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Belt & Road Updates 2018

"Expansion continues"

January 2018

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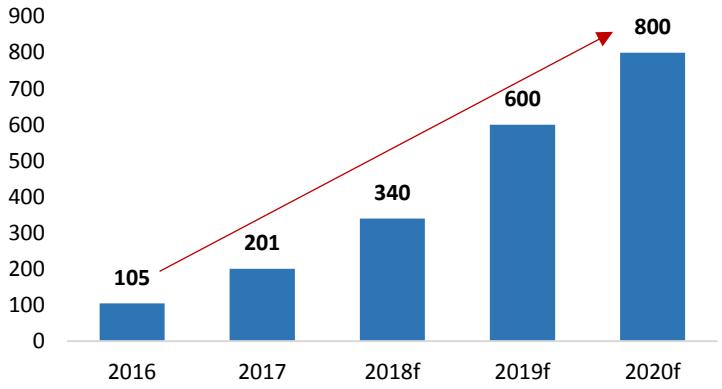
1. Key highlights

- According to Asian Infrastructure Investment Bank, developing and emerging Asia countries will need to invest USD22.6tln in infrastructure by 2030 to maintain current growth momentum, implying approximately USD1.5tln infrastructure spending annually. Incorporating climate change and mitigation costs, overall infrastructure spending estimate rises to USD26tln.
- B&R initiative is expected to have broad impact across all sectors related to construction materials and services. In particular, according to Bloomberg, significant investments required to establish B&R trade route to Europe will increase steel demand in the countries under B&R coverage by approximately 272 mln tons by 2020, implying 24% overall growth. In addition, B&R program may also stimulate Asia region's cement demand, with planned USD217bln in infrastructure investments in Central and Southeast Asia resulting in approximately 162 mln tons of additional annual cement demand.
- The new B&R trade route to Europe may incentivize China to modernize its steel sector in order to produce more value-added steel products and decrease current excess supply of commodity-grade steel, as the construction of infrastructure facilities, such as high-speed railways and pipelines, will require more premium products, including high-strength steel, tensile steel, and high-grade auto sheets.

Container flow China-Europe-China, '000 TEU (2016-2020f)



Source: KTZ, Samruk-Kazyna

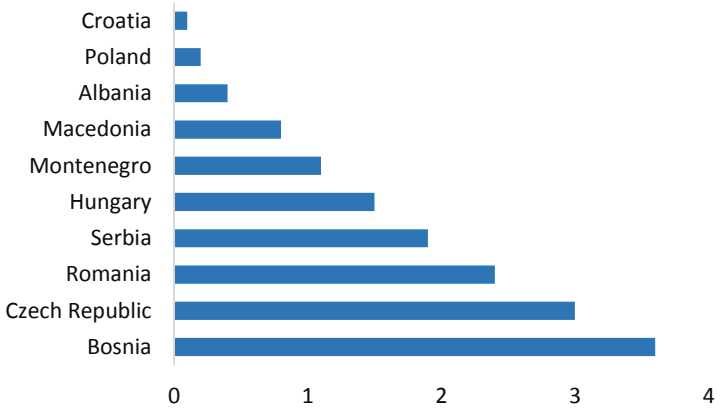
- In the latest address to the nation, **Kazakhstan's Head of State announced key goals to increase revenue from transit freight transportation to USD5bln by 2020 and integrate the latest digital technologies**, including blockchain and internet of things, to optimize and improve the efficiency of Kazakhstan's transportation and logistics sectors.
- Over 2017, Kazakhstan's total freight turnover amounted to 208.8 bln t-km, growing by 10% YoY, while the volume of freight loaded stood at 242 mln tons, rising by 12% compared to the previous year. On transit front, the volume of transit freight transported reached 17 mln tons, implying 17% YoY growth. Meanwhile, China-EU-China transit freight container traffic increased almost two times, amounting to 201,000 TEU, compared to 105,000 TEU in 2016. **For 2018, transit container traffic is expected to reach 340,000 TEU (source: KTZ).**
- China's authorities plan to relocate 51 production facilities to Kazakhstan, with a total of investments amounting to USD27bln in sectors such as metallurgy, chemicals, construction materials and vehicle manufacturing.

