

The Belt and Road Initiative – the New Silk Road: A research Agenda

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1. Introduction and history

With land, there will be roads. With sea, there will be navigation. Human societies have always been outreaching beyond their borders, which are always temporary and in fluid. For the interconnected huge landmass of Afro-Eurasia, there have also been throughout the millennia waves of migration and exchanges, unconstrained by natural hindrance. The name, Silk Road, was coined in the 19th Century but cross-country and cross-continental trade routes have existed long before. Before the Silk Road of the Han Dynasty (206BC~220AD) in China, the Scythian or Saka (Chinese: 塞) tribes had travelled through the Eurasian Steppe reaching South Siberia from the Carpathian Mountains in Europe in the west. Their extensive civilization reach served to facilitate trade and cultural exchanges among economies and societies they encountered. The spread of jade into China and silk textiles to Central Asia predated westward expeditions of the Han China. China had also travelled by sea to Vietnam and beyond, and by land to access India from its western mountainous areas. Even at the time of the official launch of the Silk Road overland to Europe, by the way of the Kushan Empire (128BC~230AD), trade routes branched out from overland into the Indian Ocean waters to the Middle East and Egypt and from there to the Mediterranean Sea. Inter-modality had long been practiced before the concept was known thousand years later.

Since the Tang Dynasty (618-907AD), or some time earlier, maritime silk roads had become popular, although the main commodities might not be silk textiles, but porcelain and other bulkier products. The development of maritime trade routes had attracted traders from India, Persia and Arab, as well as Jewish and Armenian, who concentrated their businesses in Guangzhou and other cities along the Southeast coast of the China Mainland. The traders also cooperated in the form of relayed trading in the long distance trade that eventually ended up in East Africa and the Eastern Mediterranean region. For the Chinese products and foreign products that entered China along the sea routes, they might be from places along the sea shores or far away in the inland. The traders had not restricted themselves to overland trade or maritime trade, but rather their business spirits obliged them to use whatever transport means and trade routes as convenient and engage in whatever product trade as the market demanded. The same applied to traditional overland silk roads through the western corridor in the present day Xinjiang and Central Asia. For example the Sogdian had their operation and trade routes went as far as to the Yangtze River. They simply branched out and went in pursuit of trade and profits. The same was true for those coming by the sea, who would also trade in and sourced from the inland markets. The travel of Monk Faxian (399-412AD) that covered the western corridor to the Indian subcontinent and the maritime routes from the present day Sri Lanka to South China Sea should demonstrated the active linkage of the overland and maritime trade routes.

The Mongolian conquests and the establishment of the Pax Mongolica facilitated the development of a network form of the silk roads that connected the overland and maritime routes with greater territorial coverage and greater trade intensity that brought in the Europe beyond the East Mediterranean region. This had begun an earnest quest of the peripheral European countries to participate in the lucrative trade with China, India and the East, that had been monopolized by political entities in the Levant in cooperation with the Italian city states after the decline of the Mongolian empires. The outcome was the Great Geographic Discovery that joined the Atlantic coast of Europe with the Indian Ocean trade system of the maritime silk roads and created the cross Atlantic Ocean connection with the Americas that later the cross-Pacific Ocean maritime routes to China. This founded the material and intellectual grounds for the early modern period of Europe (in particular Western Europe), but it also turned the networks of silk roads of Info-Eurasia into a global one, supported by the silver mined in Japan and the Americas.

The golden age of the silk roads in their globalized network form had depended on China, which provided the much sought after commodities for the rest of the world to trade. The silk roads connected the market and the production places and flourished first with the commodities, and silver as means of transaction, the prosperity of the consuming markets plus the logistics of transport connectivity. The roads and sea navigation channels have always been there once they were used for trade and transport, but markets for the circulation of commodities (plus silver as international currency) might not always be in good shape and function smoothly and access to the markets could be denied by political segregation.

Developments in the last two centuries until the present day have been responsible for the weakening of the silk roads and its trade and exchanges. First, there was the Great Power Game scramble for Asia and access to China and India by the Russian and British Empires, which practically sealed off the interconnection between the overland and maritime silk roads. The Russia initiated Tea Road from Fujian in China all the way to the northern shore of the Black Sea and to Europe failed to break the monopoly of tea imports in Europe by the British. The British could introduce tea plantation from China in India and Sri Lanka and replace imports from China whilst the Russia had only the limited production of Krasnodar tea near Sochi, in no way to compete with British produced tea in scale and variety. Russia was also blocked from the lucrative markets in Western Europe and North America. Second, the Chinese Empire was in steady decline through civil wars and foreign invasion, although it still topped the world league of nations with the largest GDP. Its political and economic weakening had reduced its ability to provide commodities to sustain the silk roads at a time when the huge migration of European population overseas had created new centers of production and markets and trade (like the trans-Atlantic trade) overshadowing China, India and the silk roads.

2. The background

Despite its great material and intellectual prosperity, the modern era had not returned Afro-Eurasia and the global system to the open trade of the Silk Road era. Instead the Cold War and its politico-economic division of the world had created a hostile pair of worlds threatening each

other with sanctions and wars. It was only the end of the Cold War that has offered the possibility of the breakdown of century-old overland barriers that the intermodal and globalized trade system of the Silk Road era would have a chance to revive, but it had again had to wait for more than a decade through the initial pains of political and economic restoration among many countries affected to see the ancient project to realize in the 21st Century.

The Belt and Road Initiative put forth by the Chinese at the end of 2013 was no accident. The momentum for the globalizing Silk Road has always been there and only suppressed temporarily by various local and external factors. After the ending of the Cold War there have been many attempts to revive the overland Silk Road that had been disconnected with the rest of the global system. From the geographically limited plans of the 1990s like Asian Development Bank's Central Asia Regional Economic Cooperation programme, EU funded Transport Corridor Europe-Caucasus-Asia to the continuous efforts of UNESCAP upgrading Asian Highway and Trans-Asia Railway plans and the more ambitious UN Economic Commission of Europe and UNESCAP Study on Developing Euro-Asia Transport Links with its expanding investment plan, there have been efforts to connect and modernize the overland transport links between Asia and Europe along the routes of the old silk roads (the present day concept of corridors). Strategically more importantly, The US had installed the Northern Distribution Network of logistics that had carried tons and tons of materials from Europe via Russia and Central Asia to Afghanistan in 2009, lasting probably until 2015. Despite its military logistics nature, the development of the transport routes was the first time since the era of the Great Game of the 19th Century and with a scale never seen in history. The US government tried to evolve it into a New Silk Road in 2011, but failed first to get US Congress endorsement; the bills had failed to be enacted, and more fundamentally because of its military nature: one-way supplies, and strong geo-political implications. It would never be the New Silk Road as it stopped at the door of China, and excluded trade by nations, firms and individual traders.

