The New Eurasian Land Bridge

Opportunities for China, Europe, and Central Asia

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This article evaluates the present and considers the future of the intermediary role of Central Asia in overland trade routes from China to Europe. Focusing primarily on technical and pragmatic issues, it discusses the advantages and costs of potential freight modes and trade routes from China to Europe, finding that rail freight already operates successfully and at high efficiency via Central Asia, albeit at a small scale. Central Asian countries play a successful economic role in the overland trade, but could further benefit if they took part in, rather than just facilitated, China-Europe trade. China and Europe benefit from faster and cheaper trade with each other, and would further benefit from the inclusion of nations in between for either their import demand or their potential development as low-cost manufacturers. On the other hand, Russia’s policy regarding overland trade is driven by the opportunity of continued re-integration with Central Asian nations in the name of facilitated trade.

The first section discusses the advantages and costs of potential freight modes and trade routes from China to Europe. The second section describes the Central Asian route’s emergence and the current state of its freight operations. The third section considers the long-term outlook of the route and the challenges of high-speed upgrades mooted by China. The fourth section analyzes Central Asian economies’ current roles in the trade occurring between China and Europe on the Central Asian trade route, as well as potential opportunities for their further engagement with China-Europe trade, while the last section discusses risks for the route’s future importance and growth. Finally, the report concludes by considering the relevant state actors’ potential future policies regarding overland trade between China and Europe.
THE NEW SILK ROAD

The Silk Road, the legendary trade route between China and Europe, has held an important place in the popular imagination of societies across the Eurasian landmass ever since trade began on the route over 2000 years ago. Like “El Camino Real” (Masters 2015) or the triangular trade of the Atlantic, the term “Silk Road” never referred to one fixed route, but instead to a trade pattern that shifted with alliances, climate conditions and the changing nature of banditry. Central Asia’s role has always been that of the “in between” – the secondary player between two great powers. The original inspiration for the trade route came from a mixed Greek-Central-Asian society (in present day Tajikistan) impressing Chinese leaders with the quality of their war horses (Mark, 2014). Kazakh President, Nursultan Nazarbayev, has recently maintained this Central Asian, in between identity by claiming that Kazakhstan looks both east and west and is a combination of Asian and European civilizations saying that he has “tried to realize the idea of Eurasianism in Astana, [the capital of Kazakhstan]” (Kazinform, 2009).

The idea of an overland trade route from China to Europe re-emerged after the fall of the Soviet Union. Before and immediately after the fall of the Soviet Union, the route was crippled by extreme versions of the bottlenecks that still plague it today: red tape, low capacity, and complicated border procedures (Winterbottom, 2012). Practically speaking, any New Silk Road from China to Europe must go through Russia. Any route further south is extremely complex, either requiring a circuitous detour around the Caspian Sea or traversing the Himalayas, followed by crossing Afghanistan and Iran or Pakistan and Iran. This has caused much promise to be wished upon a new rail route via Central Asia, dubbed the New Eurasian Land Bridge.

The Central Asian route’s recent popularity has origin in China’s spectacular growth. China began to re-emerge as an exporting
power in the 1980s (Silva-Ruete, 2006), and now exports US$2 trillion of products per year across all routes, with roughly US$500 billion of that to Europe and US$15 billion to the five Central Asian countries¹ (Observatory of Economic Complexity, 2015). A disproportionate amount of the gains in incomes from China’s rise have taken place in the country’s east, the part of the country that contains the biggest cities and sea shores, allowing for agglomeration economies and easy logistics for export-based businesses that ship via ocean freight. As a result, labour costs have been increasing in eastern China, and China’s low-wage manufacturing sectors have begun to shift to the interior of the country, to cities like Chongqing and Chengdu (Bradsher, 2013). As a result of this shift, and considering that the Chinese government had been pushing for economic growth in these inland provinces, export growth from the region has recently annually grown at a rate of 25 per cent (Winterbottom, 2012). These manufacturers have poor access to ports (Bradsher, 2013) and to the eastern Russian route, rendering a competitive advantage to the New Eurasian Land Bridge route via Kazakhstan. From the inland city of Chengdu, use of the route to Europe via eastern Russia would add roughly 3,000 kilometres – three or four days’ travel time to the freight journey.

