

The New Silk Road, part I: a stocktaking and economic assessment

Stephan Barisitz,
Alice Radzyner¹

China's New Silk Road (NSR) initiative was officially launched in 2013. It aims at enhancing overall connectivity between China and Europe by both building new and modernizing existing – overland as well as maritime – infrastructures. The NSR runs through a number of Eurasian emerging markets with important growth potential. The Chinese authorities have entrusted the Silk Road Fund, the Asian Infrastructure Investment Bank and other institutions with financially supporting NSR activities. Most drivers of the initiative are of an economic or a geopolitical nature. Given the generous financial means at Beijing's disposal and Chinese firms' accumulated expertise in infrastructure projects, many undertakings are currently well under way and promise to (eventually) bring about considerable changes in connectivity, commerce and economic dynamism. While most Chinese NSR investments go to large countries (e.g. Pakistan, Malaysia, Indonesia, Russia, Kazakhstan and Kenya), the strategically situated smaller countries (e.g. Djibouti, Sri Lanka, Kyrgyzstan, Laos, Serbia and Montenegro) typically benefit the most (in relation to the size of their economies). Progress has been made in strengthening the maritime infrastructural trade links with the EU (e.g. through the modernization of deep-water ports) while the upgrading of the currently rather weak trans-Eurasian railroad and highway links (e.g. via Kazakhstan and Russia) is clearly improving overland transportation's yet modest competitive position.

JEL classification: F15, F34, N75, R12, R42

Keywords: New Silk Road, One Belt, One Road, connectivity, trade infrastructure, economic corridors, regional policy, China, Eurasia

Introduction

This study is the first of a set of twin studies on the New Silk Road (NSR).² In part I, we provide a project-oriented overview of China's initiative to establish a New Silk Road linking China and Europe via a number of Eurasian and Asian emerging markets with important growth potential. In part II, we focus on the NSR's implications for Europe, or more precisely, Southeastern Europe (SEE), through which it connects to the heart of the continent. We feel that our brief discussion of concrete projects can provide valuable geoeconomic and geopolitical insights that help us understand the motives, goals and implications of this major endeavor. As far as we know, no other study has yet analyzed the NSR's impact from a project-oriented perspective, i.e. based on essential details of salient NSR projects in various parts of Eurasia and Africa. This contribution is intended to facilitate grasping the overall (potential) connectivity impact of the (strived-for) substantial modernization of trading networks.

Part I is structured as follows: Section 1 describes the most important features of the NSR, which is officially called the “One Belt, One Road” (OBOR) initiative, and the respective Chinese or multilateral financing institutions. Some motivations and reasons, but also risks and limitations, of the Chinese initiative are subject of section 2. Section 3 provides a snapshot of the approximate locations of the “eco-

¹ Oesterreichische Nationalbank, Foreign Research Division, stephan.barisitz@oenb.at, and European Affairs and International Financial Organizations Division, alice.radzyner@oenb.at. The authors are grateful to two anonymous referees as well as to Peter Backé and Julia Würz (both OeNB) for their helpful comments and valuable suggestions.

² The second study, also authored by Stephan Barisitz and Alice Radzyner, is titled “The New Silk Road, part II: implications for Europe,” and is scheduled for publication in the OeNB's Focus on European Economic Integration Q4/17.

conomic corridors” of the NSR and a succinct discussion of the economic advantages and drawbacks of competing modes of transport, with important implications for OBOR projects. It also analyzes some major OBOR projects. Section 4 finally summarizes and draws some conclusions which help prepare the ground for part II.

1 The New Silk Road’s emergence and some related institutions

1.1 Origins and nature of intended cooperation

When China’s president Xi Jinping visited Central Asia (Kazakhstan) and Southeast Asia (Indonesia) in September and October 2013, respectively, he launched the initiative of jointly building the Silk Road Economic Belt (SREB, a Eurasian overland trading network linking China and Europe and modeled on its ancient prototype) and the 21st Century Maritime Silk Road (a complementary seaborne trading network). Both networks together make up the New Silk Road (NSR) or the One Belt, One Road (OBOR) initiative,³ which focuses on connectivity and economic cooperation along infrastructural trajectories and comprises the establishment or modernization of port, rail, road, pipeline, energy, communication and IT infrastructure and logistics. The Chinese government described OBOR as the third stage of China’s opening up after the development of Special Economic Zones from 1980 and the country’s accession to the World Trade Organization (WTO) in 2001.⁴

The SREB focuses on bringing together China, Central Asia, Russia and Europe, on connecting China with the Persian Gulf and the Mediterranean Sea through Central and Western Asia, and on linking China with Southeast Asia, South Asia and the Indian Ocean. The 21st Century Maritime Silk Road is designed to go from China’s coast to Europe through the South China Sea and the Indian Ocean, connecting China with Southeast Asia, South Asia, East Africa and the Mediterranean (see State Council – The People’s Republic of China, 2015, p. 2). OBOR is sometimes compared to the Marshall Plan, a very successful U.S. initiative worth approximately USD 130 billion (in 2015 terms) that was aimed at promoting the economic reconstruction and integration of Western European economies after World War II (Djankov and Miner, 2016, p. 6). However, Chinese aspirations appear far more extensive, if more vague: The authorities in Beijing assess that OBOR potentially involves 65 countries in Asia, Africa, the Middle East and Europe and 4.4 billion people or about 60% of the world’s population (Grieger, 2016, p. 4). Enhancing connectivity in an area that generates an estimated 50% of global GDP and boasts about three-quarters of known energy reserves may have a significant economic impact.⁵ Estimates identify infrastructure construction needs exceeding USD 800 billion (Ettinger, 2016, p. 33).

The OBOR (or NSR) initiative is to be implemented through promoting inter-governmental cooperation and policy coordination (unlike the Marshall Plan, this initiative has made no demands for explicit trade policy liberalization steps of participating countries). Within this framework, the Chinese authorities have set

³ OBOR was later also called Belt and Road Initiative (BRI). In the following, we will use NSR and OBOR as synonyms.

⁴ Actually, another New Silk Road initiative was launched two years before OBOR in 2011: the U.S. New Silk Road Initiative (NSRI). However, this is a comparatively modest endeavor both financially and regionally, featuring an important diplomatic component. For more details on the NSRI, see section 3.3.

⁵ This may invite comparison to early globalization in the Mongol era: The territory of the Mongol Empire (including all its subempires) at its apex (around 1280 CE) is estimated to have covered (almost) the entire Silk Road network of the time, or a quarter of the world’s land surface and almost half of its population (Barisitz, 2017).

up or contributed to setting up specialized institutions to support and finance NSR projects (see subsection 1.2). Chinese enterprises are encouraged to participate in infrastructure construction in other countries along the OBOR and make industrial investments there. The Chinese authorities, at least in theory, also support “localized operation and management of Chinese companies to boost the local economy, increase local employment, improve local livelihoods” (State Council, 2015, p. 5). Yet in fact, given that China typically covers most of the financing, management is often in Chinese hands and the bulk of construction work is frequently carried out by Chinese firms and their workers, sourcing Chinese equipment, which is not always appreciated by local project partners (see also section 2).

1.2 Selected institutions supporting the New Silk Road

A number of institutions, mostly Chinese, but partly also multinational, are entitled to finance OBOR projects:

- The *Silk Road Fund (SRF)*: In December 2014, China’s government established this development and investment fund domiciled in Beijing. The Chinese authorities injected USD 40 billion of capital, which was provided by the State Administration of Foreign Exchange, the Chinese Investment Corporation, the Export-Import Bank of China (China EXIM Bank) and the China Development Bank.⁶ The SRF took up operations in spring 2015 and is being used to acquire equity stakes in infrastructure, resource development and industrial cooperation ventures in countries along the NSR. By March 2017, it had invested more than USD 6 billion in OBOR projects.
- The *Asian Infrastructure Investment Bank (AIIB)*: This institution, based in Beijing, started to operate in January 2016. By March 2017, the multilateral outfit had 52 members and 18 prospective members, including many countries along the OBOR, among them a number of European countries. China is the single largest shareholder, accounting for 26.1% of voting rights, followed by India (7.5%), Russia (5.9%) and Germany (4.2%). The AIIB’s authorized capital is USD 100 billion. The AIIB has challenged the regional if not global governance paradigm by claiming its own ground alongside the Japan-dominated Asian Development Bank (ADB) and the World Bank (WB), in which the United States holds pre-eminence (Grieger, 2016, p. 6).⁷ In early 2016, the first projects were initiated and received loans (albeit in partnership with other institutions, including the WB). By March 2017, 12 projects had received AIIB financial support totaling USD 2.6 billion. The institution apparently plans to contribute around USD 12 billion to the NSR initiative (Djankov and Miner, 2016, p. 9).
- The *New Development Bank (NDB)*: This multilateral lending institution was established in 2014 by the BRICS countries (Brazil, Russia, India, China and South Africa) and equipped with USD 100 billion. NDB headquarters are in Shanghai. Business started in 2016; at end-2016, projects in all member countries had been approved, involving financial assistance of about USD 2 billion. Around USD 10 billion of NDB money may be earmarked for NSR projects.

