

Research Note: Central Asia Rail Development – Why China’s Belt and Road Initiative Lacks Regional Importance

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Abstract

Rail transport between China and Europe via Central Asia has become a popular example of practical economic development possible under China’s Belt and Road Initiative. However, the actual significance of rail transport between China and Europe or China and the Central Asian countries remains limited. China’s contribution to the development of rail infrastructure in Central Asia has been overrated. Intra-regional concerns were dominant drivers for Central Asian rail development immediately after independence, and the post-Soviet development history of the Central Asian rail network demonstrates that both the European Union and Russia have had more influence on financing and developing regional transport corridors than China. Ultimately, we find that China’s BRI investment model has had a negligible impact on Central Asian transport infrastructure development or rail freight volumes.

Keywords: Central Asia; China; Development Banks; European Union; rail infrastructure; transport policy

Introduction

China’s Belt and Road Initiative (BRI) promised to stimulate economic growth with the creation of a new trade bloc spanning most of Eurasia and Africa (Solmecke 2016). Introduced in 2013, BRI also promised infrastructure development to facilitate trade between Europe and China and the Eurasian regional geographies in between them (Ramasamy and Yeung 2019). Rail freight transport development has become one of the central elements of BRI (Pepermans 2020). Substantial investment from China in transport infrastructure was anticipated as a result (Cai 2018). Research papers estimated trade facilitation

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effects between China and Europe (e.g. Li, Bolton and Westphal 2018), or evaluated theoretical capacity of railway lines connecting both regions (Vinokurov and Tsukarev 2017). The general analysis was that due to the development of roads and rail transit corridors, costs and times would reduce, hence front-loading economic growth. However, these transport infrastructure developments have, in fact, not clearly encouraged economic growth. As an analysis of the 65 BRI economies found, in countries of Central Asia and the Commonwealth of Independent States, the spatial spill-over effects of transport infrastructure development have actually been negative (Wang et al. 2020).

Despite the rapid development of China-Europe rail freight transport under the CR Express (China Railway Express, container railway services of China Railways Corporation) system, carriage volumes are still very low. In 2018, rail had only a 2 per cent share of all transport between the two regions, measured by volume (Bucsky 2020). Further growth potential is also limited due to infrastructure capacity. While trade has rapidly expanded to the current volume of approximately 500,000 20-foot equivalent unit containers (TEU) per year, without major infrastructure investments this can only improve to around one million TEU per year due to capacity bottlenecks (Vinokurov et al. 2018). The forthcoming phasing out of substantial China state subsidies also limits the sustainability of even the current freight volumes (Feng et al. 2020). There have been a wide range of analyses and publications on the China-Europe rail transport system from different perspectives. However, research on Central Asia's involvement is still scarce. The region of the five independent Central Asian states with a combined population of around 75 million people has been mostly neglected. This research note asks whether China's BRI has actually promoted rail transport and attracted investment in rail infrastructure to Central Asia. Our analysis focuses on the five former Soviet republics of Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan, and adopts a pan-Central Asian perspective that argues that BRI is less important for the region than policy or the media portray it. We also argue that the European Union (EU) and Russia remain more important actors than China for the region's economic development in general and for transport development in particular.

This research note is structured into four subsections. First, we present the regional trade and investment trends of the past two de-

cares. We then analyse rail transport volumes and the composition of intra-regional and extra-regional rail transport volumes. We assess regional infrastructure developments and their actual impact on international trade. Finally, we examine the role of international actors and regional cooperation in Central Asian rail development, particularly considering whether China's BRI could facilitate rail transport development in the region or not. We conclude with a discussion on which countries and international organisations play important roles in the development of transport-related infrastructure and cooperation in Central Asia.

