

**TRADE WITH AGRICULTURAL GOODS FROM EU TO CHINA AFTER ONE  
BELT AND ONE ROAD INITIATIVE**

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*Nowadays, China is endeavoring to rebuild the Silk Road with the One Belt and One Road Initiative, which is the country's most ambitious foreign trade and investment project. The Silk Road Railway serves as the critical land connection between Asia and Europe throughout many influential countries and cities including China's Xinjiang Autonomous Region, Kazakhstan, Russia, Belarus, Poland, and Germany.*

**Key words:** *European Union, China, One Belt and One Road Initiative, railways, trade, agricultural goods.*

**ТОРГОВЛЯ СЕЛЬСКОХОЗЯЙСТВЕННЫМИ ТОВАРАМИ ИЗ ЕС В КИТАЙ  
ПОСЛЕ ИНИЦИАТИВЫ «ОДИН ПОЯС И ОДИН ПУТЬ»**

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*В настоящее время Китай пытается восстановить Шелковый путь с помощью инициативы «Один пояс и один путь», которая является самым амбициозным внешнеторговым и инвестиционным проектом страны. Железная дорога Шелкового пути служит важнейшим сухопутным соединением между Азией и Европой во многих влиятельных странах и городах, включая Синьцзянский автономный район Китая, Казахстан, Россию, Беларусь, Польшу и Германию.*

**Ключевые слова:** *Европейский Союз, Китай, Инициатива «Один пояс и один путь», железные дороги, торговля, сельскохозяйственные товары.*

The Silk Road Railway serves as the critical land connection between Asia and Europe throughout many influential countries and cities including China's Xinjiang Autonomous Region, Kazakhstan, Russia, Belarus, Poland, and Germany. Along with the Asian Infrastructure Investment Bank, an ambitious spatial expansion of Chinese state capitalism is clearly signaled by the 'One Road and One Belt' initiative, motivated by both increasing industrial production capacity and rising financial capital interests as expected (Aoyama, 2016, 3-22). The Silk Road Railway serves as the critical land connection between Asia and Europe throughout many influential

countries and cities including China's Xinjiang Autonomous Region, Kazakhstan, Russia, Belarus, Poland, and Germany. Along with the Asian Infrastructure Investment Bank, an ambitious spatial expansion of Chinese state capitalism is clearly signaled by the 'One Road and One Belt' initiative, motivated by both increasing industrial production capacity and rising financial capital interests as expected.

### **Theoretical background**

Specifically, there are six corridors which geographically outline the vision of the "Belt and Road", including New Eurasian Land Bridge (from Western China to Western Russia through Kazakhstan), China–Mongolia–Russia Corridor (from Northern China to Eastern Russia), China–Central Asia–West Asia Corridor (from Western China to Turkey), China–Indochina Peninsula Corridor (from Southern China to Singapore), China–Myanmar–Bangladesh–India Corridor, running from Southern China to Myanmar, China-Pakistan Corridor (from South-Western China to Pakistan), and Maritime Silk Road (from the Chinese Coast through Singapore to the Mediterranean). (China-Britain Business Council, 2015).

"One Belt" is more focused on the overland version and the "One road" is the maritime version. Chinese objectives of this project are to "go international" and China intends to foster a "new era of globalization". Linking China with the countries outside the world and creating more opportunities between them are the fundamental goals of One Belt and One Road Initiative. With the objective to promote more interaction and trade with the Eurasia countries along the Belt and Road, China is open to explore more areas for investment and gain more cooperation opportunities in the infrastructure sector including the railway, highways, pipelines (gas and oil), air routes, and telecommunications (China Briefing, 2014). These goals were highlighted at the 10<sup>th</sup> Asia Europe Meeting in 2015, where China's premier Li Keqiang emphasized the importance of facilitating China-Europe interconnectivity realized by advancing the trade and investment so that a single Eurasian market and an interconnected Eurasian infrastructure network can be quickly established.