⁶ In addition, at an international New Silk Road summit in Beijing in May 2017 President Xi Jinping announced China’s willingness to inject an additional USD 15 billion into the SRF.

⁷ Prior to the establishment of the AIIB, the WB had reportedly estimated that Asian demand for infrastructure would amount to some USD 730 billion per year up to 2020, yet the WB and the ADB together have been able to supply only a fraction of that sum. Japan and the United States have (so far) not joined the AIIB.

The Chinese authorities have reportedly allocated the following amounts for use in OBOR projects to the country's "policy banks" (Djankov and Miner, 2016, p. 9):

- Export-Import Bank of China (China EXIM Bank): USD 30 billion
- China Development Bank (CDB): USD 32 billion
- Agricultural Development Bank of China (ADBC): USD 20 billion

2 The New Silk Road: some motivations and reasons, challenges and risks

China's OBOR initiative has been motivated and driven by a number of quite heterogeneous aims, which primarily include economic, but also geopolitical and even ecological issues:

- *Improvement of transportation links, reduction of trade costs to Europe and other parts of Eurasia*

The basic idea of the OBOR initiative is to better link up the "vibrant East Asian economic circle at one end and the developed European economic circle at the other" (State Council, 2015, p. 2), following the example of the NSR's predecessor, the traditional Silk Road, which lasted for about two millennia, witnessed many ups and downs, and linked the same two major traditional hubs of economic activity: the Middle Kingdom and Europe, or the Orient and the Occident (Barisitz, 2017). As, once again today, the world's biggest trading nation, modern China's interest is to reduce the costs of transporting goods (by land and sea) to other destinations. More efficient and secure and, if possible, shorter trade routes to Europe can further this goal.⁸

The fact that about three-quarters of Chinese imports from Russia and 60% of Chinese imports from Kazakhstan are reportedly carried out via the ports of St. Petersburg and Vladivostok, although both Russia and Kazakhstan are immediate neighbors of China and share more than 2000 km of common borders with China, points to the relatively modest level of logistical development of intra-Eurasian overland trade. This may indicate vast connective potential for infrastructural projects in this area.

- *Redirection of Chinese surplus savings, reutilization of domestic productive capacities and technical expertise for NSR investments*

The NSR initiative can serve as a means of countering the recent marked downturn or weakened growth of the Chinese economy. The country probably has more savings than it can profitably invest at home. After many domestic infrastructure projects have been finished, Chinese infrastructure-related industrial and service sectors are saddled with overcapacities. OBOR's economic dimension includes generating substantial foreign demand for reutilizing these domestic resources. This also relates to Chinese high-speed rail expertise: Chinese enterprises have gained great experience in high-speed rail construction within the country and are looking to apply their expertise in projects abroad now (Urban, 2016, p. 13). While such aims are quite understandable, they would also appear to constitute an extension or resuscitation of China's traditional economic model of export-led growth or at least a slowdown or interruption of its intended transition to domestic consumption-led economic expansion.

⁸ *The EU is China's largest market abroad.*

- *Diversification of investments, markets and suppliers*

One particular aim of the OBOR initiative is to hedge substantial existing Chinese placements in U.S. financial assets by investing in Eurasia. The NSR also promises to help diversify markets and suppliers through stimulating trade with landlocked or (so far) more difficult-to-access neighbors not yet trading that much with China. Infrastructure development in countries along the OBOR routes may raise growth in their economies and thus contribute to increasing demand for China's goods and services (Djankov and Miner, 2016, p. 7).

- *Creation of "strategic propellers of hinterland development"*

This OBOR objective with respect to China's less-developed central and western provinces has been put forward by Premier Li Keqiang (see State Council, 2015, p. 1). While Chinese growth has in recent decades favored the country's eastern and coastal provinces, the NSR is to transform the northwestern province of Xinjiang into China's infrastructural gateway to Central and Western Asia, which will open up opportunities for investment and stepped-up economic activity in this remote, politically somewhat restive, province. Correspondingly, in the southwest, the province of Yunnan should become the modernized "open door" to South Asia and the Indian Ocean. Thus, the authorities hope to tackle the socioeconomic divide (gross income inequalities) between economically peripheral inland and "connected" coastal provinces. Since all OBOR corridors depart from central or western provinces, the intended geoeconomic rebalancing could mitigate these disparities (Grieger, 2016, p. 9).

- *Contribution to the internationalization of the Chinese renminbi-yuan*

Alongside the development of closer trade and investment relations and deeper financial integration among OBOR countries, the Chinese authorities will promote the use of the renminbi-yuan in international transactions.⁹ The aim is i.a. to expand the scope and scale of bilateral currency swaps and settlements with other countries along the NSR. Efforts of governments of partner countries and their companies and financial institutions with good credit ratings to issue renminbi-yuan-denominated bonds in China will be encouraged (State Council, 2015, p. 5).

- *Hedge in case of possible trade war*

Since U.S. President Trump withdrew the U.S.A. from the Transpacific Partnership (TPP) in late January 2017, the TPP has lost much of its importance. Prospects for the conclusion of the Transatlantic Trade and Investment Partnership (TTIP) have also diminished considerably. Thus, the OBOR appears to be less under pressure than in the past to counterbalance potential rival trade initiatives. However, if a trade war between China and the U.S.A. were to break out, Beijing may expect enhanced connectivity and cooperation with NSR countries, notably with European partners, to soften the impact somewhat.

- *Pragmatic infrastructural project cooperation as a possible way forward where trade integration areas have lost popularity*

Pragmatic cooperation between one or more states and enterprises focusing on a particular infrastructural project (like a pipeline, a rail or highway link, a hydro-

⁹ *Meanwhile, in another measure favoring the Chinese currency's global standing, the IMF included the renminbi-yuan in its basket of Special Drawing Rights (SDR) at end-September 2016. The OeNB had already purchased renminbi-yuan in 2011, and was one of the first central banks worldwide to have done so. In mid-June 2017, the ECB included renminbi-yuan reserves worth EUR 500 million in its foreign exchange reserves by reducing its U.S. dollar reserves by an equivalent amount.*

power dam or electricity grid, a deep-sea port, etc.) provides task-oriented experience and may improve connectivity and intergovernmental relations. In a time of growing skepticism about trade and economic integration treaties such concrete, if limited, advances may promise greater success than traditional “deepening” efforts. At the same time, physical and nonphysical trade facilitation measures (the latter include the harmonization of customs, import, export and border crossing procedures) can arguably only be seen as complementary measures and not as alternatives.

- *Venue for addressing strategic energy and resource security issues*

Approximately 75% of China’s oil imports and an even higher share of its total imports are seaborne and pass through the Strait of Malacca between the Indian Ocean and the South China Sea (Escobar, 2015, p. 7; Grieger, 2016, p. 8). This geopolitical bottleneck could be closed by a military adversary in the case of conflict, which makes China potentially strategically vulnerable. China’s energy security is also put at risk by piracy that is rife in and near the area. China’s dependence on shipments through the Strait of Malacca has already been partly reduced by the creation of alternate (overland) trade channels, including the construction of pipelines from Central Asia¹⁰ and of corridors linking China directly to the Indian Ocean (via Pakistan and via Myanmar, see subsections 3.1 and 3.2).

- *Ecological goal: reduction of China’s heavy reliance on polluting coal*

China’s reliance on coal for about 40% of its heating and electricity has substantially contributed to pollution in its cities. The authorities have set ambitious goals for dealing with the pollution problem, including switching from coal to cleaner – but so far mostly imported – energy sources, e.g. natural gas from Central Asia and Russia (Havlik, 2015).

Needless to say, the OBOR initiative also faces a number of challenges and risks:

- *Weak local governance, sprawling bureaucracy and potential political instability*

OBOR partner countries feature quite diverse political and economic conditions, with inherent risks ranging from possible legal and financial challenges to political or social instability and regional disparities. Given that many partner countries are not members of a political or economic integration area, border constraints (including possibly cumbersome clearance procedures and long waiting periods) may have to be coped with. The implementation of large infrastructure projects in the absence of well-performing and accountable government procurement systems may even add to local corruption and/or governance challenges.

- *Frequent Chinese dominance in projects and possibly limited regard for local conditions may give rise to concern*

While the preeminent position that Chinese project partners often assume in OBOR projects as regards finance, management and the deployment of Chinese firms and their workers may help speeding up a project, it may not favor broad positive spillover effects for local economies. In some cases, there may be the risk that insensitive behavior of investors (e.g. as regards labor, health and safety standards, quality of inputs used, respect for traditional local communities and the environment) gives rise to irritation and even protests on the part of the local population.

¹⁰ *Already about half of China’s natural gas imports arrive overland from Central Asia, which shows that the strategy to cut the country’s dependence on seaborne imports predates the launching of the NSR (Clover and Hornby, 2015).*

- Possible fallout from heightened geopolitical tensions or rivalry

A totally different risk is the possible negative (political) fallout from military tensions, e.g. in the South China Sea, which cannot be entirely discarded, either. Another risk is that projects may fall victim to a flare-up of geopolitical competition with other powers (Giret and Giret, 2016; see also subsection 3.3).