2013 might be the more opportune time for China to launch its Belt and Road Initiative on the basis of the ground building efforts of Europe and other international organizations (including the transport test-runs by the US military), the gradual recovery of the economies along the routes from the post-Cold War crisis and the 2008 financial tsunami, and the strengthening of the Chinese economy capable of becoming a major global player in global politics and economics.

There are several specific factors that have obliged China to break through its hitherto successful export-oriented industrialization strategy building upon foreign direct investments and industrial processing trade.

- a. Problems of the textbook type strategy have started to slow down economic growth; The combination of FDI and export-oriented processing trade had pushed up industrialization rapidly in the southeast coastal region of China, in particular Guangdong). However, the export trade had been dominated by OEM processing and by non-local firms giving the local firms and labour only a minority of the revenues from the processing, and little chance for technology transfer. Fortunately, the Chinese local governments and firms have been taking

the advantage of the open door policy and access to foreign market for information, technology and skill to take a parallel import-substitution industrialization for the domestic markets. This has in turn had promote the upgrading of the processing trade with better inputs of skilled labour, industrial management, local supplies of components and parts and other materials, and improvements in local logistics and transport. However, the higher rate of profitability from import-substitution industrial production has also convinced the local as well as the central governments an alternative to industrial processing by non-local firms. In 1997 for the first time industrial processing trade overtook the share of general trade in China's foreign trade and was the peak of the expansion of export-oriented industrial processing trade in China. In 2004 Guangdong witnessed the first time labour shortage, which signalled the overall removal of mobile surplus labour in China as a whole, as the industrial processing trade in Guangdong and other parts of the Southeast coastal China had relied on migration of unskilled labour from the rural sector and at one stage total migrant labour reached over 100 million. Labour shortage has pushed up labour costs. For instance, in Dongguan with the most concentrated industrial processing trade, labour wages had increased from 800 yuan in 2003 to 2300 yuan in 2013, with average annual increase over 20%.¹ The rising labour costs have encouraged relocation of industrial processing from coastal China to ASEAN countries, which have lower labour costs than China. China's entry to the WTO has also allowed a more favourable tariff environment for general trade exports and made it unnecessary for FDI in industrial processing to bypass tariff barriers in overseas markets. The Chinese government has thus abandoned its initial reliance on labour intensive and low value added industrial processing. Since 2003 the Chinese government has started to restrict labour intensive industrial processing and urged for upgrading. In 2011, general trade replaced industrial processing as the major force of China's foreign trade. The overall share of industrial processing trade has dropped from close to 60% of overall trade to below 30% in recent years. China has completed the historical stage of FDI induced industrial processing industrialization and has to develop its export markets by itself within the framework of the WTO, although foreign capital invested firms, mostly joint ventures, still command 40% of China's exports in 2018. The shifting away from and the decline in exports and industrialization of industrial processing trade means China has to seek a new strategy to further the industrialization process and economic growth.

- b. China has accumulated too quick and too much foreign exchange reserves from perennial trade surpluses to invite possible trade frictions with its trading partners; Since China's accession to the WTO, its exports and trade surplus have been expanding exponentially. The annual surpluses have moved from less than half of US\$100 billion before 2005 to over US\$ 100 billion and to as much as over US\$ 500 billion in 2015 and 2016. As a result, with continuous inflows of FDI, despite at much relatively smaller amounts, China has been able to build up the largest foreign exchange reserve of the world. Until 2001 China's reserves had been steadily for many years at below US\$ 200 billion, but it rose to US\$ 300 billion and 400 billion in 2003, US\$ 500 billion and 6 billion in 2004, adding another US\$

¹转型升级十年成效明显 加工贸易改头换面, 《国际商报》, 8 October 2013 .

100 billion every year hither-after, and even more exponentially to reach US\$ 2 trillion in 2009, US\$ 3 trillion in 2011 and peaked to close to US\$ 4 trillion in mid-2015. No other county in history could amass such a huge reserve (almost US\$ 3 trillion) in just less than 10 years. The huge accumulation of reserve has been supported by outstanding competitiveness of the Chinese economy and export capability as evidenced in its higher than world average GDP growth rates and perennial trade surpluses.

- c. China’s rapid industrialization had been so successful that it has become the largest economy in the world by purchasing power parity calculations by around 2015 to create domestic cost and wage inflation (for a fairer and more generous redistribution of gains from economic development). It has also become world’s largest manufacturing economy and exporting economy in the 2010s. By arriving at the world leading position, it would be difficult for China to insist upon its developing country status, despite its lower per capita GDP at US\$ 8800 in 2017. The scale and level of industrialization it has achieved would be difficult if not impossible to continue the hitherto strategy of catching up industrialization of imitation and innovation.

The needs for a new economic development strategy and the availability of finance for strategic and structural changes have allowed China to evolve and formulate a new strategy in the 2010s. There are 2 major thrusts.

First, the Chinese initially followed the development logics of developed countries and Multinational Corporation to relocate labour intensive industries that China has suffered from domestic cost inflation and excessive capacity. At the same time China has also followed the example of developed countries to invest in energy and materials to secure supplies. After 2013 China’s outward bound direct investment has overtaken inward FDI. (Table 1) As there have been problems in many of its outward bound investment emerged in recent years, China is in need of a more coordinated strategy and policy for the investments projects, many of which have been carried out by state controlled firms.