Two main overland networks that gain more focus include the New Eurasian Land Bridge and China–Mongolia–Russia Corridor. The reasons behind this include that 1) China has paid more attention in integrating with European markets; 2) the geopolitical conditions are more favorable along these corridors covering Russia and central Asia largely due to the fact that the strategic collaboration and cooperation between China and Russia are deepening. 3) Central Asian states demonstrate a more positive attitude toward the One Belt and One Road Initiative; 4) China has several regional institutions that can assist in implementing long-term planning and institutionalized dialogue, such as the 16+1 (China–Central and Eastern European Countries—CEEC) Initiative, Shanghai Cooperation Organization, the Collective Security Treaty Organization. As such, the Eurasian corridor gains more importance compared to other corridors that pass through the Middle East and North Africa.

Starting from China, passing through Russia, Central Asia, East Europe and ending at West Europe, the distance of Eurasian Land Bridge Economic Corridor is above 13,000 km. There are a number of railways that are complementary to the corridor. These railways are being used more widely along with the growth in the trade and additional routes are being proposed. The cornerstone of One Belt and One Road's Eurasian Expansion is the partnership between China and Russia. To ensure this China-Moscow partnership, many efforts are being made by China to not only strongly link Russia to the Initiative by exploring more cooperation opportunities, but also resolve the concerns on that Russia's place in Central Asia and East Europe can be influenced by China's rise in the economy and politics. Growth in the engagement between China and Russia was exemplified by the Putin–Xi summit in 2015, wherein a joint declaration was made. The declaration emphasizes the agreement by two countries to coordinate the development of the Silk Road Economic Belt and the Eurasian Economic Union, contributing to the establishment of a shared economic space throughout the whole Eurasian continent. This consensus between China and Russia has resolved a potential barrier in expanding Eurasian One Belt and One Road.

In addition to the Eurasian Land Bridge Economic Corridor, the second axis of the Belt and Road Initiative is the 21<sup>st</sup> century Maritime Silk Road. The primary goal is to link China with European countries through the South China Sea and the Indian Ocean by utilizing China's coastal ports. This route can enhance the cooperation between countries and cities across economic, social, and non-traditional lines. Under this corridor, new maritime lanes and new ports will be explored to enhance the transportation of goods and the communication of technologies and people, offering many development opportunities to the countries along this corridor.

This diversified project enables the progress step by step and the participation of all interested parties in a consensus and active manner. The integration of the Maritime Silk Road enables the establishment of the Asia-Europe maritime route. The port of Piraeus in Greece will be a key port considering the European end of the Maritime Silk Road network and more work are being complete to develop this most potential trade hub. Additionally, there are other more projects ongoing to realize the maritime connectivity, involving many countries in Europe (e.g., Belgium, Italy, Malta, Netherlands, and Poland) and those along the Asia-Europe maritime corridor such as Egypt, Pakistan, and Sri Lanka. It is important to mention that the development of these port-related projects will advance the land connectivity as well because they can bring about the expansion of new railways and roadways connecting the ports to inland regions. In short, the land and maritime corridors under the Belt and Road Initiative are complementary to each other.

### **What is the benefit of the Belt and Road policy to EU?**

Although there are 6 corridors based on the vision of the “belt and road” strategy (*vide supra*), the first, second and the last one appear to be more practical and more related to EU. The other three corridors will, more or less, have the

problem of the unpredictability from Central South Asian countries and Turkey and thus these corridors will not be discussed in this paper. Note that the three corridors which are more related to EU, are including the New Eurasian Land Bridge (from Western China to Western Russia through Kazakhstan, then to Eastern EU), China–Mongolia–Russia Corridor (from Northern China to Eastern Russia, then to Eastern EU, this corridor will probably connect Korea and Japan as well in the future), and Maritime Silk Road (from the Chinese Coast through Singapore to the Mediterranean, then to Southern EU).