3 Constituent economic corridors and some big projects

3.1 Economic corridors

China is aiming at jointly building so-called economic corridors with partner countries, taking advantage of existing international transportation routes, while also providing for new trajectories, linking major cities. In this context, the refurbishment or construction of roads, railroad lines, oil and gas pipelines, optic fiber networks as well as intermodal transport hubs may be of key importance.

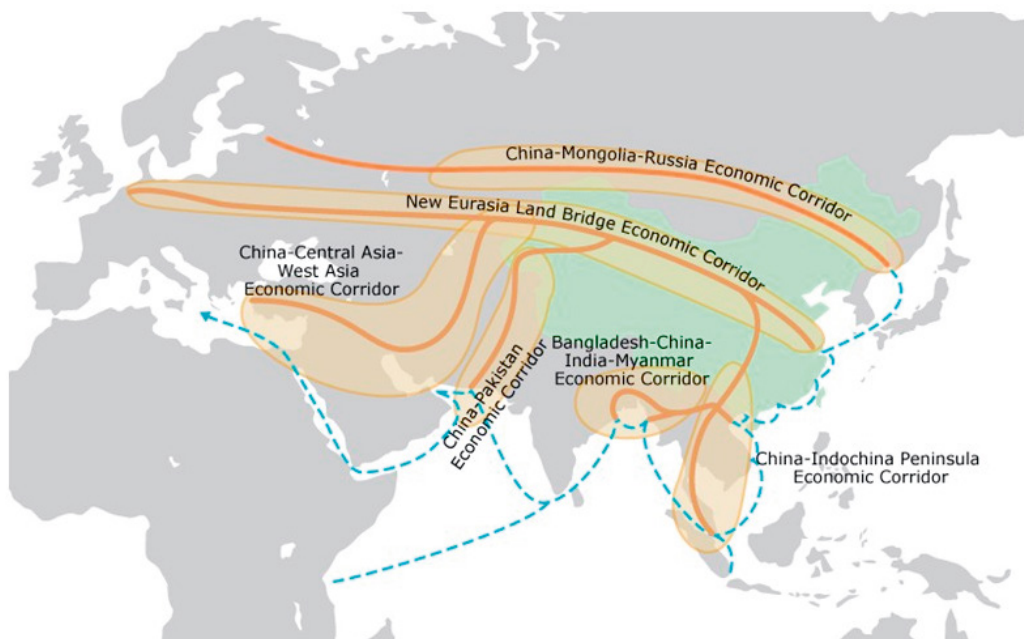
The economic corridors mentioned above can be grouped into those of the *Silk Road Economic Belt* (SREB, predominantly overland) and those of the *21st Century Maritime Silk Road* (MSR, predominantly seaborne).

The SREB envisages the following economic corridors (see also map 1):

- *New Eurasian Land Bridge Economic Corridor* (Xinjiang-Kazakhstan-Russia): This corridor comprises (at least) two routes through Kazakhstan: either via Almaty or via Astana. Routes reunite in Moscow and continue via Belarus to the EU (Duisburg, Germany, or Rotterdam, Netherlands).

Map 1

The Belt and Road Initiative: six economic corridors spanning Asia, Europe and Africa



Source: China Trade Research (Hong Kong Trade Development Council – HKTDC).

- *China-Mongolia-Russia Economic Corridor*: This corridor also comprises at least two routes: either Beijing-Ulan Bator-Siberia or Dalian¹¹-Harbin-Siberia. This corridor also fits with Mongolia's planned Steppe Road trajectory.
- *China-Central Asia-West Asia Economic Corridor*: This route is envisioned as an important gateway for oil and natural gas, running from the Arabian peninsula, Turkey and Iran to Xinjiang.
- *China-Pakistan Economic Corridor*: This trajectory i.a. enables shipping oil from the Middle East (via the Persian Gulf and the Arabian Sea) to the deep-sea port of Gwadar in Pakistan (officially leased to China in 2015) and then carrying it by road, railroad or pipelines via Rawalpindi to Kashgar (province of Xinjiang).
- *Bangladesh-China-India-Myanmar Economic Corridor*: This route is supposed to connect China with South Asia, running from Kunming (capital of Yunnan, China), Mandalay (Myanmar), Dhaka (the capital of Bangladesh) to Kolkata (capital of West Bengal, India).
- *China-Indochina Peninsula Economic Corridor*: The central trajectory of this route links southern China with Bangkok and Singapore; new high-speed railroads and highways are planned to run from the Pearl River Delta (around Hong Kong and Guangzhou¹²) to Singapore via Bangkok (Thailand) and Kuala Lumpur (Malaysia).
- *India-Nepal-China Economic Corridor*¹³: As a centerpiece of this passage, a new railroad line has been proposed which should link Tibet (Lhasa), Nepal and India, and could boost regional and trilateral trade.

The MSR envisages the following connections (map 1):

- *China-Myanmar-Indian Ocean-Middle East*: This route (described in the reverse direction) runs from the Persian Gulf via the Indian Ocean to the deep-sea port of Kyaukpyu¹⁴ in the Bay of Bengal (Myanmar); from there, oil and gas pipelines cross Myanmar to Kunming.
- *China-South China Sea-Indian Ocean-Middle East or China-South China Sea-Indian Ocean-Red Sea-Europe*: Both maritime routes (which bifurcate in the Indian Ocean) are traditional links running via the Strait of Malacca. The second route (via the Red Sea to Europe) has gained prominence recently due to substantial Chinese infrastructural investment activities at the route's European head (Greek port of Piraeus, high-speed rail connection to Budapest, etc.) and due to stepped-up combatting of piracy near the Horn of Africa. Antipiracy patrols are supported by the recently established Chinese military base in Djibouti, China's first overseas base in at least two centuries.
- *China-South China Sea-Indian Ocean-East Africa*: This is, to a large degree, a resource supply route, starting with railroad links from the African interior to the coast (Mombasa, Kenya), followed by seaborne connections via the Strait of Malacca to China.

¹¹ Former Port Arthur.

¹² Traditionally romanized as Canton.

¹³ This regional initiative – not shown in map 1 – was added to OBOR after the April 2015 earthquake in Nepal.

¹⁴ This port was built by a Chinese corporation.

3.2 Maritime connectivity still outdoes overland connectivity, which however is gaining some ground

Over long distances, like across Eurasia, overland rail transportation tends to be somewhat less expensive than road transportation. Sending a container (of a standard length of 20 feet or about six meters) on rail from China to Europe costs about USD 6,000 to 10,000; however, transporting a container by ship comes to only USD 1,000, while air freight from one end of Eurasia to the other is four to five times higher than rail carriage. Accordingly, about 95% of EU trade with China and 80% of China's total exports are carried out on the maritime route.¹⁵ On the route between Asia and Europe, only around 50,000 containers (less than 1% of the total number) reportedly transited through Central Asia in 2015, while almost 15 million containers were shipped by sea that year (Thorez, 2016, p. 39; Nemitz, 2017). This is also attributable to the still rudimentary state of some of the overland transportation links in Eurasia. Nevertheless, trans-Eurasian rail links have been upgraded in recent years, and the number of containers running through Central Asia more than doubled to around 105,000 in 2016 and is expected to more than double again to 230,000 in 2017 (about 1.5% of the total number of containers shipped between China and Europe). Since 2011, a train, the Trans-Eurasia-Express (see subsection 3.3), regularly conveys valuable merchandise, e.g. computers, other electronic equipment and garments from Chongqing (central China) to Duisburg. On their way back to China, these trains carry European car parts, wine, whiskey, chocolate, pharmaceuticals and other precious goods. Since February 2016, China and Iran have also been linked (via Kazakhstan and Turkmenistan) by freight trains. Railroads connecting China to Europe can reduce the number of days of shipment to an average of 12–15, compared to 30–35 days required by maritime transport.

For long-range transportation overland to be profitable, specialization on particular types of goods is needed (goods of high added value, like high-tech components or high-end fashion products, or time-sensitive or perishable luxury goods, like certain flowers, liquors or cheese).¹⁶ Progress seems to have been made in bringing down costs of overland rail conveyance in recent years to about twice the comparable cost of maritime transportation (Kalinina, 2017). Central Asian political and economic elites, particularly in Kazakhstan, hope that the modernization of infrastructure will contribute to further sharply increasing the small share of overland transport in total trade flows between Asia and Europe in the coming years.

Despite expected further improvements and upgrading of land routes, drawbacks remain in comparison to sea lanes: While the transcontinental trajectories, dominated by rail links, are faster, they feature (much) smaller transportation capacity than seaborne alternatives due to technical and physical constraints (including available rail shipping capacity of up to 300 containers per train versus a seaborne shipping capacity of up to 10,000 containers per cargo ship). The overland corridors

¹⁵ For comparing some key China-Europe maritime and rail connections, see map 2.

¹⁶ This is, of course, a basic commercial principle and similar requirements were valid throughout the history of the traditional Silk Road for almost two millennia (see Barisitz, 2017).

also suffer from partly cumbersome border control regimes¹⁷ and from the need for trains to change between different rail gauges at certain borders (e.g. between China and Kazakhstan or between Belarus and Poland or between China and Myanmar or Vietnam and China), which slows down movement. Finally, even if rail carriage costs have declined in recent years (as mentioned above), they continue to be substantially undercut by the cheapness of maritime container transportation (Thorez, 2016, p. 41). This suggests that long distance (Eurasian) bulk trade should remain dominated by maritime (MSR) shipping, while a niche of high value-added or time-sensitive luxury goods should become profitable merchandise for modernized transcontinental (SREB) rail transportation (see also Shepard, 2016). Furthermore, (updated) overland links (SREB) will continue to prevail in trade with landlocked neighbors or trade of a regional character (where there is no or almost no maritime competition).