2. Global developments

The implementation of One Belt & One Road program is gaining momentum, with the initiative coverage now reaching Central and Eastern Europe. In a bid to facilitate financing of infrastructure and logistics projects in the European part of the New Silk Road, China has recently formed "16+1", a group consisting of 16 countries in Central and Eastern Europe.

According to the Center for Strategic and International Studies (CSIS), China's firms have committed approximately USD15bln in financing for infrastructure and complementary industries since 2012, gradually building the framework for B&R expansion. In particular, Serbia, representing one of the beneficiaries of Chinese investments, received over USD1.9bln in infrastructure funding, while Hungary has attracted approximately USD1.5bln in financing, with the Czech Republic receiving over USD3bln.

China's cumulative infrastructure investments in Central and Eastern Europe, USD bln (2012-2016)



Source: FT, Samruk-Kazyna

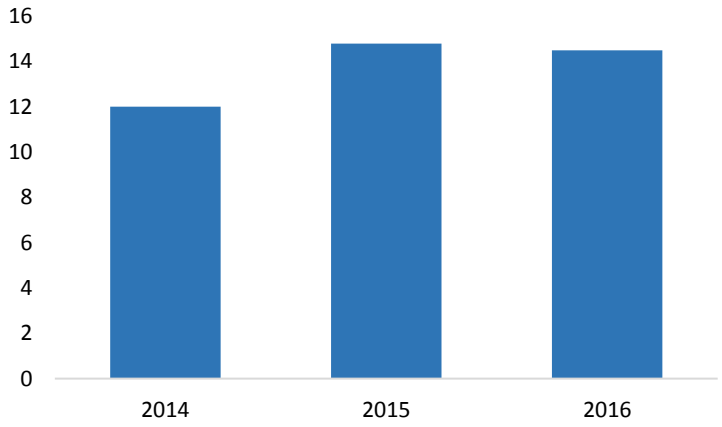
While being beneficial from economic side, B&R expansion into Eastern and Central Europe alerted some Western European countries, as China may potentially use gained political influence in the region to shape the common EU's policy toward itself. In addition, some of the countries in "16+1" group may leverage strong bilateral ties with China to strengthen their position within EU.

On South Asia front, China continued to increase its presence in the Indian Ocean, with one of the largest country's state-owned firms, China Merchants Group, acquiring a deepwater container port based in Sri Lanka. The deal represents a transaction involving the purchase of a 99-year lease for approximately USD1.1bln, with China's presence expected to considerably boost the port's transit potential and, subsequently, stimulate economic activity in Sri Lanka. China's interests are primarily attributable to the port's strategic location in the Indian Ocean, with the facility being just 10-12 nautical miles away from the key sea lane connecting the Malacca Straits and the Suez Canal.

Investors from China plan to increase the port's traffic by instructing state-owned shipping companies and other contractors to use Sri-Lanka as a key logistics hub in the Indian Ocean, optimizing freight delivery routes. In addition, China Merchants and other state-owned firms will develop a new special economic zone around the port, with USD5bln in total committed investments and 100,000 new jobs created.

The port will have the capacity to process the world's largest 400-meter container ships as well as dry cargo and oil tankers, lowering transportation tariffs and enhancing supply chain in the region. Meanwhile, a similar port in Singapore is currently the region's primary logistics hub, but it is approximately four times as distant from India's major ports as the port in Sri Lanka. Singapore has one of the largest ports in terms of aggregate volume processed, accounting for over 20% of the global container traffic and 50% of crude oil transshipment. However, the port in Sri Lanka is expected to cannibalize a substantial part of Singapore's container traffic due to its optimal location and potential cost advantages.