This article considers the present and future of overland trade routes from China to Europe focusing on the intermediary role of Central Asia. The first section discusses the advantages and costs of potential freight modes and trade routes from China to Europe. The second section describes the Central Asian route’s emergence and the current state of its freight operations. The third section considers the long-term outlook of the route and the challenges of high-speed upgrades mooted by China. The fourth section analyzes Central Asian economies’ current roles in the trade occurring between China and Europe on the Central Asian trade route, as well as potential opportunities for their further engagement with China-Europe trade, while the last section discusses risks for the route’s future importance and growth.

¹. Generally, and in this article, Central Asia refers to Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, and Tajikistan.
Finally, the report concludes by considering the relevant state actors’ potential future policies regarding overland trade between China and Europe.

**A TRADE ROUTE THOUGH CENTRAL ASIA**

**Shipping modes and rail’s advantage**

In international freight shipping the cost of shipment is inversely proportional to time of delivery. Global producers are willing to pay a premium for faster transit due to their increasing reliance on just-in-time supply chains (The Chamber of Commerce of the United States, 2006) and because faster transit allows them to optimize their profits by responding quickly to changes in demand in markets located far from their production operations (Bradsher, 2013). The 13,000-kilometres Silk Road is long enough that rail, sea, and air shipments take their natural places in the freight hierarchy, for instance sea is slowest and cheapest, air is fastest and most expensive, and rail is in between on both metrics (Hutchinson, 2015). A 40-foot (12.2 metres) container travelling warehouse-to-warehouse from China to central Poland will take approximately three days to arrive by plane, two weeks by train and six weeks by boat, with an associated cost of US$40,000, US$10,000 and US$5,000, respectively (Mount, 2014). Because trucking from the interior of China to a port is expensive, the difference between train and sea shipping is less extreme - about 25 per cent for shipments that originate in western China (Bradsher, 2013). For time sensitive but heavy products - such as car parts, processed food, and high technology, the price-speed structure of rail freight is more appealing than either the cheaper or faster alternatives.

Shipping by rail also provides additional value as a way to diversify methods of export for China in response to three areas 2. For some companies a further reason to use rail (or sea) instead of air freight is that the carbon emissions of air freight are 30 times higher (Bradsher, 2013).
of risk. Firstly, the prices of all four major methods of transportation – rail, road, sea, and air, are differentially sensitive to changes in fuel prices. Secondly, the speed of sea shipping reduces dramatically as operators reduce speeds to save fuel when costs are high. In addition, Chinese sea shipping is overwhelmingly reliant on safe passage through the Malacca Straits, the existential importance of that passage to China’s exporters is a geopolitical issue for the country – giving China a further incentive to find ways to diversify its export routes (Arduino, 2014).

The New Eurasian Land Bridge

The first reintroduction of a land route between China and Europe occurred via China’s border with Russia bypassing Central Asia. The chief weakness of this route is that the freight must cross into Russia in far northeastern China, which is an indirect route to Europe and – more importantly convenient only to China’s eastern port cities that are already well serviced by port infrastructure. In addition, much of the demand for rail freight is in fact coming from interior Chinese cities.

In response to these challenges, an alternate route constructed in 1990 came into regular use in 2011 (Winterbottom, 2012). This route originates in eastern China and cuts through its interior before passing through Kazakhstan, Russia, Belarus, Poland and Germany with some trains continuing on to France and Spain. The 8,000-mile route, from the city of Yiwu in Zhejiang province to Madrid, is the longest continuous train route ever. Many slightly different routes have been labeled under the umbrella term of the New Eurasian Land Bridge – some link Chongqing to Duisburg, while others link Beijing to Hamburg, however it is the middle section of the route, from Kazakhstan to Poland, which seems to define it (Hutchinson, 2015).

