THE INFLUENCE OF ONE BELT ONE ROAD PROJECT ON SUPPLY CHAIN MANAGEMENT IN THE CONTEXT OF BTK RAILWAY LINE

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PLAGIARISM

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ABSTRACT

In the context of supply chain, the two goals of the belt and road project stands out, such as ensuring barrier free trade and increasing the connectivity. Turkey, situated in the middle corridor of the project, is aiming to become a logistic hub by using its important location. Turkey is very eager to act as a bridge between Europe and Asia and it is among the first countries that expressed positive perspective toward the project. In this regard, Turkey has completed various infrastructure projects like Baku-Tbilisi Railway, Marmaray and Yavuz Sultan Selim Bridge for OBOR. These projects created new logistic connection modes by providing logistics integration. In particular, the COVID-19 pandemic forced organizations to consider different routes in logistics. In this study, influence of OBOR project in context of BTK railway line has been searched and studied. As a result of this study, it has been understood that BTK opened new and alternative transportation routes, affecting transportation cost positively. It also provides a price advantage to Turkish exporters and importers.

Key Words: Belt and Road Initiative, Supply Chain Management, OBOR Logistic

ÖZET

Bir kuşak bir yol projesinin tedarik zinciri açısından ticaret yollarının etkileşimini artırmak, engelsiz ticareti sağlamak gibi iki önemli hedef göze çarpıyor. OBOR projesinde, orta kuşakta yer alan dünyadaki önemli konumunu kullanarak bir lojistik üs olmayı hedefleyen Türkiye, projede Asya ve Avrupada bir köprü görevi olmada çok istekli ve projeye olumlu yaklaşımını gösteren ilk ülkelerden biridir. Bu bağlamda, Türkiye OBOR projesi için, Bakü-Tiflis Kars demir yolu hattı, Marmaray, Yavuz Sultan Selim köprüsü gibi, bir çok altyapı projesi tamamlamıştır. Bu projeler lojistik entegrasyon sağlayarak, yeni lojistik bağlantı modları oluşturmuştur. Özellikle COVID-19 salgını, kuruluşları lojistikte farklı rotaları düşünmeye zorladı. Bu çalışmada, BTK demiryolu hattı bağlamında OBOR projesinin etkisi araştırılmış ve çalışılmıştır. Araştırmanın sonucunda BTK, yeni ve alternatif taşıma yolları açmış, taşıma maliyeti açısından olumlu etki ederek, Türk ihracat ve ithalatçılarına fiyat avantajı sağlamıştır.

Anahtar Kelimeler: Bir Kuşak Bir Yol Projesi, Tedarik Zinciri Yönetimi, OBOR Lojistik

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LIST OF ABBREVATIONS

OBOR: One Belt One Road

GDP: Gross Domestic Product

OECD: Organization for Economic Co-operation and Development

EU: European Union

U.S.A.: United States of America

NELB: The New Euroasian Land Bridge Economic Corridor

ZTE: Zhong Xing Telecommunication Equipment

ASEAN: Association of Southeast Asian Nations

LNG: Liquefied Natural Gas

USD: United States Dollar

G20: The Group of Twenty

TCDD: The State Railways of the Republic of Turkey

E-Commerce: Electronic Commerce

COVID-19: Corona Virus Disease 2019

B2B: Business to Business

BTK: Baku-Tbilisi-Kars Railway Line

TRACECA: Transport Corridor Europe-Caucasus-Asia

TEU: Twenty-Foot Equivalent Unit

TUSIAD: Turkish Industry & Business Association

FDI: Foreign Direct Investment

RMB: Currency of China

5G: Fifth Generation

BRICS: Brazil, Russia, India, China and South Africa

40' HC: 40' High Cube

CIM: Contract of International Carriage of Goods by Rails MGS: Agreement on International Goods Transport by Rail

1. INTRODUCTION

As in the Historical Silk Road, Belt and Road Initiative is an infrastructure project that enhances road connections and uninterrupted trade which can affect the supply chain management of more 65 countries involved. Turkey has been giving full support to the project and it has completed and continuous to finish a series of infrastructure projects in order to advance its goal of becoming a global logistic hub in the world. Turkey wants to accomplish its target to become a logistic center by using its unique location. Infrastructure projects such as Baku-Tbilisi-Kars railway, Marmaray and Yavuz Sultan Selim Bridge connects China with Europe on OBOR middle corridor. BTK is an OBOR related infrastructure project. This thesis looks at BTK railway line's impact on supply chain management since it is actively being used in logistics.

Qualitative approach has been used. Scientific resources, international journals and articles were used in this study and they were obtained from databases such as google academic, Elsevier, Dergi Park, Research Gate, World Bank and OECD. Research questions of this thesis are as follows.

Research Questions:

Q1: Will BTK railway line bring added value to Turkey?

