



Is the Iron Silk Road Really So Important? Rail Freight Use on China's “Silk Road Economic Belt”

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CR Express containerised rail transport between Europe and China is a flagship project of China's “Belt and Road”. Yet operational and financial details of the project remain scarce. Due to poor governance and logistics transparency, the actual quantity of containers and goods transported is essentially unknowable. The authors doubt the efficacy of the *CR Express* intercontinental rail system and test its real and possible capacity throughputs. In the article they compare China public media statements with European Union statistics and reveal discrepancies between the number of trains supposedly departing China and the number of trains arriving in the European Union. This article provides numerous data sources and estimates on China–Europe rail freight traffic and demonstrates that the actual transported quantity of goods is probably lower than anticipated or reported. The article also analyses the political development of the *CR Express* rail freight system and China's wider “Transport Power” policy. It concludes that while the political concept of the *CR Express* rail freight system is progressive, and the economic development of creating new cumulative causation systems is theoretically possible, that the evidence for actual economic use is underwhelming. This research helps European Union, Russian, and Central Asian policymakers better assess the viability of participating in the continued rollout of China's *CR Express* intercontinental rail freight system. The authors warn that while the *CR Express* system has potential to be an economic good for Central Asian development it exposes the Eurasian economies to China's political and financial risk. For China the *CR Express* system fulfils only geopolitical and geoeconomic functions, and ultimately participation in the policy is of minimal utility to European Union economies.

Keywords: transport policy, economic geography, political geography, geoeconomic policy, railway infrastructure, containerised transport, industrial policy, Eurasian economic integration, *CR Express*, Belt and Road

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In 2011 The People's Republic of China (PRC) embarked on an ambitious national strategy to develop intercontinental rail links to Europe – the “Iron Silk Road”¹. Faced with the prospect of declining industrial domestic production, particularly from 2012-2013 onwards, a need to transition to a consumption and import-driven economy, and faced with a hostile Pacific trade bloc policy interpreted by Beijing as containment, China sought to reignite transcontinental rail freight trade to diversify import sources, later co-opted into the “Belt and Road” Eurasian geoeconomic policy. Micro to macro, policy implementation was to be through the “Iron Silk Road” rail freight development policy, implemented in a grander vision of the “New Silk Road Economic Belt” (丝绸之路经济带 *Sichou zhi lu jingji dai*) across Eurasia and the wider still Eurasian-Indian Ocean trade and geointernational policy of “Belt and Road”.

In 2016 the National Development and Reform Commission (NDRC) deployed a *China Railway Express* (中铁快运 *Zhongtie kuaiyun*) (*CR Express*) development policy to bring together the disparate Eurasian rail services offered by local governments, rebrand them into a single product, and help to coordinate the national intercontinental rail system². The two new Eurasian rail classes introduced under *CR Express* were *China-Europe Class Rail* and *China-Central Asia Class Rail*. Both categories are clumped together into the intercontinental framework of *CR Express*, essentially a central government brand name and policy coordination framework that the intercontinental rail freight infrastructure is organised under. *CR Express* is marked on twenty-foot-equivalent container units (TEU) to look like iconic containers such as Maersk and Evergreen. This Eurasian rail link is branded under a central *CR Express* policy but in reality is deployed by provincial and prefectural level governments.

On the China side, rail freight has been in a Kaldorian cumulative causation reflexive feedback loop for 70 years as rail was used as part of the Mao-era heavy industry prioritisation economic development strategy, principally in a coal-electricity-steel feedback loop (Huenemann 1984; Huenemann 1993; Huenemann 2001). Turning China's domestic rail freight network to face abroad is not so difficult with political will but does involve significant domestic institutional reform. Development of the international *CR Express* system will mean major reorganisation of the domestic freight system, and there remains severe tangling of lines and services going east-west, whereas there is currently a freer flow in domestic south-north carriage, by institutional design.

China's central policy of a Eurasian rail freight macro-project spanning multiple geographies requires significant institutional and enterprise reorganisation and spatial

¹ China PRC Central Government Portal. 2011. Rail Freight from Port of Antwerp, Belgium to Chongqing, China Officially Opened. 10 May. URL: http://www.gov.cn/jrzq/2011-05/10/content_1860646.htm (accessed 24.10.2020); First Test of Chongqing - Xinjiang - Europe International Railway Corridor from Chongqing to Moscow in 11 Days. *Sina News*, 29 Jan. 2011. URL: <http://news.sina.com.cn/c/2011-01-29/031121893620.shtml> (accessed 12.03.2020) (in Chinese); van Leijen M. Duisburg-China Traffic Quadrupled Since Regular Silk Road Train. *Rail Freight*, 15 March 2015. URL: <https://www.railfreight.com/corridors/2018/03/15/duisburg-china-traffic-quadrupled-since-regular-silk-road-train/> (accessed 24.10.2020)

² NDRC. 2016. China - Europe Class Rail Construction and Development Plan (2016–2020), 8 October 2016. URL: <http://zfxgk.ndrc.gov.cn/PublicItemView.aspx?ItemID=%7B6b49bf1d-ec80-4d08-8673-124fa15bed54%7D> (accessed 24.10.2020) (In Chinese)

planning. While industrial organisation on the China side is a soluble policy issue, the long-term economic viability of the project is dependent on both import demand from Europe, and on European exports to China. This two-way trade dynamic with Europe means that China cannot plan centrally production and trade and must engage with open market institutions on the European Union side. The larger problem remains which goods to effectively transport on this rail corridor as it is not clear which classes of goods would benefit from a transport system quicker than ship but cheaper than air freight.

It used to be that China's trade policy was centred on exporting manufactures to Europe and the US. China is now attempting to transform into a net importer, aiming for greater two-way trade, with institutional development of import channels and presumably a diversification of exports as China rises up the global value chain. This does mean that in the long run there is policy space for additional rail freight carriage. However, in contemporary market reality, there is simply not the two-way trade demand to justify a Europe - China rail freight bridge.

Against the China state-media hype, the China policy record and various statistical collections on the European Union side might be examined. China state media claims that there are a lot of trains, a lot of cargo and a lot of potential capacity - a Schumpeterian expectation management technique designed to invoke a Myrdalian cumulative causation investment response (Schumpeter 1942; Myrdal 1954). We tried to test the realities of the rail freight throughput on the *CR Express* system.

The study is organised into an analysis of China's macro international rail policy and the tension between central economic control and local governance autonomy; an examination of the international drivers for Eurasian rail freight development; analysis of the development of the *CR Express* class of *China - Europe* and *China - Central Asia* class rail freight; a study of the efficiency problems in *China - Europe* rail freight throughput in practice; and an examination of the real value and quantity of China rail class freight to Europe. It concludes with some warnings about the state of play regarding China's international rail freight policy for Eastern Europe and Central Asia, arguing that, while China subsidising intercontinental rail freight is a gift horse for Eurasian economic development, institutionalising an economic reliance on China's domestic industrial policy, tax and transfer policy, and wider external geosocial policy is a dangerous path for Eastern European and Central Asian economies to tread. For Europe, it is little tangible benefit in China's expanded intercontinental rail freight system.

China international rail policy – towards a “Transport Power”

The “New Eurasian Land Bridge” concept far predates the “Belt and Road Initiative”. For example, China completed the trunk line link to Kazakhstan in 1990³. At that time though there was little central policy ideology for a Eurasian transport strategy.

³ Xi S. 1997. The New Eurasian Land Bridge Concept Far Predates the Belt and Road Initiative'. *Japan Railway and Transport Review*, December URL: http://www.jrtr.net/jrtr14/pdf/f30_xu.pdf (accessed 24.10.2020)

However, by 2017 the Ministry of Commerce had released a policy statement calling for China to become a “Transport Power”. This rhetoric is not sensational, it is echoed through Party policy across a range of economic sectors. China is also policy-driven to become a “Maritime Power” (海洋强国 *Haiyan qiangguo*)⁴. The transport policy plan is to move China from being an “important transport country” (交通大国 *Jiaotong daguo*) to a “Transport Power” (交通强国 *Jiaotong qiangguo*). By September 2019 the policy has been codified into a central party document⁵. The timelines always match with wider Communist Party macropolicy: 2021, 2035 and 2049, i.e. a Five-Year Plan, a fifteen-year bloc of three Five-Year Plans and the centenary of the PRC. Contemporary policy is aligned with the “Twin Centenary Goals” (两个一百年 *Liang ge yibai nian*) of 2021 and 2049 – achieving a “moderately well-off society” by the centenary of the Communist Party in 2021 and “effectively achieving China as an economically developed power” by the centenary of the People’s Republic in 2049. These twin goals are political legitimating factors for Xi Jinping’s 40-year introduction of a “new era” of economic development from 2018, to sit on top of the 40-year reform period of 1978-2018. Compared with the domestic economic development policies bound up with the “Twin Centenary Goals”, the “Belt and Road” project is not as “vast and ambitious” as Western media cliché copy would often make out (See Table 1).