Table 1: China’s inward and outward bound direct investment, 2011-2017 (unit: US\$ billion)

	Realized FDI	Realized outward bound DI
2011	116.0	74.6
2012	111.7	87.8
2013	117.5	107.8
2014	119.5	123.1
2015	126.2	145.6
2016	126.0	196.1
2017	131.0	120.0

Source: State Bureau of Statistics, Ministry of Commerce, People’s Republic of China

Second, China has adopted a new industrial policy of ‘Made in China 2025’ from 2015, but the deliberations have been made much earlier. Although it has been labelled as Chinese efforts at

techno-nationalism², it is in fact a post catch-up industrialization strategy³ to further industrialization and overcome technological bottlenecks in China. Behind it is also the commitment of China for continuous industrial and technological upgrading rather than a shift towards financialization and deindustrialization as has been the conventional choice of most developed market economies when they face competition from late industrializing economies. The reason for China to depart from the trajectory of Japan of post-1985 development is no easy answer. Probably the existence of a large defence sector and the urgent sense of insecurity of the ruling Chinese Communist Party in face of the changes and possible changes in Pax Americana have persuaded China to follow the model of technology led industrial development of the US in the early post-World War II decades. The ‘return to the Asia Pacific’ as a strategic pivot or rebalancing of the Obama administration might convince China of its need to even speed up its technology and industrial development, in particular of the defence related sector. The ‘Made in China 2025’ programme would further the industrialization of China and the immediate consequence is that China has to find a continuous expansion of market, both domestic and international, for its new industrial products, including traditional products that would be upgraded both in quality and productivity.

The two thrusts could be combined together to fuel China’s post catch-up industrialization. Outward bound investments could bring in the much needed energy, mineral resources, plus relocation of part of the excessive industrial capacity of China’s traditional industries. Yet more importantly, from a sustainability perspective, it might be more importantly for China to help other developing countries to industrialize so that their development would provide a much larger market than the over-congested and saturated markets of the developed countries for the whole range of products the upgraded Chinese industry would be offering. This is particularly important in the areas of infrastructure industries, like energy and power generation (including alternative energy), high speed railways (subways and other fast speed railways), cyber and telecommunications networks, and construction (port, airport, road and bridges, tunnels etc.) China has been very successful in import-substitution in these areas through massive transformation of the country’s infrastructure in the past one to two decades. To further the process of continuous upgrading, China needs to enter into the international market and the best strategy would probably be by outward bound investments and aids to create the market in the developing countries, which in turn as the Chinese own experiences have shown, would develop the local economies to engage into greater trade with China. This is a better and strategically more awarding way of recycling China’s trade surpluses and foreign exchange reserves rather than simply investing passively in US treasuries and securities.

² Jost Wübbeke, Mirjam Meissner, Max J. Zenglein, Jaqueline Ives, Björn Conrad, *Made in China 2025: The making of a high-tech superpower and consequences for industrial countries*, MERICS Paper on China (Mercator Institute for China Studies), No 2, December 2016.

³ Korean scholars lately have proposed post catch-up strategy to usher the national economy into a new stage of industrial development that focuses on institutional factors for innovation. See Jieun Seong, Yejin Cho and Wichon Song, Korea’s transition experiments as a post catch-up project, *Asian Journal of Technology Innovation*, 24 (2016).

The Belt and Road Initiative emphasizes mutual benefits and involvement of other countries in formulating policies and programmes. This is consistent with the multilateral trade system of the WTO that China has benefited so much since its accession in 2003. This would also continue the tradition of the ‘Silk Road Spirit’ that focuses on trade and cultural exchanges, in contrast to political conquest and exploitation of the era of colonialism and imperialism that replaced the silk road regime. For whatever reasons, tactics or strategy, China has tried hard to present the Initiative not as a challenge to Pax Americana and insisted to work upon existing regional, multilateral and bilateral economic and political arrangements. China simply takes the lead in providing much needed funding for infrastructure investments to countries and projects that have been neglected by the developed countries, multinational corporations and even international organizations.

Judging from the lack of a blueprint and problems of serious coordination in projects and local efforts of Chinese investments, one might say that the Belt and Road Initiative has started as an initiative even of the Chinese leadership alone, not as a well thought of and well planned policy by the Chinese government as a whole. The Initiative aims to bring back a whole era of trade and exchanges of the past centuries upon a world that has been transformed completely from the historical past and has so much vested interests entrenched for so many decades, if not centuries, to resist any changes that could threaten them. The Chinese Initiative is just evolving. Its exact trajectory is therefore difficult to predict. One could only follow what the world (and China) react to the changes it has brought forth to try to tell what in the next steps the changes and the world and China would go.

3. Infrastructure investments and the possible impact on Afro-Eurasia logistics and trade flows

Even before the launch of the Belt and Road Initiative, the Chinese outbound investments had also focused on infrastructures for the simple reason that most of the countries lying along the overland and maritime trade routes had suffered from problems of inadequate connectivity for decades if not centuries. There have indeed been major sea routes all the way from coastal China to Europe. With containerization and the increasingly bigger ships deployed to achieve lower costs, they serve apart from energy mostly the expansion of export-orient industrial processing trade controlled by multinationals and focused on direct links between processing locations in China (and East Asia and later Southeast Asia) and major distribution centers in the markets of the developed countries – the northwestern port cities in Europe and US’s west coast terminals. Developing economies in between with lesser economic development, less propensity to trade and thus smaller demand for trade in the standardized commodities have been excluded from the main trade routes. There have also been some overland train services between China and Europe since 2008 (Chengdu - Lodz, Chongqing – Duisburg and Zhengzhou – Hamburg) serving the

needs of global production network of electronic and automobile multinationals⁴, but they were very limited in scale and frequency.