Q2: Candarlı Port in Turkey could have been chosen by China for the Maritime Silk Road, but China selected Piraeus. Due to this choice, what has been the economic cost to Turkey?

Q3: Will Yavuz Sultan Selim Bridge be a key connection point for OBOR train to reach Europe via Turkey?

Furthermore, a comparative study for logistic costs in relation to BTK railway has been made to prove the accuracy of this thesis.

This paper will call belt and road initiative as OBOR. Xi'an is an important city as the old silk route starts from there and more importantly it is the city where Turkey is connected with China on OBOR. As the OBOR is a revitalization of the Historical Silk Road, it is important to get to know about it. Second chapter of this dissertation is about the Historical Silk Road the description of OBOR initiative in detail. To better understand OBOR, I have researched why did China need to start OBOR initiative? What China tries to succeed with OBOR? What countries are involved in OBOR?

None of the countries of OBOR is selected by China haphazardly. Third chapter of thesis begins with telling the location of Turkey to better understand why Turkey has taken part in this infrastructure project. Furthermore, this chapter outlines the infrastructure projects, related to OBOR, that are already made or under construction to figure out their existing and probable effects on supply chain management in Turkey. Forth chapter outlines Turkey-China economic relations in the context of OBOR. Trade volume between the two nations has been analyzed by giving a short history on economic relations. Turkey is a connecting point for China to cross into Europe on the middle corridor. When a freight train travels to Europe via Turkey, it will return to China via Turkey again. In this regard, Turkey has some expectation from China aimed at increasing its export to China and expects more direct investment from China.

Last chapter consist of a comparative study for logistic costs in relation to BTK railway, conclusions, results, and suggestions.

2. HISTRORICAL SILK ROADS & OBOR PROJECT

2.1 History of Silk Roads

It would be a wrong idea to think that Silk Roads is only the road that was used just for trade and built to carry only commodities. As for the reason, throughout history, and nowadays, people have constantly move from place to place in order to do trade and generate commerce with their neighboring countries, meet each other, exchange ideas, products, and inventions.

Some of the examples of inventions were paper in China and irrigation waterwheel in Roman Syria (Major, n.d.). Also, during ancient times, there were a number of kingdoms and emperors which took benefit from Silk Roads that has steep mountains and deserts. Silk Roads were developed to transport more than merely goods across countries. It permitted different cultures to meet and learn from one another which helped in the development of civilizations. The Chinese developed silk and it was traded dominantly and used as presents. Silk was a precious secret but eventually spread to other parts of Asia. The Silk Roads grew, the routes began to include using the sea, which then lead to the rise of cities emerging near the coast. Fundamentally, seeking knowledge and exploring new places and religions became the reason the use of Silk Roads flourished. By the end of the 19th century archaeologist and those in the quest for new expeditions started to use Silk Roads. Ancient monuments still stand today as an amazing testament to inequity of early civilizations (Unesco, n.d.).

The fiction of Silk Roads can be traced back to the middle age's accounts of Italian explorer, Marco Polo, an author, and merchant that was born in Venice, Italy. He described the road from Baghdad to China. Exotic name of this roads was Sidenstrasse or Silk Road which was merely invented in 1877 by German traveler and geographer Baron

Ferdinand von Richthofen. Since goods were carried along a series of roads across Central Asia to Europe, from China to Rome, Silk Road can be identified as one of the world's first highways (Wood, 2002, p. 8).

General Zhang Qian is the first to travel on Silk Roads. In the second century BC General Zhang Qian was given an important duty by Emperor Wudi of the Han Dynasty (206 BC-AD 220). Zhang's aim was to get the Yueh-chih people that was beaten by Xiongnu (Huns of Turkish descent) (Judy Bonaviva, 1993, p. 18).

Silk Roads is actually a network that has more than 2.000 years of history. The name Silk Roads represents a series of trading networks that help to deliver of goods between Western markets in the Middle East and Europe and Eastern markets, particularly in China. Chang'an, what we know today is Xi'an in China was the beginning destination of the trip. The caravan pathway then broken into the North Road and South Road since it crossed the Western Territory and met trade roads in Rome. Silk was the initial method used in trade among West and East. Silk was also not used to make only cloth, it also played an important role to advance relations between nations (Ekinci, 2014, p. 10).

Silk was the item that could only be allowed to be taken out of China as a fabric and yarn and those who tried to get silkworms out of China would be punished dead. Silk Roads have a big impact on social and economic life. International trade was risky and challenging so that number of goods that were transported via Silk Roads were limited. Furthermore, as the merchants had to travel a lot due to nature of the Silk Roads, they were exposed to threats, illness, and extortions, but thanks to big ships and existence of compass and maps as well as wind power, traders were able to deliver more goods in shorter amount of time. In the aftermath of roads safety, it was possible to do a lot more

trade. As a result of provided road safety along with new expansion of new roads, trade volume was surged (Günay, Çetiner, Sevinç, & Kütükçü, 2019, pp. 160-161).

