising energy prices. Therefore, China not only faces energy-supply problems, but also stabilising energy prices, which is an immensely challenging task for China's energy-policy makers. Approximately half

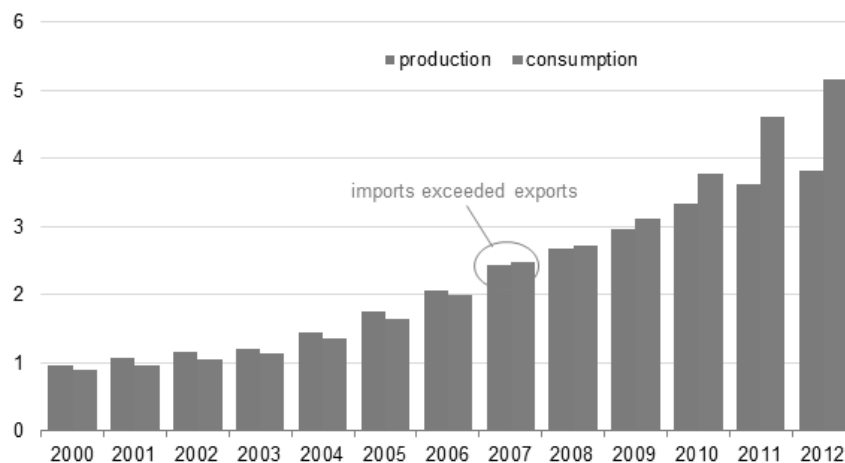
of the imported oil is from the Middle East: as figure 3 shows, in 2013, China imported 19 per cent from Saudi Arabia, 9 per cent from Oman, 8 per cent from Iraq and Iran, and 4 per cent from the United Arab Emirates. Over 85 per cent of the oil imports are therefore transported over long distances in strategic shipping lanes such as the Straits of Malacca and Hormuz and the Gulf of Aden. Obviously, any serious disruption of these lines could slow down or even halt China's economic growth (Zhang 2011: 8). This would be also a threat to the political elite in China, however.

Fig. 3: China's crude-oil imports by source, 2013



Source: EIA. Source: FACTS Global Energy, Global Trade Information Services.

Natural gas use in China has also increased rapidly in recent years. While China was traditionally an exporter, it became a net gas importer for the first time in 2007. It more than tripled natural-gas production to 107.6 bcm (3.8 tcf) between 2002 and 2012 (see fig. 4). It is estimated that by the end of 2015, the country will be producing 155.7 bcm (5.5 tcf) according to plans made by the Chinese government. This is in line with the country's desire to use more natural gas to replace other hydrocarbons in the country's energy portfolio. The Chinese government anticipates increasing the share of natural gas in the country's total energy consumption to around 8 per cent by the end of 2015 and 10 per cent by 2020. This will help to reduce the high amount of air pollution resulting from the country's current heavy use of coal. The PRC has also looked for additional natural-gas imports via pipeline and liquefied natural gas (LNG). In 2012, its natural-gas imports accounted for 29 per cent of the domestic demand, about half of this being in the form of LNG. China became the third-largest LNG importer in the world in 2012. LNG enters the country via nine major terminals, with another five currently under construction (EIA 2014a: 17–25).

Fig. 4: China's natural-gas production and consumption, 2000–2012 (in tcf)

 Source: U.S. Energy Information Administration, *International Energy Statistics*.

Strategies to solve the energy-security problem

Up to the late 1990s, the Chinese political elite did not realise how important and urgent a matter energy security was. China has many reasons for worrying about its energy security, however: the lack of strategic petroleum reserves, environmental pollution (because of the overwhelming use of coal), the dramatic fluctuation in global energy prices, and rising domestic demand and energy prices (Zhang 2011: 3).

The PRC's energy-security policy has only evolved over the last few decades, particularly the last eight years. During the first phase of it (1949–1992), self-reliance and self-sufficiency were key objectives. These goals mainly depended on domestic production, with foreign policy playing a very minor role. In 1978, the National Development and Reform Commission was founded and placed in charge of the energy sector. Additionally, state-owned enterprises (SOEs) were allowed to access limited foreign markets. During a second phase starting in 1993, the production of oil no longer met domestic demand, so SOEs were reformed and started to seek oil in foreign markets. This way, they learned how to “play” on the global energy markets. China's WTO accession in 2001 accelerated the country's consumption of energy resources. Energy-security policy and foreign policy became more integrated (Zhang 2011: 11–15). In 2003, the Chinese government launched a programme called the “Twenty-First-Century Oil Strategy”, allocating USD 100 billion for a “futuristic strategic oil system” in China. The topic of energy security was officially

introduced in China's 10th Five-year Plan this way (2001–2005). What's more, the State Council established a State Energy Leadership Group in 2005 headed by Premier Wen Jiabao (Cheng 2013: 5–6). The following years from 2006 onwards can be called the “outward investment” phase as China's politicians encouraged firms to go abroad. Energy security was prioritised in the 11th Five-year Plan as of 2005; energy conservation, the environment, climate change and green energy were all emphasised. SOEs and private firms alike expanded their businesses worldwide. Several SOEs started investing in foreign energy sectors (Zhang 2011: 11–15). Additionally, the National People's Congress approved a “Renewable Energy Law”, offering regulations and incentives in support of the development of renewable energy (Cheng 2013: 6). In response to the financial and economic crisis that struck in 2008, “Go and buy abroad” has been the new strategy, which has hastened China's investment expansion at the global level. As a result, China's FDI levels in the resource and energy sectors have increased dramatically (Zhang 2011: 11–15).

China has developed several major strategies that have been applied in recent years in an attempt to secure a constant supply of energy from an inward perspective:

- energy conservation: the 11th Five-year Plan and the 12th one set specific targets to reduce the energy consumed for each unit of GDP by 20 per cent until 2010 and 50 per cent until 2020. Various indicators do not support this optimism, however (Cheng 2013: 14);
- diversifying energy resources domestically by increasing the production of natural gas and nuclear power, developing renewables and suchlike. At the end of 2013, China had 31 nuclear power plants, with almost 35 GW of additional capacity under construction. These plants are going to become operational by 2017 (EIA 2014a: 34). Additionally, plans are underway to increase the country's share of renewable energy to 15 per cent by 2020;
- strengthening energy exploration and production of new oil or gas fields domestically as well as encouraging international cooperation in offshore oil exploration and production (Zhang 2011: 7): This development is intended to be in line with coordinated regional development, especially the development of western China. Xinjiang has therefore become an important area for the exploitation and production of oil and natural gas (Cheng 2013: 7);
- increasing Strategic Petroleum Reserve sites and raising mandatory stockpile requirements for oil firms. By 2020, the Chinese government intends to build strategic crude-oil storage facilities with a capacity of around 500 million barrels (EIA 2014a: 16).