However, the end of the cold War and subsequent changes in political bifurcation and economic segregation have created the potentials of overland transport to reduce both time and costs in the Eurasian trade and exchanges. For one thing, China (and East Asia) and Europe have emerged as the major focuses of global trade flows. Although cross-Pacific Ocean trade remains strong, cross-Atlantic Ocean trade has been overshadowed by the ever expanding Eurasia trade powered by the rapid industrialization processes in East and Southeast Asian economies. The shortest distance between Europe and Asia may not be serviced by maritime routes, which have also the additional distance disadvantage caused by the domination of ports on the Atlantic coast of Europe, away from the Mediterranean ports of the old Silk Road era. In the past decades, UNESCAP and Asian Development Bank have formulated the plans of Asian Highways and Trans-Asian Railways to upgrade and fill in the gaps of the existing Asian railway networks. UN Economic Commission of Europe in its project of Euro-Asian Transport Links that started in 2002 has also identified nine rail and nine road corridors (EATL corridors) in the 2013 Phase II report. It provides the blueprint of railway and road investments that would create an optimal and feasible network of Eurasian transport links that join the Europe’s own domestic plans of transport expansion. At present even before the completion of many of the major transport investment projects, increases in trade flows in Eurasia have followed these transport corridors with a concentration in the corridors utilizing the best existing transport infrastructure offered by Russia by means of the Trans-Siberian railway lines – the northern and southern routes.⁵

Table 1: Scheme of EATL Rail Routes

1	"Trans-Siberian Railway, Northern Road" West (N and E EU (Finland, Latvia, Lithuania, Poland, Hungary)) to East (Russia Pacific) Countries crossed: Russia, Belarus or Ukraine Number of gauge changes: 0
2	"Trans-Siberian Railway, Southern Route" West (N and E EU (Finland, Lithuania, Poland, Hungary)) to East (China) Countries crossed: Ukraine, or Belarus, Russia, Kazakhstan, China Number of gauge changes: 1 (Kazakhstan/China)
3	West (SE EU (Hungary, Romania, Bulgaria) through Caucasus and Central Asia to East (China) Countries crossed: Moldova, Turkey, Georgia, Azerbaijan, Armenia, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, China Number of gauge changes: 1 (Kazakhstan/China) Number of ferry crossings: 2 (Caspian and Black Sea)

⁴ Jakub Jakobowski, Konrad Poplawski, Marcin Kaczmarski, The Silk Railroad, The EU-China rail connections: background, actors, interests, *OSW Studies (Ośrodek Studiów Wschodnich im. Marka Karpia / Centre for Eastern Studies, Warsaw)*, No. 72, February 2018, p. 20.

⁵ From the perspective of China, the two routes in fact originate from 3 routes departing from China: from the China-Kazakhstan border of Alashankou/Dostyk (and the new crossing at Khorgas), the China-Mongolia border of Erenhot (and China-Russia border at Naushki), and Zabaikalsk in Russian Far East. All three converge in the Urals near Yekaterinburg in Russia before going further west. *Ibid.*, p. 40.

4	"Southern Silk Road" or "Trans Europe-Asia Route" West (SE EU (Bulgaria) through Iran and Central Asia to East (China) Countries crossed: Turkey, Iran, Turkmenistan, Uzbekistan, Kazakhstan, China Number of gauge changes: 2 (Iran/ Turkmenistan, Kazakhstan/China)
5	North (N EU (Finland)) through Caucasus and Central Asia to South (Iran) Countries crossed: Russia, Azerbaijan, Iran, Turkmenistan, Kazakhstan, Uzbekistan Number of gauge changes: 1 (Kazakhstan/China) Number of ferry crossings: 1 (Black Sea)
6	West (E EU (Hungary, Poland)) to through Central Asia to East (Russia Pacific Coast) ²³ Countries crossed: Ukraine, Moldova, Russia, Kazakhstan Number of gauge changes: 0
7	West (E EU (Hungary and Poland)) through Central Asia to East (China) Countries crossed: Ukraine, Kazakhstan, Uzbekistan, China) Number of gauge changes: 1 (Kazakhstan/China)
8	North (N and E EU (Latvia, Poland and Lithuania)) through Caucasus to South (Azerbaijan, Iran) Countries crossed: Ukraine, Russia, Georgia, Azerbaijan, Iran Number of gauge changes: 1 (Azerbaijan/Iran)
9	North (N EU (Finland) and Baltic Russia) through Central Asia to South (Central Asia) Countries crossed: Russia, Kazakhstan, Uzbekistan, Tajikistan Number of gauge changes: 0

Source: United Nations Economic Commission for Europe, *Euro-Asian Transport Links, Phase III, Expert Group Report, Draft 2, 08 May 2017*

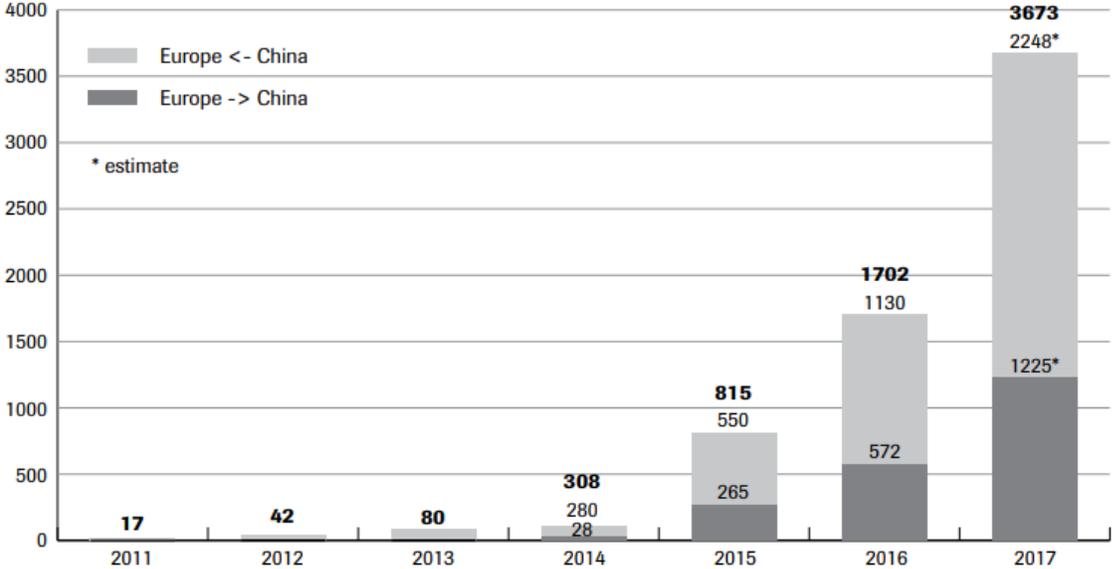
Figure 1: Scheme of EATL rail routes



Source: United Nations Economic Commission for Europe, *Euro-Asian Transport Links, Phase III, Expert Group Report, Draft 2, 08 May 2017*.