Table 1. China’s Transport Power Policy Matrix

‘Two Steps’	‘Four Forces’	‘Eight Systems’
Step 1 2020 to 2035 To become a transport power to rival other powers	Become a transport power	Comprehensive transport infrastructure network system
		Transport equipment system
	Transform from high-speed growth to high-quality development	Transport service system
		Transport innovation and development system
Step 2 2035-2049 To become a global transport power	Serve people responsibly	Open transport cooperation system
		Transport support system
	Modern, open, green transport system	Modern transport governance system
		Transport safety development system

Source: Compiled by the authors

The Ministry of Commerce *Transport Power* policy is written in conventional China policy numerological terms: Two Steps, Four Forces and Eight Systems (两步走 *Liang bu zuo*, 四梁八柱 *Si liang bazhu*, 八大体系, *Bada tixi*)⁶. The plan echoes

⁴ Zhang Y.Q., Ye Z. 2017. ‘China’s Pulse’ in the Era of Big Transport (From a Large Country to Powerful Country) [大交通时代的“中国脉动” (从大国到强国)], *People’s Daily*, 21 December. URL: <http://politics.people.com.cn/n1/2017/12/21/c1001-29720395.html> (accessed 24.10.2020) (In Chinese)

⁵ Central Committee of the Communist Party of China. 2019. ‘Outline for Development of Transport Power’ *Xinhua*, published 19 September. URL: http://www.xinhuanet.com/politics/2019-09/19/c_1125016261.htm (accessed 24.10.2020) (In Chinese)

⁶ Ministry of Transport PRC, Transport Planning and Research Institute (2016) *Rail-Based Intermodal Transport in China: Current Status and Challenges*, United Nations Economic and Social Commission for Asia and the Pacific EGM. Bangkok,

other sectoral industrial policies in calling to transform from “high-speed growth” to “high-quality growth” as China tries to orchestrate a state-driven response to naturally decelerating economic growth levels and necessary environmental remediation and consumer quality controls.

As usual, it is possible to trace extant State Council ministerial policy back to an ideological essay in the Party journal “Qiushi”. In 2018 “Qiushi” published an article giving guidance on the development of China as a *Transport Power*⁷, with predictable Party doctrine rhetoric: “first, fully understand the great significance of building a strong transport country; second, accurately grasp the overall requirements for building a strong transport country; third, build a framework system for a transport power”⁸.

One of the main macro policy challenges is to integrate the intercontinental rail strategy with the dynamics of China’s changing economy. China ultimately needs the Belt and Road economic sphere of influence to encourage an import-driven Eurasian trade axis geospatial and trade policy (Kenderdine 2018a). As yet there are few trains coming back into China from Europe. Coupled with the *International Capacity Cooperation* policy of offshoring industrial production to external economies, there could be greater industrial commodity and manufacturing output along the Belt and Road economies to service imports back into China from Central Asia and the Middle East (Kenderdine, Han 2018). As long as China continues subsidising the return rail journeys, the European goods imported can begin to diversify and China can move away from the charge of running a “one-way trade policy”⁹. Cross-border e-commerce is slated to plug the export-import gaps in the current trade strategy¹⁰. Through development of smart logistics and electronic customs clearance systems, China also hopes to encourage greater volumes of small-scale cross-border trade. A planned rail-postal service for cross-border e-commerce combined with China’s strengthened domestic e-commerce governance and Chinese electronic payment systems are designed to effectively expand China’s trade influence into Central Asia.

Kazakhstan is the policy linchpin (Kenderdine 2018b), both to the *CR Express* rail freight project as well as the wider Belt and Road trade strategy. The Silk Road Economic Belt is the frontline trade policy for Xi Jinping’s globalised China¹¹. But ultimately the real challenge is that China is organising this cross-border rail freight in the

30-31 August, 2016. URL: https://www.unescap.org/sites/default/files/China_Rail-Based%20Intermodal%20Transport.pdf (accessed 24.10.2020)

⁷ Yang C.T., Li X.P. 2018. Strive to Open a New Journey to Build a Strong Transport Country [奋力开启建设交通强国的新征程], *Qiushi*, 22 February. URL: http://www.qstheory.cn/dukan/qs/2018-02/15/c_1122402281.htm (accessed 24.10.2020) (In Chinese). Note: Yang Chuantang was at the time Ministry of Transport Party Secretary and Li Xiaopeng was Deputy Party Secretary

⁸ Ibid.

⁹ Kenderdine T. 2017b. China’s Industrial Capacity Policy is a One-Way Street. *South China Morning Post*, June 8 2017. URL: <https://www.scmp.com/business/banking-finance/article/2097524/chinas-industrial-capacity-policy-one-way-street>

¹⁰ China-Europe Railway to Drive Cross-border E-commerce. *Xinhua News Agency*. 25 October 2016. URL: http://www.xinhuanet.com/english/2016-10/25/c_135780112.htm (accessed 24.10.2020)

¹¹ Chen Z.J., Liu Y.Q., Ji W., Miao Z., Ma M.L., Li Y. 2016. „Belt and Road”, When Dreams are Realised, *Xinhua* 24 January. URL: http://www.xinhuanet.com/politics/2016-01/24/c_1117875268.htm (accessed 24.10.2020) (In Chinese)

same manner as it would spatially plan a new domestic industrial policy (Kenderdine 2017). All the mechanisms seen thus far make the *CR Express* project look very much like previous domestic rail reforms, such as the Four Vertical, Four Horizontal rail freight line untangling reform or the Speed-up policy from the late 1990's.

While the central spatial planning may appear grand strategy, the disjointed realities at the subnational level demonstrate how difficult coordinating a Eurasian rail freight policy will be (for example, the principal geographic regions for two-way rail freight channels are in central China, Chongqing, Wuhan, Chengdu, Zhengzhou). For Central Europe it is convenient, while for Central Asian economies wishing to export goods to China and to onwards using China's seaboard, the inbound rail freight channels are optimised for transit to Liangyungang port in northern Jiangsu – effectively the opposite end of China's industrial geography. These different regions have very different local governance structures and state-market institutional interactions. Deregulation from the planned economy era has meant that different provinces have taken different institutional paths towards marketisation, generally the provinces with more immediate access to foreign markets have the most institutionally sophisticated public and private sectors. While the inland Central China provinces where the *CR Express* system is centred are stalwart command economy public structures. Overlaid on this is that these different regions of China currently have different macro regional spatial planning policies. The Central China core of the *CR Express* falls under the “Yangtze River Economic Belt” economic development plan, while the sea and land ports of Jiangsu and Zhejiang fall under the “Yangtze Delta Economic Zone”. As these macro spatial plans develop over time, future institutional path-dependencies will be built into the industrial geographies that the *CR Express* system must work within. This will add to the institutional and government burden that the *CR Express* system has inherited from historical path-dependencies of industrialisation policy. Overcoming these local governance and industrial geography issues will be a greater problem in policy implementation than the trade and industry integration with the external economies in Central Asia, Eastern and Central Europe.

Ultimately though, replacing maritime trade with international rail transport is unlikely to occur in large volumes to warrant the money spent to subsidise a system that was only ever meant as a political mechanism to avoid containment trade blocs in the Pacific and to spread Chinese influence into new economic spheres through Eurasian continental trade policy. As China's industrial growth-driven economy has peaked and begun to slow, so too has the volume of domestic rail freight throughput, this should be an indication that intercontinental rail freight potential is limited by the same growth bottlenecks.