In addition to this, oil and natural-gas diplomacy have become a major strategy used by the Chinese political elite to improve the nation's energy security. Despite the growing diversity of its energy sources, China remains dependent on vulnerable oil imports. Therefore, steps such as enhancing the existing oil and gas supply sources, exploring to find more new energy-resource locations around the world, diversifying

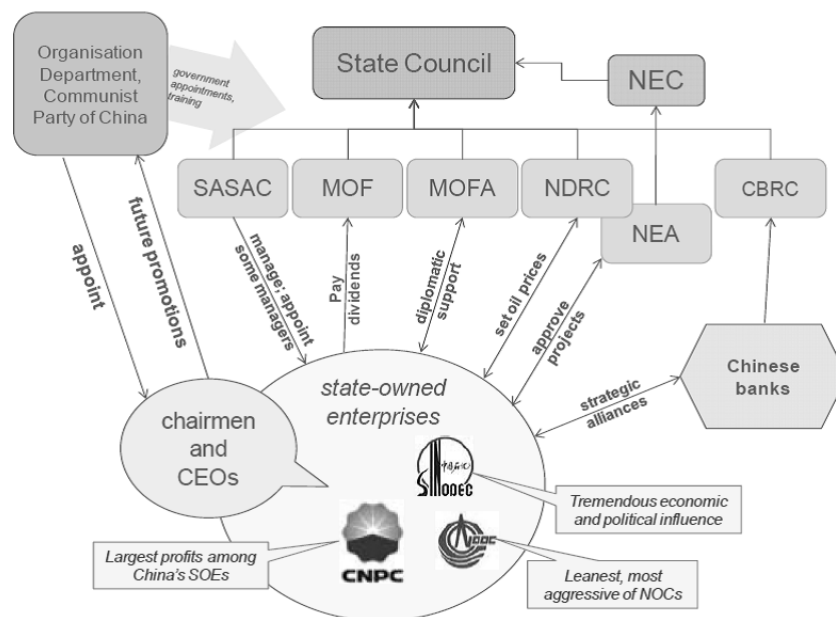
import routes and reducing dependence from the Middle East are of prime importance (Zhang 2011: 11). China has consequently invested in several African countries, including Angola, Sudan, Libya and the Congo. However, the current civil wars in South Sudan and Libya show that China's energy insecurity is still high. Oil imports from South Sudan, for instance, dropped from 260,000 barrels per day (bbl/d) to zero in 2012. They had to be compensated for by imports from the Middle East (EIA 2014a: 11–12). In view of this, China has begun to diversify its international energy sources by sponsoring China-bound pipelines in Myanmar, Central Asia and Pakistan. Meanwhile, Central Asia has become considerably more important for its energy policy (Fazilov and Chen 2013). The ways in which the SCO and Central Asia can play an outstanding role in improving China's energy security will be discussed in more detail in the following section.

These strategies are to be implemented using a state-centred approach to energy policy based on the ideas of a Socialist Market Economy. This consists of neo-mercantilist thinking, relying on bilateral diplomatic contacts with oil-producing countries. This will improve energy security by the use of natural-resource and SOE investments in overseas energy assets as well as by tightly controlling the import and export of energy products. Although market-oriented economic reforms have characterised China's development in recent decades, the market-oriented approach has not gained momentum in the energy sector. In the eyes of the Chinese leadership, energy security is too important to be left to market forces alone (Zhao 2013: 144). In 2010, China therefore established a National Energy Commission (NEC) directed by Premier Wen Jiabao, which aims to improve the country's energy strategy and planning development. Its key functions are to create national energy-development plans, to review energy security and to coordinate international cooperation (Zhang 2011: 11–15). When the NEC met for the first time in spring 2010, "securing energy supply through international cooperation" was declared to be one of six major areas of focus (Jiang and Sinton 2011: 12).

To understand China's energy policy, one must also take into account the specific position that SOEs have regarding the long-term growth of the Chinese economy and its central position in the energy decision-making process (Bergsager 2012: 3). Between 1988 and 1998 the Chinese government reorganised most of its state-owned oil and gas assets in the oil and gas sector, channelling them into two vertically integrated enterprises: first, the China National Petroleum Corporation (CNPC), which owns more than two thirds of China's crude-oil production and mostly has responsibility for oil fields in northern and western China, and second, the China Petroleum and Chemical Corporation (SINOPEC), which controls more than half of China's refining capacities and is the primary importing company for crude oil, assigning responsibilities in the South. A third noteworthy enterprise, the China National Offshore Oil Corporation (CNOOC), which handles offshore exploration and production, has emerged in recent years (EIA 2014a: 5). While these oil companies are majority-owned by the government, they are not government-run.

Their observed behaviour is the result of a complex interplay between individuals, the Party, and state organisations associated with the firms (Jiang and Sinton 2011: 7) (see figure 5).

Fig. 5: Relations between SOEs and the Chinese Government in the energy sector



Notes: NEC = National Energy Commission; SASAC = State Assets Supervision and Administration Commission; MOF = Ministry of Finance; MOFA = Ministry of Foreign Affairs; NDRC = National Development and Reform Commission; NEA = National Energy Administration; CBRC = China Banking Regulatory Commission; SOE = state-owned enterprise.

Sources: IEA research; Naughton (2008), FACTS Global Energy.

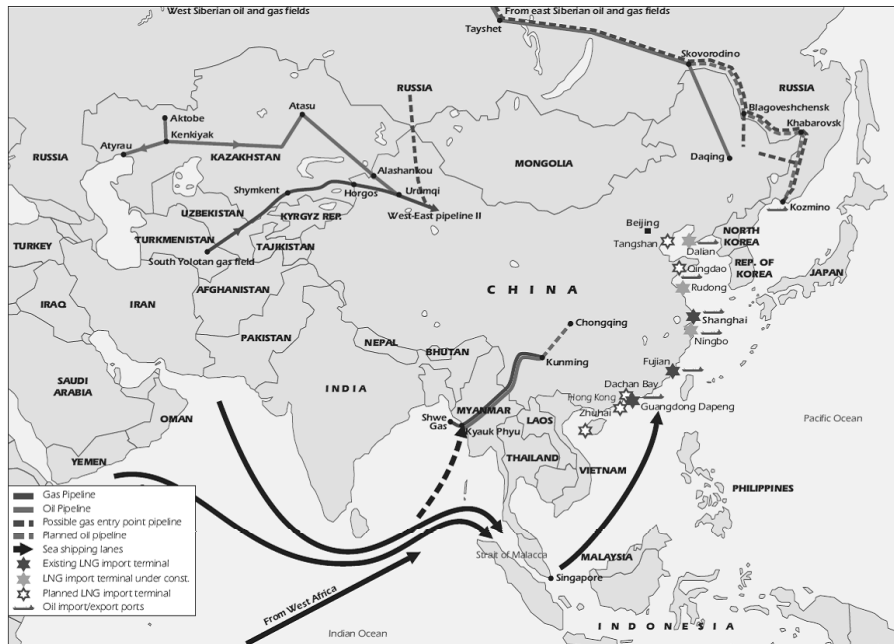
Source: Jiang and Sinton (2011: 25).

In recent years, the Chinese national oil companies have learned how to do business abroad. As a consequence, they have emerged as significant players in global mergers and acquisitions in upstream oil and natural gas. On the one hand, their actions appear to be driven mainly by commercial incentives to take advantage of the global market place, while on the other, they support the national energy-security objectives of the country's political elite (Jiang and Sinton 2011: 7). As chairmen and chief executive officers of all three SOEs are above the Ministry of Finance (MOF), Ministry of Foreign Affairs (MOFA) and National Energy Administration (NEA) in the hierarchical power structure, in those cases where SOEs are confronted with unfavourable policies, the decision as to whether an SOE must follow the policy is based on a discussion between top leaders of the CCP and the SOEs' leadership (Bergsager 2012: 5). In this way, the three SOEs managed to acquire direct control

over overseas energy production and supplies from Venezuela to Kazakhstan in recent decades. To improve Chinese oil companies' competitiveness and reduce political risks, the Chinese leadership has visited a host of oil-producing countries, helping Chinese corporations to secure acquisition deals. Additionally, Chinese diplomats have taken advantage of international organisations to promote energy cooperation. China's "holistic approach" — offering exploration, development and financing packages to its partners worldwide — has become an attractive alternative to traditional Western companies, which do not have anything similar to offer (Zhao 2013: 145–146). Furthermore, loan-for-oil or loan-for-gas deals (i.e. energy-backed loans) are very important ways of securing long-term oil and gas supplies from abroad. It is therefore necessary for Chinese banks to provide financial support (Jiang and Sinton 2011: 13). The political and economic elites in China work hand in hand this way to improve the country's energy security. Overall, China's attempt to mix economic interests with political and strategic ones has been the highlight of China's foreign-policy success.