3.3 Overview of some major OBOR projects in progress

The following is a non-exhaustive survey of some of the more important projects that are being realized under the OBOR initiative and that are (at least to an extent of 10%) being financed by Chinese sources. Where exceptions are made from this principle (i.e. where Chinese financial contributions are not part of Silk Road ventures), this is explained. As can be expected, the discussed projects mostly comprise infrastructure schemes along NSR corridors, including the new construction or renovation of (high-speed) railroads, highways, ports, airports, pipelines, the spreading of IT infrastructure networks, etc. Energy projects, as far as they contribute to increasing energy supplies to China or to OBOR countries, are also included. Table 1 provides a succinct list of some key projects, map 2 gives a spatial overview thereof.¹⁸

Before China proclaimed its OBOR initiative in 2013, the U.S. vision of a New Silk Road Initiative (NSRI), launched in 2011, was designed as a post-conflict agenda for Afghanistan after the planned American military withdrawal from that country and concentrated on boosting energy and transport connectivity between Central Asia and South Asia (mostly India and Pakistan). These efforts have been epitomized by the Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline, also called Trans-Afghanistan Pipeline, and by the Central Asia-South Asia Electricity Transmission and Trade Project, or CASA-1000, for hydropower electricity exports from Kyrgyzstan and Tajikistan to the south. TAPI's construction started in 2015, its total cost has recently been estimated at about USD 10 billion, and its financing is being supported by the Asian Development Bank (ADB). The CASA-1000 is a USD 1.2 billion project, its groundbreaking took place in 2016 and financial assistance has been forthcoming from the WB. However, the above projects have been repeatedly delayed or obstructed by insufficient coordination between national authorities,

¹⁷ According to the conference "Laying the foundation in the UNECE region for economic integration and sustainable development towards 2030" in Minsk in October 2016, cumbersome border controls frequently constitute the major obstacle to connectivity in Central Asia. Trucks, for instance, may spend more time waiting at borders than in motion in this region.

¹⁸ Most OBOR projects are not carried out in Europe, as will be clear from the information provided below. As Julia Grübler (wiiw) pointed out in a panel discussion at the conference "Chinas wirtschaftspolitische Initiative 'Neue Seidenstraße' – Bedeutung und Folgen für die Europäische Union" (Haus der Europäischen Union, Vienna, April 20, 2017), online research shows a very eurocentric view of these developments, while in reality China invests in 60 OBOR countries outside the EU.

Table 1

Some key One Belt, One Road projects and their financial support

Project	Host country of investment	Construction period (planned)	Total project costs or amount of Chinese investment or financial support (USD billion)	Investment costs or financial support as a ratio to host country's or countries' GDP (%) ¹
Khorgos Gateway (Special Economic Zone)	China, Kazakhstan	2014–2017	6.5 (total)	0.01 (PRC), 0.34 (KAZ)
Western Europe-Western China Expressway (Kazakh part)	Kazakhstan	2009–2020	3.0 (SRF ²)	0.14
Gas pipeline Beyneu-Shymkent	Kazakhstan	2013–2017	1.8 (CDB ³)	0.20
KAZ total: 0.68				
High-speed rail link Moscow-Kazan	Russia	2017–2023	15.0 (total)	0.16
Yamal Liquefied Natural Gas (LNG) project	Russia	2015–2023	12.0 (China EXIM Bank, CDB)	0.10
Sberbank and Vneshtorgbank (VTB) infrastructure investments	Russia	from 2015	1.45 (China)	0.04
Power of Siberia (Sila Sibiri) gas pipeline	Russia	2015–2019	2.0 (People's Bank of China)	0.06
RUS total: 0.36				
Deep-sea port of Gwadar	Pakistan	2016–2017	1.6 (total)	0.39
Karot Hydropower Dam	Pakistan	2016–2020	2.0 (total, SRF)	0.15
Karakorum Highway reconstruction	Pakistan, China	2012–2018	2.5 (China EXIM Bank ⁴ , CDB)	0.07 (PAK), 0.01 (PRC)
Karachi-Lahore Expressway	Pakistan	2016–2022	6.6 (total)	0.35 (PAK)
Karachi-Peshawar Railway Line upgrade	Pakistan	2013–2018	5.5 (China)	0.34
PAK total: 1.30				
Oil and gas pipelines Kyaukpyu-Kunming	Myanmar, China	2009–2013/14	2.5 (total)	0.58 (MMR), 0.01 (PRC)
Power system upgrade and expansion Bangladesh	Bangladesh	2016–2019	0.17 (AIIB)	0.02
Colombo Port City and Sri Lanka infrastructure development	Sri Lanka	from 2014	5.0 (total, of which 1.4 billion for Colombo port city)	1.52
Kenya (Mombasa-Nairobi) high-capacity railroad	Kenya	2014–2017	3.8 (of which 90% China EXIM Bank)	1.5
Djibouti and Ethiopia infrastructure development	Djibouti, Ethiopia	from 2010	12.0 (China, of which 2.4 billion for railroad line to Addis Ababa)	70.3 (DJJ), 0.8 (ETH)
Large container terminal Ashdod Port	Israel	2015–2021	0.93 (total)	0.04
Port of Piraeus (purchase and modernization)	Greece	from 2016	0.81 (Cosco ⁵)	0.14

Memorandum items: some non-Chinese supported connectivity projects in Asia

Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline (supported by the U.S.A.)	Turkmenistan, Afghanistan, Pakistan, India	from 2015	8.0 (ADB ⁶ and others)	0.54 (TKM), 1.04 (AFG), 0.08 (PAK), 0.01 (IND)
Central Asia-South Asia power project (CASA-1000) (supported by the U.S.A.)	Kyrgyz Republic, Tajikistan, Afghanistan, Pakistan	from 2016	1.2 (total)	3.03 (KGZ), 2.53 (TJK), 1.04 (AFG total: 2.08), 0.07 (PAK total: 0.15)
Chabahar Port modernization (supported by India)	Iran	2016–2017	0.15 (Exim Bank of India)	0.02
Chabahar-Zahedan railway project (supported by India)	Iran	2016–2020	1.6 (total)	0.08 (IRN total: 0.10)
Deep-sea port Matarbari (supported by Japan)	Bangladesh	from 2016	4.8 (total)	0.62

Source: Various international press articles, www.silkroadfund.com.cn/enweb/23809/23812/index.html, www.aiib.org/en/projects/approved/index.html.

¹ The respective countries' 2015 GDP is taken as denominator. Investment sums of projects lasting more than one year are divided by the (planned) number of years and related to 2015 GDP.

² Silk Road Fund.

³ China Development Bank.

⁴ Export-Import Bank of China.

⁵ China Ocean Shipping Company.

⁶ Asia Development Bank.

insecurity in Afghanistan and recurrent political tensions between India and Pakistan. Compared to the current Chinese funding vehicles and emerging multilateral mechanisms, the U.S. commitment has been regionally restrained and financially limited (Grieger, 2016, p. 7; Blank, 2017, p. 209–210).

India itself has also aimed at promoting an International North-South Transport Corridor, running from India (Mumbai) via the Arabian Sea to Iran (Tehran), the Caspian Sea and Central Asia to Russia (from Moscow to St. Petersburg) (Boquérat, 2017, p. 58).¹⁹

Intentions of the OBOR initiative to reach up to USD 4 trillion in financed projects are far larger than the projects actually in development (as at end-2016),

Map 2

Some major New Silk Road projects: a spatial overview



Source: Authors' compilation, technical cartographic expertise of Florian Partl.

¹⁹ In this context, see also Indian investments referred to below in footnote 25.

which are worth around USD 290 billion (see Djankov and Miner, 2016, p. 6; Wildau and Nan, 2017).