China's domestic drivers for Eurasian rail freight development

Untangling the domestic rail system and realigning newly created rail freight capacity as coal transport demand declines are both key policy drivers to developing an international rail system. The economic factors at play in China's domestic rail system

are important in understanding the drivers and limitations of the international rail freight policy.

China’s domestic rail freight growth rate was reasonably steady through both the planned economy decades 1949-1978 and the reform period of 1978-2018. In other words, despite hyperbolic industrial growth rates through the “miracle industrialisation” after “Reform and Opening”, rail freight throughput increased steadily as the coal-steel-rail nexus continued to expand under state control.

However, the past five years’ domestic rail freight throughput in China has been changing. 2012 was really the high-water mark for the GDP-led growth model. 2013 also saw the high-water mark of the reform-era. Domestic rail freight volumes declined too, continuously from 2012 to 2017, ending a rail-freight growth trend much longer than China’s “Reform and Opening” - dating back to essentially the reindustrialisation and re-railroading of China from 1949. From 2012 gross rail freight declined year on year for five years until it began to pick up again in 2017¹².

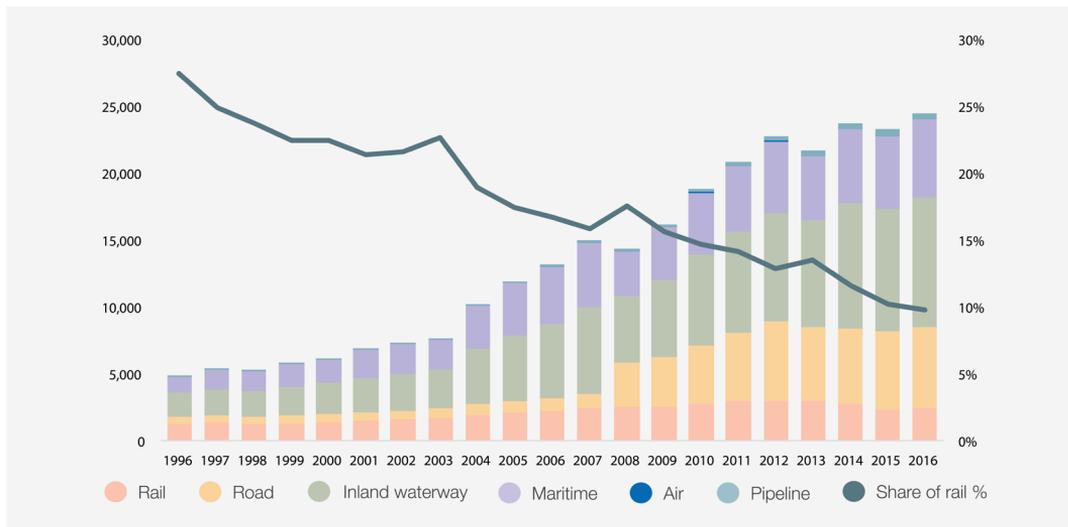


Figure 1. China freight by mode of transport; transport volume in ton-km (billion ton-kms)

Source: National Bureau of Statistics

Another important institutional factor is that China’s domestic rail freight has been concentrated in the transport of bulk cargo, not containerised cargo. Coal is the most important good transported by rail, making up around 39 % of total transport volumes. Intermodal transport has been so low that it is not even included in aggregate statistics (intermodal freight transport is moving containers on multiple transport systems e.g. road, rail, ship). In the case of China, intermodal transport can be fully

¹² Sun L.Z., Mo Y.L. 2018. Railway Operator Aims to Grow Freight Volume by 30%. *Caixin*, 4 July. URL: <https://www.caixin-global.com/2018-07-04/railway-operator-aims-to-grow-freight-volume-by-35-101292633.html> (accessed 24.10.2020)

interpreted as the transport of containers solely by rail, as other technologies – like piggyback transport, the transport of (semi) trailers and/or trucks by rail, etc. – are not in use in the country. The volume of bulk goods handled by China’s ports in 2016 was 55 % of the total traffic whereas for rail it was 80 %. This demonstrates that the transport industry is focused on bulk goods and not on the more complex intermodal transport modes (See Figure 1).

The very high share of coal transport in overall transport volume in China has unique reasons. First, China is the biggest producer of electricity in the world, and coal power plants account for 58 % of installed electricity generating capacity. There is, however, a major mismatch between coal production and consumption: the main mines are in the inner part of the country, with consumption concentrated on the coast (Wang, Ducruet 2013). Coal production was still growing until 2017, but is expected to stagnate in the future, given declining industrial growth, a changing energy mix, and adherence to domestic and international climate change mitigation and remediation commitments. There are already bottlenecks in the transport system. 60 % of all coal is transported by rail, 30 % by water and 10 % by road – since the 1980s, dedicated rail lines have been constructed solely for coal transport (Wang, Ducruet 2013).

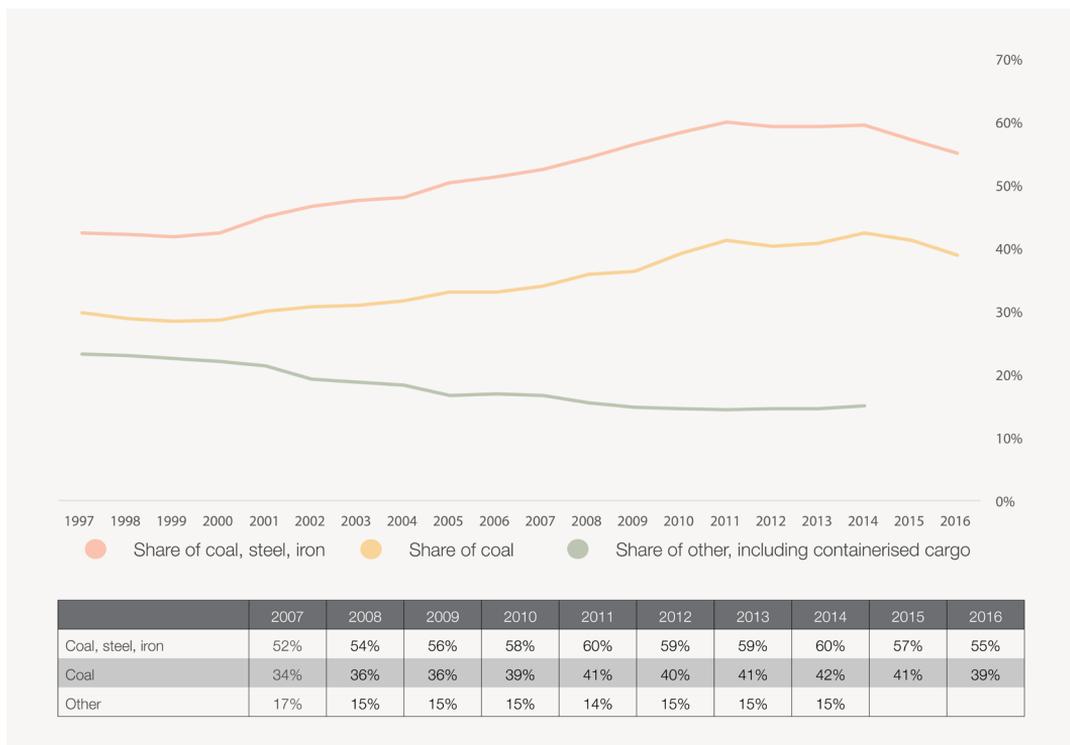


Figure 2. China freight by commodity type; transport volume in ton-km (billion ton-kms)

Source: National Bureau of Statistics

The motivation for developing a Eurasian railway corridor network thus has numerous internal drivers on the China-side. Domestic rail transport output started declining after 2012 and never fully recovered; rail freight usage is heavily dependent on the transport of coal, which is falling; and other sectors of the economy tend to use other modes of transport (due partly to the lack of containerisation in the rail freight system). As such, domestic rail transport is declining in the modal split of the country, as more non-industrial enterprises use trucks, and the rail-port intermodal usage remains ridiculously low. International container transport by rail is a good way to measure rail transport output, but even with high growth rates it cannot compensate for the main driver behind the decline: shrinking demand for coal and so for coal transport. There is thus a monumental domestic policy driver which changes the fundamental dynamics of China's domestic rail transport. This shrinking coal transport demand creates new capacity to alter the utilisation of China's domestic rail system, hence the policy of rerouting rail freight throughput Westward towards the New Eurasian Land Bridge (See Figure 2).