The strategic importance of Central Asia and the SCO

Energy has become the main field of geopolitics in the 21st century and an instrument of geopolitical competition. It reflects countries' diminishing reliance on military and political power (Petersen and Barysch 2011: 1). China's energy diplomacy has become part of a new "Great Game" in Asia, but it has led to mixed results in the country's relations with its neighbours: while opportunities for cooperation have evolved with some of its neighbours, notably in Central and mainland South-east Asia, it has become a source of conflict with certain others, especially those with border disputes over maritime territories where rich natural resources are located (Zhao 2013: 144). Since the end of the Cold War, Central Asia has emerged as a newly defined and separate geopolitical space (Marketos 2009: 7). Of all the non-Middle-East energy sources of potential interest to China, Central Asia seems to be a large and relatively close source of oil and natural-gas deposits; the oil reserves in Central Asia account for about 4 per cent of the world's entire energy deposits, for instance. China has turned to Central Asia for its energy resources for two main reasons: first, Central Asia provides stable access to closer sources of energy, circumventing the bottleneck of the Strait of Malacca; and second, the development of close ties with Central Asia through an energy nexus will help China to avoid the threat of separatism in the Xinjiang Uyghur Autonomous Region by more regional cooperation (Fazilov and Chen 2013).

Fig. 6: Current and future routes of Chinese oil and gas

Source: Jiang and Sinton (2011: 30).

In essence, the Chinese government is uncomfortable with the fact that the US Navy dominates the sea-lanes for Chinese oil imports from the Persian Gulf to the South China Sea. There is a concern that if Chinese-American relations deteriorated fundamentally, the US might use its superior military force in the region to cut China off from its main energy sources. So China's interests and investments in Central Asian and Russian energy resources can be explained by the Chinese perception that these regions are less vulnerable to US influence (Marketos 2009: 103–105). One must bear in mind that 60 per cent of China's oil imports currently pass through the Strait of Malacca, but the Chinese authorities are also worried about the volatility of the Middle Eastern market and the risks of political destabilisation there (Laruelle and Peyrouse 2012: 65). To reduce dependence on the Straits of Malacca as a transport corridor for oil from the Middle East, China has also shown keen interest in an alternative route, a pipeline from Myanmar to the south-west of China. An agreement was even signed in 2009. As Myanmar is not a large oil producer, the pipeline should serve as an alternative to transporting oil by tanker from the Middle East via the Strait of Malacca. The Myanmar–China gas pipeline has been supplying natural gas to China's Yunnan and Guianxi provinces ever since 2013 (EIA 2014a: 13–24). Most of all, though, energy supplied from Central Asia and Russia will help to make

China more independent from the Middle East and the transport route through the Strait of Malacca.

Another main reason for China's military and security engagement in Central Asia is Xinjiang's importance for the country's energy security. The vast majority of China's oil fields in the north-east and central northern regions are mature and therefore prone to declining production. In contrast, China's interior provinces in Xinjiang, including the Junggar and the Tarim basin as well as the central Ordos basin, have attained strong production growth in recent years. This was achieved through the use of improved drilling and advanced oil-extraction techniques. Additionally, Xinjiang is China's most important gas-production area, with the Tarim basin supplying 18 per cent of China's total production in 2012 (EIA 2014a: 7 and 20). Xinjiang also serves as an important transit region for Central Asian oil as well as natural-gas pipelines connecting China's domestic pipelines to energy supplied from abroad (see fig. 6).

For both reasons, the Shanghai Cooperation Organization is of great interest to Chinese policy-makers. While China, Kazakhstan, Kyrgyzstan, Russia and Tajikistan founded the Shanghai Five in 1996, the SCO — a political, economic and military organisation — was established by the leaders of the five countries plus Uzbekistan in Shanghai in 2001 (Bailes et al. 2007: 4). Turkmenistan is the only Central Asian country that has remained outside the organisation, although its energy cooperation with China is as strong as that of the others. Overall, the SCO is the only international organisation that has been set up by China, but it accounts for three fifths of the Eurasian continent and a quarter of the world's population. Thus, it is one of the most important organisations worldwide, even though its level of activism is quite small. The main reason for this may be found in the diverging interests of its members, especially Russia and China (Laruelle and Peyrouse 2012: 27). Nevertheless, it may be understood as the main organisation of "Eurasian regionalism" (Aris 2011). It was also an approach to balancing the United States' presence in Central Asia since the beginning of America's war on terrorism and the toppling of the Taliban regime in 2001, even though the foundation of US power in Central Asia is much weaker than in other parts of China's periphery (Das 2013: 103–105). Initially, Russia feared the US's military presence in Central Asia as it wanted to keep Central Asia in its backyard to prevent these countries from being controlled by another major power (Marketos 2009: 23). Currently, however, the SCO does not have the infrastructure, resources or history to call itself a "NATO of the East" (Soto 2012: 4). Its deeper goals are the management of potential Sino-Russian tension and competition, but its activities are directed primarily at transnational threats and at economic and infrastructure cooperation (Bailes et al. 2007: 4).

The SCO primarily focuses on Central Asian security-related concerns, including border disputes. Three of the five Central Asian countries share a 3,000 km-long border with China, yet all of them are concerned that radical Islam will stir up ethnic

and popular revolt domestically (Das 2013: 116–117). China's westernmost region, Xinjiang Uyghur Autonomous Region, is inhabited by Turkic-speaking Muslim Uyghurs. China's leaders fear the possibility of fundamentalist terror and separation erupting in the region. While Russia fights Muslim nationalism in Chechnya, Tajikistan, Kyrgyzstan and Uzbekistan have cast militant Islam as their main enemy. This common concern has led these countries to work together with China to contain fundamentalism. As a result, China — eager to prevent Islamic militancy from fuelling separatism in Xinjiang — has dispatched waves of senior officials and military delegations to Central Asia. Additionally, it gives military aid to Uzbekistan and supplies airborne forces as well as providing border guards to Tajikistan (Zhao 2013: 151). Often, the main threats the SCO confronts are described as the “three evils”: terrorism, separatism and extremism. Not surprisingly, the SCO can be seen to have its origins in China's security problems in Xinjiang (Marketos 2009: 12).