3.3.1 Kazakhstan and Russia

Kazakhstan plays a geographically and economically central role with respect to Chinese SREB schemes. One of the most prominent projects is the Khorgos Gateway or Khorgos Special Economic Zone (SEZ), not far from Almaty, at the border with China (Ili district, Xinjiang), which is to become a major logistical center linking East Asia and Europe. The project has advanced considerably, but is not yet entirely completed. Beijing and Astana are developing this dry port (an emerging transshipment hub for trains and trucks) together. The area of the SEZ surrounding the border town of Khorgos is 528 hectares, of which 35% belongs to Kazakhstan and 65% to China. Total investment in the cargo hub has exceeded USD 3 billion since 2014 and is projected to be doubled; trade operations have begun in August 2015. The Kazakh and Chinese authorities aimed at multiplying the number of transshipped containers to more than 40,000 in 2016 and have reportedly overfulfilled this goal. The Khorgos Gateway has contributed to establishing the second China-Europe rail link via Almaty and Kazakhstan. It complements the existing China-Europe railroad, the Trans-Eurasia-Express (11,179 km), which was completed in 2014 (see above) and follows this route: Chongqing (Central China) – Urumqi (capital of Xinjiang) – Dzungarian Gate (at the border with Kazakhstan) – Astana – Yekaterinburg – Moscow – Warsaw – Duisburg (for the location of these two China-Europe rail links, see map 2). The latter line is primarily used by China to ship USD 3 billion worth of goods to Europe annually; Russia has also started to use it and shipped about USD 260 million worth of goods to China in 2014 (Djankov and Miner, 2016, p. 34).²⁰

Another infrastructure project with OBOR financing crossing Kazakhstan is the Western Europe-Western China Expressway, which has been designed as the shortest highway link between China and Europe (8,445 km) and partly runs parallel to the Trans-Eurasia-Express as well as to the second China-Europe rail link along the following route: Lianyungang (at the East China Sea coast) – Xian (capital of Shaanxi province, Northwest China) – Urumqi – Khorgos – Almaty – Shymkent (Kazakhstan) – Kyzylorda (Kazakhstan) – Aktobe (Kazakhstan) – Moscow – St. Petersburg (see map 2). The WB, EBRD, ADB, and Islamic Development Bank are together providing USD 4 billion in funding for the highway, and the SRF has offered another USD 3 billion toward its completion. While long-haul road transport is more costly than rail conveyance, trucks can be more easily used by local businesses.

New projects that deliver oil and gas to China have also received support from the NSR initiative. Thus, Kazakhstan has received a USD 1.8 billion loan from the China Development Bank to construct a 1,280 km gas pipeline from Beyneu in the Caspian Lowlands to Shymkent, from where the newly constructed pipeline will connect with the existing Central Asia-China gas pipeline. A more general framework agreement provides for the establishment of a China-Kazakhstan Production Capacity Cooperation Fund, in which the SRF has promised to invest USD 2 billion to support projects in relevant areas.

²⁰ *One-way traffic is a challenge the Trans-Eurasia Express still needs to fully surmount: Apparently, five trains full of cargo leave Chongqing for Duisburg every week, but only one full train returns weekly (Wuttke, 2017).*

Russia has become a key geopolitical partner for China in recent years, as both countries have been experiencing increasing tensions with the West. Russia joined several OBOR projects and is a founding member of the AIIB. The authorities in Moscow partly use the NSR to circumvent Western sanctions in connection with the Ukrainian crisis and to gain access to alternate investment sources and credit lines. As a result of the conflict with the EU, Russia strives to diversify its trade in a “pivot” to China. While China’s share in Russia’s foreign trade turnover increased a bit in recent years, a breakthrough in this direction has not been achieved. In May 2015, President Xi Jinping signed a series of infrastructure agreements worth USD 25 billion with Russia, Kazakhstan and Belarus on high-speed rail, energy infrastructure and aerospace as well as industrial parks. In the same year, an agreement was reached with Russia to increasingly base trade relations and joint investment projects on local currencies (both the Russian ruble and the renminbi-yuan) (China-Britain Business Council, Foreign & Commonwealth Office, 2016, p. 11; Djankov and Miner, 2016, p. 34).

As Gabuev (2016a) points out, Western sanctions probably accelerated Moscow’s rapprochement with China. Three key barriers were removed: First, Moscow decided it had been too reserved about selling advanced weaponry to Beijing. Second, Moscow chose to review a de facto ban on Chinese participation in large infrastructure and natural resource projects (in other words: informal barriers to Chinese investment in sensitive sectors, which arguably correspond to OBOR-type projects, were eased). Third, the Russian leadership reassessed its relationship with China in Central Asia, which had hitherto been defined as largely competitive with very limited opportunities for collaboration (Gabuev, 2016a, p. 2).

In October 2014, Russia and China signed a memorandum of understanding over the construction of a high-speed rail link between Moscow and Beijing. The total costs have been estimated at about USD 240 billion. The journey time over the envisaged trajectory of about 7,700 km, running from Moscow via Kazan (capital of the Republic of Tatarstan), Yekaterinburg and probably through Kazakhstan (Astana), should be cut from five days to about 33 hours. The first section (770 km) from Moscow to Kazan is planned to be built until 2023. Beijing has committed a USD 6.5 billion loan, while German (including Siemens and Deutsche Bahn) and Chinese investors have promised capital injections of USD 2.8 billion and USD 1.6 billion, respectively (Shepard, 2017). The total cost for the section is gauged at about USD 15.0 billion. A USD 390 million contract for designing the rail line was awarded to China Railway Group in 2015, construction is to begin in 2017. In mid-2016, a Russian-Chinese consortium reportedly also signed an agreement to erect a plant in Russia to assemble high-speed trains (Farchy et al., 2016).

In September 2015, the SRF bought a 10% stake (of USD 1.1 billion) in the Yamal Liquefied Natural Gas (LNG) project²¹ of Russia’s second biggest gas producer, Novatek. In April 2016, the China Development Bank and the Export-Import Bank of China announced that they had agreed to provide much needed loans of USD 12 billion over 15 years for this flagship LNG project, whose total expected investment volume is USD 27 billion. This is the financially most important OBOR transaction in Russia so far and has been carried out regardless of the fact that

²¹ Located on the Yamal peninsula (West Siberian Arctic).

Novatek (and its major shareholder Gennady Timchenko) is a target of U.S. and EU sanctions (Gabuev, 2016a, p. 11; Gabuev, 2016b, p. 2).

The SRF has also invested in Sibur, Russia's largest associated petroleum gas processing company, located in Tobolsk (West Siberia), and in Rusnano, the state's nanotechnology corporation. Other OBOR transactions include a USD 970 million credit line to Sberbank to support finance for road projects and logistics infrastructure and a USD 480 million credit line to Vneshtorgbank (VTB) for modernization investments in farming and transportation (Djankov and Miner, 2016, p. 8, p. 35). Other deals are minor in monetary terms but larger in their symbolic significance, such as the Jiangsu Hengtong Power Cable Company's agreement to supply high-voltage cable (worth USD 95 million) for the energy bridge that is to supply electricity to Crimea to replace suspended deliveries from Ukraine (Gabuev, 2016a, p. 14)²².

3.3.2 South and Southeast Asia

Pakistan has a long-standing close relationship with China: A number of OBOR projects have been launched within the framework of the China-Pakistan Economic Corridor (CPEC), which calls for a total investment of USD 46 billion (Clover and Hornby, 2015). As mentioned above, CPEC projects are to provide China with an alternate strategic route for energy supplies; they should also strengthen the Pakistani economy by rapidly putting in place or overhauling infrastructure, particularly power generation capacities. Flagship projects include the further development of the deep-sea port of Gwadar (leased by China, construction works were carried out in 2016–2017 at a cost of USD 1.6 billion),²³ the building of the Karot Hydropower Dam (in the Himalayas, to be carried out by a subsidiary of the China Three Gorges Corporation from 2016, at a cost of USD 2.0 billion, funded by the SRF), the reconstruction and overhaul of the Karakorum Highway (between Rawalpindi and the Xinjiang border, at an estimated cost of USD 2.5 billion, funded by concessional loans from the Export-Import Bank of China and the China Development Bank)²⁴, the construction of a 1,100 km long expressway between Karachi and Lahore, and the upgrading of the Karachi-Peshawar main railroad line.²⁵

²² *Western firms are barred from participating due to sanctions.*

²³ *Gwadar is a crucial link between the SREB and the MSR components of the OBOR. There have been complaints from the regional ethnic Baloch population against being economically marginalized by the influx of Chinese engineers and laborers, and of nonindigenous Pakistanis, particularly Punjabis; the Islamabad authorities have reacted by stepping up security presence in the area. Although definite decisions have not yet been made, plans have emerged to build an oil pipeline (for oil brought by tankers from the Middle East) from Gwadar along the CPEC to Kashgar. The project would require about USD 5 billion and construction would start in 2017. About one-fifth of China's oil consumption could travel this route, circumventing the Strait of Malacca (Yousafzai, 2016). However, there do not appear to be any reliable Chinese financing assurances for the pipeline yet.*

²⁴ *Passage of the Karakorum Highway is not possible all year round. This transport link is also endangered by recurrent avalanches and floodings. Modernization and stepped up tunneling will, however, cut exposure to the elements.*

²⁵ *To briefly refer to a contrasting, if more modest, geopolitical and economic initiative: In May 2016, India and Iran signed a bilateral agreement according to which India will modernize parts of Chabahar Port (including container-handling facilities), which is Iran's only oceanic port, situated on the Arabian Sea about 160 km west of Gwadar (Pakistan) (Blarel, 2017, p. 263, p. 267). The investment is supported by a USD 150 million credit line to Iran through the Exim Bank of India. India has also agreed to finance the construction of a 500 km rail link to the Trans-Iranian railroad network at a cost of USD 1.6 billion. These measures would allow Indian goods to circumvent Pakistani land routes to Central and Western Asia by connecting ports on the Western coast of India to Chabahar Port and from there linking up to the Iranian railroad system, which itself has recently connected to Kazakhstan – thanks to a Chinese-funded project.*

Myanmar has become an important partner for Beijing recently: Chinese-Myanmar pipelines have already opened up Chinese seaborne access – making it possible to avoid the Strait of Malacca – to coveted energy supplies from the Middle East. Thus, a natural gas pipeline from the deep-water port of Kyaukpyu (Myanmar) in the Gulf of Bengal via Mandalay to Kunming went into operation in October 2013, followed by an oil pipeline running parallel to the gas pipeline, through which the “black gold” started to flow in January 2015. Both projects together have cost USD 2.5 billion, have been implemented by the China National Petroleum Corporation (CNPC) and a Myanmar firm, and have been financially supported by the SRF. Yet the pipelines have also triggered protests over environmental and safety concerns and inadequate compensation arrangements for expropriated farmers. However, Beijing has promised to pay up to USD 1.8 billion on average per year in royalties over 30 years to the Myanmar authorities (Meyer, 2015). Plans have most recently emerged for the construction of a railroad line near the above trajectory, which could facilitate shipment of precious Burmese wood to China and flows of Chinese workers to the Bengali coast.