In the past two years, this train route has evolved into a naturally and privately sustainable venture, rather than simply a
symbolic, unprofitable, government-run project. Since 2014, the
Central Asian route has been used by five trains each week, run-
ning from China to Germany and back (Mount 2014), operated
by a joint venture between Deutsche Bahn and Russian Railways
(Brautlecht 2014). Customers on this line, between Chongqing
and Duisberg, have included Foxconn, Hewlett-Packard, and
Acer (Brautlecht 2014). The Chengdu-Poland line, operated by a
Polish company called Hatrans, also uses the Central Asian route,
runs weekly, and takes 14 days (Michalik 2015). It regularly runs
at full capacity and its clients include DHL, Philips, Ericsson,
Seagate, Samsung, and FIAT. This train also makes delivery stops
in Russia and Kazakhstan (Arduino 2014).

Rail freight from China to Europe is growing. Container
traffic on the trans-Siberian railway grew by 15 per cent in 2013
and 22 per cent in 2014, with a total of 865,600 20-foot (6.1
metres) containers of freight in the first six months of 2014. The
average container spent 14 days in transit, confirming industry
claims on the speed of China-Europe rail freight transit (In-
ternational Transport Journal, 2014). While Kazakhstan might
have been overly optimistic in predicting a tripling of freight
traffic through Kazakhstan every year from 2013 to 2020 (Brad-
scher, 2013), further growth does seem likely as the early movers
solve logistical problems on the route, making newer entrants’
issues less pronounced.

It should be noted that Spain is the destination for which the
rail route’s comparative advantage is weakest, since the freight
journey is lengthened by one week as a result of the journey from
Germany to Spain, and Spain is well-serviced by ports and thus
sea shipping (Mount, 2014). It is possible that the extension of
the route from Germany to Spain will be more efficient if more
trains use it, since the Germany-Spain route should take only
two to three days at international best practice average freight
times (Bureau of Transportation Statistics, 2008). Also, the Eu-
ropean Economic and Social Committee recently suggested that

3. One example of
such a solved issue is
that Hewlett-Packard
helped Chinese
customs solve a
software design flaw
whereby customs
software only allowed
countries adjacent to
China to be chosen as
destination countries
(Bradsher, 2013).

4. The freight trains
in Europe have much
lower priority on the
rails compared to
passenger trains in
the United States.
This slows rail freight
speeds in Europe and
makes the current
speeds of the trains
traveling on the New
Eurasian Land Route
more impressive
(Furtado, 2013).
Spain adopt the European standard for freight rail gauges, which would remove a source of major delay at the France-Spain border (Bouron, 2009).

**The question of high-speed rail**

Sea shipping makes up 80 per cent of global freight volume (GeoBeats News, 2014), but 95 per cent of China-Europe trade. Most of the remaining 5 per cent consists of rail freight (Winterbottom, 2012). While rail is a comparatively minor player in freight, the large amount of trade between the two regions – 40 million 20-foot containers crossing the Suez Canal each year (Rastogi and Arvis, 2014) means that rail freight from China to Europe is still a sizeable market.

Some minor inefficiencies were addressed on the New Eurasian Land Bridge route, including that most countries on the route accept uniform freight documentation and that goods imported into China via the route are only inspected by customs upon arrival at their destination (Winterbottom, 2012). However, some challenges remain, including the fact that due to gauge changes, the containers must be transferred between two sets of carriages at three separate points: on the China-Kazakhstan, Belarus-Poland, and France-Spain borders (Hutchinson, 2015). That said, the line is operating at near-peak efficiency. In the United States, which is a highly developed freight market, freight trains average travel speeds of roughly 22 miles per hour (Bureau of Transportation Statistics, 2008). At that speed, the Chongqing-Duisburg segment would be covered in 13 days, and current freight delivery times on the route are only two days longer. The Chengdu-Lodz route is even closer to best practice speeds – its record time of 12 days is only a few hours slower than what the United States rail freight average would imply (Arduino, 2014).

The route’s inefficiencies are more pronounced with regard to capacity than speeds, with bottlenecks caused by limited ca-
capacity at borders and gauge transfer stations, and seasonality caused by extreme cold winter temperatures (Arduino, 2014). At current capacity, a peak-utilized New Eurasian Land Route could transport 20 per cent of China-Europe cargo (Rastogi & Arvis, 2014; Fronda, 2013). European rail freight authorities are also working on peak capacity issues on the western end of the route to improve infrastructure in order to increase the maximum length of freight trains allowed into the EU by 150 per cent (Mount, 2014).