All these corridors mentioned above are aimed to enhance the cross-border infrastructure so that transportation costs can be greatly reduced across a huge geographical network between China and Europe (Casarini, 2015). The first two especially benefit the landlocked countries such as Poland, Hungary, Bulgaria, Romania, Czech Republic, Slovakia and even also Austria, while the last one benefit the southern countries such as Greece, Slovenia, Spain, and Italy (Gomez, 2017).

In the past decades, the goods from Europe to China or from China to Europe have been transported by sea. From China's most busy ports such as Shanghai and Shenzhen to the west European coast ports in Atlantic such as Rotterdam and Hamburg. However, this takes much longer and the customers have to order the goods almost one year in advance, even for the very simple items such as textiles, toys and Christmas decorations. The fact is that the Mediterranean ports such as Trieste in Italy and Piraeus in Greece have been long time undervalued, although they are much shorter and faster in between China and Europe. They should be revitalized under the infrastructure of One Belt One Road Initiative. Thus, the seaports from the Mediterranean and the railways are the key networks under One Belt One Road to connect China and EU.

One of the Belt and Road's crucial aims is to withdraw the barriers facing cross-border trade, particularly, through the development of the transport infrastructure, which was expected to reduce the burden on the transportation costs, leading to the increasing trade flows between China and these countries. Likewise, this effect will also benefit the EU due to the fact that cheaper transportation is always favorable in an effort to boost its trade with other countries along the Belt and Road. Undoubtedly, positive effects induced by the policy on the trade flows will benefit all the related countries in the Belt and Road block, especially for EU countries.

From a statistic perspective, one of the most important questions to foster international trade is how to reduce transportation costs. To be specific, a 10 % reduction in the costs of railway, air and maritime can increase trade by 2 %, 5.5 %, and 1.1 %, respectively (Garcia Herrero & Xu, 2016). In further words, transportation cost is the key to boost international trade in a statistically and economically significant manner. Moreover, the tariffs for international trade can be diminished upon the transportation costs are reduced.

One of the good examples for the railway is the Yuxinou Railway (from Chongqing to Duisburg) to which data associated with the reduction in transportation time is accessible. To be specific, Chongqing's mayor stated in 2015 that there is 50% reduction on the transportation costs on this railway, which is in accordance

with the values about the reduction in transportation time after the new railway line was introduced (from 17-18 days to 12-13 days) based on the information from Yuxinou official website and Chinese national official media (People CN, 2014).

Eurasian rail services are not only dramatically cheaper than air but also faster than the sea, enabling a compelling transport option to increase the transport amount of goods in the future. The rail freight was estimated to be approximately 80% less pricy than air freight while its transit time is only half of that for conventional seal freight, and the total logistics costs of rail freight to ship time-sensitive goods (valued from 1.23 to 10.89 US\$/kg) and lower time sensitivity (valued from 2.46 to 21.78 US\$/kg) was estimated to be lowest compared to other modes of transport (Schramm & Zhang, 2018.) The advantage of railway transportation is obviously reflected in the shorter timeframe. Although at present the cost of the transport is still higher than the maritime, the quicker turnover of the capital and the interest of the money will offset the loss. More importantly, the maritime transport usually requires up to 30-45 days, such longtime transport might not keep pace with the personalized and innovated market demand. As such, this advantage of Eurasian rail freight from transport cost and transit time makes it be a great choice, allowing the establishment of sustainable and flexible supply chains by shippers between Europe and China.

### **Research question and research**

We set the following research questions:

1. *What are the exported agricultural products from the lagging-behind EU countries to China?*
2. *What are the best transportation means for those products under One Belt and One Road Initiative?*
3. *What is the corresponding demand on these products from China?*

It's expected that the list of products will be established and the rationale for these products to benefit from the "One Belt and One Road" initiative will be discussed.

Ten countries were selected in this section to study, including Austria, Bulgaria, Croatia, Greece, Hungary, Italy, Poland, Romania, Slovenia and Spain. Although Austria is not lagging-behind country in the EU, it has a great impact on the Eastern and Central European countries such as Croatia, Hungary, and Slovenia. Italy is not deemed as lagging behind country in the EU either, but it really has a serious problem with its sluggish economy and the future of Italy will have a vital impact on the future of the EU. Spain and Greece are both the good typical examples which will be benefited by China One Belt and One Road marine route, especially because of their natural advantage in raising fruits and vegetables (Grubler et al.,2018).