However domestic container traffic and intermodal transport to ports have been underdeveloped in China. This is well understood by government, and in the 11th Five-year Plan in 2006 the development of intermodal transport became a key priority¹³. In 2011 five freight rail corridors between the inland and maritime ports were set up¹⁴. These transported 1.54 million Twenty-foot Unit Equivalents (TEUs) in 2015 – a very limited amount as 189 million TEUs were handled in China's seaports in the same year. In total, all intermodal rail corridors carried only 0.8 % of the containers handled by maritime ports. In a 2010 study it was calculated that 1.3 % of the total maritime container output was moved to/from ports by rail (Liu et al. 2013).

This means there is a huge potential to change to more efficient, more environmentally friendly forms of transport within the country. There are only 39 major intermodal hubs in the country for railway container handling (Wei, Sheng, Lee 2017). The situation of the sea terminals is also striking: in 2010 there were only 10 ports nationwide using rail-waterborne intermodal transport operations from approximately 135 government-approved ports in the country (Blancas, Ollivier, Bullock 2015). In comparison, there are 385 intermodal rail terminals in the European Union¹⁵.

In 2015, the World Bank carried out a study on the rail container market in China and concluded that there would be demand for intermodal rail transport, but that the supply-side is lacking the basic characteristics which would be needed (Blancas, Ollivier, Bullock 2015). China is, on the other hand, a world leader in containerised

¹³ Yang J.Q. 2009. Towards the Restructuring and Co-ordination Mechanisms for the Architecture of Chinese Transport Logistics, unpublished PhD thesis Erasmus University. URL: <https://repub.eur.nl/pub/14527/EPS2009157LIS9058921987/JiaqiYang.pdf> (accessed 24.10.2020)

¹⁴ Ministry of Transport PRC, Transport Planning and Research Institute. 2016. Rail-Based Intermodal Transport in China: Current Status and Challenges, United Nations Economic and Social Commission for Asia and the Pacific EGM. Bangkok, 30-31 August. URL: https://www.unescap.org/sites/default/files/China_Rail-Based%20Intermodal%20Transport.pdf (accessed 24.10.2020)

¹⁵ Agora Intermodal Terminals Database 2018. URL: intermodal-terminals.eu (accessed 24.10.2020)

transport, but only internationally and by sea. The rail transport of containers was never a priority in China's domestic economy, and these trains would need reliable timetables and relatively fast travel times - neither really feasible in the current China Railway Corporation (CRC) structure. For the new international container services, private freight forwarding services cannot safeguard the quality of trains as they are all relying on the services of the state CRC subsidiary: *CR Express*.

Over the past decade, domestic policy priorities and resource allocation for rail development have been concentrated in the development of the massive, close to 30.000 km long, high-speed rail network. This means that freight transport received less funding and policy attention, but it also freed up substantial capacity on the existing conventional lines for freight transport. Overall though, the very fast rate of growth for high-speed rail has had negative effects on domestic freight systems. With the same amount of investment, more conventional lines could have been built with the value of freight time savings having more positive macroeconomic effects (Wu, Nash, Wang 2014). As China's rail network is one of the most utilized in the world and has serious capacity problems, for the transport of more goods by rail, less high-speed rail development would have been much more effective in developing rail freight infrastructure. In the case of long distances, even low-cost-carriers could have solved consumer travel needs in a more efficient way than high-speed rail (Wang, Xia, Zhang 2017).

All this means that there are now serious institutional blockages to the rapid development of a viable international rail freight system. Existing domestic rail freight throughputs were developed to maximise bulk coal carriage. Existing domestic rail networks are tangled, unreliable, and still mostly optimised for south-north carriage, not east-west carriage. Containerised rail transport is severely underdeveloped as bulk carriage was the preferred throughput. There are few intermodal hubs and poor port connections. And rail freight has received little government policy attention while high-speed passenger rail was the policy priority over the past ten years.

China – Europe and China – Central Asia class rail freight

In 2016, National Development and Reform Commission brought all Western outward rail container services from China under the common branding of *CR Express* (Zhao et al. 2017). This intercontinental rail freight system is centred on two new classes of China rail freight carriage: *China – Europe Express Class* carriage and *China – Central Asia Class* carriage. Both are essentially part of the same policy and both mostly cross Central Asia, particularly Kazakhstan. The categories are *China – Europe Class Trains* (中欧班列 *Zhong ou ban lie*) often shortened to simply 中欧班 *Zhong ou ban*; and *China – Central Asia Class Trains* (中亚班列 *Zhong ya ban lie*), colloquially 中亚班 *Zhong ya ban*.

All *CR Express* trains and their containerised traffic are organised into these two rail freight classes. This is really a two-part consolidation process by the NDRC, one to organise the disparate local government processes for establishing and running inter-

national rail freight services, and also to integrate the international system with the domestic rail class system. As of May 2017, there were 51 lines of operation, with the number of participating China cities raised to 27, and 28 cities in 11 countries in Europe.

In terms of the international aspect of the *CR Express* system, China has laid out five routes on three trunk lines: An ‘East’ trunk line runs from the Eastern China provinces into Russia’s Far East and then along the old Siberian railway. A ‘Central’ line runs from the Central China provinces north into Mongolia joining up with the Siberian route. And then the main ‘West’ trunk line splits into three separate routes: ‘West 1’ across Kazakhstan to Moscow, ‘West 2’ across Kazakhstan to the Caspian Sea to the Caucasus, and a planned ‘West 3’ from Kashgar to Kyrgyzstan and then through Uzbekistan to Iran and Turkey. The three most important lines for the *CR Express* China-Europe and China – Central Asia trade are the old ‘East 1’ and the new ‘West 2’. The ‘East 1’ trunk line is simply the old Trans-Siberian railroad ex-Manchuria: Manchuria through Russia to Moscow to Berlin. The extant ‘West 2’ Khorgos/Alashankou to Kazakhstan to Moscow to Berlin line is the real testbed for the current *CR Express* system. While the ‘West 3’ is a planned ex-Kashgar route to the Fergana Valley through Kyrgyzstan and on to Iran, and ultimately Istanbul. This trunk line is the most geopolitically ambitious and potentially transformative. However, this West 3 line is also logistically the most difficult, requiring significant Chinese construction, investment and ongoing government coordination with Kyrgyzstan, Uzbekistan and Iran, making its future operational prospects slim and its utility limited (Buscky, Kenderdine 2020).

The two *CR Express* international rail freight classes are mostly clustered around Central China terminals. The principal Eurasian rail terminals are Chengdu and Chongqing, but along with the Wuhan transport hub, a Central China cluster emerges of Chongqing, Sichuan, Shaanxi, Henan and Hubei. Lianyungang and Yiwu are both naturally eastward facing sea and land ports respectively that have been policy recommissioned to face west for rail container transport. The Lianyungang connection is part of a policy promise to open a sea port to the Kazakhstan government. From the *CR Express* terminals there is clear development of a Central China – Central Asia transport policy, with Lanzhou in Gansu naturally streamlining all Westward freight flow (See Table 2).

Table 2. Major West Trunk Line China – Europe and China – Asia CR Express Schedule Freight Lines

No.	Domestic Outbound	Border Crossing	International Inbound	Trunk
1	Chongqing	Alashankou, Khorgos	Duisburg, Germany	West
3	Zhengzhou		Hamburg, Germany	
5	Chengdu		Lodz, Poland	
6	Wuhan		Pardubice, Czech Republic	
7	Wuhan		Hamburg, Germany	
11	Yiwu		Madrid, Spain	
14	Lanzhou		Hamburg, German	

No.	Domestic Outbound	Border Crossing	International Inbound	Trunk
16	Lianyungang	Alashankou, Khorgos	Almaty, Kazakhstan	West
18	Qingdao			
19	Urumqi			
20	Xi'an			
21	Hefei			
22	Jinan			
23	Dongguan	Erenhot	Hamburg, Germany	Central
4	Zhengzhou		Ulaanbaatar, Mongolia	
15	Beijing—Tianjin	Manzhouli	Cherkessk, Russia	East
2	Chongqing		Tomsk, Russia	
8	Wuhan		Warsaw, Poland	
9	Suzhou		Brest, Belarus	
10	Suzhou		Hamburg, Germany	
12	Shenyang		Baikal, Russia	
13	Changsha			
17	Yingkou			

Source: Compiled by the authors

There are freight timetables from other major Chinese terminals too with an idea of how many trains would depart China, and a clear set of European terminals. The problem remains one of viable volume. The cost per TEU container is still too high to attract much interest without politicised subsidies, meaning that once central subsidies dry up, the system could remain economically unviable. US \$6300 per container from Lianyungang to Istanbul via the ‘West 2’ line is still too expensive for most goods compared with maritime transport rates¹⁶.