Bangladesh: It was an OBOR project in Bangladesh that was the first project the AIIB approved without cofinancing from any other international financial institution. In June 2016, a loan of USD 165 million was approved for the upgrade and expansion of the electricity distribution system in northern Dhaka and in rural Bangladesh. The Chinese authorities are also supporting the establishment of special economic and industrial zones in the country.

Sri Lanka is strategically located on China’s maritime energy supply lanes from the Persian Gulf and Africa and its export avenues to Europe and other regions. The SRF is financing a large real estate development, called Colombo Port City, in the country’s capital, with the state-owned China Harbor Engineering Company participating in the construction of a new container terminal, a marina, hotels, apartments, office buildings and shopping malls, to be placed on land reclaimed from the sea off the coast of Colombo harbor at a cost of USD 1.4 billion. China will be given a lease on a large part of the port city for 99 years. Overall, Chinese firms have reportedly invested more than USD 5 billion in Sri Lanka in roads, ports, airports, power stations and other infrastructure; temporarily, more than 30,000 Chinese workers were employed on the island (Zand, 2016, p. 93–94).²⁶

3.3.3 East Africa and the Middle East

Kenya: After the old railway between Mombasa and Nairobi dating back to colonial times was run down in recent decades, the Kenyan authorities decided to modernize the connection. The link between East Africa’s largest sea port and Kenya’s capital is part of the East African Railway Master Plan, which aims to raise connectivity throughout the region by extending high-capacity rail links also to Uganda, South Sudan, Rwanda, the Democratic Republic of Congo and other neighboring countries. The prime contractor on the Mombasa-Nairobi project is the China Road and Bridge Corporation. The project’s cost is estimated at USD 3.8 billion, 90% of which China EXIM Bank has agreed to finance with a loan, while the Kenyan government is contributing the remaining 10%. Construction of the line began in

²⁶ *Colombo Port City is regarded as the largest single incident of FDI in Sri Lanka’s history.*

late 2013 and is due to be completed by late 2017.²⁷ Thus, efficient international trade outlets for oil and other raw materials, but also for industrial products, are emerging.

Djibouti and Ethiopia: After building infrastructure from 2010 for a total of USD 12 billion that now includes three ports, two airports, water and gas pipelines and a railroad to Addis Ababa (Ethiopia)²⁸, China signed a ten-year lease agreement with the Djibouti authorities in early 2016 for establishing a naval base (in direct neighborhood of an existing U.S. base). China hopes to contribute to strengthening regional security on the southern gateway from the Indian Ocean to the Red Sea and the Suez Canal, one of the world's biggest shipping lanes and a pivotal part of the MSR (Page 2016).²⁹

Egypt and Israel: To strengthen security of transportation on the seaborne route to European markets, China has strived to establish an alternate passage to the Mediterranean from the Red Sea – apart from the Suez Canal and Port Said in Egypt, where Chinese firms manage big container terminals: Chinese enterprises in 2012 already agreed with the Israeli government to contribute to the construction of a railroad (called the Red-Med) leading from Eilat on the Gulf of Aqaba to Ashdod on the Mediterranean coast. Containers would be unloaded at Eilat and conveyed by rail to Ashdod, from where they would be reloaded on ships and continue their journey to European ports, first and foremost to Piraeus (see map 2). Should there be an outbreak of unrest in the neighborhood that could trigger shipping disruptions in the Suez Canal, this “land bridge” could be used to uphold trade connectivity with Europe and also more easily access the Israeli market.³⁰ The cost of the project is estimated at USD 4.9 billion. In mid-2014, the China Harbor Engineering Company was commissioned to construct a large container terminal in Ashdod for USD 930 million (Scott, 2014, p. 12; Zand, 2016, p. 96).

3.4 Some important projects that are still in their initial stage or that have run into problems

More than 50% of China's natural gas imports already come overland from Kazakhstan and Turkmenistan (through pipelines constructed in 2009 and 2010) and the percentage of gas imported overland will increase once Siberian pipelines come online. According to plans of 2014, the Power of Siberia (Sila Sibiri) gas pipeline, leading from Russian Eastern Siberia and the Far East to the Chinese province of Heilongjiang (Manchuria) and to be built by Gazprom and the China National Petroleum Corporation (CNPC), was slated to deliver gas worth USD 400 billion over 30 years. While China has so far refused to provide a planned USD 25 billion loan³¹ earmarked for pipeline construction, a EUR 2 billion credit

²⁷ *The projected continuation of the high-capacity rail line from the border to the Ugandan capital Kampala is estimated to cost USD 2.3 billion, the lion's share of which is also planned to be financed by China EXIM Bank. Completion is slated for 2020.*

²⁸ *This 750 km railroad line cost USD 3.4 billion, 70% of which was financed by China EXIM Bank, and was inaugurated in late 2016. Operations are currently managed by Chinese staff, while Ethiopian crews are being trained and are expected to take over after five years.*

²⁹ *About half of China's oil imports reportedly pass through the Red Sea and past Djibouti.*

³⁰ *The Red-Med would not be unaffected by possible security problems linked to the Israeli-Palestinian conflict, though.*

³¹ *This refusal was apparently due to disagreements on interest rates to be paid for the loan (Farchy, 2016).*

line was eventually granted and construction has reportedly begun on both Russian and Chinese territory. However, given the price slump for hydrocarbons from late 2014, there are concerns that the project may be unprofitable to Gazprom if the gas price does not recover again.³² That said, most recently Gazprom CEO Alexey Miller affirmed that construction will be finished as planned in 2019 and that the Sila Sibiri pipeline will start supplying gas to China before end-2019 (Foy, 2017). Delays have occurred in the financing and realization of the Altay gas pipeline, also called Western Route or Power of Siberia II, leading from Western Siberia via the Altay range to Xinjiang. The slower growing Chinese economy and Western restrictions on the sale of high technology for oil and gas exploration to Russia may have also contributed to rendering these megaprojects more difficult (Gabuev, 2016a, p. 7–8, p. 11).³³

Though the practices still seem to be in a very early stage, the use of Chinese technology in offshore drilling in Russia and renminbi-yuan-denominated oil contracts represent two remarkable recent phenomena in the hydrocarbons sector. The first experiment in this respect was Rosneft's September 2015 deal with a subsidiary of the China National Offshore Oil Company, involving the drilling of two oil wells in the Sea of Okhotsk (Gabuev, 2016a, p. 10).³⁴

Another OBOR project that encountered problems of a different, partly political, nature which contributed to its cancellation was the planned deep-sea port at Sonadia in the Bay of Bengal (Bangladesh). China responded positively to a Bangladeshi request for help in building a deep-sea port in Sonadia. The Chinese authorities submitted a detailed project proposal and offered loans to cover a major part of the estimated project cost of USD 8 billion. Sonadia could have been an alternative point of access to China via the Bay of Bengal and Myanmar, besides the deep-sea port of Kyaukpyu (see above). It would have further eased China's dependence on sea routes through the Strait of Malacca. But the two sides unexpectedly failed to sign an agreement during the Bangladeshi Prime Minister's visit to Beijing in July 2014. In February 2015, the Bangladeshi authorities called off the project. This was because in 2014, Japan had come up with a rival proposal for a project at Matarbari, 25 km from Sonadia, which would include not only a deep-water port, but four coal-fired power plants and an LNG terminal, and would cost only USD 5 billion. As Japan's terms were more favorable, the government opted for the Matarbari project. Geopolitical factors seem to have played a role too: India, Bangladesh's big neighbor, and the United States, wary of Beijing's growing presence in the Indian Ocean, are reported to have "persuaded" Bangladesh to cancel the OBOR project (Ramachandran, 2016).

³² By end-2016, only about one-sixth of the planned total length of the pipeline had reportedly been built. (Vercueil, 2017, p. 51).

³³ Thus, Western sanctions on Russia have paradoxically exerted contradictory influences on NSR projects in the country by rendering access to some specific project inputs more difficult, while prompting the authorities to facilitate some general business conditions for Chinese investors.