A framework agreement to enhance economic cooperation was also signed by the SCO member states on 23 September 2003. This is an attempt by China to convert the SCO into a unified trade and economic bloc under its own leadership. As a result of this step, trade between China and Central Asia rose from USD 527 million in 1992 to USD 40 billion in 2011 (Fazilov and Chen 2013). This potential evolution is bound to create hard competition with Russia because both countries are engaged in a geopolitical competition to extend their influence in Central Asia. The PRC has not been able to form the SCO into a free-trade zone. Not only Russia, but also the Central Asian states fear economic competition from cheap Chinese labour and products (Marketos 2009: 46). Since 2005, the SCO has prioritised joint energy projects, which include the oil and gas sector, the exploration of new hydrocarbon reserves and the joint use of water resources. In 2006, V. Putin proposed an “Energy Club” within the framework of the SCO, which may become a “rival OPEC”. This is due to its possessing half the world's natural-gas reserves and almost a quarter of the world's oil reserves if the club included Iran (Starchak 2011: 132; Marketos 2009: 45). Since 2004/5, Mongolia, India, Pakistan, Iran and Afghanistan (since 2012) have been SCO observers. Iran is of the most interesting countries for China in terms of energy security; around 8 per cent of China's crude-oil imports in 2013 came from there (see fig. 3). The Iranian government has therefore shown great interest in energy cooperation with China and other SCO member states. In China's view, Iran is a potential candidate for full membership in the SCO. Additionally, it is likely to remain a strategic partner on many strategic issues in and beyond Central Asia (Panda 2012: 507).

However, while China views the SCO as the main platform to improve its energy security, contracts on energy are only signed bilaterally (Marketos 2009: 107). Central Asian energy supply is one of the best options in China's strategy of diversifying its energy sources, which has encouraged the Chinese leadership to have sound control over the region; the SCO has an important role to play for China in this regard. In fact, the importance of Central Asia and the SCO cannot be underes-

timated. The Chinese reach into Central Asia may be seen as an effort to revive the old Silk Road policy by economically integrating Xinjiang province with Central Asia. The SCO helps to counter the threat posed by the “three evils” in a multilateral way (Panda 2012: 517–518). In concrete terms, four countries are of particular interest with respect to China’s goal of achieving energy security: Kazakhstan, Uzbekistan and Russia as SCO member states and Turkmenistan as an additional Central Asian supplier.

China’s energy cooperation in Central Asia and the SCO

Kazakhstan

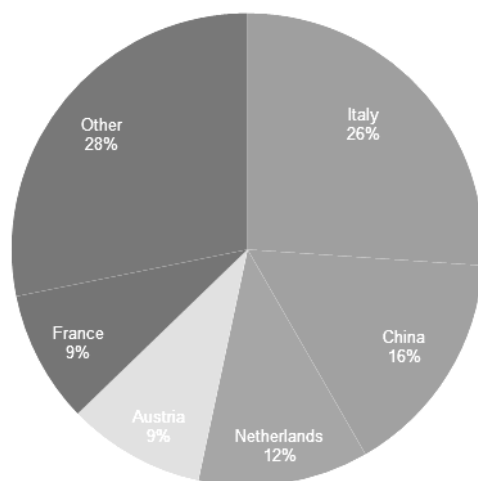
When Kazakhstan became independent, within the first period between 1992 and 1997, the country established its forces and strengthened its sovereignty and national integrity (Safiullinn and Howe 2012: 53). Cooperation between Kazakhstan and China also began directly after the Central Asian states gained independence. By the foundation of the “Shanghai Five” in 1996, China implemented an institutionalised cooperation, initially in the fields of border disputes and security. Since 2000, China and Kazakhstan have signed several agreements under which Astana has bought technical equipment from China (Laruelle and Peyrouse 2012: 32–33).

Kazakhstan’s massive oil and gas reserves make the country very attractive to China in boosting energy cooperation. The country’s total proven offshore and onshore field reserves are around 37 million barrels of oil and 3,300 bcm of natural gas, making Kazakhstan one of the world’s major oil producers. Kazakhstan has the potential to expand the production from 2 million bbl/d in 2010 to 3.5 million bbl/d by 2015 (Fazilov and Chen 2013). With the exploitation of the gigantic Kashagan oil field, the country will dominate oil production in the Caspian Sea region within a few years from now. This oil field was the biggest discovery of the last 35 years. Production started in 2013, but has come to a stop because of toxic waste leaking. It is set to resume in 2014 or 2015 (Nichol 2014: 49). By 2050, Kazakhstan will have become one of the world’s top ten oil exporters. The Caspian region will not displace the Middle East as the main oil supplier in the world, but it will play an important role outside OPEC, in particular for its neighbours, Russia and China (Laruelle and Peyrouse 2012: 66).

Chinese–Kazakh negotiations over oil began in 1994 during a visit by China’s Prime Minister Li Peng to Almaty. Yet the real beginning of oil cooperation dates back to 1997 with the signing of a general agreement between the two countries under which CNPC and its subsidiaries were invited to invest in Kazakh oil fields. CNPC’s promise to invest USD 9 billion in Aktobe Munay Gas, Uzen Field’s licence and in two pipelines — one leading to Xinjiang and one to Iran — had to be abandoned, however, with the exception of the Uzen project in 1999. Another turning point in Chinese–Kazakh energy relations occurred in 2003 with the start of the Atasu–Alashankou pipeline project and the purchasing of new oil fields. CNPC reinforced

its presence in Aktobe Munay Gas, for instance, and acquired an additional 25 per cent of formerly government-owned shares in the company, which currently controls a seventh of Kazakhstan's oil production. It is essentially Chinese property now because CNPC owns more than 85 per cent of it (Pannell 2011: 113). Additionally, CPNC invested massively in onshore fields in order to prepare supplies for the future Chinese–Kazakh oil pipeline; one place it invested in is the North Buzachi field in the Mangystau region north of Aktau. In 2005, CNPC organised the largest foreign acquisition ever undertaken by a Chinese company. It outbid its Indian competitor ONGC by offering USD 4.2 billion for Petrokazakhstan. As a result, Kazakhstan became the second-largest foreign base of production after Sudan for CNPC because that enterprise possessed 12 per cent of oil production in Kazakhstan (Laruelle and Peyrouse 2012: 69–71). Other acquisitions followed such as Mangistau Munay Gas in 2009, in which CNPC bought a 50 per-cent share (Petersen and Barysch 2011: 40). As a result of these investment activities, Chinese SOEs ran approximately a quarter of Kazakh oil production in 2010 — through Aktobe Munay Gas, Turgai Petroleum, Kumkol Resources and Karazhanbas Munay. In 2013, CNPC also acquired an 8 per-cent share of the Kashagan oil field, paying around USD 5 billion to KazMunayGaz (FAZ 2013). In this way, the Chinese political elite obtained control over a large part of Kazakhstan's oil production through the state-run CNPC.

As the Kazakh pipeline system was originally built in the Soviet era to supply oil to Russia, the country was strongly dependent on the Russian supply system, giving Russia complete control over Kazakhstan's exports. Over the last two decades, Kazakhstan has been able to reduce this dependence by utilising trans-Caspian tankers and building several pipelines. The country's pipeline system is operated by the state-run firm KazTransOil, which is a subsidiary of KazMunayGas. It operates the Caspian Pipeline from the Tengiz oil field to the Russian Black Sea port of Novorossiysk, the Uzen–Atyrau–Samara Pipeline and a northbound link to Russia's Transneft distribution system. Additionally, Kazakhstan delivers oil by tankers, which cross the Caspian Sea to Baku in Azerbaijan, from where it is supplied to the Mediterranean via the Baku–Tbilisi–Ceyhan (BTC) pipeline (EIA 2013a, 9). As a result, Kazakhstan can supply crude oil to several European countries, which diversifies the country's customers and makes it less dependent on Russia (see figure 7).