The most prominent international rail freight services to date have been developed by local governments, despite the nominally central coordination under the 2016 *CR Express* policy document from the National Development and Reform Commission¹⁷ (See Figure 3). They have emerged more organically and practically than some of the more aspirational routes on the macro policy.

The *CR Express* policy essentially extends the domestic China railway system to external geographies, rather than developing a true international partnership model. Probably the most complicated part of the freight carriage reform is still reorganising the domestic Chinese rail network. China’s railway network is very convoluted. There are dedicated channels that cross the country, such as the *Four Vertical-Four Horizontal* main channel system. But the reality on the ground is a lot of old track, and a lot of overlapping interests. Introducing two new international freight classes into this system is not simple.

¹⁶ Kenderdine T. 2018. Caucasus Trans-Caspian Trade Route to open China Import Markets. East Asia Forum, 23 February. URL: <http://www.eastasiaforum.org/2018/02/23/caucasus-trans-caspian-trade-route-to-open-china-import-markets> (accessed: 24.10.2020)

¹⁷ China – Europe Class Rail Construction and Development Plan (2016–2020). 8 October 2016. URL: <http://zfxxgk.ndrc.gov.cn/PublicItemView.aspx?ItemID=%7B6b49bf1d-ec80-4d08-8673-124fa15bed54%7D> (accessed 24.10.2020) (in Chinese)

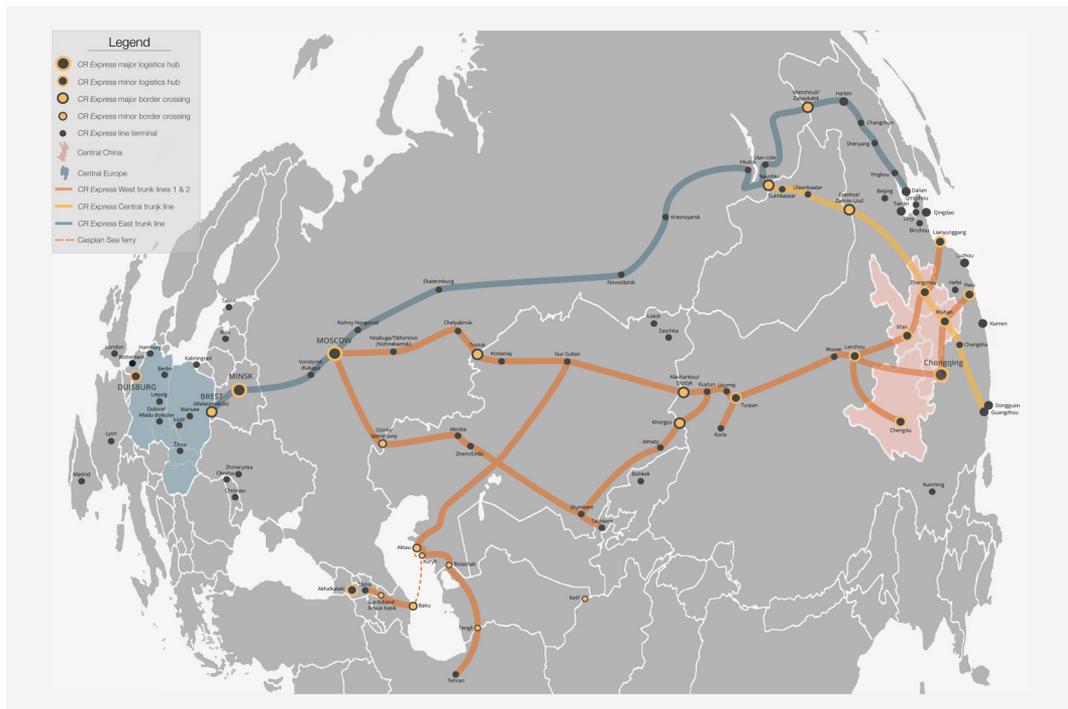


Figure 3. CR Express Europe and CR Express Central Asia trunk lines, terminals and major logistics centres

Source: Sino-Euro, Sino Asia Cargo Railway (2018). Central Asia International Rail Class. URL: <http://cn.cetrains.com/post/services/logistic-service.html> (accessed 24.10.2019)

In two-way trade terms, the biggest problem for China is not the subsidisation of domestic rail freight routes directed outwards towards new trade partners, but what to import back to make these routes even remotely viable as bilateral trade channels even with heavy government subsidies. Ultimately, China is hoping to transfer agro-industrial and industrial capacity to Central Asia, Caucasus, Russia, and the Middle East (Kenderdine, Lan 2019). China’s long-term policy is thus to use these rail freight routes to reimport products from its “Belt and Road” industrial investments into China such as agricultural commodities, raw metals, semi-finished metal commodities, and finished manufactured products. However, for now the system remains heavily subsidised by both central and local government with little import value. To increase rail freight from 64.000 gross TEU boxes in 2014 to 500.000 in 2018 between China and Kazakhstan, or to develop the Trans-Caspian corridor from 100 TEU in 2015 to 300.000 in 2020 (both policy announcements) is going to take significant investment on the China side.

Ultimately the above policy commitments might be considered unconvincing, that the China-Europe *CR Express* rail class has long-term structurally transformative effects on host economies in Europe or on China itself. At the same time the development impact for Central Asian economies, if Chinese investment and government

subsidies are maintained, may be more promising given the lack of maritime transport alternatives. However, there remains the problem that “Belt and Road, Iron Silk Road, Silk Road Economic Corridor” and *CR Express* are all just Chinese central government policies. Without strong political communication between China and partner economies, any future trade integration on China’s Eurasian periphery will continue to isolate China’s trade partners rather than to meet them half-way¹⁸.

Efficiency problems with current China–Europe trains

The introduction of the “Belt and Road” initiative in 2013 created a media spotlight for the intercontinental class rail freight system. However, most China media reports only communicated the number of new trains and new cities serviced. The low load factors and the low profit margins of *CR Express* trains are less well-known.

These trains receive state subsidies, not only at the national level, but also from provincial and prefectural city governments. This has led to competition between cities and already more than 30 cities have rail connections to Europe and Central Asia. This does not seem like an optimal situation in terms of industrial layout. In a consolidated cargo centre model it has been shown that fewer hubs would be more efficient. Hub terminals would be ideal in Xi’an, Taiyuan, Zhengzhou, Wuhan, and Suzhou – only a fifth of current hubs (Zhao et al. 2017). Zhao et al. also conclude that within China, road freight is usually preferable to rail, due to the shorter distances and also the problems with intermodal transport within China.

Unless freight forwarding, road transport and inland waterways transport are liberalised with numerous companies competing, the rail freight market is still in the hands of the state-owned China Railway Corporation. Ironically the flagship *CR Express* trains to Europe were able to be developed due to the fact that more and more private freight integrators approached the rail market, offering integrated, door-to-door services for consumers (Lam, Gu 2016).

In China, container trains are operated by logistics companies: these are usually owned by city or provincial administrations, but there are some privately owned companies. These corporations are in contact with consumers that can be either exporters or importers of goods both in China and Europe. These companies collect transport fees and buy services from railway corporations, dry ports, customs clearance companies, etc. The trains are then physically transported by China Railway and its subsidiary *CR Express*.