China has considered increasing the rail option’s appeal by building a US$150 billion high-speed rail link from China to Turkey, via Kazakhstan, Turkmenistan, and Iran (Mann, 2014). Without considering border, customs, loading, or unloading delays, the journey could take as little as three days, despite being much longer because the route has to travel south of the ideal path to avoid Russia and the Caspian Sea, a move that is necessary to avoid gauge changes on the Russian-built train system’s borders with China and Poland (Fronda, 2013). It is unclear from the plans alone whether the operational costs of such a system would make it unfeasible, a complement to traditional standard speed freight, or cause it to completely replace traditional rail freight. The answer will partially depend on issues of capacity – if border, loading, and unloading bottlenecks are not addressed, then it is possible that both the new high-speed route and the old traditional route could at some point, simultaneously run at peak capacity, and still be only a minor if important complement to sea shipping. Given that China is currently planning to complete a 30,000 kilometre network of high-speed rail within the country (Badkar, 2011) as part of a US$300 billion investment plan (Fronda, 2013), funding and engineering a high-speed Silk Road route is well within its capabilities. The most difficult challenges are, of course, political, as the line would have to cross two difficult countries in Iran and Turkmenistan, and that China might
have to come to a compensatory arrangement with Russia, who stands to lose much from the completion of a freight route that bypasses it entirely.

The role of Central Asia

Kazakhstan has already begun to benefit from the existence of the New Eurasian Land Bridge. As of 2013, the Kazakhstan rail system employed about 160,000 workers, representing 2 per cent of the country’s labor force. Much of the system’s work is related to trade with China – as of 2013, a quarter of rail freight within Kazakhstan was coming from or going to China and that number is growing (Bradsher, 2013). In 2011, the rail system’s freight division earned approximately US$100 million in profit, with 76 per cent of that profit coming from integrated freight operations and the remainder from freight operations where the Kazakh group engaged only in freight forwarding or operating (Kaztemirtans, 2012). In addition, locomotives used on the route were built in Kazakhstan, and General Electric is moving further production facilities to the country (Bradsher, 2013).

In contrast, the real gains would materialize if the region were to latch onto the freight network as an endpoint for either exports from, or imports into, the Central Asia region. Currently, the trains return from Europe to China with cars, car parts, and manufacturing equipment, but many containers are empty on the return voyage (Mount, 2014). As mentioned earlier, the Chengdu-Lodz trains have begun to make stops in Kazakhstan and it is natural that these trains might make it easier for Kazakhstan to import European goods. As of 2012, Kazakhstan imported US$28 billion of goods from Europe. The makeup of imports can best be described as diversified manufactured goods (Observatory of Economic Complexity, 2015).

Central Asian economies are overwhelmingly dependent on the export of natural resources. Kazakhstan also exported US$16
billion of goods to China in 2012, mostly consisting of raw materials – crude petroleum, iron, copper, radioactive materials, and zinc (Observatory of Economic Complexity, 2015). Given the complementarities of this trade, it is difficult to argue that freight containers should be returning to China empty.

Both national governments and international organizations have made it a priority for the Central Asian economies to diversify into manufacturing. An obvious issue with this strategy is that the countries are landlocked and have no access to a port. As a result, most of the limited manufacturing that these countries engage in – such as the car manufacturing industry in Uzbekistan has focused on the massive markets provided by the region’s neighbours – namely India, Pakistan, China, and Russia. The Eurasian Land Bridge, in theory adds the European Union to this list, which is a larger market in purchasing power than the other four countries combined. Moreover, relying solely only on its neighbours exposes Central Asian exporters to political power plays, if China decides to restrict Central Asian business, there are few alternative points of sale available. The EU does have the ability to act in unison but it is still a somewhat independent pool of 28 actors and Central Asia is less likely to find itself frozen out. This could provide further incentive for Central Asian entrepreneurs to consider the manufacturing export space going forward, though of course this is all predated on these companies being able to compete with Chinese and European companies’ willingness to pay for cargo space on the New Eurasian Land Bridge.