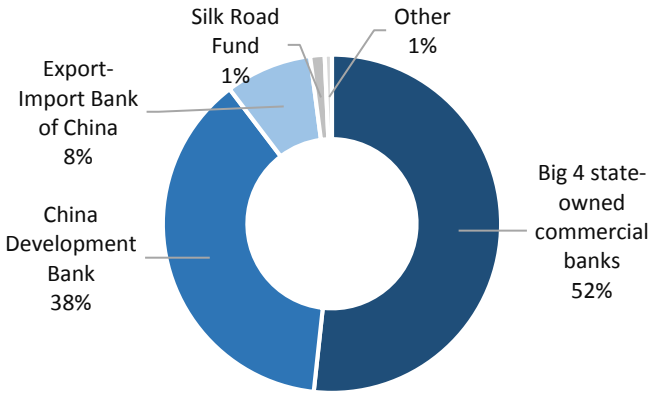
China's non-financial FDI in B&R countries, USD bln (2014-2016)



Source: FT, Samruk-Kazyna

On the funding front, preliminary estimates indicated that China's non-financial foreign direct investment in countries within B&R coverage declined by 2% in 2016, contracting by 18% YoY over 3M17. The decrease is partially attributable to the intensification of China's current deleveraging policy and some regulatory and fiscal barriers Chinese investors face in the B&R countries. However, given high geopolitical and economic significance of B&R initiative for China's government and constant optimization of the legal and regulatory framework in participating countries, this decline is considered temporary.

B&R funding composition by source, (cumulative as of the end of 2016)



Source: FT, Samruk-Kazyna

China Development Bank has been the largest B&R funding contributor, accounting for approximately 38% of the total funds, while other four largest state-owned banks constituted 52%. The share of Export-Import Bank of China stood at 8%, while the Silk Road Fund and other funding sources both represented approximately 1%.

In a bid to complement and reinforce traditional One Belt & One Road program, China has recently introduced the concept of the Digital Silk Road, which will focus on development and improvement of digital communication infrastructure and technology sharing among B&R countries. In particular, the Digital Silk Road is anticipated to enhance the degree of international connectivity via the construction of cross-border broadband optical networks and utilization of satellite infrastructure.

Key recent developments include the construction of overland cable network between Asia and Europe by China and Russia and development of fiber optic cable network in Afganistan. In addition, China's government plan to introduce Beidou satellite network, which is expected to substitute GPS in the B&R countries.

Potential infrastructure demand by region (2016-2030f)

Region / Subregion	*Projected annual GDP growth*	Baseline estimates			Climate-adjusted estimates		
		Investment needs, USD bln	Annual average, USD bln	*Investment needs as % of GDP*	Investment needs, USD bln	Annual average, USD bln	*Investment needs as % of GDP*
Central Asia	*3.1%*	492	33	*6.8%*	565	38	*7.8%*
East Asia	*5.1%*	13,781	919	*4.5%*	16,062	1,071	*5.2%*
South Asia	*6.5%*	5,477	365	*7.6%*	6,347	423	*8.8%*
Southeast Asia	*5.1%*	2,759	184	*5.0%*	3,147	210	*5.7%*
The Pacific	*3.1%*	42	2.8	*8.2%*	46	3.1	*9.1%*
Asia and the Pacific	***5.3%***	**22,551**	**1,503**	***5.1%***	**26,166**	**1,744**	***5.9%***

Source: Asian Development Bank

According to Asian Infrastructure Investment Bank, developing and emerging Asia countries will need to invest USD22.6tln in infrastructure by 2030 to maintain current growth momentum, implying approximately USD1.5tln infrastructure spending annually. Incorporating climate change and mitigation costs, overall infrastructure spending estimate rises to USD26tln. The Pacific region infrastructure demand is estimated at 9.1% of GDP, while South Asia, Central Asia, and Southeast Asia will be required to invest in infrastructure 8.8%, 7.8% and 5.7% of GDP respectively. Countries in East Asia are forecasted to spend 5.2% of GDP on infrastructure.