³⁴ Given pronounced differences in economic size and influence of the two countries, today's Sino-Russian relationship is clearly an asymmetrical one, with Moscow being the "junior partner." Asymmetrical relationships between the two Eurasian big powers with Beijing holding (de facto) preeminence are by no means new in history. From the establishment of a common border and of official trade ties between the czarism and the Qing empire in the second half of the 17th century, Russia was the less powerful of the two for at least one and a half centuries and did not appear to be particularly affected by that position (Barisitz, 2017, p. 186, p. 228, p. 239).

Chinese investment and construction contracts in transportation and energy sectors (USD million)

	2012	2013	2014	2015	2016	Total (2012–2016)	Total Chinese contract amounts as a ratio to host country GDP (%) ¹
Central Asia							
Kazakhstan	2,100	5,300	1,620	470	340	9,830	1.07
Kyrgyz Republic	–	–	3,400	400	–	3,800	11.57
Mongolia	–	–	–	1,500	–	1,500	2.55
Tajikistan	350	–	–	–	–	350	0.89
Turkmenistan	2,920	–	400	–	–	3,320	1.78
Uzbekistan	2,270	460	180	–	150	3,060	0.92
Regional total	7,640	5,760	5,600	2,370	490	21,860	1.39
Russia and Eastern Europe							
Belarus	740	–	–	300	–	1,040	0.38
Croatia	–	–	130	–	–	130	0.05
Georgia	130	–	–	260	160	550	0.79
Greece	150	300	200	–	1,130	1,780	0.18
Hungary	990	–	–	1,330	–	2,320	1.07
Latvia	–	–	–	–	110	110	0.08
FYR Macedonia	–	400	–	–	–	400	0.79
Montenegro	–	–	1,120	–	–	1,120	5.61
Poland	100	750	200	–	–	1,050	0.04
Romania	1,300	540	–	680	–	2,520	0.28
Russian Federation	600	3,160	7,160	2,930	2,230	16,080	0.25
Serbia	–	1,900	1,200	–	620	3,720	2.04
Ukraine	–	–	–	–	180	180	0.04
Regional total	4,010	7,050	10,010	5,500	4,430	31,000	0.24
West Asia							
Iran	1,250	–	500	500	2,030	4,280	0.20
Saudi Arabia	650	390	1,780	840	510	4,170	0.13
Turkey	1,700	3,080	–	1,300	660	6,740	0.19
United Arab Emirates	200	160	310	460	3,710	4,840	0.26
Regional total	3,800	3,630	2,590	3,100	6,910	20,030	0.19
South Asia							
Bangladesh	380	460	2,510	3,950	7,530	14,830	1.52
India	200	2,700	400	480	130	3,910	0.04
Nepal	–	250	320	1,200	–	1,770	1.70
Pakistan	200	8,810	6,750	13,380	5,180	34,320	2.54
Sri Lanka	400	1,230	2,170	1,040	2,550	7,390	1.80
Regional total	1,180	13,450	12,150	20,050	15,390	62,220	0.47
Southeast Asia							
Brunei	–	–	–	530	–	530	0.68
Cambodia	1,270	660	–	130	840	2,900	3.21
Indonesia	2,930	1,260	2,030	6,160	2,060	14,400	0.33
Laos	740	1,080	–	2,900	5,670	10,390	16.85
Malaysia	330	2,860	2,870	6,890	6,860	19,810	1.34
Myanmar	–	–	370	–	2,100	2,470	0.76
Philippines	–	600	1,000	–	480	2,080	0.14
Singapore	–	150	490	–	450	1,090	0.07
Thailand	370	110	–	3,180	–	3,660	0.19
Vietnam	400	1,900	–	3,230	320	5,850	0.60
Regional total	6,040	8,620	6,760	23,020	18,780	63,200	0.52
East Africa and Middle East							
Djibouti	510	190	–	1,020	–	1,720	21.60
Egypt	320	3,100	–	600	4,920	8,940	0.54
Ethiopia	1,580	4,590	1,050	710	540	8,470	2.75
Israel	140	–	950	2,390	260	3,740	0.25
Kenya	6,740	620	1,010	130	3,630	12,130	3.83
Uganda	1,950	4,350	–	1,800	–	8,100	6.14
Regional total	11,240	12,850	3,010	6,650	9,350	43,100	1.11
Memorandum item (for comparison)							
Australia	4,550	4,620	5,020	3,240	3,840	21,270	0.32
Germany	510	400	640	220	3,700	5,470	0.03
Italy	460	–	6,200	7,860	–	14,520	0.16
United Kingdom	2,230	750	530	1,300	2,750	7,560	0.05
United States	3,600	3,210	3,860	3,290	2,720	16,680	0.02

Source: China Global Investment Tracker (March 2017), published by American Enterprise Institute and Heritage Foundation.

¹ The respective countries' GDP in 2015 is taken as denominator. The contract sum total for the period from 2012 to 2016 is divided by the number of years of this period (5) and related to 2015 GDP.

3.5 A fresh and comparative look at Chinese investment contracts along the NSR

Table 2 provides data on Chinese FDI and construction contracts in the transportation and energy sectors that have been concluded with OBOR partners and some neighboring countries. These data were collected by the China Global Investment Tracker and published by the American Enterprise Institute and the Heritage Foundation and are not necessarily compatible with the selected project data as presented and described above.³⁵ Yet, like the data presented in table 1, they do give an idea of the large sums involved: dozens of billions of U.S. dollars of Chinese project financing injected into each highlighted region. Many of the investments are currently in full swing and promise to bring about palpable changes as regards connectivity and economic dynamism in some important parts of Eurasia, notably in a number of China's Asian neighbors, including Russia. Countries and regions farther afield, like SEE, are also likely to receive a boost from the NSR. The total sum of annual average transportation and energy investment in OBOR partners outside China that is stimulated by financial participation or lending from China has corresponded to an average ratio of 0.4% to 0.5% of Chinese GDP in recent years.

4 Summary and conclusions

China's *New Silk Road (NSR)* or *One Belt, One Road (OBOR)* initiative was officially launched in 2013. It focuses on linking China and Europe through increased connectivity and building or modernizing infrastructural trajectories, which include rail, road, port, airport, pipeline, energy and communication infrastructure and logistics. OBOR consists of an overland and a maritime branch. The overland *Silk Road Economic Belt (SREB)* comprises various economic corridors which aim to bring China, Central Asia, Russia and Europe closer together (e.g. the *New Eurasian Land Bridge*) as well as to connect China to the Indian Ocean and the Mediterranean Sea through Central Asia and West Asia (e.g. the *China-Pakistan Economic Corridor*) or to strengthen links with Southeast and South Asia. The *21st Century Maritime Silk Road (MSR)* is designed to go from China's coast to Europe through the South China Sea and the Indian Ocean, linking up en route with Southeast Asia, South Asia, East Africa and the Mediterranean.

The Chinese authorities have entrusted specific institutions with supporting NSR schemes: the *Silk Road Fund (SRF)*, capital: ca. USD 55 billion), the *Asian Infrastructure Investment Bank (AIIB)*, the *New Development Bank* (established by the BRICS member states), the *China EXIM Bank*, the *China Development Bank* and the *Agricultural Development Bank of China*.

The motivations and drivers of China's OBOR initiative are mostly of an economic or geopolitical nature: improvement of transport links; reduction of trade costs; reutilization of domestic overcapacities; diversification of investments, markets and suppliers; development of peripheral domestic regions (e.g. Xinjiang); contribution to the internationalization of the renminbi-yuan; enhancement of security of access to strategic energy and resource supplies; hedging against possible trade wars, etc.

³⁵ *The investment data collected by the China Global Investment Tracker (<https://www.aei.org/china-global-investment-tracker/>) not only cover the transportation and energy sectors but also real estate, technology and other industries. The transportation and energy sectors were singled out for table 2 because they appear to provide the most plausible approximation to what NSR projects typically constitute (see also discussion of this source in Grübler and Stehrer, 2017, p.5).*

Challenges and risks include weak local governance and possible political instability in host countries. Given that maritime container transportation is substantially cheaper over long distances than transcontinental rail or road conveyance, the lion's share of long distance trade over the NSR is likely to remain seaborne. However, apart from the fact that overland transportation is faster, the modernization of overland links, which are relatively weakly developed across Eurasia, is bound to reduce the price difference somewhat. A profitable niche for long-haul rail conveyance of high value-added and/or time-sensitive products seems to have emerged (including the *Trans-Eurasia-Express*, running from Chongqing via Astana and Moscow to Duisburg). Moreover, China's trade with its immediate Eurasian neighbors (where there is little or no maritime competition) should clearly benefit from such efforts.

As of end-2016, all NSR projects actually in development are estimated to represent a total value of about USD 290 billion. Overall, while considerable resources have been devoted to MSR development, investments in SREB rail and road connections, against the backdrop of the huge modernization potential in this latter area, are now somewhat improving the competitiveness of Eurasian overland links. Thanks to the generous financial means at Beijing's disposal (funds of at least USD 130 billion, not including funds from multilateral institutions) and the considerable experience Chinese firms have already accumulated in realizing domestic infrastructure projects, many OBOR investments are currently in full swing.