Fig. 7: Kazakhstan's liquid fuel exports by destination, 2012

 Source: Kazakhstan's Customs Control Committee of the Ministry of Finance, reported by Global Trade Information Service

Additionally, it supplies crude oil to China by the Kazakhstan–China pipeline. In 2012, 16 per cent of the Kazakh liquid fuel exports went to China (see fig. 7). The strategy used by Chinese SOEs did not focus solely on exports to China originally (via the Atyrau–Samara pipeline for example), but a large share of production was bound for Europe. Chinese installations also had the goal of implementing a pipeline link between the Caspian Sea and Xinjiang province. This idea was confirmed in 2002, but the pipeline was built in three phases as a joint venture between CNPC and KazMunayGas. The first section has been operating since 2003, connecting the deposits of Kenkiyak to Atyrau, allowing oil extracted from the Chinese-controlled oil fields in Kenkiyak and Zhanazhol to join the Atyrau–Samara pipeline for export to European markets (Laruelle and Peyrouse 2012: 72). The second section, between Atasu and Alashankou in Xinjiang, started operating in 2006, while the whole project was completed by the Kenkiyak–Kumkol pipeline in 2009, connecting the Kazakh oil fields in the Caspian Sea region to China's western border (Adolf 2011: 436). Therefore, the direction of flow in section one was reversed, now running from Atyrau to Kenkiyak. Currently, the Kazakhstan–China pipeline has a capacity of 252,000 bbl/d of crude oil, but it is being expanded even more to increase its capacity to 400,000 bbl/d to supply China with Kazakh oil in 2014 (EIA 2014a: 13). A certain amount of Russian oil is also transported through this pipeline to China — the very first Russian oil to be conveyed to China by pipeline, in fact (Nichol 2014: 50). Kazakh and Russian oil will be passed through the Chinese west–east pipelines to the industrialised centres of China in the east. The long distance from the Caspian Sea to China must make Kazakh oil quite expensive for China (Petersen and

Barysch 2011: 41), but at the same time, it reduces China's dependence on the Middle East and the Strait of Malacca, enabling the Chinese political elite to maintain China's economic growth and thus its power over the country.

Fig. 8: The proposed Kazakhstan–China oil pipeline, 2004



Source: <http://www.lib.utexas.edu/maps/kazakhstan.html>.

China therefore considers Kazakhstan a key factor in its energy-security strategy. In addition, cooperation between both countries has been strengthening and securing the north-west Chinese borders of volatile Xinjiang province. In contrast, for Kazakhstan, China may be helpful in diversifying its energy sector by balancing Russia's influence (Fazilov and Chen 2013). The Kazakh–Chinese energy cooperation is consequently a win-win solution for both sides.

Turkmenistan and Uzbekistan

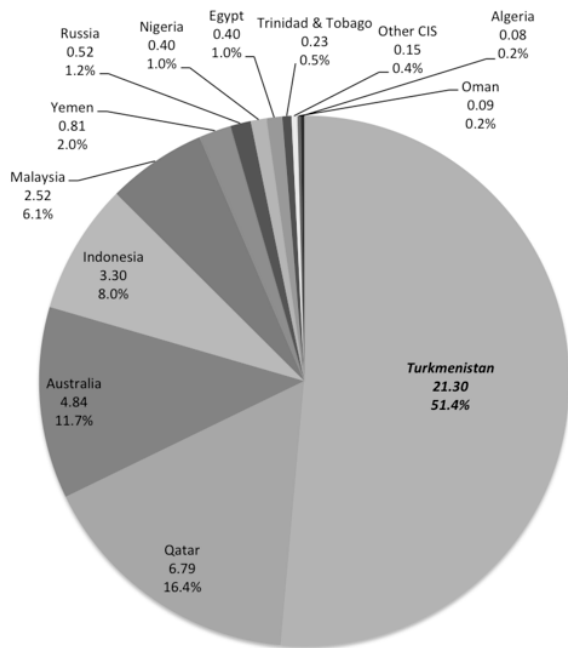
While Russia has lost its former dominance in the Central Asian oil trade, the country's monopoly in the region's gas trade lasted considerably longer. By buying up Central Asian gas and shipping it through its own pipelines to Western markets, Russia prevented the countries in the region from gaining access to this lucrative market (Petersen and Barysch 2011: 29). As an example, the Russian firm Gazprom bought gas from Turkmenistan at a price of USD 65 per tcm in 2006, selling it to European customers at approximately USD 210–230. When the price increased to USD 410 per tcm in the period from 2007 to 2009, the Turkmen leadership felt even more cheated by Russia (Bergsager 2012: 15–16). China's demand for Central Asian gas therefore became an interesting alternative for all natural-gas producers in Central Asia.

Turkmenistan is one of the world's largest natural-gas suppliers. It has proven gas reserves of approximately 17,500 bcm (618 tcf) (Nichol 2014: 51). The most promising deposits are not offshore ones as in Kazakhstan or Azerbaijan, but onshore deposits in the Amu-Darya Basin in the east of the country. The new site of Yolotan-Osman is said to contain reserves exceeding the size of one of Russia's largest deposits, Shtokman, between 4,000 and 14,000 bcm; it may be the fourth- or fifth-largest deposit in the world. In contrast, Uzbekistan has estimated reserves of only 1,800 bcm, not taking into account the still unknown deposits in the Ustyurt Plateau and the Aral Sea region (Laruelle and Peyrouse 2012: 67).

The large reserve of natural gas has drawn significant attention and interest from China. Diplomatic relations between Turkmenistan and China were therefore established directly after Turkmenistan's independence in 1992 (Fazilov and Chen 2013). Up to 2006, Turkmenistan was ruled by its long-standing dictator, Saparmurat Niyazov, who kept the country largely isolated, whereas his successor, Gurbanguly Berdymukhammedov, has allowed an opening of several sectors, including some parts of the energy sector, for international trade (Petersen and Barysch 2011: 47–48). Given the importance of energy cooperation, China and Turkmenistan consequently signed an agreement in 2007 under which the latter would supply 30 bcm of gas to China annually through pipelines for 30 years (Fazilov and Chen 2013). This contract is interesting because of its multi-billion dollar loans for the development of the South Yolotan-Osman gas field (renamed "Galkynysh" in 2011) and for the construction of the pipeline itself. This loan is a typical energy-backed loan because it has to be paid back through gas deliveries. Additionally, China packaged the energy contract with political partnerships, infrastructure assistance and diplomatic support in sorting out any transit issues with Uzbekistan and Kazakhstan (Petersen and Barysch 2011: 42). As a result, the Chinese CNPC is already the largest foreign company in Turkmenistan and enjoys a privileged position (Petersen and Barysch 2011: 52). As this shows, the political and economic elites in China have cooperated very successfully to achieve energy security for the country.

In 2009, the China–Central Asia gas pipeline starting in Turkmenistan and transiting Uzbekistan and Kazakhstan was completed and opened, with its final linkage in Xinjiang (Pannell 2011: 113). The gas pipeline runs through Turkmenistan for 188 km, through Uzbekistan for 530 km and through Kazakhstan for 1,300 km before connecting to the Chinese grid (Cabestan 2011: 6). In recent years, China constructed the first west–east gas pipeline, which runs from Xinjiang to Shanghai and started operating in 2004. Another two gas pipelines straight through China were constructed between Xinjiang and the provinces in the south-east. These became operational in 2009 and 2011 respectively, transporting natural gas from Central Asia and Xinjiang to the economic centres of the country in the east and south-east (EIA 2014a: 23). In 2011, Turkmenistan agreed to increase its gas exports to China by two thirds (Soto 2012: 3) and as a result, Turkmenistan supplied 21.30 bcm to China in 2012 — around 51 per cent of the country's total imports (see fig. 9). Turkmenistan is now expected to be China's principal supplier of pipelined natural gas (Fazilov and Chen 2013).