The information on product exports from these ten European countries to China was collected and analyzed in this study. There are sixteen product categories, but we have focused on:

- Animal products include live animals, animal origin and nest, meat and edible meat offal, dairy products, birds' eggs, natural honey, fish, crustacean, etc.
- Food products include preparations of meat, fish or crustaceans, cereal, flour, starch, milk, vegetable, fruit, nuts; beverages, spirits and vinegar, tobacco and its substitutes, waste from food industry, etc.
- Vegetables include live trees/plants/roots, edible vegetable /roots/tubers, edible fruit/nuts, coffee, tea, spices, cereal, starches, oil seeds, resins, vegetable fats/oils/cleavage products, etc.

Table 1 –The ranking of product exports (in thousands of US dollar) by ten EU countries to China for the year 2017 organized by country, presenting the relative magnitudes of different product exports for each country. The smaller the rank number (a higher export value), the greener the color scale; the larger the rank number (a lower export value), the redder the color scale.

Product Category	Austria	Bulgaria	Croatia	Greece	Hungary	Italy	Poland	Romania	Slovenia	Spain
Animal	12	13	14	14	6	16	7	9	16	4
Chemicals	4	4	5	6	4	4	6	7	7	5
Food Products	10	6	7	16	10	10	10	12	9	8
Footwear	13	16	13	10	15	11	14	16	15	15
Fuels	16	14	12	2	12	15	16	11	8	16
Hides and Skins	11	15	8	11	13	7	15	13	13	13
Mach and Elec	1	3	2	4	2	1	2	1	1	2
Metals	3	1	9	5	5	6	1	4	6	3
Minerals	14	2	6	1	16	13	11	10	14	1
Miscellaneous	2	5	4	7	3	3	3	3	4	12
Plastic or Rubber	7	10	10	13	7	8	4	6	5	9
Stone and Glass	9	11	15	12	9	12	9	14	10	14
Textiles and Clothing	6	7	11	8	11	5	12	8	11	7
Transportation	5	9	3	15	1	2	5	5	2	6
Vegetable	15	12	16	9	14	14	13	15	12	10
Wood	8	8	1	3	8	9	8	2	3	11

The data were obtained from the statistical database. (World Integrated Trade Solution (WITS)). The table was created by authors.

The reddest scale (corresponding to lower export values to China) is in the sector of Food products and Vegetable and here is big potential. China is a country with a deep culture of “eating”. Most of the parties, family gathering, festivals, and even commercial negotiation and business agreement are done through dinners and banquets.

Chinese have spent thousands of years developing various and delicious food. A great variety and wide range of the food are throughout big China, from the north to the south, from the east to the west, almost every city, every state even every town have their own specialties. The source of the food is also dramatically wide,

from the pig tails to the sea grass, from the bamboo to flowers, etc., rather broad and profound.

There are so-called TV programs “A Bite of China”, with which people can have a glance at the great range of the food and also get a touch of the abundant variety of Chinese cooking methods.

China is a great market for food products from Europe, especially from the Eastern and Southern EU countries. With the faster connection by the railways, water, beer, food, juice, meat, milk can be shortly transported to China. People always have too much attention on how many machines and cars from Germany are exported to China. However, the most potential demand in China is pure water, safe food, and organic juice. China has been suffering from unsafe food and water in the past 20 years when it was the most fast-growing period of its GDP. However, all of this disadvantage in China is a potential for the products from the Eastern and Southern European countries, because the usual transport route by sea takes much too long and not suitable for the food, water, milk, etc.