There are false ideas about the goods that were carried via Silk Roads. Number one is that silk was the foremost item to be exchanged. Along with Silk Roads, there were different goods which were traded such as, tea, salt, cotton, gunpowder, copper, paper, or iron. Number two is that it is only a business network. Of course, goods were being moved from one place to another to do trade. However, Silk Roads was a road where people interact and travel. As a result of this interaction and movement, ideas, religions, customs and new innovations were interacted. In addition to that on the Silk Roads, there are a lot of paths and roads so that it is not the only road from Asia to Europe. Therefore, it is important to define it as Silk Roads rather than Silk Road. The routes were also utilized to deliver raw materials, valuable items, and food. For instance, China provided with silk to Central, South and West Asia including Mediterranean regions by traders. Silk, which was exchanged very frequently between traders was an extremely valuable and key product during that ancient time. Mostly goods that were dispatched by sea were raw materials whereas goods that were transported mostly with caravans to short distances. The Silk Roads cover a giant geographic place and most of the maps of Silk Roads show the Silk Roads stretching from Japan to the Mediterranean and it is quite obvious that land routes and maritime routes are interconnected (Williams, 2015, pp. 2-7).

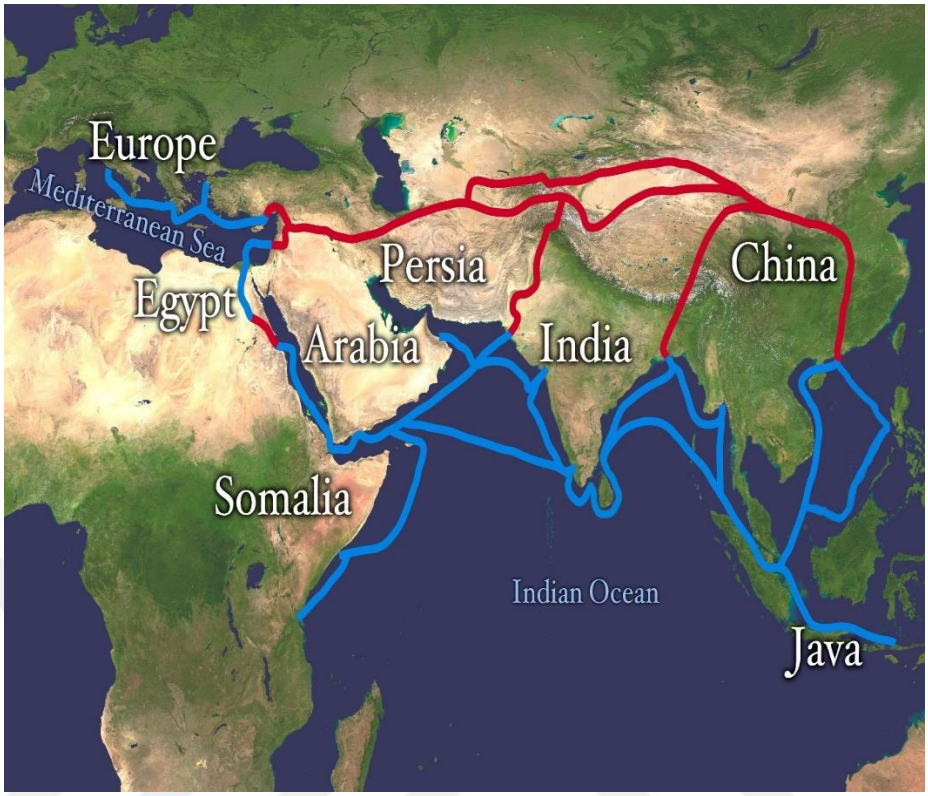

Figure 2. 1: NASA/Goddard Space Flight Center. (2010). Extend of Silk Route/Silk Road

[Photograph]. Retrieved from https://commons.wikimedia.org/wiki/File:Silk_route.jpg.

According to United Nations Educational, Scientific and Cultural Organization's official website, more than 40 countries today are alongside the ancient Land and Maritime Silk Roads keep influencing their culture and customs even today.

2.1.1 Turks on Historical Silk Roads

Roughly Silk Road's 20.000km of total length passed through borderlines of dynasties of Turks. This is very important for dynasties of Turks because Silk Roads had a great impact on improving economic relations with China, Caucasus, Russia, India, and Arab nations.

Furthermore, main line of the Silk Roads was under the control of dynasties of Turks Plus, Turkic nation's borders were starting from the north of the Beijing, capital city of

China, stretching away to Iran, Khorasan, Ural Mountains, and Caspian Sea and then to Black Sea. On these borders, Dynasties of Turks were neighbors with the nations, China, Iran and Byzantine. Having neighborliness with such powerful nations allowed Turks to be more powerful and active in terms of trading along the Silk Road (İsayev & Özdemir, 2011, p. 113).