Methodology and Data

Our research question is whether China's BRI has had any significant, measurable impact on rail freight transport volumes in Central Asia, either increasing intra-regional, extra-regional or trans-regional rail freight carriage. Our hypothesis was that China has only had a negligible effect on Central Asian infrastructure despite the media, policy and research hype on BRI, and that the demand-side determinants of GDP, foreign direct investment (FDI) and trade growth would not support growth in rail freight transport within the region. Indeed, we found that rail freight volumes have actually fallen since the introduction of the BRI, and that while China's share of trade and investment in the region has increased, it was coming from such a low base that it has only had a minimal effect on regional economic development and a negligible effect on rail freight transport volumes. To investigate our research question, we compiled statistical datasets on rail freight volumes, trade and investment within the five Central Asian republics, mostly treating the region as a contiguous economic area and often using aggregate datasets. We then compared our statistical analysis with institutional political economy analysis of international organisation involvement in rail freight development in the region.

A major challenge for BRI-related research is the accessibility of data. We wanted to analyse data on rail freight volumes, FDI and trade. Despite forces of globalisation, China, Russia and Central Asia have some of the most closed economies in the world, and statistical sources remain scarce and/or untrustworthy. International trade data was, however, available from the UN Comtrade database and was a reliable data source across all five Central Asian republics. FDI data was avail-

able in some countries from the national banks, but for a standardised whole-of-region dataset, United Nations Conference on Trade and Development (UNCTAD) was the only reliable source. These transnational investment statistics only counted transactions between corporations, not government-to-government transfers. However, to the best of our knowledge, there were no major intergovernmental projects in the region that could have influenced these statistics. While China's influence in the region is often analysed as a state actor, the institutions through which international trade and investment operates are limited liability companies, which show up in national current accounts.

For rail freight transport volume statistics, we used information provided by national statistics offices of the Central Asian countries with the exception of Turkmenistan, which barely provides any statistics publicly. We cross-checked the rail transport volume data with reports from international organisations, such as the Organisation for Cooperation between Railways (OSJD), United Nations Economic Commission for Europe (UNECE), and the Central Asia Regional Economic Cooperation Program (CAREC). The OSJD database was particularly useful for understanding international transport flows, as it provided detailed information on the transport volumes at every cross-border station of the member counties. Between the data from the national statistics offices and the international organisations (OSJD, UNECE), we could also see the major characteristics of railway infrastructure development (e.g. total network length, length of electrified sections). These were cross-checked against railway maps representing the changes of the network. This novel dataset helped us to highlight the rapid extension of rail infrastructure in the region.

Rail freight volumes of China-Europe transit through Kazakhstan were calculated in our previous studies and compiled from various data sources (see Bucsky 2020; Bucsky and Kenderdine 2020a). These sources yielded a good understanding of intercontinental rail freight traffic flows and served as the basis of our argument here: containerised rail freight traffic to and from China is realistically minimal when contrasted with other comparable traffic flows.

Central Asia's Economic and Trade Orientation

Central Asia has great potential for extra-regional cooperation in terms of trade, investment and transport. And yet, in general economic terms, Central Asia is one of the least connected economic macro-regions in

Eurasia (Gould, Kenett and Panterov 2018). It is geographically also one of the most isolated regions with the greatest distances to the global ocean and includes the doubly landlocked Uzbekistan. Central Asia is moreover economically the least 'open' region in Eurasia as measured by the World Bank trade to GDP ratio.

Despite these limitations, for the two decades from the independence until the 2008 financial crisis, the region enjoyed rapid economic development and since 2008, even moderate growth. As a contiguous economic region, between 1998 and 2008 Central Asia's GDP increased 356 per cent (World Bank measurement in current USD), while trade grew 698 per cent (IMF data measured in current USD). Between 2008 and 2018, however, GDP growth was only 31 per cent, while trade growth stalled at 1 per cent. Taking the period from the introduction of BRI (2013) to the latest available data (2018), the two figures are even grimmer: GDP declined by 30 per cent and trade declined by 19 per cent.