The earth in China have been using chemical fertilizer to increase the output but this has caused a bad soil structure. Food has been always a problem for China for thousands of years. In the north of China, people are suffering from too less fresh water and smog air. The fast-economic growth, the rapid increase of population, the modernization, and the industrialization since the 1970s have posed the pressure on the food supply and food safety in China. The large difference between food production and food consumption/demand was highlighted in the seminal publication by Lester Brown in 1995 called “Who will feed China”.

Water is critical to the development of China, given its indispensable role in the three major divisions, agriculture, industry, and residency. However, the shortage of water confronts the civilization of China for a long time. The per capita arable land area in China is lower than 50% of that for the world average and the per capita arable water is around 25% of the world average. The major problems for water include: 1) the freshwater resources are not evenly spatially distributed in China; 2) the capacity of urban water supply systems is not sufficient to meet the dramatically increasing demand; 3) in comparison to the advanced irrigation techniques (as used in some developed countries), the traditional irrigation systems built upon the flooding field and the open canals are not very efficient; 4) along with the rapid development in the industrialization, there is an increase in the untreated wastewater discharge from urban and industrial areas that cause the contamination on the freshwater resources; and other problems related to the incomplete pricing mechanisms, the conflicts between the water use for different purposes. All these problems have led to the adverse impacts, such as the extreme extraction of groundwater, the severe deterioration of ecosystem, the siltation (in the yellow river basin), and the problems in the use of dams, reservoirs for irrigation. As a result, China’s water problems extremely affect agriculture, e.g., grain production, and thus China’s food security.

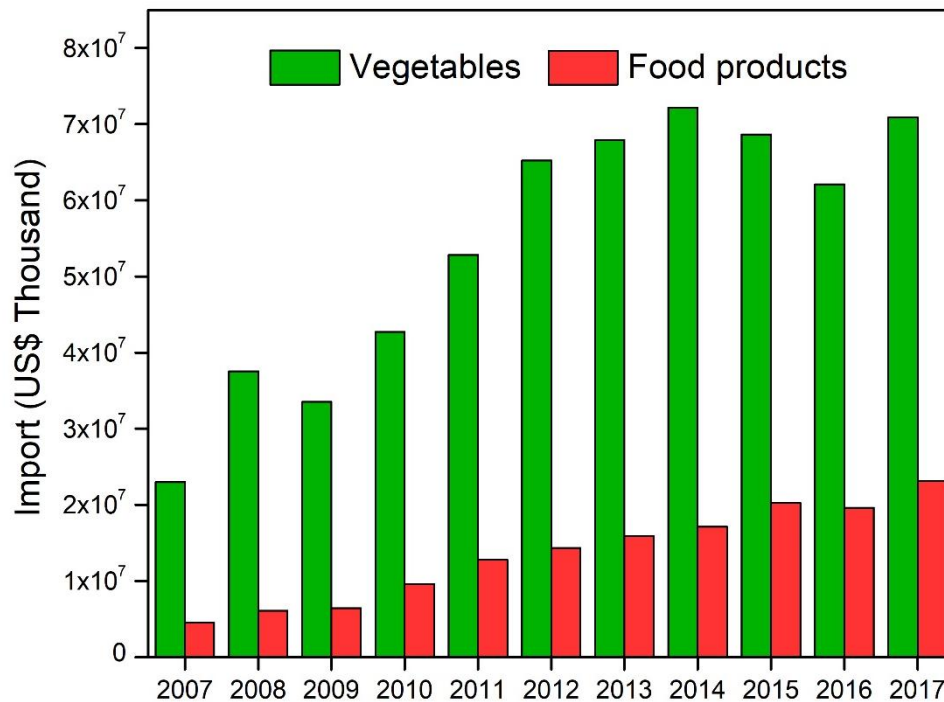
The majority of the population in China is being affected by a combination of environmental pollution and the growing risk in food safety. The major factors that cause the food safety in China include the scarcity of water (surface and groundwater), the overuse of pesticide to the land, and the pollution of chemicals (for

example, heavy metals). The growing adverse consequences on the food safety resulting from the soil and water pollution pose the health risk to the people, for example, the emerging cancer villages that seem to be related to the areas with food production. In addition, there are food scandals in media which places some doubt for Chinese people to use some domestic products. The major problem is that some suppliers added illegal additives to their foodstuffs. The incidents that occurred include the addition of Ractopamine to meat for leanness, the use of ditch oil, and the use of melamine for the fake formula milk, and the use of Sudan IV for food coloring. Of course, the Chinese government immediately released regulations to monitor food safety. But there is still the social distrust for the food industry.