Turkic dynasties helped Turks to set up a trade connection throughout the Silk Roads from India to Anatolia in today's Turkey. At different times, Turks worked on to keep Turks active with Silk Roads. For instance, solid and smooth roads were made by Seljuk for safe logistic in Anatolia, the Ottoman Empire let trade going emerging from Aleppo by means of Silk Roads to Izmir, a western city of Turkey. Ottoman Empire sheltered Jews that were expelled to use their knowledge about banking system and place them in the city of Izmir, Thessaloniki, and Istanbul to get trade change its way from South Africa to Silk Roads (Ekinci, 2014, p. 10).

2.2. Toward OBOR

It is crucial to know that Silk Roads led to discovery of immense lands between Europe and China. Silk Roads witnessed clashes and troubles between peoples as well as discovery of new lands. Thanks to Silk Roads, Eurasian continent became easier to travel. Following the collapse of Western Roman Empire and Byzantium, Silk Roads were not as important as it was before. Such developments also had a negative impact of China which weakened the power of China. Afterwards, as of 15th century, new powers like Portuguese and Spaniards emerged and then English and Americans had strong influence over oceans. Battles to be dominant and leader on Silk Roads never stopped. After the cold war, United States of America weakened Russia in Central Asia via its pipelines policy which resulted raw materials reached the world markets.

United Kingdom's decision to leave the European Union had a bad impact on United Kingdom's economy. Foreign policy of the administration of the United States of America was the America first policy. President of the United States of America believed that Trans-Pacific Partnership (TPP) accord does not benefit the United States of America because Donald Trump thought that the deal was against America's first policy so that Trump left the accord. China took benefit of the absence of the United States of America in Asia. China declared that it can be a symbol of globalization (Reiff & Lit., 2018, p. 2).

2.2.1. Introduction of OBOR

About six months after he was elected, Xi Jinping, president of Republic of China, decided to pay official visits to five countries, Russia (for Eighth G20 Leaders' Summit), Turkmenistan, Kazakhstan, Uzbekistan, and Kyrgyzstan. During his official visit to Kazakhstan, on the date of September 7 in 2013, he delivered a speech at Nazarbayev University in Nur-Sultan, Kazakhstan (Fmprc, 2013). The speech delivered by him titled as "Promote People-to-People Friendship and Create a Better Future ". Xi Jinping announced the enormous and exciting project that would shake the world later called as 'The One Belt One Road Initiative', ("OBOR") also named as Belt and Road Initiative ("BRI").

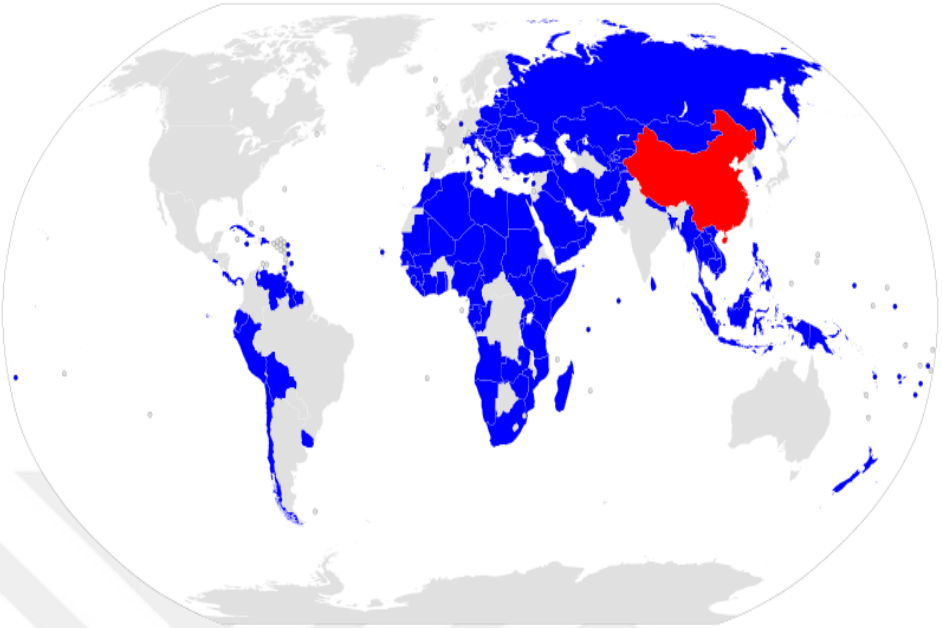

Figure 2. 2: Owennson. This is the map of the Countries which signed the Belt and Road Initiative Cooperation Documents (2019). [Map].