In addition, further gains could be realized from the presence of the New Eurasian Land Bridge if Central Asian countries were to begin to engage in China-Europe supply chains, perhaps as a supplier of low-cost labour to align with western China’s relatively higher-skill and higher-cost labor supply. This would particularly be an opportunity for the poorer Central Asian countries – Tajikistan, Kyrgyzstan, and Uzbekistan. According to Rastogi and
Arvis (2014, p.95), obstacles to engaging in these global supply chains include that

very little voice is given to the users of logistics such as retail companies or exporters of manufactured and time-sensitive goods who actually suffer from the supply-chain inefficiencies…the region is one of the most isolated from international logistics knowledge.

Moreover, such integration pre-supposes the integration of rail networks within Central Asia, which is a matter of constant discussion – most recently involving Kazakh National Railways attempt to connect China to Iran via Turkmenistan (Bradsher, 2013), but is far from a complete project. If such integration were to take place, and the gains from the presence of the New Eurasian Land Bridge began to reveal themselves, it could also serve as a major incentive for those Central Asian countries who have not joined the Eurasian Customs Union to do so.

The risks

Air freight and sea shipping will always have one advantage over rail freight: the ability to avoid contentious countries. Another concern is that the route could lose favour with Chinese exporters, perhaps if there were a decline in demand for “just-in-time” manufacturing components. While it is possible that this would lower demand for the route, allowing Central Asian exporters to become more competitive, it is more likely that the loss of the scale that was provided by the massive China-Europe trade will render the operation of the route unprofitable. China is clearly, and reasonably, trying to diversify the outlets for its products, and the New Eurasian Land Route is not its only rail route option. Another project it has recently funded is to build a rail connection to a port in Pakistan. Understandably, Russia is also keen not to lose freight traffic on the easternmost sec-

5. An instructive demonstration of why this is such an existential risk for rail is Paul Theroux’s famous rail voyage in 1973 in the book The Great Railway Bazaar. At the time, he traveled through Europe, Turkey, Iran, Afghanistan, Pakistan, India, Myanmar, Thailand, Laos, Malaysia, Singapore, Vietnam, Japan, and the Soviet Union without issue. At least four of these countries are impassible by rail today and a few countries he could not have traveled to, including China, are wide open today.
tion of the trans-Siberian railroad, which is a direct – if slower, competitor of the New Eurasian Land Bridge. To this end, in 2013 it announced US$43 billion in infrastructure spending for improving the Trans-Siberian route’s connections with China (Bradsher, 2013).

Fuel costs also pose a risk to shipping by rail that is difficult to predict. Rail’s advantage over air freight depends on its cost – an advantage that can expand or erode in an unpredictable and tremendous way given the volatility of fuel prices and the fact that fuel expenses make up a disproportionate amount of total air freight costs. In turn, rail’s advantage over sea shipping is its speed, and this too is variable with fuel prices, as shipping operators slow their cruising speeds to save fuel in times is high fuel prices (Bradsher, 2013).

**CONCLUSION**

The emergence of the New Eurasian Land Route is an equally important advance in international trade for China, Central Asia, and Europe. It allows China to diversify its export transit options via a method that is a clear complement to maritime and air freight options. European companies who are moderately time-sensitive due to quickly changing demand for its products or “just-in-time” supply chain issues but unwilling to pay for air freight, now have a new method of transit to use for their products. Central Asia has shown the ability to service many aspects of the new industry, by managing tracks and trains and even by manufacturing carriages.

Moreover, greater consequences, both positive and negative, could be at hand for all parties from the further emergence of overland trade routes between China and Europe. Central Asian countries could gain by becoming a part of, rather than just the facilitators of trade between China and Europe. Because of Cen-
entral Asia’s low labor and energy costs – lower than even in China, they could position themselves as a low-cost manufacturer of goods bound for either China or Europe. Capitalizing on the new overland trade routes is crucial for these countries given that their lack of ports and small domestic consumer markets make them peripheral to the modern economic order. Both China and Europe have much to gain from integrating the Central Asian countries into the trade supply chain, especially if the proposed high-speed route is realized, which could pass through large importing markets in Pakistan and Iran. Lastly, realizing the opportunity afforded to Central Asian nations by the overland trade, Russia has been quick to cooperate on the route as long as the Central Asian countries agree to further re-integration with Russia via the Eurasian Customs Union. Given Russia’s recent actions along its western borders, this should hardly be a surprise and it should be expected to continue as policy.

REFERENCES