However, while there has been stagnant or negative economic growth over the past decade, there has been a definitive shift in the trade structure of the region. In 1998, the region's major trade partner was the EU (29 per cent) closely followed by Russia (28 per cent) with China only representing 5 per cent of extra-regional trade. By 2018, China had become the region's most important trade partner (29 per cent), displacing a slightly declined EU trade share (25 per cent) with Russia heavily declining to only 18 per cent of the region's external trade. Analysed in real terms though, China was not developing additional trade, but mostly substituting for Russian trade. Gravity modelling has predicted that China should have an even larger share of regional trade (Gharleghi and Popov 2018).

Nonetheless, as a source of FDI, China has not delivered any real development in the region. Kazakhstan is the region's greatest attractor of FDI and the flagship partner economy of China's BRI. In the third quarter of 2019, however, the EU accounted for 57 per cent of Kazakhstan's FDI stock, with 20 per cent from the United States and only 6 per cent from China, according to statistics from the National Bank of Kazakhstan. According to UNCTAD data for all five Central Asian republics, 51.5 per cent of total FDI stock was from the EU in 2009, growing to 54.5 per cent in 2018. China's investment role has increased in the region as a whole but remains limited. Starting at 3 per cent of GDP in 2009, China's FDI stock peaked in 2015 with 9 per cent but has since fallen back to 7 per cent in 2018. Chi-

na did oversee a 397 per cent increase in FDI stock in the five republics between 2009 and 2018. However, while this growth is rapid, it comes from a very low baseline, and is actually lower than Russia's regional FDI growth of 425 per cent in the same period. Therefore, the promise of a surge of new investment under the BRI framework has still not manifested in Central Asia in 2020, seven years after the advancement of the BRI policy.

Central Asia's Rail Transport Infrastructure Still Faces Russia

One of the promises of China's BRI investment was to build infrastructure that would facilitate trade between the region and China, replacing Soviet-era industrial infrastructure that favoured Russo-centric trade institutions and practices (Kitade 2019). However, the development of GDP and trade volumes discussed above are the main economic drivers for transport volume, not vice versa.

Rail freight naturally plays a more important role in Central Asia's intraregional transport and trade than it does in maritime economies. The region's modal share of rail transport was 45 per cent in 2019.¹ This is high compared to 11 per cent for the EU, and 33 per cent for the United States, but is still lower than the 59 per cent modal share of rail in Russia, an economy with maritime access. Central Asia shares many economic geography similarities with Russia, such as large distances to external markets and high volumes of natural resource exports. This means that Central Asia's globally high but regionally low intermodal ratio for rail transport shows not only that rail is the most important freight carriage mode, but also demonstrates capacity for expansion.

To be able to analyse the dynamics of rail transport within Central Asia and with major external economic partners, we created a database. Annual transport volumes in tonne-km and tonnes are available from the national statistics offices with the exception of Turkmenistan for which OSJD data was used, however the latest information is from 2015.² Regional rail transport is highly concentrated: measured by tonne-km, Kazakhstan alone accounted for 88.4 per cent of the region's total, Uzbekistan 7.2 per cent, and we can estimate that Turkmenistan only accounts for 4.2 per cent, while Kyrgyzstan (0.3 per cent) and Tajikistan (0.1 per cent) play only marginal roles in regional rail freight carriage according to data available for 2018.

Despite clear structural determinants that favour growth in rail freight, traffic volumes only grew moderately between 2014 and 2018, with only 1.3 per cent growth measured by tonnes and 1.2 per cent growth measured by tonne-km. Transport volume growth was actually higher between 2008 and 2014: 26 per cent in tonne-km and 31 per cent in tonnes. This demonstrates that rail freight growth actually *fell* after the introduction of the BRI.