Retrieved from

https://en.wikipedia.org/wiki/File:Belt_and_Road_Initiative_participant_map.svg

Xi Jinping proposed to build a Silk Road "Economic Belt", land based, with Central Asian countries, pointing out the vision of China strategically for the OBOR and importance of the revival of new Silk Road connecting China with the Europe via Central Asia. After a very short time, Xi Jinping announced the "Maritime Silk Road", sea-based, during his visit to Indonesia at the Indonesian parliament on 2 October 2013, in Jakarta. Maritime Silk Road is a network of maritime trade routes linking Asia with Africa and Europe. Maritime Silk Road is also labelled as "21st Century Maritime Silk Road". Both of these initiatives target to grow the economy of China domestically and internationally. They also aim to help China to become an important power in the world. OBOR takes a lot of large number of investments for infrastructure that could connect China with the world (Aris, 2016, pp. 1-2).

OBOR initiated and run by China compromise two sections. First is this project's land-based part called "Economic Belt".Second is the project's sea-based part, "Maritime Silk Road". Simply, in the context of OBOR (One Belt One Road), Belt refers to the road route of this grand project and the road refers to the sea route. Having six land-based trade corridors along with one sea-based maritime corridor, China with OBOR commits to its goal to involve more 65 countries covering 69 % of world's population and 51 % of world's GDP. Furthermore, India, Russia, Indonesia, South Korea, Turkey, Saudi Arabia, Iran, Thailand, Taiwan and Poland are the 10 prime markets of OBOR. These 10 countries constitute 66 % of the region's GDP, excluding China (McKenzie & Associates, pp. 1-10).

Top 5 major targets of OBOR are as follows.

- Policy Coordination
- Connectivity of Projects
- Unrestricted Trade
- Financial Integration
- People to People Bonds

Table 2. 1

OBOR participated Countries by Region.

Region	*Countries*
East Asia	China, Mongolia
Southeast Asia	Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar
Southeast Asia	Philippines, Singapore, Thailand, Timor-Leste, Vietnam
South Asia	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka
Central Asia	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan
Middle East/N. Africa	Qatar, Saudi Arabia, Palestine, Syria, United Arab Emirates, Yemen, Palestine
Middle East/N. Africa	Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman
Europe	Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria
Europe	Latvia, Lithuania, Moldova, Ukraine, Croatia, Czech Republic
Europe	Estonia, Former Yugoslav Republic of Macedonia (FYROM), Georgia, Hungary
Europe	Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey, Ukraine

Note. Data obtained from "World Bank", by the writer (2020).

Number of countries taking part in OBOR are more than 60 as other countries are in collaboration with China for some mutual cooperation deals or infrastructure projects for transport along the OBOR (Gleave, 2018, p. 22).

With the advent of pipelines, railways, and ports, OBOR desires to improve connectivity and trade across the region via defining China as a hub. China aims to invest into the initiative is anticipated to get 1.4 trillion dollars (Liu & Ke, 2018, p. 3).

2.2.2. Corridors of OBOR

According to Chinese official resources, OBOR has six land corridors (Economic Belt) along with the maritime, sea-based, corridor (Maritime Silk Road or 21st Century Maritime Silk Road).