Potential infrastructure demand in Asia by sector (2016-2030f)

Sector	Baseline estimates			Climate-adjusted estimates		
	Investment needs	Annual average	*Share*	Investment needs	Annual average	*Share*
Power	11,689	779	*51.8%*	14,731	982	*56.3%*
Transport	7,796	520	*34.6%*	8,353	557	*31.9%*
Telecommunication	2,279	152	*10.1%*	2,279	152	*8.7%*
Water and Sanitation	787	52	*3.5%*	802	53	*3.1%*
Total	**22,551**	**1,503**	***100.0%***	**26,166**	**1,744**	***100.0%***

Source: Asian Development Bank

Currently, annual infrastructure investment in Asia region is estimated at USD881bln, which results in infrastructure spending gap of approximately 2.4% of projected GDP over the next five years. To mitigate this gap, Asian countries will need to introduce several regulatory and institutional reforms, making an investment in infrastructure more attractive for the private sector. For China, infrastructure spending gap is currently at 1.2% of forecasted GDP, with the gap rising to 5% of GDP for the remaining Asian countries excluding China. While regulatory and institutional reforms in emerging and developing Asian countries outside of China may fill 2% out of previously mentioned 5% of GDP gap, the private sector will be required to increase investment from current USD63bln per year to over USD250bln per year by 2020 in order to cover the remaining 3% of GDP.

On outlook front, B&R initiative is expected to have broad impact across all sectors related to construction materials and services. In particular, according to Bloomberg, significant investments required to establish B&R trade route to Europe will increase steel demand in the countries under B&R coverage by approximately 272 mln tons by 2020, implying 24% overall growth.

China's steel demand and output, '000 tons (2012-2017)

Source: Bloomberg, Samruk-Kazyna

In addition, the initiative may result in the relocation of China's production facilities to the west due to potential savings on transportation and logistics costs, with China's government also encouraging domestic producers to shift capacity outside as it will help to decrease pollution and may lead to a reduction of anti-dumping cases against China's firms. China's largest steel-producing province, Hebei, is forecasted to shift approximately 20 mln tons of capacity by 2023 to Southeast Asia, western Asia, and Africa.

The new B&R trade route to Europe may incentivize China to modernize its steel sector in order to produce more value-added steel products and decrease current excess supply of commodity-grade steel, as the construction of infrastructure facilities, such as high-speed railways and pipelines, will require more premium products, including high-strength steel, tensile steel, and high-grade auto sheets. The upgrade will allow China's steel companies to increase profit margins and reduce exposure to steel price volatility. One of the ways to accelerate the transition is to form joint ventures with western companies to acquire appropriate technological and market expertise, shifting from labor-intensive production to automated processing.

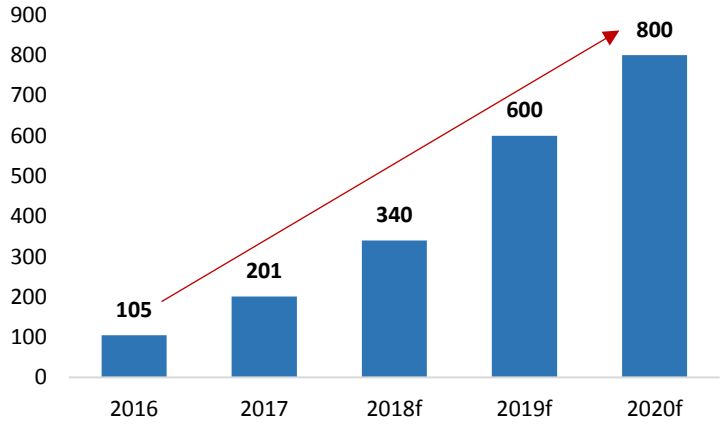
Given substantial infrastructure spending scale, B&R program may also stimulate Asia region's cement demand, with planned USD217bln in infrastructure investments in Central and Southeast Asia resulting in approximately 162 mln tons of additional annual cement demand. Average per-capita cement production in Central Asia and Southeast Asia stood at 300 kilograms and 323 kilograms respectively, compared to China's output of 1,800 kilograms, implying significant supply gap.

China's exports of construction-equipment are expected to increase twice as the implementation of B&R initiative will result in additional demand for new excavators. According to Bloomberg estimates, Southeast and Central Asia will need approximately 50,000 new excavators over the next five years, while China exported just 7,000 annually in the last five years.