Fig. 9: Sources of China's natural-gas imports, 2012 (bcm, % total)



Source: <http://www.eurasianet.org/node/67356>.

China's relationship with the SCO member Uzbekistan has also improved over the last two decades. Uzbekistan holds quite a large, natural gas reserve (1,124 bcm/39.7 tcf in 2012), which accounts for 1 per cent of world reserves

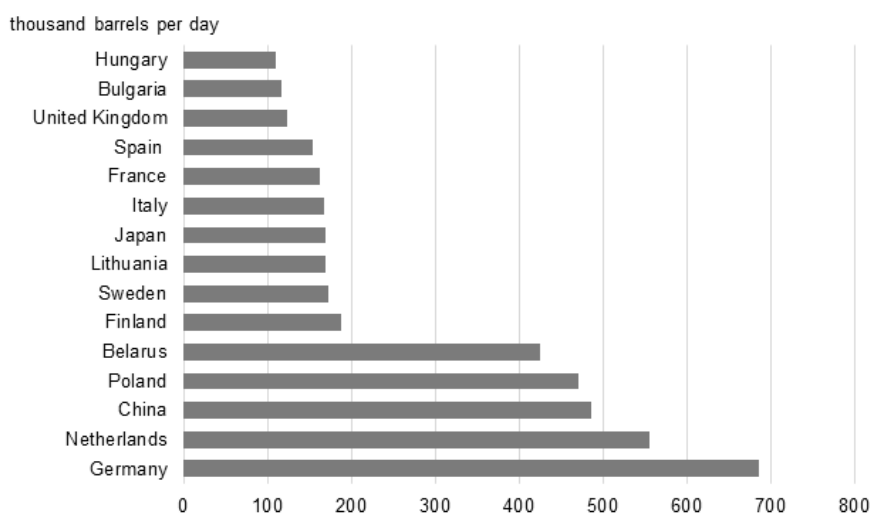
(Nichol 2014: 54). To gain access to this gas reserve, China has invested in 380 ventures and set up representative offices belonging to 65 large Chinese companies, including CNPC and China Machinery. The twin anchors of energy cooperation are Uzbekistan's national oil and gas company Uzbekneftegaz and the Chinese CNPC. In 2004, Uzbekneftegaz signed a contract on energy cooperation with CNPC (Marketos 2009: 18). In 2010, China signed contracts with Uzbekistan and Kazakhstan to link the China–Central Asia gas pipeline with their national pipeline systems and to allow them to feed in their own gas to export to China (Petersen and Barysch 2011: 41). As a result, Uzbekistan started to supply natural gas through the China–Central Asia gas pipeline in August 2012 with a projected capacity of 25 bcm (Fazilov and Chen 2013). Yet as figure 9 shows, the gas supply is quite small at the moment as Uzbek gas exports to China are part of the “other CIS”, making up just 0.4 per cent of its total supplies.

By strengthening its energy relations with Turkmenistan and Uzbekistan this way, China has not only been attempting to diversify its access to gas supplies, but it has also gained greater flexibility in navigating the difficult geopolitics of the region (Fazilov and Chen 2013). The importance of the pipeline will also grow if a connection with Iran — a potential member of the SCO — is achieved and used to transport gas from Iran to China. This may have a tangible influence on global energy-supply networks (Marketos 2009: 50). Additionally, Central Asian gas is already helping China to reduce its dependence on liquefied natural-gas imports, which adds another dimension to the Chinese–Central Asia energy trade by improving Chinese energy security even more. Observers see the gas pipeline as a win-win solution, benefitting the countries in Central Asia as well as China. It strengthens Turkmenistan's negotiating position by increasing the number of customers for its gas. Additionally, it stimulates the Uzbek and Kazakh economies (Cabestan 2011: 6–7); China's investment in Uzbekistan now exceeds USD 4 billion, for example. Moreover, China has become Uzbekistan's largest investor as well as its third-largest trading partner (Fazilov and Chen 2013). Actually, China has not gained control over Central Asian gas, but over the pipeline system in this region. The China–Central Asia gas pipeline has particularly become a game changer. While Turkmenistan and Uzbekistan used to rely on Russia all the time, the countries now depend on China, which controls the pipeline system in Central Asia. Importantly, the gas pipeline has provided a model for multilateral cooperation within the SCO and among its attendants. Turkmenistan, which is only an attendant of the SCO and not a member state yet, may find itself being pushed to become a member sooner than planned by this project. The case of Turkmenistan can be considered crucial for China's future role within the region.

Russia

Russia is one of the founding members of the “Shanghai Five” and the SCO. In addition, it is one of the world’s largest suppliers of energy: it is the second-largest producer of natural gas and third-largest liquid-fuels producer worldwide. As of 2013, Russia’s proven oil reserves are 80 billion barrels, most of which is located in Western Siberia, but the country’s economy is also highly dependent on its hydrocarbons. In 2012, for instance, oil and gas revenues accounted for 52 per cent of federal budget revenues and over 70 per cent of total exports. Most of Russia’s oil and gas production is dominated by domestic enterprises, but while Russia originally privatised the oil and gas industry following the collapse of the Soviet Union, this has been reverted since then and put under state control. Also, foreign investors (e.g. BP) had to pull out. Currently, the largest Russian oil companies are Rosneft and Lukoil and the largest gas producer the state-run Gazprom, which also holds a legal export monopoly (EIA 2014b: 1–7).

Russian oil is exported mainly to the lucrative European market. In 2012, for instance, 79 per cent of Russia’s crude-oil exports went to European countries (including those in Eastern Europe), particularly Germany, the Netherlands and Poland. Mostly, crude oil is exported by the state-run Transneft pipeline system rather than by ship or rail. Overall, Transneft transports about 88 per cent of all crude oil and about 27 per cent of Russian oil products. About 76 per cent of natural-gas exports were also sent to customers in Western Europe, transported by Gazprom’s pipeline system via Ukraine, Belarus and across the Baltic Sea or to Turkey and the former Soviet republics in the east (EIA 2014b: 7–13). Siberian energy resources are also interesting for Chinese policy-makers since Europe is currently proceeding with its long-term plans to increase its energy efficiency in accordance with environmental objectives and is diversifying its imports, thus reducing the potential for import growth from Russia. Many Europeans consider Russia to be an unreliable supplier of oil and gas and a country willing to use energy exports for political purposes (Petersen and Barysch 2011: 8). Consequently, East Asia has emerged as the most promising expanding market for Russian oil and gas. The pipeline infrastructure between Siberia and China is currently underdeveloped, however, and Russian oil and gas enterprises are still undercapitalised (Bergsager 2012: 6). Nevertheless, as figure 10 shows, China was the third-largest destination of Russian crude oil and condensate in 2012. China imports oil from Russia’s Rosneft by the Eastern Siberia–Pacific Ocean (ESPO) pipeline, especially through the spur running from Skovorodino to Daqing in north-east China, which was opened in 2011 (Petersen and Barysch 2011: 17). Additionally, Russian crude oil is transported to China via rail, arriving in Harbin, and to central China via Mongolia.