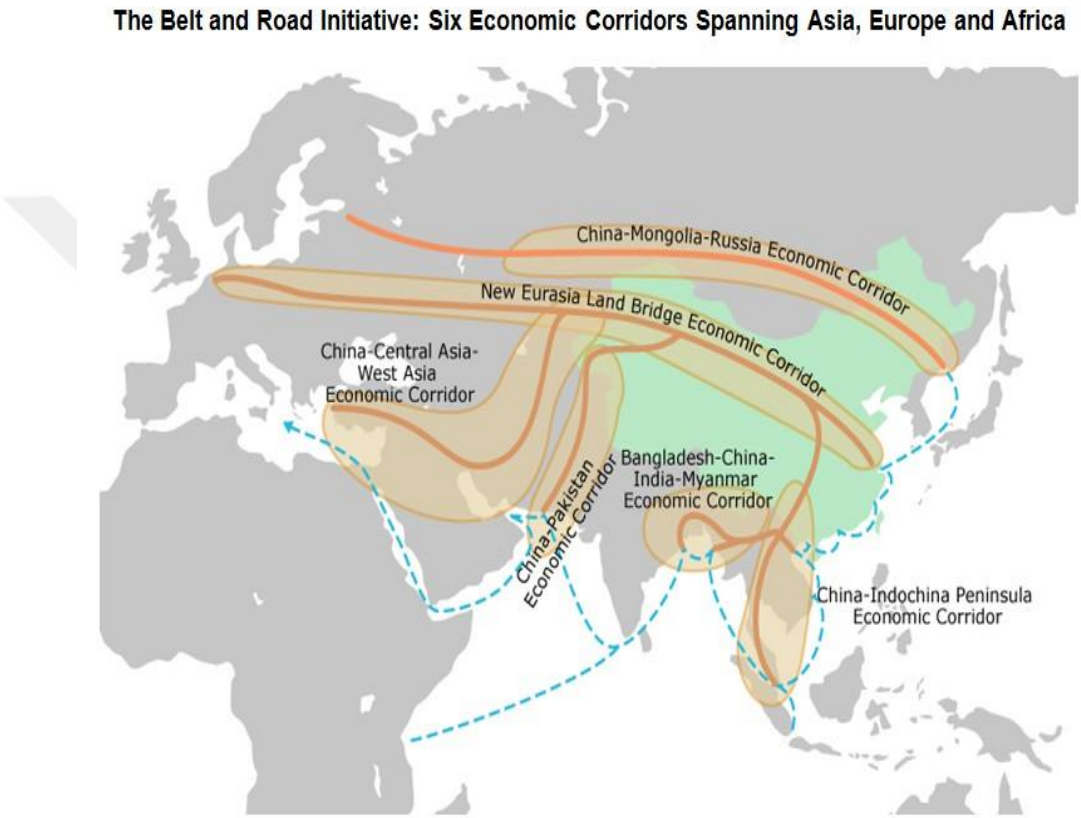

Figure 2. 3: Hong Kong Trade Development Council. (n.d.). Belt and Road Initiative: Six Economic Corridors Spanning Asia, Europe, and Africa

[Map]. Retrieved from http://m.hktdc.com/business-news/article/The-Belt-and-Road-Initiative/The-Belt-and-Road-Initiative/obor/en/1/1X3CGF6L/1X0A36B7.htm

By looking at the map above, it is also quite obvious that this project covers most of world's regions starting from China and ending in Europe with its corridors.

2.2.3. Economic Belt

Aim of the economic belt corridors are to improve connectivity and colleberation along six important corridors. According to Asian Development Bank, it requires USD 26 trillion fund for Asia to build these corridors. There is no doubt that China is able to help with the fund. Additionally, countries and regions located on the economic belt will positively get affected. In the Boao forum, foreign and commerce ministery of China declared an action plan named as “Vision and Actions on Jointly Building Silk Road Economic Belt and 21 st Century Maritime Silk Road” for the purpose of OBOR (Chin & He, 2016, p. 8).

Six important land-based corridors are as follows;

- The New Euroasian Land Bridge Economic Corridor
- China-Mongolia-Russia Economic Corridor
- China-Central Asia-West Asia Economic Corridor
- China-Indochina Peninsula Economic Corridor
- China-Pakistan Economic Corridor
- Bangladesh-China-India-Myanmar Economic Corridor

Figure 2. 4: Mercator Institute for China Studies. (n.d.). Infrastructure Projects being Planned and Undertaken as of December 2015 in China's Belt and Road Initiative [Map]. Retrieved from https://www.merics.org/en

a) The New Eurasian Land Bridge Economic Corridor: This corridor involves rail and it goes through Kazakhstan, Russia, Belarus, Poland and Germany. As to media of China, it may connect Lianyungang with Rotterdam in Europe. This corridor can enhance the poor western region's trade with Europe. This corridor makes Russia the most important country on this corridor because it covers about 30 % areas of the Eurasia. (Sarwar, 2018, pp. 136-137). NELB contains number of rail networks of 12.000km and reaches Europe in about two weeks (Babones, 2017).

b) China-Mongolia-Russia Economic Corridor: The location of Mongolia is crucial due to its connectivity between China and Russia. China is Mongolia's biggest trading ally. Russia has also a big share of Mongolia's import volume. China-Mongolia-

Russia Economic Corridor links three countries with roads and rails (Zhang & Zhang, 2017, p. 162).

c) China-Central Asia-West Asia Economic Corridor: The China-Central Asia West Asia Economic Corridor starts from Xinjiang and then it gets connected with the railway networks of Central Asia and Middle East. The countries on this corridor are Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Turkmenistan and Afghanistan,Iran and Turkey (Derudder, Liu, & Kunaka, 2018, p. 11). In order to improve infrastructure to eunsure connectivity and commerce, China's accords regarding road transport with Kazakhstan, Uzbekistan play an important role to sustain development of infrastructure in Central Asia and West Asia. Deals amounted to US$28 billion with Saudi Arabia and China over China-Saudi Arabia Investment Cooperation Forum is important for OBOR. This significant outcome of deals contributed to this corrdior immensly (Group, 2019, p. 11)

d) China-Indochina Peninsula Economic Corridor: This corridor links Singapore, Kuala Lumpur (Malaysia), Bangkok (Thailand), Phnom Penh (Cambodia), Ho Chi Minh City (Vietnam), Vientiane (Laos), Hanoi (Vietnam) and Nanning (China). Mostly, ASEAN countries are connected along this corridor (Derudder, Liu, & Kunaka, 2018, p. 11).

e) China-Pakistan Economic Corridor: Thanks to this corridor, Xinjiang is connected with Gwadar Port of Pakistan. This corridor involves major projects like dar Gwadar Port, Peshawar-Karachi Motorway, metro lines and power plants (Group, 2019, p. 11).

f) Bangladesh-China-India-Myanmar Economic Corridor: This corridor aims to build a network between China and India. There are planned projects for development of infrastructure and connectivity and trade (Group, 2019, p. 11).