To be able to calculate extra-regional traffic, we used the OSJD database of rail border crossings (OSJD 2019). The information presented by the OSJD was in volume of goods (tonnes); therefore, it was compared to national statistics. Comparing total Central Asian intra-regional traffic volumes in tonnes with cross-border rail freight traffic, Russian imports and exports accounted for 20.6 per cent of extra-regional traffic in 2018, whereas China's share was only 2.6 per cent. Rail freight transported across the Caspian Sea to Baku was 0.8 per cent of the intraregional total, and rail transport to Afghanistan had a 1 per cent share. Freight traffic statistics were not available for Iran, as Turkmenistan stopped reporting border crossing traffic volumes to the OSJD from 2014, but in that year the Turkmenistan-Iran cross-border rail freight traffic was 0.6 per cent of the intra-regional total, and it is highly unlikely that it has grown much beyond this.

The aggregated volumes of extra-regional rail transport was 24 per cent of total intra-regional traffic in 2008 which declined to 21 per cent in 2014 and grew to 26 per cent in 2018 (OSJD 2012, 2015, 2019). Total rail transport volumes grew by 4.2 per cent between 2008 and 2014, and by 1.8 per cent between 2014 and 2018, whereas extra-regional rail transport volumes declined in the first half of the last decade by 10.2 per cent and grew by 25.2 per cent in the second half. The highest growth was the transport to and from Russia with 30 per cent followed by 29 per cent growth for China for the 2014-2018 period. In this half-decade, Azerbaijan's total rail transport volumes declined by 44 per cent but increased 48 per cent with Afghanistan. Despite the fact that this was a period of China policy-leveraging BRI rail traffic into the region, Russia's extra-regional rail freight traffic increased 19.6 million tonnes, while China only added 2.3 million tonnes of goods transported by rail to and from the region.

The realities of regional rail freight transport are that Central Asia still overwhelmingly gravitates towards Russia, not to China. Compared to the size of the rail transport market, the 2.6 per cent share of total rail freight volume transported to and from China was only

slightly higher than Afghanistan's and Azerbaijan's combined two-way rail trade share of 1.8 per cent in 2018. China's CR Express train system to and from Europe also only plays a minimal role in the development of trans-regional rail freight transit transport: these trains account for only 14 per cent of border crossing traffic between China and Kazakhstan (Bucsky 2020).

In addition to the state of infrastructure, there are various institutional factors hindering the development of international rail transport in the region. Bureaucratic delays and customs clearance are very substantial bottlenecks. The average duration for crossing Central Asian rail borders grew from 22.1 hours in 2010 to 23.2 hours in 2018 (ADB 2019). The average cost of railway crossing clearance also increased in the same period from USD 160 to USD 196. The cost of transporting rail cargo grew significantly too: in 2010, transporting a 20-tonne cargo container on a 500 km section of a CAREC rail corridor was USD 464, while in 2018 the same trip cost on average USD 970. These factors all demonstrate that the BRI rail transport policy to connect Europe, Central Asia and China has played an insignificant role in the development of Central Asian regional rail freight transport.

Rail Infrastructure Development in Central Asia

Upon independence, the five Central Asian economies inherited Soviet-legacy infrastructure requiring huge investment to reconfigure to national industrial economy needs. Much was accomplished by the states themselves in this regard since independence, regardless of external assistance. Rail developments rarely attract the media and research spotlight, but the new border crossing of Khorgos at the Kazakh-Chinese border has gained a lot of attention (Kenderdine 2018b; J. Wang, Jiao and Ma 2018). However, there is very limited research on other rail infrastructure developments in Central Asia, which in fact has been substantial. The five Central Asian states have expanded the regional rail network substantially since 2010, with the network as a whole growing 14 per cent, and the length of electrified lines being extended by 27 per cent.