Fig. 10: Russia's main export destinations for crude oil and condensate, 2012

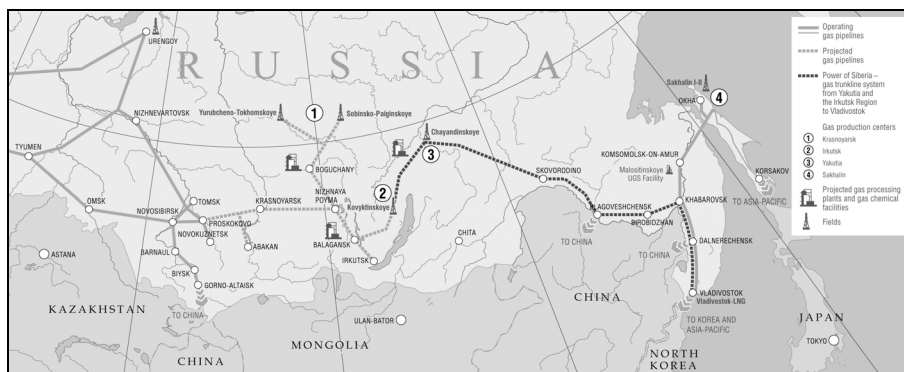
Source: Global Trade Atlas, U.S. Energy Information Administration

In May 2014, China's CNPC and Russia's Gazprom signed a deal worth about USD 400 billion. Russia is expected to export some 38 bcm of natural gas per year to China, starting in 2018, via the eastern route of the "Power of Siberia" pipeline, which will start operating in late 2017. The financing of the cost of sending it to China — USD 22–30 billion — has been the subject of much discussion recently. While the financial details of the current deal are a "commercial secret", one can imagine that the Chinese side was in a better bargaining position as they had the luxury of time in which to negotiate, something Russia was short of because of the Ukraine crisis (BBC 2014). Hitherto, cooperation between Russia and China on the matter of energy has been hampered by various obstacles. First, because both energy industries are highly politicised, China's leaders are concerned about relying too heavily on Russian energy exports, which might be used as a political tool. Second, there exists an underlying mutual distrust between both powers. Observing China's economic, military and political power growing rapidly over the two past decades, Russia has come to fear a shift in the power balance between the two nations with the prospect of being marginalised by the PRC and the US. China and Russia are partners in the SCO, but at the same time they are competitors regarding trade with Central Asia. Third, the price formula in long-term agreements is problematic because Russia wants to sell its energy resources to Europe at a price equal to their export price, while China prefers a price formula based on its own domestic coal prices (Bergsager 2012: 8). The Chinese–Russian energy relations have therefore

failed to fulfil their potential up until now. As a result, the ESPO pipeline was not supplemented by a gas pipeline until recently. The current Ukraine crisis has also brought a breakthrough in the field of gas imports from Russia to China.

While the Ukraine crisis may have been responsible for the urgent agreement, preconditions for the deal have actually been in place for years; it was “only” various central points of contention that took a while to resolve. On the one hand, China is keen to raise the share of gas in its energy mix and to improve its bargaining leverage in the global gas market. On the other hand, Gazprom is seeking to diversify in Asia to reduce its reliance on Europe. Long-term energy interests laid the foundation for the deal, but broader bilateral interests secured it. While mistrust and strategic confrontation still affects the Sino-Russian relationship, since 2012 (well before the Ukraine crisis), Sino-Russian ties have been warming in the form of frequent state visits, broader and deeper military relations, etc. So the gas deal is part of China's broader effort to advance security cooperation with Russia while countering US power and influence in Central and East Asia. Last but not least, the deal could mitigate the impact of US and European sanctions on Russia in the Ukraine crisis. From a geopolitical perspective, China enjoys a number of advantages: it has had many other gas suppliers for a while, especially in Central Asia, and because it is fairly self-reliant, it does not depend on gas for consumption as much as Russia does for its exports. At the same time, Russia's relations with Europe are fragile (Koch-Weser and Murray 2014: 4–13). Overall, Russian–Chinese energy cooperation will improve as a result of this gas deal, but it is questionable whether it will boost the Russian position in view of the Ukraine crisis since the gas is going to be delivered to China in 2018. The deal should therefore be seen as part of broader cooperation on energy issues in the Eurasia region rather than as short-term action taken by a sanction-fearing Russia. First and foremost, though, the Chinese elite seems to be the real winner in this deal.

Fig. 11: Russian gas pipelines in Siberia



Source: <http://www.gazprom.com/about/production/projects/pipelines/ykv/>.

Conclusion

The economic, military and political rise of China also brought some shifts in Asian geopolitics. The Russian weakness in the 1990s provided opportunities for expanding China's influence in Central Asia. The Central Asian states consolidated their statehood during the first decade of independence by balancing relations between the former Soviet hegemony (Russia) and other international actors (Das 2013: 99). Over the last decade in particular, China's energy-security strategy has been the driving force behind the country's emerging role in Central Asia.

The Chinese elite has carried through its main projects in the field of energy security. First of all, CNPC dominates oil production in Kazakhstan and has been importing 16 per cent of Kazakh liquid fuels via its own pipeline since 2012. Additionally, Turkmen and Uzbek natural gas account for more than 52 per cent of China's gas imports flowing by pipeline into the Chinese grid since 2011 and 2012 respectively. This has changed the balance of power in Central Asia in China's favour. Since 2009, Russia has been delivering oil to the Chinese refinery in Daqing via pipelines. In 2018, China will also be supplied by Russian natural gas via the "Power of Siberia" pipeline. The success of the Chinese–Central Asian and Chinese–Russian energy cooperation reflects China's growing influence in the region, eroding Russia's previous semi-monopoly on energy exports. China has partly overcome geopolitical and transportation risks. Although the Middle East has remained the most important supplier, providing almost half of China's oil imports, the PRC has reduced its dependence on this region by investing in Africa and SCO countries like Kazakhstan, Uzbekistan, Russia and Turkmenistan. Its investments in Central Asia and Russia have significantly decreased its sea-lane transportation risks (Zhang 2011: 16). Additionally, pipelines from Central Asia to China may be enlarged later, opening a corridor to Iran, which would offer new ways for China to reduce its energy insecurity (Babayan 2010: 60). All of these efforts were made by the economic and political elite in China to improve the country's energy security and have been very successful to date.

Even so, China has not been able to create a new vassal relationship with Central Asia because Russia has remained the second-largest player in the new "Great Game". The idea of turning the SCO into a free-trade area also failed because Russia and the Central Asian states could not compete with China's economic power. The SCO therefore remains a platform that China can use to improve its relations with Central Asia, to resolve border disputes and to work together with its neighbours in several security-related areas. The SCO has not developed into a Central Asian community or free-trade zone. On the one hand, both Russia and China dislike the United States' supremacy, fear instability and extremism in their common neighbourhood and oppose Western interference in the affairs of sovereign countries (Petersen and Barysch 2011: 13). On the other hand, there are substantial disagreements among the member states, particularly between Russia and China. While

Russia sees the SCO as a platform for its own revival as a force in global politics and as an instrument that might also check Western influence across Asia, China has recently been economy-centric with regard to the SCO. While China uses the SCO to combat regional and transnational threats, which will help to check the violence in Xinjiang, it is cautious not to project the SCO as a military unit or as a distinctly anti-Western grouping (Panda 2012: 502).

All in all, the Chinese elite is the main winner of the new “Great Game” in Central Asia, though not absolutely. China has improved its energy security and consequently its economic growth, social stability and the CCP's maintenance of power, but the Central Asian states have also won a considerable amount. While their energy sectors were originally integrated tightly into the former Soviet network of pipelines, most of these states gained new economic independence by finding a new customer and investor in the East. China is a huge potential market for the Central Asian states in terms of energy sales and is an important passageway to link up with the Asia-Pacific rim and the world market (Marketos 2009: 61). In contrast, Russia's monopoly in oil and gas trade has been broken step by step. While it has lost influence in, and profits from, Central Asia, Russian eyes see the new orientation of the Central Asian oil and gas suppliers towards China as the second best solution. On the one hand, Central Asian countries have become more independent economically, but on the other, they have not disturbed Russian oil and gas exports to Europe (Russia's most lucrative market) in a fundamental way. The Central Asian countries have been able to balance the power of their former hegemon and military giant with that of the new economic power in the region, China. This way, they have successfully managed to retain their independence up to now. So far, only Russia's position seems to have deteriorated in Central Asia because it lost its undoubted hegemony in the region and its ability to manoeuvre in world politics by virtue of its monopoly on energy resources. Additionally, it is gradually becoming a simple resource supplier in a dilemma between two powerful and rich regions of the world, Europe and China.