In Europe, different logistics companies and/or railway companies are partners of the China logistics companies. In Kazakhstan, Russia and Belarus the state-owned railway companies («Kazakhstan Temir Zholy» KTZ, «Российские железные дороги» RZD, «Белорусская железная дорога» BZD) and their subsidiaries are in charge of

¹⁸ Kenderdine T. 2016. China’s Multilevel Governance Problem – Policies Lost in transmission in Central Asia Policy Forum, 21 November. URL: <http://www.policyforum.net/chinas-multilevel-governance-problem/> (accessed 24.10.2020)

transport, which makes it easier to handle as less stakeholders are involved. In Russia too, «Transcontainer» is a major stakeholder in the transport mix.

These different stakeholders represent multiple interests. Countries outside China would like to see the higher value-added logistics processed within their country - the re-organisation of wagons to different destinations, and transshipment. Chinese cities are competing with each other to attract more traffic to their freight lines, and are not interested in the consolidation of trains from different origins within China. This is the opposite of what we would expect in a central spatially planned transport industrial policy. So China’s hybrid of central planning and subnational competition can be read as the worst of both worlds.

Table 3. Example of TEU container rates offered ex-China by China logistics companies

Exit port	Terminal	Country										Domestic segment tariff reference	
			Wide track section (40')			European section (40')			Total foreign section (40')			Euro Oubound	Euro Inbound
			Distance km	Class price	Box price/km	Distance km	Class price	Box price/km	Distance km	Class price	Box price/km	Box price/km	Box price/km
Alashankou	Duisburg	Germany	5692	3950	0,694	1350	950	0,704	7042	4900	0,696	0,6	0,55
Alashankou	Hamburg	Germany	5692	3950	0,694	1100	950	0,864	6792	4900	0,721		
Erenhot	Hamburg	Germany	7954	3500	0,441	1100	950	0,864	9054	4450	0,491		
Alashankou	Rhodes	Poland	5692	3950	0,694	315	860	2,73	6007	4810	0,801		
Alashankou	Warsaw	Poland	5692	3950	0,694	205	700	3,415	5897	4650	0,786		
Manzhouli	Warsaw	Poland	7739	3200	0,413	205	700	3,415	7944	3900	0,491		
Alashankou	Pardubice	Czech Republic	5692	3950	0,694	870	1490	1,713	6562	5440	0,829		
Alashankou	Madrid	Spain	5692	3950	0,694	3150	7300	2,317	8842	11250	1,272		

Source: based on Silk Road News website which is no longer available online (URL: <http://silkroad.news.cn/tags/silubanlie.shtml> (accessed 24.10.2020))

For a thorough understanding of the *CR Express* system, further research is needed on the central subsidy funds to the provincial and prefectural governments and their distribution to state and non-state enterprises that makeup the rail freight industry. Such systematic analysis of China's public procurement and state subsidy system is beyond the scope of this study. However the total annual amount of subsidies has been estimated at USD 300 million by Jakóbowski, Popławski, and Kaczmarek¹⁹. These subsidies are very important to the functioning of the system. The USD 300 million aggregate can be broken down to around USD 100.000 per train or USD 2.000 to 4.000 per container (on average USD 2.500). This is in line with information obtained by interviews by Bucsky in China: up to 50 % of the transport costs are currently reim-

¹⁹ Jakóbowski J., Popławski K., Kaczmarek M.. 2018. The Silk Railroad: The EU – China Rail Connections: Background, Actors, Interests. *OSW Studies*, 28 February. URL: <https://www.osw.waw.pl/en/publikacje/osw-studies/2018-02-28/silk-railroad-eu-china-rail-connections-background-actors> (accessed 24.10.2020)

bursed by local governments. As transport of containers between Europe and China costs USD 5.000-6.000 on average²⁰, a very high portion of the costs are financed by subsidies. It is questionable if any of these transport connections would be financially viable without state subsidies (See Table 3).

According to Jakóbowski, Popławski, and Kaczmarek²¹ inside information, Kenderdine private conversations with rail freight professionals in Almaty, Kazakhstan (in 2018, 2019) and Bucsky informal interviews in China (in 2018), these subsidies will be phased out in 2021-2022. According to expert interviews, this subsidy phase-out is expected to begin from 2020. As there is a high incentive to transport as much cargo as possible with the subsidies until that period, companies are incentivised to show as high a number of trains as possible. For instance: if two cities are sending cargo to Europe they can report two trains – even if these will be joined into one train on the Kazakh border or even within China.

The real value and quantity of China – Europe rail transport

There still remains a large amount of confusion and conflicting information from state media on which routes are actually in operation and what the overall logistic objective is. There is no official data available on container traffic from China, often leaving China media reports as the sole source. These reports only show the number of containers or trains, there is zero information about the value and quantity of goods transported. China media reports often give precise but isolated numbers, however the aggregates often do not add up.

Measuring the number of trains or containerised freight volumes is difficult without access to proprietary logistics systems. The Chinese data does not help and China's media reporting is disjointed and unreliable. For example, in the Chinese national media announcements for the past twelve months on China's rail freight statistics very incongruous reporting details are found (See Table 4).

A selection of media reports from “Xinhua State News Agency” gives the following information on rail trade routes: 28 Chinese cities and 29 cities in 11 European countries; 57 lines between China and Europe delivered to 121 cities in 24 countries in the European Union, Russia and Central Asia; 40 lines of China Europe rail trade; 57 routes since the China-Europe freight train services began in 2011; 43 transport hubs along the three East, Central and West routes with 43 railway

²⁰ Jakóbowski J., Popławski K., Kaczmarek M. 2018. The Silk Railroad: The EU – China Rail Connections: Background, Actors, Interests. *OSW Studies*, 28 February. URL: <https://www.osw.waw.pl/en/publikacje/osw-studies/2018-02-28/silk-railroad-eu-china-rail-connections-background-actors> (accessed 24.10.2020); Kenderdine T. 2018. Caucasus Trans-Caspian Trade Route to open China Import Markets. *East Asia Forum*, 23 February. URL: <http://www.eastasiaforum.org/2018/02/23/caucasus-trans-caspian-trade-route-to-open-china-import-markets> (accessed: 24.10.2020)

²¹ Jakóbowski J., Popławski K., Kaczmarek M. 2018. The Silk Railroad: The EU – China Rail Connections: Background, Actors, Interests. *OSW Studies*, 28 February. URL: <https://www.osw.waw.pl/en/publikacje/osw-studies/2018-02-28/silk-railroad-eu-china-rail-connections-background-actors> (accessed 24.10.2020)

lines²². This disparate reporting creates a sense of scale and importance, without creating any reliable historical record.

Table 4. Communicated train quantities on the Europe – China railway connections by the Chinese state-owned news agency Xinhua

Reported China Rail Express Direct Freight Routes Between China and Europe									
Date	News title	2014	2015	2016	2017	2018	2019	2020	
02.01.2018	Central China-Europe rail freight to surge in 2018	4000							
20/1/18	New China-Europe freight train route launched				3000	4000			
26/1/18	Over 6,200 train trips made between China, Europe in 6 years				3270	4000			
26/12/17	Cargo train service flourishes between Zhengzhou, Hamburg				3000				
13/12/17	Feature: Latvia greets first trans-Eurasia cargo train from China			2000					
11.06.2016	5,000 China-Europe cargo trains expected by 2020			1771				5000	
25/10/16	Xinhua Insight: China-Europe railway to drive cross-border e-commerce			1881					
07.03.2016	Feature: China-Europe freight trains bring vitality to ancient Silk Road	580	817						
22/4/17	Seven countries to deepen cooperation on China-Europe freight rail services	3577							
04.01.2016	China Focus: Trains linking China, Europe on the fast track	970							
18/1/16	Facts and figures about China's railway development	815							
Russian Database		156	422	243	863				
UNECE Database		344			1793				

Source: Xinhua.net (multi-year quantities are represented in joined cells)

China – Europe rail freight classes were introduced in March 2011 linking Chongqing with Duisburg. In August 2018 there was media coverage in Chinese and English of the 10,000th China-Europe freight train arriving in Wuhan from Hamburg²³. This means that presumably there were at least another 1050 trains in Q3 2018. However aside from waiting for state media updates of the grand success of so many trains, there is no publicly available database and little chance of this logistics system becoming transparent.