To understand the scale of new developments, we built a dataset based on railway maps of the former Soviet Union as a baseline and compared it with the current rail database of OpenStreetMaps and the maps of individual railway companies. This allowed us to identify rail

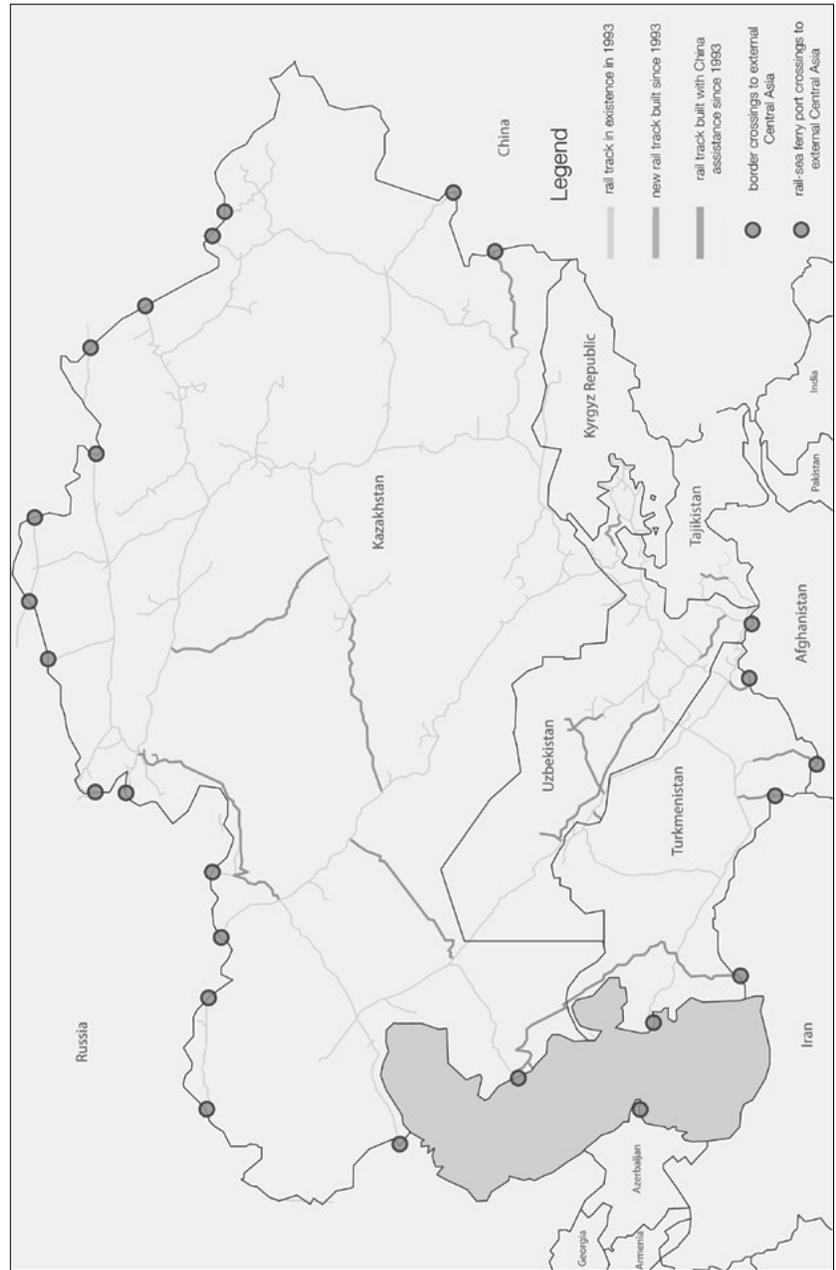


Figure 1. Railway network of Central Asia, new lines since independence and extra-regional border crossings.

lines that had been either newly built and/or electrified since the independence of the five regional republics. We compared this geographic data with policy documents on project funding across websites of transport ministries, railway companies, international policy banks, research papers and traditional news articles in order to identify sources of investment. The development of the regional rail network since 1993 is summarised in Figure 1.