2.2.4.Maritime Silk Road

Oceans have important place for countries in terms of economic, commercial, and cultural exchange. China has launched the Maritime Silk Road to further improve the cooperation at sea and use the ASEAN Maritime Cooperation Fund. In this manner, this corridor is a collaboration of financial resources and trade. The Maritime Silk Road, also named as 21st-Century Maritime Silk Road, is a sea-based road, referring to sea routes. It considers marine logistic. It aims to link ports along the Maritime Silk Road. Routes of this naval part pass through South China Sea, Mediterranean Sea, the East African coast, and Suez Canal. According to OECD research, besides the participating countries, this corridor includes some other countries that are associated. Maritime Silk Road includes Egypt, Ethiopia, Indonesia, Kenya, Maldives, Morocco, New Zealand, Panama, Korea, and South Africa (OECD, 2018, p. 12).

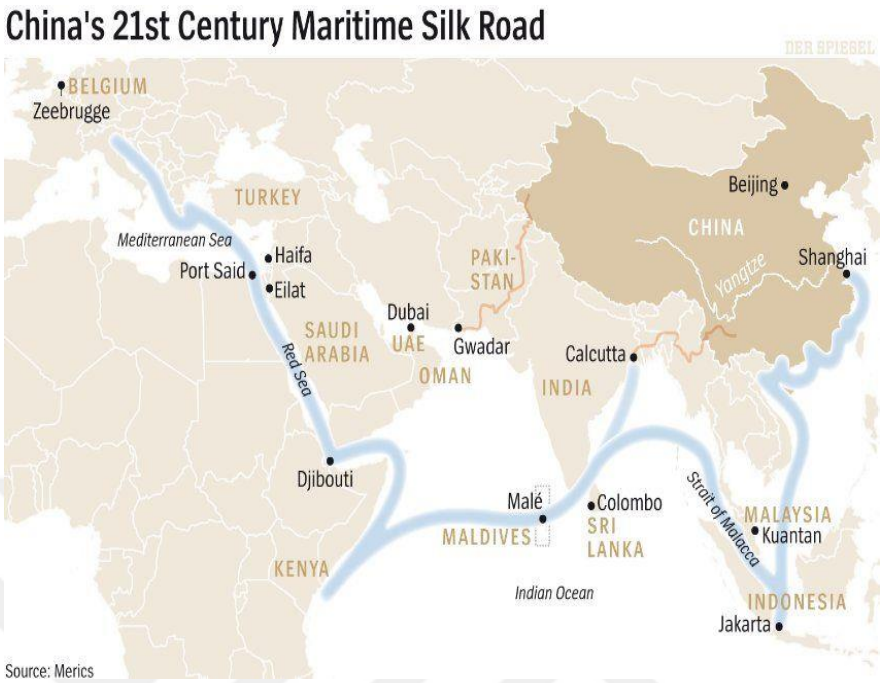

Figure 2. 5: Mercator Institute for China Studies. (n.d.). China's 21st Century Maritime Silk Road

[Map]. Retrieved from https://www.spiegel.de/international/world/china-increasing-overseas-ambitions-with-maritime-silk-road-a-1110735.html

2.2.5. Reasons for OBOR

a) Closing Disparity Gap

OBOR is a very determined project of China. Under the leadership of Xi Jinping, China aims to develop infrastructure by building roads, railways, and trade facilities to advance connectivity around China as well as gaining power in the competitive world. China also has not hesitated to invest in OBOR participating countries to make its dream come true. There are definitely objectives of OBOR and reasons that has led China to kick off this enormous project. China wants to find a new way of economic growth following financial crises. China, new engine of global growth, can help to provide technology, resource, productivity, and experience for the purpose of cooperation with world market (Yiwei, 2019).

Besides its win-win based objective, China is willing to sort out some of it issues with the help of OBOR. There is a regional inequality although economy of China still improves. For instance, Shanghai is five time richer than Gansu, a part of old Silk Road (Economist, 2016).