All these problems in China's food supply and food safety imply the potential market for other countries to export foodstuff to China, and food safety and quality are the top two factors for Chinese consumers to consider when they choose the imported foodstuff. Due to a huge population (~1.4 billion), the economic development, and the steady growth of living standard in China, the increasingly wealthy consumers are targeting diverse and exotic flavors (i.e., overseas food and foreign cuisines). There is an enormous potential for China's market required for much more imported food and beverage. China is the largest food importer in the world (around 79 billion US dollar per year in food and beverage). More than 80% of consumers in the first and second-tier cities of China have bought the imported food, especially, the imported food gains popularity in the young buyers. The manufacturers in foreign countries thus can design their food products based on the preferences of different age groups. There are a wide range of foods China are importing every year. The core segments include meat, dairy, aquatic products (e.g., seafood, salmon), grain, vegetable oil, fruits and liquor. Beside frozen meat and seafood, the dairy products are one of the most popular products in China, obtaining attractions from both young and old communities. Snacks and sweets also gain a lot of popularity in China. Chocolate and high-end confectionery are very in demand for social occasions.

It is seen from Figure 1 that in the past 10 years from 2007 to 2017 there was a quite fast growth for the demand of importing the vegetable and food products. Along with the high growth of GDP in the past 10 years, the people in China have a strong desire for better life quality. For worry of the domestic quality, more and more vegetables, juice and food are imported in vast volume for Chinese consumers.





*Figure 1 –China imports of vegetables and food products from the world in the period of 2007 to 2017*

*The data were collected from the statistical database. (World Integrated Trade Solution (WITS)) The figure was created by the authors.*

China imports a great deal of food-related products from the Southeast and Central Asia, because the distance is closer, and the shipping time is shorter. Europe is famous for its high-quality food but due to the long distance and shipping time, the volume of the business actually is quite limited.

The railway network conducted under One Belt and One Road Initiative provides the possibility to shorten significantly the transport time between the two continents, especially for the Central and Eastern EU countries which are closer in geography to China. They have large lands and plenty of sources of food and vegetables. With the advantage in the geography of the Eastern and Southern EU countries, as well as along with the rapid development of the infrastructure under One Belt and One Road Initiative, there is too much potential to export food and nourishment from them to China.

Bulgaria, Croatia, Greece, Romania, and Slovenia should strive more export to China, especially the food products, vegetable and animal products. Bulgaria, Romania will export more with the railways, while Croatia, Greece, and Slovenia can certainly take advantage of the Mediterranean ports and overland.

## **Conclusion**

In a nutshell, the lagging behind countries should take advantage of the advanced infrastructure conducted under the One belt and One road policy and export

water, beer, milk, food, wood and flowers to China, who would like a healthier and quality life, instead of suffering the polluted air and water. In Austria over 90% of the rivers and lakes can be drunk by people, however in China over 60% of the river and lakes are polluted. In this field, China is the largest market for the EU countries.

Not only the products but also the culture. China is a country with a long history and naturally, it is a land having plenty of the treasure of the culture. One the hand, the East and South EU countries such as Italy, Spain, Greece and Hungary have also gorgeous culture. The east of the south of the EU should be the exchanging center of the culture for Asia and EU.

The East of EU countries should hold more exhibitions for more trade between the EU and China, not only the modern techniques but also the food and culture section. The culture revitalization is very important for the Eastern EU countries because in the history there were very few backgrounds to show that these areas were the centers of the culture. The culture reflects the mind of people and the people are always the most important factor for the renovation.

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