3. Progress in Kazakhstan

Over 2017, Kazakhstan's total freight turnover amounted to 208.8 bln t-km, growing by 10% YoY, while the volume of freight loaded stood at 242 mln tons, rising by 12% compared to the previous year. On transit front, the volume of transit freight transported reached 17 mln tons, implying 17% YoY growth. Meanwhile, China-EU-China transit freight container traffic increased almost two times, amounting to 201,000 TEU, compared to 105,000 TEU in 2016. For 2018, transit container traffic is expected to reach 340,000 TEU (source: KTZ).

Container flow China-Europe-China, '000 TEU (2016-2020f)



Source: KTZ, Samruk-Kazyna

An exponential growth in transit container traffic is primarily attributable to the successful launch of Khorgos dry port and Kuryk seaport that significantly improved efficiency and freight delivery times. In addition, the rise in rail freight turnover was supported by the implementation of comprehensive measures aimed to increase labor productivity, optimize production processes and achieve an efficient utilization of the railcar fleet.

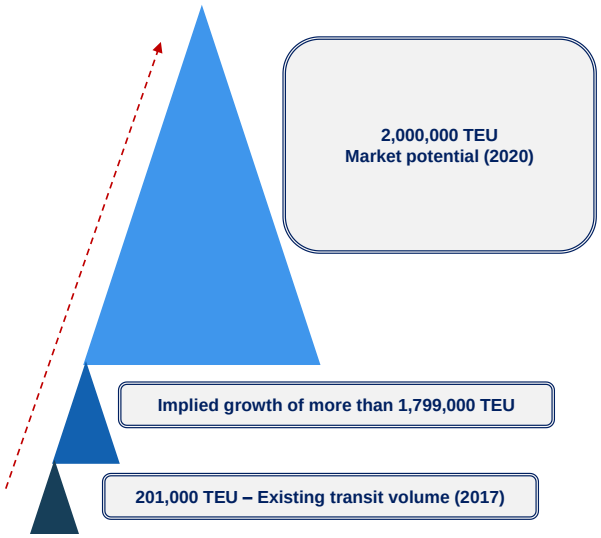
In the latest address to the nation, **Kazakhstan's Head of State announced key goals to increase revenue from transit freight transportation to USD5bln by 2020 and integrate the latest digital technologies**, including blockchain and internet of things, to optimize and improve the efficiency of Kazakhstan's transportation and logistics sectors.

In December 2016, Kazakhstan, Finland, Russia and China have signed the agreement to open the Eastern Transport Corridor. Subsequently, on 10 November 2017, the first transit container train traveling from Finland to China via Kazakhstan was launched from Kouvola station. The train covered

approximately 8,500 kilometers within 10 days, with Khorgos Gateway being the key transshipment hub on Kazakhstan's territory.

Meanwhile, another container train going from Kokshetau to Turkish city Mersin commenced its regular operations on Baku-Tbilisi-Kars railway. The train consisting of 30 containers loaded with grain traveled more than 5,000 kilometers, reaching destination point in 10 days. The route included transshipment at a recently constructed Kuryk seaport, which contributed to the faster delivery of freight. The total annual capacity of the new route is estimated at 10 mln tons of cargo, with continuous improvement of logistics infrastructure within B&R program expected to further increase transportation capacity.

Kazakhstan's B&R transit potential



Source: KTZ, Samruk-Kazyna

On B&R projects, Kuryk seaport, which is located in Mangistau region, was constructed in order to increase Kazakhstan's marine transit capacity. Enabling direct reloading from trains and trucks to ferries, the port is expected to stimulate freight shipments to Europe and the Middle East via Azerbaijan and Iran. Construction of the first project's phase was completed in December 2016, with the total of 44 logistics facilities commencing their operations. In October 2017, Kuryk has already processed more than 1,000,000 tons of cargo, meeting its 2017 target in advance.