China's CR Express containerised rail freight services to Europe and Central Asia are dependent on three Central Asian states: Kazakhstan, Uzbekistan and Turkmenistan. The most important rail line for any new trade development via Kazakhstan has been the East-West rail line between Aktau port on the Caspian Sea, connecting to the existing Central Kazakhstan rail network and allowing direct rail transport between Mangystau region and Karaganda region, creating a through-line to the Alashankou/Dostyk border crossing with China (Rodemann and Templar 2014). This was completed in 2013 after the almost 1,000 km long Zhezkazgan-Saksaulskaya and Shalkar-Beyneu sections were finalised (Yang and McCarthy 2013). These two sections create a contiguous rail corridor across the Mangystau-Aktobe-Kyzlorda-Karaganda regions, which eliminates the need to transit through South Kazakhstan, Zhambyl and Almaty. While this corridor has segued with China's geoeconomic policy goals, it has also brought a new axial orientation to Kazakhstan's domestic rail network, bypassing dependence on Russia on south-north carriage, and opening freight corridors to the Black Sea via the Baku-Tbilisi-Kars railway (Kenderdine 2018a). This East-West line project was initiated and financed entirely by Kazakhstan (Garibov 2016). Kazakhstan has also upgraded its Aktau Sea Port capacity with the development of a secondary port in neighbouring Kuryk (Chubarov 2018). But again, this was a national project undertaken by the Kazakh government without foreign investment. Kazakhstan has built an extensive new rail network that has facilitated China's Eurasian transport policy in the region but built and financed entirely within the region, independent of China's BRI framework. For example, the new 214 km south-north rail line between Shubarkol in Karaganda and Arkalyk in Kostanay was finished in 2014, and the 146 km north-south rail line from Uzen to Bolashak on the Turkmenistan border was finished in 2013. While COSCO and Lianyungang Port Group Co., Ltd. together hold a 49 per cent minority stake (24.5 per cent each) in Khorgos Gateway (Contessi 2018; Shepard 2017), Kazakhstan's state-owned

enterprise, Kazakhstan Temir Zholy's wholly-owned subsidiary KTZ Express (KTZE), holds the 51 per cent majority stake. The Kazakhstan government directly owns the Port of Aktau, with no Chinese ownership. China has allowed KTZE a 49 per cent minority ownership of Kazakhstan-China International Logistics Co. Ltd., which built a new logistics centre in the Port of Lianyungang to allow Kazakhstan freight access to the sea (Contessi 2018).

Uzbekistan has also advanced its national railway development project. Since independence, Uzbekistan has built over 1,100 km of new rail lines, with another 1,000 km of electrified track and nearly 4,000 km of upgraded track (Jafarova 2014). The 344 km Tashkent-Samarkand line was upgraded to 200-250 km/h capacity – the first and as yet only high-speed rail line in Central Asia. The 223 km Tashguzar-Boysun-Kumkurgan rail line was finished in 2007 to bypass Turkmenistan, opening direct access to Tajikistan and later onwards to Afghanistan. Due to the entanglement of Soviet industrial transport inheritance, Uzbekistan also built another Turkmenistan bypass, the 355 km Bukhara-Misken-Nukus line, which was inaugurated in 2017. In 2018, the 30 km Urgench-Khiva section was also finalised. Furthermore, the construction of the 119 km Angren-Pap section opened access to the Ferghana valley without the need to transfer through Tajikistan. This section was finalised in 2016, and it featured the 19.2 km long Qamchiq tunnel, which was one of the few rail developments with any Chinese input, being built by China Railway Tunnel Group (Reeves 2018). The total cost for the line was USD 1.9 billion, of which the tunnel itself was USD 500 million. However, China Railway Tunnel Group was simply a contractor on the Qamchiq tunnel project, meaning there were no state loans associated with the contract. Conversely, the ongoing electrification of the Ferghana rail link to Andijan is financed by Asian Development Bank (ADB). Similarly, a new line from Termiz to the Afghan city of Mazār-i-Sharīf was built in 2011. This was financed by a USD 165 million ADB loan. The line is operated entirely by Uzbekistan Railways.