References

- Adolf, Matthias (2011): *Energiesicherheitspolitik der VR China in der Kaspischen Region. Erdölversorgung aus Zentralasien*. Wiesbaden: VS Verl. für Sozialwissenschaften
- Altuglu, Murat (2006): *The New Great Game. Energiepolitik im kaspischen Raum*. Bonn: Bouvier
- Aris, Stephen (2011): *Eurasian Regionalism. The Shanghai Cooperation Organisation*. Basingstoke: Palgrave Macmillan
- Babayan, David (2010): “Some of China's Geopolitical Vectors in Central Asia”, in: *Central Asia and the Caucasus. Journal of Social and Political Studies*, 11, 4: 54–65
- Bailes, Alyson J. K.; Dunay, Pál; Guang, Pan Pan; Troitskiy, Mikhail (2007): “The Shanghai Cooperation Organization”, SIPRI Policy Paper, 17
- BBC (2014): “Russia Signs 30-Year Gas Deal with China”, BBC News – Business, May 21, www.bbc.com/news/business-27503017 (accessed: 2014-05-25)
- Bergsager, Henrik (2012): “China, Russia and Central Asia. The Energy Dilemma”, Fridjof Nansens Institute Report, 16, Lysaker

- Cabestan, Jean-Pierre (2011) “Energy Cooperation between China and Central Asia”, in: European Council of Foreign Affairs (ed.): *The New Great Game in Central Asia*, 6–8 (China Analysis, September)
- Cheng, Joseph (2013): “A Chinese View of China’s Energy Security”, in: Zhao, Suisheng (ed.): *China’s Search For Energy Security. Domestic Sources And International Implications*. London: Routledge, 1–21
- Das, Krishnasri (2013): *China and Central Asia. Political, Economic and Security Co-operation*. New Delhi: New Century Publ.
- Devetak, Richard; Burke, Anthony; George, Jim, (eds.) (2011): *An Introduction to International Relations*. Cambridge: Cambridge University Press
- Dodds, Klaus J.; Sidaway, James (1994): “Locating Critical Geopolitics”, in: *Environment and Planning D.: Society and Space*, 12, 5: 515–524
- EIA – U.S. Energy Information Administration (2013a): “Kazakhstan”, www.eia.gov/countries/cab.cfm?fips=kz (accessed: 2014-05-02)
- (2013b): “Caspian Sea Region”, www.eia.gov/countries/regions-topics.cfm?fips=csr (accessed: 2014-05-02)
- (2014a): “China”, www.eia.gov/countries/cab.cfm?fips=ch (accessed: 2014-05-02)
- (2014b): “Russia”, www.eia.gov/countries/country-data.cfm?fips=rs (accessed: 2014-05-02)
- (2014c): “Germany”, www.eia.gov/countries/country-data.cfm?fips=gm (accessed: 2014-09-18)
- FAZ [Frankfurter Allgemeine Zeitung] (2013): “Energiehunger. China steigt in kasachisches Ölprojekt ein”, September 7, www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/energiehunger-china-steigt-in-kasachisches-oelprojekt-ein-12563771.html (accessed: 2014-05-15)
- Fazilov, Fakhmiddin; Chen, Xiangming (2013): “China and Central Asia. A Significant New Energy Nexus”, in: *European Financial Review*, April 19, www.europeanfinancialreview.com/?p=6451 (accessed: 2014-05-18)
- IEA [International Energy Agency] (2011): “Energy Security”, www.iea.org/subjectqueries/keyresult.asp?KEYWORD_ID=4103 (accessed: 2012-06-03)
- Koch-Weser, Jacob; Murray, Craig (2014): “The China–Russia Gas Deal. Background and Implications for the Broader Relationship”, U.S.–China Economic and Security Review Commission, Staff Research Backgrounder, June 9, www.uscc.gov/Research/china-russia-gas-deal-background-and-implications-broader-relationship (accessed: 2012-09-18)
- Laruelle, Marlène; Peyrouse, Sébastien (2012): *The Chinese Question in Central Asia. Domestic Order, Social Change and the Chinese Factor*. New York, NY: Columbia Univ. Press
- Marketos, Thrassy N. (2009): *China’s Energy Geopolitics. The Shanghai Cooperation Organization and Central Asia*. London: Routledge
- Nichol, Jim (2014): “Central Asia. Regional Developments and Implications for U.S. Interests”, Congressional Research Service Report, March 21, www.fas.org/sgp/crs/row/RL33458.pdf (accessed: 2014-04-17)
- Panda, Jagannath (2012): “Beijing’s Perspective on Expansion of the Shanghai Cooperation Organization. India, South Asia, and the Spectrum of Opportunities in China’s Open Approach”, in: *Asian Perspective*, 36: 493–530
- Pannell, Clifton W. (2011): “China Gazes West. Xinjiang’s Growing Rendezvous with Central Asia”, in: *Eurasian Geography and Economics* (formerly: Post-Soviet Geography and Economics), 52, 1: 105–118
- Petersen, Alexandros; Barysch, Katinka (2011): *Russia, China and the Geopolitics of Energy in Central Asia*. London: Centre for European Reform
- Safullin, Askhat; Howe, Brendan M. (2012): “Security Cooperation and Change of Identities in Central Asia. A Model of Acculturation Through Security Regionalization in the Shanghai Cooperation Organization”, in: *International Studies Review*, 13, 1: 43–65
- Shiryayev, Boris (2008): *Großmächte auf dem Weg zur neuen Konfrontation? Das „Great Game“ am Kaspischen Meer. Eine Untersuchung der neuen Konfliktlage am Beispiel Kasachstan*. Hamburg: Dr. Kovac
- Soto, Augusto (2012): “A Central Asian Dimension of EU–China Relations”, ISPI Analysis, 130, July 25, www.ispionline.it/it/publicazione/central-asian-dimension-eu-china-relations (accessed: 2012-09-18)
- Starchak, Maxim (2011): “The Shanghai Cooperation Organization. Opportunities for Russia”, in: *Central Asia and the Caucasus. Journal of Social and Political Studies*, 12, 2: 126–135
- Taylor, P. J. (1993): *Political Geography. World-Economy, Nation-State and Locality*. London: Longman
- Yiğit, Süreyya (2012): “Energy Security, Shanghai Cooperation Organisation and Central Asia”, ORSAM, 4

-
- Zhang, Jian (2011): "China's Energy Security. Prospects, Challenges, and Opportunities", CNAPS Visiting Fellow Working Paper, The Brookings Institution, Center for Northeast Asian Policy Studies, www.brookings.edu/research/papers/2011/07/china-energy-zhang (accessed: 2014-05-05)
- Zhao, Suisheng (2013): "China's Global Search for Energy Security. Cooperation and Competition in Asia-Pacific", in: Zhao, Suisheng (ed.): *China's Search for Energy Security. Domestic Sources and International Implications*. London: Routledge, 143–163