Even without massive investments as projected by the Trans-Asian Railways and the EATL corridors, however, Chinese determination to revive the Silk Road trade routes since the launch of the Belt and Road Initiative have promoted China-Europe overland freight trade by railways utilizing existing infrastructure, including some new ones⁶ being constructed and put into operation by other countries, and negotiating facilitating institutional arrangements among countries along the routes. With efforts on the Chinese side, the China Europe freight trains have become increasingly a real alternative maritime transport.

Figure 2: Number of containerized freight trains between Europe and China, 2011 – 2017.



Source: Jakub Jakóbowski, Konrad Popławski, Marcin Kaczmarek, The Silk Railroad, The EU-China rail connections: background, actors, interests, *OSW Studies* (Ośrodek Studiów Wschodnich im. Marka Karpia / Centre for Eastern Studies, Warsaw), No. 72, February 2018, p. 28, Chart 1.

Note: There have been many versions of the statistics from various Chinese sources. This should be the more accurate one originally from the Chinese government source.

In the first half of 2018, the number of trains was 2,497 (with 1,483 to Europe and 1,014 to China).⁷ The Chinese government planned in 2016 that the total number of China-Europe freight trains would be 5,000 by 2020. The target could very well be attained within 2018. The growth of the freight trains has been exponential, doubling every year, and more significantly, the return rate of the trains has also rapidly increased from 54% of the west bound trains in 2017 to 68% in

⁶ For example, the more strategic ones are within Kazakhstan the Zhezkazgan-Beyneu and Arkalyk-Shubarkol, both opened in late 2014; the Uzen (Kazakhstan) -Bereket-Etrek (Turkmenistan) – Gorgan (Iran) line opened since December 2014; Baku (Azerbaijan) –Tbilisi (Georgia) – Kars (Turkey) Railway Line officially launched in October 2017, and the Marmaray railway linking Istanbul’s European and Asian sides under the Bosphorus Strait was opened in October 2013.

⁷ *Xinhuanet*, 28 August 2018.

the first 6 months of 2018, giving greater dynamism to the China-Europe Express train services. In 2016 the total number of containers carried by the trains was 97,300 TEUs for the west bound traffic and 48,390 TEUs for the east bound one.⁸ If the same TEUs to trains ratio was maintained in subsequent years, the total number of TEUs transported in 2017 would be 296,000 and in the first half of 2018, 212,000. If the momentum of growth were maintained, the year of 2018 would probably see a total of over 400,000 TEUs. This is still a long way from the Asia-Europe total container trade throughput of 22 million TEUs⁹ or 15 – 17 million TEUs between China and Europe,¹⁰ but the increase rate is more than impressive.

Parallel to the China-Europe freight trains, there have also been shorter haul China-Central Asia freight trains. In 2017 it was reported that there were 2,237 trains, representing an annual growth of 49%.¹¹ The growth rate has been less than that of China-Europe trade, but Central Asia is a smaller economic region with lower level of population and GDP. The fact that there could be regular China-Central Asia freight train services and that there have been increasingly greater frequency and more extensive in geographical coverage suggests the great potential of inter-regional trade that could be induced by the availability of better rail connectivity in and out of the landlocked region. As China-Central Asia freight trains start to penetrate Central Asia to reach Afghanistan, despite all the institutional and hardware obstacles, from as far as Yiwu in Zhejiang on the Southeast coast of China, the potential of trade and transport expansion into and out of Central Asia may be more than one could imagine at the present stage of civil war in Afghanistan and its lack of access to neighbouring countries. The North South International Transport Corridor project undertaken by Russia, Iran and India would also help to link up Afghanistan and thus Central Asia and Iran. This would further strengthen the existing China-Central Asia freight trains that go through Central Asia to Iran's ports on the Persian Gulf. The overland China-Central Asia freight trains would readily become inter-modal to join the maritime Silk Road from Iranian ports.

Since 2017, operators of the freight trains have found new trade opportunities by expanding their services. Partly the rapid increase in the frequency, traveling speed and routes and subsequent reduction in costs¹² have offered greater scale economies to attract new clients either for new businesses hitherto being uneconomical or for diverting existing businesses away from maritime transport, and even for a combination of both. Partly the transport distance directly between China and inland markets in Europe is the shortest and thus most cost-efficient. As a result, one obvious trend is the development of intermodal arrangements for goods from Japan, Korea and

⁸ *Xinhua Finance*, 5 June 2018.

⁹ United Nations Economic Commission for Europe, *Euro-Asian Transport Links, Phase III, Expert Group Report, Draft 2*, 8 May 2017, p.58, Figure 1.16.

¹⁰ Eugene Gerden, Russia Special Correspondent, Turkmenistan port opens new China-Europe rail corridor, *joc.com*, Nov 30, 2017.

¹¹ *Xinhua Finance*, 5 June 2018.

¹² For instance, using the Trans-Siberian railways, China-Europe westbound trains now take 12 – 15 days instead of the original services of 25 days. Greg Knowler, Central Asia containerized rail freight rocketing, *joc.com*, 6 February 2018 .

Taiwan to ship to coastal ports of China Mainland and from there join the China-Europe freight trains. This could save the time and costs (transport and others) of the slow steaming all the way cross the South China Sea, the Indian Ocean, and the Mediterranean Sea to reach the maritime cargo terminals in Northwest Europe. The second one is the emergence of short haul intermodal routes going from coastal China to Vietnam and other countries in the Indo-China Peninsula through China's overland borders with them, the so called China-Vietnam freight trains that enter the southern countries from three trade routes, from Beibu Bay of Guangxi, and from Nanning of Guangxi or Kunming of Yunnan southwards. The southward extension of the China freight trains would join the Greater Mekong Subregion transport network of the Asian Development Bank, which is part of the UNESCAP Trans-Asia Railway plan, and recently boosted by the construction of the China-Laos Railway and various sections of new Thai railways undertaken by China and Japan.