As most of the logistics channel development is left to provincial and prefectural-level governments, there is basically a tournament-system in place to develop intercontinental rail-freight capacity. The “Tournament System” was the characteristic governance model used to control centre-local government policy process through the

²² Liang Y. 2018. Central China – Europe Rail Freight to Surge in 2018. *Xinhua*, 1 February 2018. URL: http://www.xinhuanet.com/english/2018-02/01/c_136940071.htm (accessed 24.10.2020); Xiang B. 2017. Over 6,200 Train Trips Made between China, Europe in 6 Years. *Xinhua*, 26 December. URL: http://www.xinhuanet.com/english/2017-12/26/c_136852817.htm (accessed 24.10.2020); Zhou X. 2017. Cargo Train Service Flourishes between Zhengzhou, Hamburg. *Xinhua*, 13 December. URL: http://www.xinhuanet.com/english/2017-12/13/c_136823016.htm (accessed 24.10.2020) (in Chinese); Hua X. 2016. Facts and Figures about China's Railway Development. *Xinhua*, 18 January. URL: http://www.xinhuanet.com/english/2016-01/18/c_135021027.htm (accessed 24.10.2020); 5,000 China – Europe Cargo Trains Expected by 2020. *Xinhua*, 18 October 2016. URL: http://www.xinhuanet.com/english/2016-10/18/c_135763251.htm (accessed 24.10.2020)

²³ China – Europe Freight Trains Make 10,000 Trips. *Xinhua*, 27 August 2018. URL: http://www.xinhuanet.com/english/2018-08/27/c_137422376.htm (accessed 24.10.2020)

rapid industrialisation phase of China's economic development²⁴. It essentially simply rewards Party cadres with promotions up the centralised public administrative hierarchy for achieving provincial and prefectural level GDP growth targets. Moving these targets from GDP growth to transport throughput is a simple enough matter. However it means that the central government has very little oversight of the details at the local government level – central government simply offers the reward of promotion and lets local government fight it out and figure out the details themselves (See Figure 4).

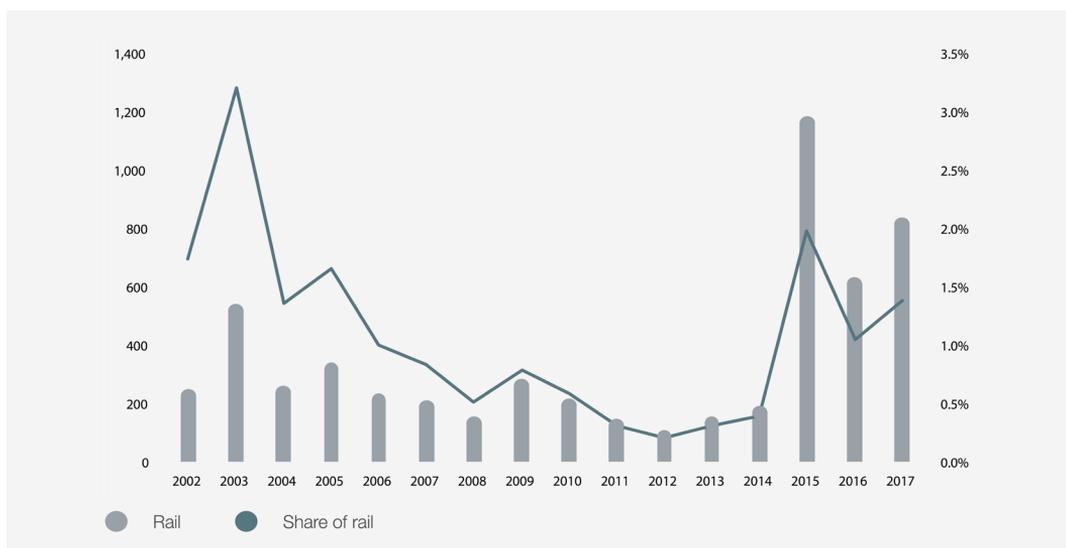


Figure 4. EU28 imports in tons by rail from China

Source: Compiled by the authors

Various sources have been used to calculate the number of trains travelling between Europe and China. The common consensus is that in 2017 there were 3,000 trains, and *CR Express* reported 6,000 trains for 2018. If we convert that to tons, we can analyse the significance of rail freight relative to total trade between the EU and China (Bucsky 2018)²⁵. According to *CR Express* reported data, from 2011 to 2018 the annual share of railway transport between the EU and China grew from 0 % to 5.4 %. This would represent very rapid growth and support the China development position. It should be noted, however, that this figure is considerably higher than data from the EU's Eurostat trade database by mode of transport which lists 2018 January to November as only 1.3 %, up from 0.5 % in 2011 (See Table 5).

²⁴ Kelly D. 2015. Tournaments of a Regional Tiger, China Policy. URL: <https://policyn.com/wp-content/uploads/2015/03/150326-tournaments-of-a-regional-tiger-focus1.pdf> (accessed 24.10.2020)

²⁵ The maximum payload of a Twenty-foot Equivalent container (1 TEU) is 21 tons, on average 20 tons have been calculated as an assumption. One China-Europe Class train is traveling on average with 20 pcs. of 40 foot container, which equals 80 TEU. A full train can transport 1,600 tons.

Table 5. China’s reported trains sent to Europe and Central Asia 2011-2018

China – Europe Rail Freight Class Out- and In-Bound Trains 2011-2018 (CR Express)									
	2011	2012	2013	2014	2015	2016	2017	2018*	Total 2011-2018
Number of trains	17	42	80	308	815	1 702	3 673	6 000	12 637
Number of TEUs	1 404	3 674	6 960	26 070	68 902	145 794	317 930	519 352	1 090 086
Share of total EU-China trade in tons	0,00%	0,00%	0,10%	0,30%	0,80%	1,60%	3,30%	5,40%	1,60%

China-Europe Rail Freight Class Out- and In-Bound Trains 2011-2018 (Eurostat)									
Share of total EU-China trade in tons	0,50%	0,40%	0,40%	0,50%	0,60%	0,90%	1,20%	1,30%	0,80%

*calculated from January-November figures

Source: Condensed from the government websites: Silk Road News, Silk Road News Silk Road Rail Classes, China – Euro China – Asia Cargo Railway, Foreign Economic Cooperation Office of the Ministry of Commerce

Given that the Eurostat figures as more accurate than the self-reported *CR Express* figures, the huge interest and hype around these trains is not economically justified. Especially considering that railway cargo between China and Europe was actually higher before the introduction of *CR Express* trains. For European trade, the mode of transport can be extracted from the European Commission Directorate-General for Trade database. The exported and imported tons from the EU by rail to and from China did grow in recent years, but a decade ago it was already higher. This is without any “Silk Road” policy or media hype (See Figure 5).



Figure 5. China Customs statistics of cross-border railway transport.

Source: based on General Administration of Customs of China. Compiled by the authors

These findings from Chinese sources could be double checked completely. The General Administration of Customs of China (GAC) provides information on the number of railway wagons crossing borders both ways. From these figures, the trans-

ported goods quantity and the number of trains crossing borders can be estimated. In real life, some of the wagons have to travel empty, but 40 tons/wagon for every wagon might be assumed. That way, the entire traffic crossing China's borders by rail can be estimated at 76 million tons or 7.5 % of China's total international freight traffic.

The OSJD provides better data, but the latest available information is from 2016. The total rail transport on China's 10 border crossing points was 37.8 million tons. This dataset helps in more detail as it includes transported value for all border stations. The total traffic to Kazakhstan - where most trains to Europe cross - is just 20 % of China's total cross-border traffic, and in 2016 it can be estimated that 4,663 trains crossed both borders (See Table 6).

Table 6. Freight transport on borders of the countries on the China – Europe rail route (total does not add up according to original OSJD data)

Country	Border Station	'000 tons 2016	% change 2015	Trains
Russia	Suifenhe	7 810	0,77%	4 881
Russia	Manzhouli	15 100	9,84%	9 438
Korea DPR	Dandong	130	-27,78%	81
Korea DPR	Tumen	100	66,67%	63
Korea DPR	Ji'an	30	50,00%	19
Mongolia	Erlian	9 830	18,86%	144
Vietnam	Pingxiang	300	-18,92%	188
Vietnam	Shanyao	390	5,41%	244
Kazakhstan	Alashankou	7 460	20,52%	4 663
Kazakhstan	Khorgos	820	-10,87%	513
Totals		37 750		23 594

Source: Organization for Cooperation of Railways (OSJD) data

On the China – Kazakhstan border, at least 90 % of trains crossing in Khorgos are not going to Europe, but to Central-Asia, with most of the trains through Alashankou being sent to Europe. In 2016 the cross-border trade between China and Kazakhstan was over nine times higher through Alashankou than through the media trap of Khorgos. According to the in-field expert interviews, carried out by the authors of the article, 70 % of trains from Alashankou are sent to Europe. This estimate yields around 3.300 trains being sent to Europe which is in accordance with other third-party estimates. The table 6 also shows that container trains to Europe are a small portion of total cross-border transport between China and its neighbours, around 14 % is delivered by this type of transport.