Turkmenistan was the first Central Asian country to develop an extra-regional rail connection since the end of the Soviet Union, the Mashhad (Iran) to Tejen (Turkmenistan) 295 km line which opened in 1996 (Broujerdi 1996). This rail line was built with Chinese cooperation, but 17 years before the BRI. Iran signed a Memorandum of Understanding on the establishment of the Iranian section of the rail

link, and China sent railway experts and equipment to Iran for the project (Graver 2011). After this initial extra-regional link, however, Turkmenistan focused on solving internal Soviet-legacy rail transport problems. Turkmenistan did build a bridge over the Amu Darya river with the cooperation of the Ukraine company Dneprogiprotrans. Opened in 2009, it made the city of Kerkichi accessible by rail from Türkmenabat, bypassing Uzbekistan. Another Turkmenistan line to bypass Uzbekistan was the north-south corridor between Kazakhstan and Iran via Turkmenistan. This 594 km line was opened in 2014 (Zokhidov 2014). The new route made transport between China and Iran possible without the need to cross Uzbekistan. Turkmenistan thus also has received minimal direct input from China for rail infrastructure development.

Despite these developments, the five Central Asian republics as a contiguous economic region have very limited rail connections to their neighbours. There are operational rail border crossings to five external economies (Figure 1):

- Kazakhstan to Russia (nine operational crossings)
- Kazakhstan to China (two crossings)
- Turkmenistan to Iran (two crossings)
- Turkmenistan to Afghanistan (two crossings)
- Uzbekistan to Afghanistan
- Via rail ferry from both Kazakhstan and Turkmenistan to Baku in Azerbaijan.

China has also planned a third rail crossing into Central Asia, from China to Uzbekistan via Kyrgyzstan, but it is highly unlikely that it will be constructed (Bucsky and Kenderdine 2020b). Our research shows that BRI has not resulted in any substantial rail infrastructure developments in Central Asia. Another important conclusion of our research is that in the first phase of rail infrastructure development, the main motivation for the Central Asian states was the substitution of lines in order to bypass the newly created neighbouring states. Regional integration, international factors, trade facilitation and international connections have been historically less important in the national rail transport strategies of the Central Asian states.

International Cooperation

Since the independence of the five Central Asian republics, intra-regional cooperation between them has remained limited. In the field

of transport, the EU was the first, and for a long time only, active actor in regional integration. The EU was not only an important contributor to development, but also served as an institutional example for trade facilitation and the development of international transport corridors. For example, the Transport Corridor Europe-Caucasus-Asia (TRACECA) multilateral agreement focused on planning new transport corridors, with the EU co-financing 14 projects with funding of EUR 51 million. Since this initial institutionalisation, EU engagement with Central Asian transport has developed over three clear phases: integration planning, multilateral engagement and China containment. After the first phase of transport institutional engagement under TRACECA where the EU had official bilateral cooperation with the countries in Central Asia, in 2007 a new multilateral cooperation strategy was adopted (CoE 2007). Trade facilitation was prioritised through the active support of World Trade Organisation membership for countries of the region. This change to a multilateral macro-regional strategy was important at the time due to the Russia-Ukraine gas disputes and the security situation in Afghanistan. The third phase in the EU external strategy for the region was introduced through the 2018 *Connecting Europe and Asia* strategy, which was a policy response to China's BRI (EC 2018). The strategy focused on European investment by leveraging multilateral finance institutions. By 2020, the Investment Facility for Central Asia (IFCA) has invested EUR 1.1 billion in the region, while the European Bank for Reconstruction and Development has invested EUR 12.1 billion in Central Asia across 736 projects, with EUR 4.3 billion in ongoing projects (EC 2018).