Another alternative is for the China-Europe and China-Central Asia freight trains to continue their journeys to the Beibu Bay ports and from there to travel by sea to Southeast Asian countries. With this intermodal route in operation, East Asian logistics and transport scene would have been fundamentally altered. China with its domestic railway networks and its outbound railway services could very well become the transport hub of Asia, joining East Asia maritime economies and Southeast Asian countries Central Asia, West Asia, Middle East and Europe (from Russia to the Atlantic coast and from Black Sea and Mediterranean Sea to the Baltic Sea). The globalizing ancient Silk Road network is being reinstalled in Eurasia under the Belt and Road Initiative of China and the positive responses of other countries¹³ along the routes have strived to revive the branching out network pattern of development characteristics of the ancient Eurasian trade centered on the east-west Silk Road. The Chinese initiative has begun to reap its fruitful outcome at least from among its Asian neighbours

Outside Asia, there are also two major changes brought by the infrastructure investments of the Chinese.

First, the possible revival of Eastern Mediterranean region as the major gateway to Europe from China and Asia after the rise of the maritime powers in Europe in past centuries and the subsequent shift of trade flows to the Atlantic coast centering in ports in Germany, the Netherlands, Belgium and to a lesser extent in France and Britain. The additional sea fare journeys to cross the entire Mediterranean Sea to Europe's Atlantic coastal ports even after the

¹³ The North South International Transport Corridor project undertaken by Russia, Iran and India being one, and there is the proposed revival of the ancient 'Lapis Lazuli' transit corridor by governments of Afghanistan, Turkmenistan, Azerbaijan, Georgia and Turkey in November 2017. The trans-regional corridor will encompass mainly railways and highways, which will connect Herat province (Afghanistan) and Turkmenbashi port (Turkmenistan) via Ashgabat. From Turkmenbashi, goods will be able to travel further by ferry to Baku, where they would be placed on train cars and continue westward to Europe across the South Caucasus via the Baku-Tbilisi-Kars railroad. It will be intermodal, although will not stretch the way to China and India. Fuad Shahbazov, Lapis Lazuli: A New Transit Corridor to Link Asia and Europe via the South Caucasus, *Eurasia Daily Monitor*, Volume: 14 Issue: 155, November 30, 2017.

opening of the Suez Canal have been a result of politics – politics in the sense that the shipping companies and terminal operators of the Atlantic ports dominate the Eurasian maritime trade and use their political power via their governments to exclude the traditional East Mediterranean ports from the intercontinental trade under the pretext of greater scale economy and market advantages. With Chinese shipping companies like COSCO and China Merchants emerging as formidable competitors to existing oligopolies from Northwest Europe, they have become capable of breaking the domination of the Atlantic coastal ports by investing and operating ports in East Mediterranean region and moving containers overland to other inner European destinations. The most notable example is the Chinese leasing of Piraeus, the largest port of Greece, which has been under the Chinese management since 2011, but business has taken off mostly after 2012. The port has become one of the fastest growing ports of the world, and it has moved to top 7th of European ports, 38th of the world league and the third largest in the Mediterranean Sea. It is projected to be the largest container port in the Mediterranean Sea 18 months from 2018.¹⁴ The profitability and fast growth of Piraeus port owe to the flourishing China trade brought by COSCO, the Chinese shipping conglomerate, which by itself owns the fourth largest container fleet in the world, and one third of the world's shipping capability by the shipping alliance it led, the lately formed and fast growing Ocean Alliance. The expanding China-Europe trade helps to revive the geostrategic location of the ancient Greek port. Known today as the “southern gate of Europe,” Piraeus is Europe's closest port to the Suez Canal, the entry point for incoming Asian exports to Europe and the exit point for European exports to Asia. With the Chinese launching the China-Europe Land-Sea Express Line, a railway line that starts from the port of Piraeus and connects Central European countries all the way up from the Balkan Peninsula in 3 to 4 days, cutting the original delivery time by 5 to 10 days. At present, every week 16-18 freight trains depart from Piraeus for central and western Europe.¹⁵ The so-called Balkan Silk Road has already started to show its effect even before the Chinese funded upgrading of the Budapest – Belgrade railway is completed.¹⁶

Second, the Chinese has completed, among others, the building of two major railways in East Africa, which may represent the beginning of a railway development drive in Africa started by China's credit, technology and political will. One is the Djibouti-Addis Ababa Railway that has

¹⁴ As suggested by the German newspaper *Die Zeit* and agreed by the senior management of COSCO, which runs the port. Piraeus to become one of the world's leading ports, *Greek City Times*, 28 August 2018. COSCO has also investments in other European ports, including among others in the region Spanish Valencia, currently the largest port in the Mediterranean Sea, and the Turkish port of Kumburgaz at the mouth of the Black Sea. However, the acquisition of ports by the Chinese firms does not explicitly serve the purpose of the Silk Road. Rather it may stem from the efforts of the Chinese firms to increase their presence in the global maritime transport scene against the oligopolistic market controls of the European firms. China Merchants and COSCO Shipping are now running 29 ports in 15 countries and 47 terminals in 13 countries, or altogether for all Chinese firms, 42 ports in 34 countries according to the Chinese Ministry of Transport. Janne Suokas, China invests in 42 overseas ports under Belt and Road project, *gbtimes.com*, 27 July 2018.

¹⁵ Ibid.

¹⁶ Japanese Prime Minister, Abe proposed the launch of a Western Balkans Cooperation Initiative during his trip to Serbia in early 2018. It is an indication of the geostrategic importance of the Balkan Silk Road.

put into operation in 2018. It is the first electrified and cross border railway in Africa. It joins the second largest populated country of Africa with the port of Djibouti, with both the railway and ports funded by the Chinese. Port of Djibouti has already had feeder ships from Mombasa and other smaller ports in Africa as it sits at the mouth of the Red Sea, one of the busiest navigation channels in the world. Through the Chinese built railway and its future extension into the inland, Djibouti has the potential to be the access point to the global economy for up to 13 landlocked African countries.¹⁷ The other one is the standard gauge railway from the coastal port of Mombasa to the Kenya capital Nairobi, completed in 2017 and is intended to eventually become part of a regional rail network, linking Uganda, Rwanda, Burundi and South Sudan. The second phase of the SGR linking Nairobi and Naivasha is near completion. There will be further phases to connect to northwest to Kisumu on the shore of Lake Victoria, and north from Kisumu to Malaba, on the Ugandan border. The project is part of the northern corridor of the Railway Master Plan of East African Community announced in 2009.