The reality is that there is simply too small a throughput for the China – Europe rail bridge to have any meaning as of yet. Neither China state media sources nor *CR Express* self-reporting figures match European data sources, which report significantly lower economic activity than the China numbers. Moreover, if the international rail volumes between China and Europe were expressed as a percentage of intra-China

or intra-European rail trade, the amounts would be miniscule – most rail freight is conducted within China or within Europe, with the inter-continental volumes tiny in comparison. Coupled with obvious deficiencies in China’s domestic containerised rail cargo infrastructure and the unending dominance of maritime container transport, the potential development of a viable *Iron Silk Road* once subsidies are removed is, on current evidence, beyond weak.

Conclusion: evidence weak for transformative development

The article has covered the contemporary spatial planning and regional industrial policies that China has developed to formulate and deploy a domestic transport policy in an external geography. The *CR Express* rail freight transport system is exporting China’s command economy railway planning into new economic geographies with two express objectives: to extend the lifespan of the command aspects of China’s industrial and transport development system, and to expand China’s trade policy into new spheres of economic influence in Central Asia, Central Europe and Eastern Europe.

Key takeaways from this study include the following:

- China cities competing for market share is an inefficient long-term model, but is unlikely to change due to domestic policy operations. Regional tournament systems are standard policy incentives in China’s centrally coordinated economy.
- China’s domestic containerised cargo infrastructure is undeveloped. Before expanding its container transport network to Europe and Central Asia, China has immense work to do to upgrade its containerised rail cargo systems.
- *CR Express* cargo throughputs are low and inefficient. From what little evidence is available, the economic reality is much more sober than the media hyperbole.
- Development of the *CR Express* system in the near future will remain dependent on subsidies and it is unclear whether a self-realising economic model will emerge from this China tax-payer investment.
- For Central Asian and European transport policymakers, as long as China continues to subsidise the system, the domestic benefits are worth participating in the program. But reciprocal subsidies to maintain the network would be neither efficient nor desirable.

The economic prospects of the “Iron Silk Road” are limited in both scale and investment. The trade corridor in its current form is not economically viable without massive Chinese investment and subsidisation. Given enough investment, it is feasible that China could scale the operation up to create a cumulative causation effect. However, the wider problems of China’s intercontinental rail ambitions are not economic but political.

For the rail policy to be successful, China’s international rail freight investment should serve both Eurasian and European interests, not just China’s. A large part of the problem in implementing a trans-continental railway policy is the institutional friction between different macro and micro economic institutions. China is a transition

economy with still heavy state influence, making it difficult to align domestic political economy institutions with international trade, finance, and transport institutions.

The “Transport Power” macro policy does not exist in isolation and should be read alongside the “Maritime Power” policy and a range of other sectoral *Power* policies. This makes the uneconomic factor of the project clearer. Centrally coordinated planned economies are easily leveraged into nationalist foreign policy mechanisms. While the potential for cumulative causation factors in transnational economic development do exist, the national system of economic development within China’s domestic economy prevails in any analysis of the “Iron Silk Road” as a trade strategy.

Domestically though, China’s subnational rail subsidies and weak central control over provinces and prefectural cities mean that serious endogenous problems within the extant rail freight system will be institutionally transmitted into this new *CR Express* intercontinental freight system. While central government subsidies may soon be withdrawn from *CR Express*, it was the local governments who were first to push out into Eurasian rail freight transport, and their untransparent direct subsidies and cross-subsidies are likely to linger long after the central government withdraws support. This means that the success or failure of Eurasian class rail freight will lie with the future policy and transfer decisions of local governments, not the centre.

Ultimately the intercontinental rail freight lines only work if China puts up the capital directly, not if any loan burden or operational risk is left on Eastern Europe and Central Asia. If China continues to subsidise the intercontinental rail freight transport trade for political and geopolitical purposes, then industrial complementarity clusters along its route may develop to begin supporting the trade. Certainly, China’s industrial capacity transfer policy for Central Asia, Central and Eastern Europe already supports this geoeconomic strategy. However without subsidies from the Chinese state or the unrealistically rapid development of industrial clusters along the Silk Road Economic Belt, the dream of replacing Pacific ocean maritime trade with Eurasian transcontinental rail trade may remain a policy objective of an aspirational land-power rather than delivering the trade channel opportunities promised to the peoples, industries and States along the China-Eurasian freight corridors.

The “Iron Silk Road” traverses range of varied post-Soviet economies, the independent states also being in varying states of transition away from planned economies and transitions towards economic bloc reintegration under the Eurasian Economic Union. The dubious southern route of the China-Europe rail class would also pass through Iran and Turkey, bringing in yet more economic institutional actors and agency. From the China side this means deploying an international rail strategy in external geographies that is more complicated than deploying a rail freight reform through domestic political economic institutions - this already involving many disparate polities and policy agents.

For China’s *CR Express* transcontinental rail freight system to improve and expand, China-side subsidies need to be transparent, legal standards, contracts, and other logistics factors need to be integrated to European standards, and host economies

need to transparently understand which levels of Chinese government they are dealing with, and what their political and economic risk exposure is in engaging in transcontinental rail transport. Without institutional integration with the European Union, the *CR Express* rail freight system appears to be a Chinese white elephant from the European perspective, and from the Central Asia perspective a cynical geoeconomic ploy to diversify strategic import sourcing. For the *CR Express* system to be an economic good for Eurasia, data, development and policy should be transparent.

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Действительно ли так важен «Железный Шёлковый Путь»? Роль железнодорожных грузовых перевозок в китайском проекте «Экономического пояса Шёлкового пути»

Петер Бакски, Тристан Кендердайн
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Печский университет
Future Risk

Контейнерные железнодорожные перевозки China Railway Express, связывающие Европу и Китай, являются флагманским проектом в рамках китайской инициативы Пояса и пути. Тем не менее технически проект остается слабо проработанным. Из-за низко-

го качества управления и проблем прозрачности логистики даже фактический объём перевезённых контейнеров и товаров является неизвестным. В связи с этим, подвергая эффективность межконтинентальной железнодорожной системы критической оценке, авторы статьи анализируют реальную и возможную пропускную транспортную способность данной системы. Авторы сопоставляют заявления в китайских государственных средствах массовой информации со статистикой Европейского союза и обнаруживают расхождения между количеством поездов, предположительно отправляющихся из Китая, и количеством поездов, прибывающих в Европейский союз. Соответственно, в настоящей статье, с опорой на различные источники и данные по грузовым железнодорожным перевозкам между Китаем и Европой, выявляется фактическое количество перевезённого груза, которое оказалось меньше ожидаемого и декларируемого. Также исследуется политическое содержание проекта железнодорожных грузовых перевозок CR Express в контексте превращения Китая в «транспортную державу». Данное исследование может быть интересным для исследователей и практиков Европейского Союза, России и Центральной Азии, поскольку предлагает материал для оценки реальной необходимости участия в продолжающемся развертывании системы межконтинентальных железнодорожных грузовых перевозок CR Express. При этом авторы предостерегают, что, несмотря на потенциальные экономические выгоды, прежде всего для центральноазиатских государств, инициатива усиливает экономическую и логистическую, инфраструктурную зависимость от Китая. Для Китайской Народной Республики CR Express является геополитическим и геоэкономическим инструментом и способствует консолидации её внешнеполитического влияния.

Ключевые слова: транспортная политика, экономическая география, политическая география, геоэкономическая политика, железнодорожная инфраструктура, контейнерные перевозки, промышленная политика, Евразийская экономическая интеграция, «Экспресс CR», Пояс и путь, транспортная держава

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