Main projects, considered as a part of B&R initiative in Kazakhstan

№	Project	Cost, USD mln	Development period
1	Khorgos terminal	222	2014-2020
2	Kuryk port in Mangistau region	261	2015-2018
3	Zhezkazgan-Beineu railway	1,131	2012-2017
4	Arkalyk-Shubarkol railway	242	2012-2017
5	Almaty1-Shu railway	102	2015-2017
6	New railway hub in Astana, including train station	561	2013-2017
7	Logistic terminal in Shymkent (Southern Kazakhstan region)	43	2014-2017
8	Logistic terminal in Astana	82	2014-2016
9	Modernization of Aktau port	112	2014-2017

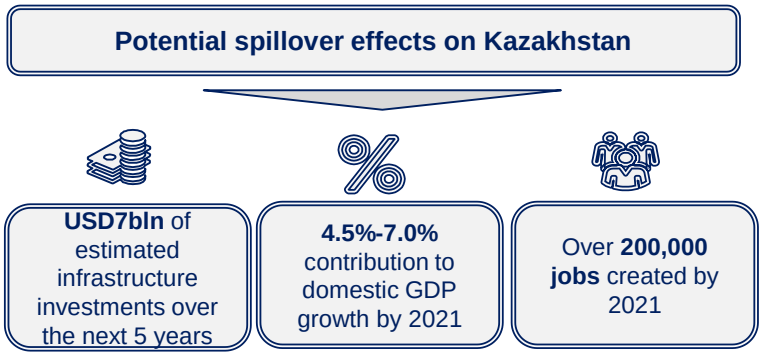
Source: KTZ, Samruk-Kazyna

Meanwhile, another key infrastructure project, Almaty-Shu railway is currently on track to be completed ahead of planned time, with approximately 100 kilometers out of planned 113 kilometers already being constructed and becoming double-track. This project is expected to significantly increase the efficiency of cargo transportation, reducing delivery time.

In October 2017, Astana LRT, an entity established to develop Astana's transport and logistics infrastructure, received approximately USD1.6bln from the China Development Bank to finance the construction of light rail system in the city, reinforcing China's strong B&R commitment. The project, incorporating 22.4 kilometers of track, 18 stations, and a depot, is currently at the feasibility study stage. It is planned to be constructed using Chinese technical specifications and the rolling stock, with 19 vehicles delivered from China.

In addition, China's authorities plan to relocate 51 production facilities to Kazakhstan, with a total of investments amounting to USD27bln in sectors such as metallurgy, chemicals, construction materials and vehicle manufacturing. Three projects, including polypropylene production in Pavlodar, automobile manufacturing in Kostanay and vegetable oil production in the North Kazakhstan region, are already transferred to Kazakhstan, with another six projects being in the process of reallocation.

B&R potential spillover effects on Kazakhstan



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Consequently, B&R is forecasted to contribute additional 4.5%-7.0% to Kazakhstan's GDP growth by 2021, creating over 200,000 new jobs. In addition, the country's economy will considerably benefit from ongoing infrastructure improvements, with total investments size reaching more than USD7bln over next five years.

4. Conclusion

According to Asian Infrastructure Investment Bank, developing and emerging Asia countries will need to invest USD22.6tln in infrastructure by 2030 to maintain current growth momentum, implying approximately USD1.5tln infrastructure spending annually. Incorporating climate change and mitigation costs, overall infrastructure spending estimate rises to USD26tln. The Pacific region infrastructure demand is estimated at 9.1% of GDP, while South Asia, Central Asia, and Southeast Asia will be required to invest in infrastructure 8.8%, 7.8% and 5.7% of GDP respectively. Countries in East Asia are forecasted to spend 5.2% of GDP on infrastructure.

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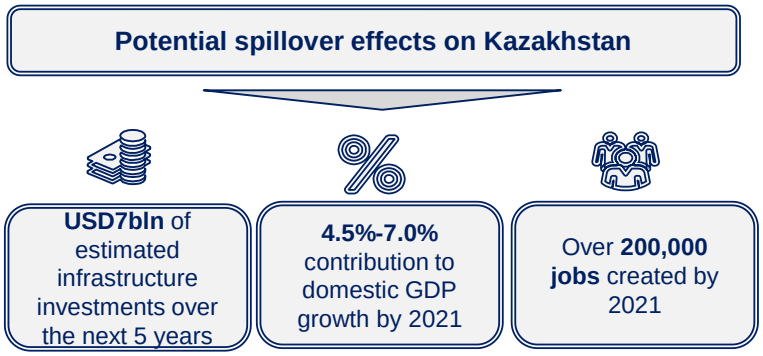

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