There seems to be a competition of the central corridor from Tanzania's port, Dar es Salaam inland to Rwanda, Burundi, Uganda, Zambia and eastern DR Congo¹⁸. There are also Chinese and others' investments in East Africa ports like the new port projects at Bagamoyo in Tanzania and Lamu in Kenya as well as in Mozambique that may intensify the competition of regional trade corridors. However, the ports and railways serve more to build up a modern network of connectivity complementary to each other in the beginning and having synergy effects later when the region further develops. The most important point is the opening up of the inland African countries to overseas connectivity of mass transports of goods and passengers breakdown century old isolation that breeds poverty and civil disturbances and wars. From a longer perspective, the Chinese start with the infrastructure investments would stimulate FDI and local economic development. Regional integration would help to fosters economies of scale, scope, agglomeration, and networking by a larger market and regional socio-economic space. The possible future scenario may not just be a revival of the place of East Africa in the Indian Ocean trade and the maritime Silk Road that stretched to China. Rather it might forge a wider inter-regional system that goes beyond the Indian Ocean to Central Asia via Iran and Pakistan, and through the expanded Suez Canal to regions in the Mediterranean Sea, and both further join the globalizing Belt and Road of China's initiative. For Africa as a whole, the initiative of China in Djibouti, Ethiopia, Kenya and others would be the prelude to the realization of the African Union Commission's *Vision 2040 for Railway Revitalisation in Africa*, adopted in 2014 and strongly supported by China in 2015. The vision is to turn the fragmentary, outdated and inadequate colonial systems of railway of Africa into an integrated and modern system of the continent with all expected benefits and advantages of enhanced connectivity would bring. The implications and impacts of the two Chinese built railways plus the ports and industrial zones associated with them and others are thus beyond any conventional thinking of project management and economic aid. Perhaps as China is not going to owe infrastructure projects it

¹⁷ Eromo Egbejule, Djibouti: Small country, big stakes, *The African Report*, April 2018.

¹⁸ Uganda on one hand and Tanzania and Rwanda on the other are also planning their separate standard gauge railways following the Kenyan example. *Construction and Civil Engineering News*, 27 January 2018.

finances and build, the host countries may incur large debts from the project. There is a chance for China to forfeit loans as in the past and like what Japan did elsewhere, and the infrastructure built would have wider benefits and multiplying effects than the narrow thinking of project finance.

In addition to the East-west trade corridors of the Belt and Road Initiative, there are two north-south trade corridors proposed and invested by China.

One is the China-Pakistan Economic Corridor that runs from the Pamir to the Indian Ocean coast. This is the first national programme under the Belt and Road Initiative, and is huge in its scale with total investment from China starting from US\$ 46 billion in 2015¹⁹, but increased subsequently to over US\$ 50 billion and more. The majority of investments are energy, road and rail primarily for the promotion of local economic development, not for exploitation of natural resources. Even the construction of the Gwadar Port is also less of commercial interests. According to the long term plan of the corridor, agreed upon by the P=Chinese and Pakistani authorities, 'The CPEC is a growth axis and a development belt featuring complementary advantages, collaboration, mutual benefits and common prosperity. With the comprehensive transportation corridor and industrial cooperation between China and Pakistan as the main axis, and with concrete economic and trade cooperation, and people-to-people exchange and cultural communications as the engine.'²⁰ Both governments have placed great expectation on the development of the corridor, and given the disproportionately large investments in infrastructure, it should be able to have a very significant impact on local connectivity and socio-economic development. For instance, Pakistan has long suffered from inadequate electricity supplies with long hours of stoppage in cities and no access to electricity in extensive areas in the countryside. The Chinese projects of electricity power plants and grid construction, most of which will be completed by 2018, would lead many communities and local economies of the country from pre-electricity age into electricity age, with all the associated advantages and benefits to change their underdevelopment and isolation. The impact would be too great and long-term to be quantified. This is probably the reason that Pakistani government and press called the project game changing. With electricity and road connections, it would then be possible for the Pakistani government to develop the dozens of industrial zones along the corridor, although it would still take time for establishing local industries.

The main focus of the corridor as proclaimed by both governments is regional connectivity. However, many factors might hinder the realization of the goal even with massive investments from China. Regional connectivity means connecting with China, India and Central Asia plus Iran. Physical barriers blocked easy access of the Indus valley region across the mountains and

¹⁹ Saeed Shah and Jeremy Page, China Readies \$46 Billion for Pakistan Trade Route, *The Wall Street Journal*, April 16, 2015

²⁰ Government of Pakistan, Ministry of Planning, Development and Reform and People's Republic of China, National Development & Reform Commission, *Long Term Plan for China-Pakistan Economic Corridor (2017-2030)*, 2017.

deserts to reach Iran and Central Asia via Afghanistan. Pakistan still has a hostile relationship with India in the east. The main channel of regional connectivity is still with China, and the Chinese has already built the Karakoram Highway joining Kashgar in China and even Port Gwadar in the coast of Pakistan. The first convoy of container trucks went to Port Gwadar and unloaded to ships in late 2016, inaugurating the intermodal transport route.²¹ However, Port Gwadar suffers from the shortage of water, electricity and road connections. Although they may be improved by investments, its economic hinterland is too far away and thus causing concerns about costs. The Karakoram Highway is also constrained by high altitude and could not be a cost-effective transport channel for cross country trade to Port Gwadar. Even for maritime trade, Gwadar may not compete well currently with the oversaturated port of Karachi, and in the future the nearby Iranian port of Chabahar. It might not be easy to integrate with a few other ports with heavy Chinese investments and with some managed by Chinese to form so called string of pearls for domination in the Indian Ocean trade route, even though the Chinese shipping companies would like to have more feeder ports along the route for the maritime Silk Road. The China-Pakistan Economic Corridor with all the announced projects and plans may still be the first stage for the industrialization and development of Pakistan in the new age and a good way to achieve its goal of regional connectivity. This is probably in line with the Belt and Road Initiative, as it is only a Chinese initiative, not a modern version of Marshall Plan strongly guided by the political and economic designs and desires of one single nation over others. The lately agreement between Saudi Arabia and Pakistan with endorsement from China for Saudi Arabia to invest US\$ 10 billion in the economic corridor with a particular focus on making Gwadar into an oil city²² affirms the open-ness of the project and the possibility that the Chinese initiative would become a regional collective effort.