A variety of external international actors have been involved in planning and financial initiatives to develop Central Asian rail freight including the United Nations, EU, ADB and the European Bank for Reconstruction and Development. Already in 1992, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) had formed the Asian Land Transport Infrastructure Development program, within which the Trans Asian Railways department deals with rail development (Chartier 2007).

The ADB also began transport project assistance to Central Asian economies in 1996, and the Central Asia Regional Economic Cooperation Program (CAREC) was formed within the ADB in 1997 (ADB 2000). CAREC is much more important for Central Asian economic development than China's recent BRI projects. By 2019, CAREC had

completed 341 projects and had 173 ongoing projects with a total value of USD 34.5 billion, of which USD 26.1 billion was transport-related.

Conclusion

China's introduction of the BRI has put a spotlight on Central Asian geoeconomic and geopolitical analysis. In this research note, we have shown that China has indeed become a more important trade and investment partner for the Central Asian region. However, despite less visible programs, media or research coverage, the EU remains the region's most important external partner notwithstanding the greater geographic distance. China's trade activities in the region could conceivably begin to displace Russia's regional trade share, but in terms of foreign direct investment, China still lags behind Russia, and both are far less important than the EU.

International trade patterns have had significant influence on regional rail freight development. The region's rail freight traffic has improved considerably over the past two decades. However, the major driver of this change was not traffic flows to and from China, but rather transport to and from Russia. New transport corridors were opened to Iran and Afghanistan, and the trans-Caspian rail ferry to Azerbaijan was modernised. Moreover, despite major investments in new rail corridors within the region, the vast majority of transport routes are the same as in Soviet times, and these still gravitate towards Russian trade – and beyond it towards Europe. The rail connections to China are underutilised, and the BRI flagship project CR Express plays only a marginal role in regional rail transport.

Rail infrastructure developments in Central Asia have largely lacked international institutional cooperation and coordination. The first attempts at trans-regional rail development initiated by the EU in the 1990s had little significant impact. The ADB brought greater funding and a common development framework, while the initiation of CAREC by the ADB in 1997 has played the most important role in the facilitation of rail developments in Central Asia. CAREC finally began to coordinate infrastructure development and to continuously track the state of major transport corridors in the region. CAREC's work has also included soft transport policy development such as simplifying custom procedures, streamlining bureaucracy and making border crossings faster and less costly – these are still the major challenges for regional transport development today.

China has thus far played a very limited role in regional rail transport infrastructure development, and even after the introduction of BRI, China has provided virtually no funding for new projects in the Central Asian region. Similarly, in the multilateral institutional field, China has had almost no influence, principally engaging within the region on bilateral bases. China has not helped to further regional cooperation, but has often worked in parallel to existing projects, as competitors for the same traffic flows, such as in the proposed China-Kyrgyzstan-Uzbekistan line, which would only divert traffic from the already underutilised Khorgos border crossing. In the past two decades, trade ratios have indeed shifted from Russia to China from the five Central Asian countries, but transport infrastructure development has not been facilitated by China. BRI has not financed, encouraged or had any substantial effect on Central Asian rail infrastructure development or traffic flows. The individual nations through their individual transport policies and multinational institutions such as TRACECA and CAREC have led development of regional railway capacity since the five Central Asian states' independence.

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NOTES

- 1 Modal share refers to the share of freight carried by different modes of transport: ship, rail and road (measured by tonne-km).
- 2 Transport data is available from international databases for Turkmenistan up to 1998 by UNECE. National statistics are not available online. From

the OSJD statistical bulletin series data is available up to 2016. National statistics are public data for the other four Central Asian republics, Kazakhstan: <https://stat.gov.kz/official/industry/18/statistic/8> Kyrgyzstan: <http://www.stat.kg/en/opendata/category/229/>; Tajikistan: <https://www.stat.tj/en/database-real-sector>; Uzbekistan: <https://www.stat.uz/en/open-data>.

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