The lion's share of Chinese NSR investments currently goes to Pakistan, Bangladesh, Malaysia, Indonesia, Russia, Kazakhstan and Kenya. However, compared to the size of respective host economies, strategically situated smaller countries typically benefit the most: Djibouti, Sri Lanka, Mongolia, Kyrgyzstan, Laos, Cambodia, Serbia and Montenegro. The NSR promises to (eventually) bring about palpable changes as regards connectivity, commerce and economic dynamism in some important parts of Eurasia (including Southeastern Europe), which will be better linked up with – and more interdependent with – China once the NSR projects have been implemented.

References

- Barisitz, S. 2017.** Central Asia and the Silk Road – Economic Rise and Decline over Several Millennia. Studies in Economic History. Springer International Publishing: Heidelberg, New York.
- Blank, S. 2017.** Washington et le retour du pivot au centre de l'Asie. In: Korinman, M. (ed.). Chaosland: du Moyen-Orient à l'Asie (du centre)? 208–216.
- Blarel, O. 2017.** L'Inde et l'Asie centrale: une émergence régionale au défi du facteur pakistanais. In: Korinman, M. (ed.). Chaosland: du Moyen-Orient à l'Asie (du centre)? 258–267.
- Boquérat, G. 2017.** Perspective indienne sur la Russie. In: *Diplomatie – Affaires stratégiques et relations internationales* 86. May–June. 56–59.
- China-Britain Business Council, Foreign & Commonwealth Office. 2016.** One Belt, One Road – A Role for UK companies in developing China's new initiative – New Opportunities in China and beyond. http://www.cbcc.org/cbbc/media/cbbc_media/One-Belt-One-Road-main-body.pdf
- Clover, C. and L. Hornby. 2015.** China's Great Game: Road to a New Empire. In: Financial Times. October 12. <https://www.ft.com/content/6e098274-587a-11e5-a28b-50226830d644>
- Djankov, S. and S. Miner. (eds.). 2016.** China's Belt and Road Initiative – Motives, Scope, and Challenges. Peterson Institute for International Economics. Briefing 16–2, March. <https://piie.com/publications/piie-briefings/chinas-belt-and-road-initiative-motives-scope-and-challenges>
- Egorova, K. 2017.** Why China launched a freight train to London via Kazakhstan and Russia. In: Russia beyond the headlines. January 13. https://www.rbth.com/business/2017/01/13/why-china-launched-a-freight-train-to-london-via-kazakhstan-and-russia_680196/
- Escobar, P. 2015.** Is there a place for the West along China's Silk Road? In: The Nation. November 23. www.thenation.com/article/is-there-a-place-for-the-west-along-chinas-new-silk-road/
- Ettinger, V. 2016.** Österreich im Paradigma der Neuen Seidenstraße. ChinaContact. Juni.
- Farchy, J. 2016.** Gazprom secures EUR 2 billion loan from Bank of China. In: Financial Times. March 3. <https://www.ft.com/content/ac5b1ee4-e159-11e5-9217-6ae3733a2cd1/>
- Farchy, J., J.Kynge, C.Campbell and D. Blood. 2016.** One Belt, One Road – A Ribbon of Road, Rail and Energy Projects to Help Increase Trade. In: Financial Times. Special report. September 14. <http://ig.ft.com/sites/special-reports/one-belt-one-road/>
- Foy, H. 2017.** Gazprom confident of \$400 bn Chinese gas supply. In: Financial Times. July 6. <https://www.ft.com/content/623c7396-60cc-11e7-91a7-502f7ee26895>
- Gabuev, A. 2016a.** Friends with Benefits? Russian-Chinese Relations after the Ukraine Crisis. June 29. carnegieendowment.org/files/CEIP_CP278_Gabuev_revised_FINAL.pdf
- Gabuev, A. 2016b.** China's One Belt, One Road Initiative and the Sino-Russian Entente. Interview by G. Shtraks. The National Bureau of Asian Research. Policy Q&A. August 9. www.nbr.org/research/activity.aspx?id=707
- Giret, J.P. and V. Giret (eds.). 2016.** Chine – une emprise de fer dans un gant de soie. In: *L'Atlas des empires – Où est le pouvoir aujourd'hui?* Le Monde. Hors série. October.
- Grieger, G. 2016.** One Belt, One Road (OBOR): China's regional integration initiative. Briefing. European Parliamentary Research Service. July. [www.europarl.europa.eu/RegData/etudes/BRIE/2016/586608/EPRS_BRI\(2016\)586608_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/586608/EPRS_BRI(2016)586608_EN.pdf)
- Grübler, J. and R. Stehrer. 2017.** Die Chinesische Investitionsoffensive „One Belt, One Road“. Wirtschaftliche Potenziale für Österreich? Wiener Institut für internationale Wirtschaftsvergleiche (wiiw). Policy Brief No. 33. February.
- Havlik, P. 2015.** Russia – Economic Turmoil and Policy Options: Reorientation Away from the EU? 77th East Jour Fixe of the Oesterreichische Nationalbank. May.
- Marchand, P. 2015.** Atlas géopolitique de la Russie – La puissance retrouvée, Éditions Autrement. October.

- Meyer, E. 2015.** With Oil and Gas Pipelines, China Takes a Shortcut through Myanmar. *Forbes*. September 2. www.forbes.com/sites/ericmeyer/2015/02/09/oil-and-gas-china-takes-a-short-cut/#75b8a4ef7aff
- Nemitz, F. 2017.** Im Fokus: Kasachstan: Transport – Es bleibt noch viel zu tun. In: *Ostwirtschaftsreport*, April 25. 2.
- Page, J. 2016.** China Builds First Overseas Military Outpost. In: *The Wall Street Journal*. August 19. www.wsj.com/articles/china-builds-first-overseas-military-outpost-1471622690
- Ramachandran, S. 2016.** China's Sinking Port Plans in Bangladesh. In: *China Brief*. Vol. 16. Issue 10. June 21. <http://jamestown.org/program/chinas-sinking-port-plans-in-bangladesh/>
- Scott, E. 2014.** China's Silk Road Strategy: A Foothold in the Suez, But Looking to Israel. In: *China Brief*. Vol. XIV. Issue 19. October 10.
- Shepard, W. 2016.** Why the China-Europe 'Silk Road' Network Is Growing Fast. In: *Forbes*. 28 January. www.forbes.com/sites/wadeshepard/2016/01/28/why-china-europe-silk-road-rail-transport-is-growing-fast/#4309bc40659a
- Shepard, W. 2017.** 2 Days from China to Europe by Rail? Russia Going for High-Speed Cargo Trains. In: *Forbes*. January 14. www.forbes.com/sites/wadeshepard/2017/01/14/2-days-from-china-to-europe-by-rail-russia-going-for-high-speed-cargo-trains/#3f00824f54af
- State Council – The People's Republic of China (ed.). 2015.** Full text: Action plan on the Belt and Road Initiative. March 30. http://english.gov.cn/archive/publications/2015/03/30/content_281475080249035.htm
- Thorez, J. 2016.** La « nouvelle route de la soie » : une notion porteuse d'illusion. In: *L'Asie centrale – Grand Jeu ou périphérie: Kazakhstan, Kirghizistan, Ouzbékistan, Tadjikistan et Turkménistan. Questions internationales. La documentation Française*. 33–41.
- Urban, W. 2016.** The New Silk Road: China's Belt and Road Initiative. *wiiw Monthly Report*. October.
- Vercueil, J. 2017.** L'Asie, un axe économique et stratégique pour la Russie. In: *Diplomatie – Affaires stratégiques et relations internationales* 86. May–June. 51–55.
- Wildau, G. and M. Nan. 2017.** Silk Roads in charts: China's Belt and Road Initiative – FDI and exports are down, but construction revenue is up. In: *Financial Times*. May 11.
- Wuttke, J. 2017.** Xi Jinping's Silk Road is under threat from one-way traffic – Trade must flow both ways to make the route economically and politically viable. In: *Financial Times*. May 9.
- Yalcin, E. et al. 2016.** New trade rules for China? Opportunities and threats for the EU. Ifo Institute. Leibniz Institute for Economic Research at the University of Munich. Commissioned by the European Commission and the European Parliament. February. [www.europarl.europa.eu/Reg-Data/etudes/STUD/2016/535021/EXPO_STU\(2016\)535021_EN.pdf](http://www.europarl.europa.eu/Reg-Data/etudes/STUD/2016/535021/EXPO_STU(2016)535021_EN.pdf)
- Yousafzai, F. 2016.** China to build mega oil pipeline from Gwadar to Kashgar. In: *The Nation*. June 13. <http://nation.com.pk/national/13-Jun-2016/china-to-build-mega-oil-pipeline-from-gwadar-to-kashgar>
- Zand, B. 2016.** Ehrgeiz einer Seemacht – Mit einer "Maritimen Seidenstraße" will sich Peking die Weltmeere erschließen. In: *Der Spiegel*. 36/2016. September 3. 92–96.

Websites

- Asian Infrastructure Investment Bank.** www.aiib.org/en/index.html
- China Global Investment Tracker.** www.aei.org/china-global-investment-tracker/
- ECB. Statistics.** www.ecb.europa.eu/stats/html/index.en.html
- IMF. International Financial Statistics.** <http://data.imf.org/?sk=5DABAFF2-C5AD-4D27-A175-1253419C02D1>
- Silk Road Fund.** www.silkroadfund.com.cn/enweb/23809/23812/index.html