The other is the China-Myanmar Economic Corridor lately announced in late 2017 and entered into MOU of the governments of China and Myanmar in September 2018. It is part of the original, more ambitious Bangladesh-China-India-Myanmar Economic Corridor, which has made no progress in past years. China has been the largest foreign investor in Myanmar, but in the last few years, its investment has slowed down, probably because of a lack of confidence in the democratically elected Myanmar government. It seems Japan has moved even more aggressively in infrastructure investment and other major projects with forfeiting previous loans and fresh soft loans.²³ China still enjoys a the largest cross border trade with Myanmar, partly through the underreported cross border trade in the north and partly due to the large illegal trade in jade, which was reported to be as large as half of the national GDP.²⁴ Despite the flourishing informal and illegal trade activities, major projects made in the past during the time of the

²¹ 'Today marks dawn of new era': CPEC dreams come true as Gwadar port goes operational, *Dawn*, 13 November 2016.

²² Imtiaz Ahmad, Saudi Arabia agrees to join the China-Pakistan Economic Corridor, *Hindustan Times*, Islamabad, 22 September 2018; Dawood Rehman, Saudi Arabia 'to invest \$10bn' in China Pakistan Economic Corridor, *Daily Pakistan*, 20 September 2018.

²³ Japanese investment in Myanmar soars to all-time high, NNA/Kyoda, 29 MAY 2018; Yuchi Nitta, Japan Inc. pours cash into Myanmar despite Rohingya crisis, *Nikkei Asian Review*, 17 May 2018

²⁴ *Jade: Myanmar's big 'state secret'*, Global Witness, London, October 2015

military government are either stalled or going slow. At present there are two pipelines for oil and gas running from Kyaukpyu terminal in Rakhine state in the southern coast across the border to the provincial capital of Kunming of Yunnan in China. The terminal could also receive oil and LNG tankers from the Middle East. The pipelines are running full stream in 2018. However an originally proposed railway, the China-Myanmar Railway that runs alongside the pipelines was dropped from the negotiation table. The railway was also part of the package of the Kyaukpyu Special Economic Zone, on which the previous Myanmar administration had placed great expectation. The slow response of the Chinese government probably out of the uncertainty created by the democratization of the Myanmar polity in past years has left the Kyaukpyu project in the planning stage. Recent controversy about the large investment of the entire project of different stages spanning decades adds more uncertainty to the project and China's investment enthusiasm in Myanmar.²⁵

The Chinese narrowing the focus on China-Myanmar Economic Corridor rather than the four-country border may signify its renewed attempt to coordinate and pursue investments, trade and other economic cooperation with Myanmar, It will take time for differences between the two countries and disagreement over policy within China would be sorted out to more proactively promote the China-Myanmar Economic Corridor to become the main trade corridor of southwestern inland China with the Indian Ocean, thereby serving to bypass the security-risk of the Strait of Malacca for China's Maritime Silk Road. The implications, whether geostrategic or regional, national and local, would be enormous, but they would not come easily in the near future.

4. Concluding remarks

The end to the Cold War has removed the excuses of politico-ideological obstacles to the free flows of trade and ideas that had been entrenched for centuries in the global system of the ancient Silk Road. No matter how one speculates the ultimate motive of the Chinese Belt and Road Initiative, it has been working with China making the demonstration to invest in infrastructure investments projects in developing countries that have been ignored and marginalized for decades if not centuries. There could be all kinds of criticism and scepticism, but the undeniable fact is that the infrastructure projects have improved connectivity at all levels for the host countries and combined with associated attempts at local industrialization and agricultural trade, by China or otherwise, it could provide the best chance for them to lift themselves out of the traps of isolation, poverty and marginalization. The changes have greater implications for the population and could not be gauged by narrow/tunnel thinking of project finance or quantified monetary returns for capital. Trade means risk. Investment also bears and

²⁵ The controversy about cost and debt repayment emerges around the same time when western media starts to accuse China of creating debt traps for the Belt and Road countries through its infrastructure investments. Jason Koutsoukis, China's \$7.5 Billion Myanmar Port 'Crazy,' Suu Kyi Adviser Says, *Bloomberg*, 25 May 2018. It is not sure whether the Australian scholar named as key adviser to Myanmar's leader Aung San Suu Kyi has any actual position and role played within the Myanmar government or in the top economic policy making process.

incurs risks. If trade and investments were not suppressed by wars and open political hostility and confrontation, market forces and individuals' quest for business and communities' desires for economic growth and development should be strong enough to build upon the connectivity projects by China and others the restoration of the ancient Silk Road. Stability and cooperation would allow local industrialization and modernization, and the resulting changes would mean more goods for exchanged and more ideas to be shared and promoted. This is what the Chinese leader has reiterated and promoted as the Silk Road spirit and the common destiny of the human kind. As such and as the ancient Silk Road had demonstrated, it would lead to an alliance of civilizations rather than clashes of civilizations. The Chinese Initiative has not only won the support of those involved, but also of major powers that originally oppose to it, like Japan which since 2017 has become enthusiastic about China-Japan cooperation in joint projects²⁶, and India, which may still distance itself from the Initiative but its trade with China has blossomed.

The progress of the Belt and Road Initiative is still in its early stage. Its problems and implications are only unfolding gradually. As the ancient Silk Road was a globalizing enterprise engulfing Afro-Eurasia and the Americas, there is still a long way for the Initiative to go to the full scale. What we can tell now are only signs and possible trends as well as obstacles. At best it could only be the beginning of a research agenda.

²⁶ See for example, Ralph Jennings, Japan Is Committing To China's Belt & Road Initiative, But What's In It For Them? *The Forbes*, 17 April 2018; Weida Li, Japan set for first Belt and Road initiative project with China, *GB Times*, 24 July 2018