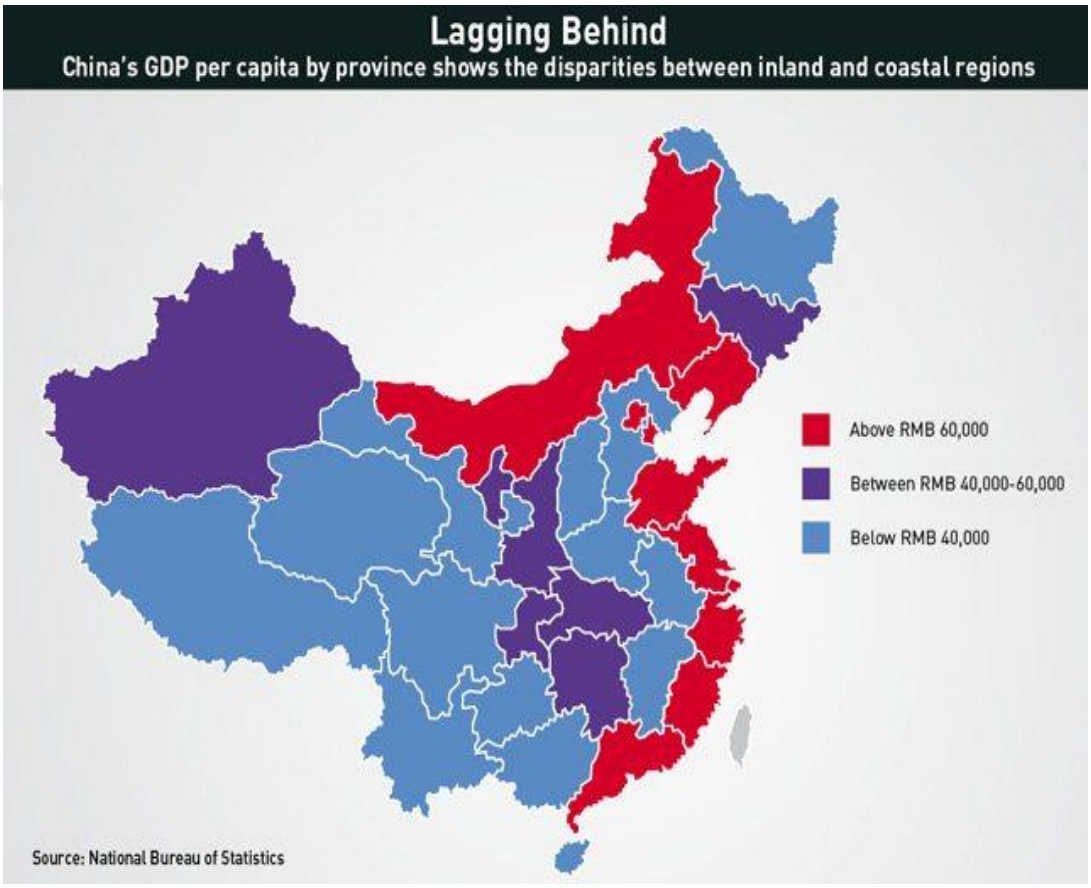

Figure 2. 6: Cheung Kong Graduate School of Business. (2015). China's GDP per capita by Province

[Map]. Retrieved from https://knowledge.ckgsb.edu.cn/2015/09/16/chinese-economy/regional-disparities-in-china-time-for-a-lift-up/

According to the map above, GDP per capita by regions in China, we understand that there is disparity between regions in particular between inland and coastal regions. When GDP is over RMB 60,000 in the coastal regions in East and North China, it drops down to below RMB 40,000 in South West China.

As a remedy to this disparity issue, China wants to begin its international infrastructure building program to develop its poor regions. OBOR's economic corridor targets to connect underdeveloped regions with Europe via Central Asia while Maritime Silk Road corridor which links fast-growing Southeast Asian region with its southern provinces via seaports and railways. Chinese government declared western development strategy to improve economy of Xinjiang. However, this project did not show much progress OBOR has seen the best tool to solve this problem. One of the most significant projects that helps reginal development is China Pakistan Economic Corridor, which links Kashgar in Xinjiang with the Port of Gwadar. China believes that improving Xinjiang's economy would end the problem of with Turkic-speaking Muslim majority in the region. OBOR will also increase the GDP of North East and South West regions with railway, road, and airport projects (Chai, 2017, pp. 1-17).

b) Made in China 2025 Strategy

"Made in China 2025" (MIC 2025), inspired by "Industry 4.0" (I40) project by Germany, is a strategy declared by Chinese government in 2015 to renovate manufacturing industry, improve supply chain and shift manufacturing industry into international standards. This strategy mainly concentrates on new information technology, numerical control tools, aerospace equipment, high-tech ships, railway equipment, energy saving, new materials, medical devices, agricultural machinery, and power equipment. China invested in companies in other countries to have more ability in technology and improve its engineering.

As figure below indicates that the cumulative total is USD 480.3 billion for the OBOR participating economies and it takes the biggest share in the figure as compared to other regions.

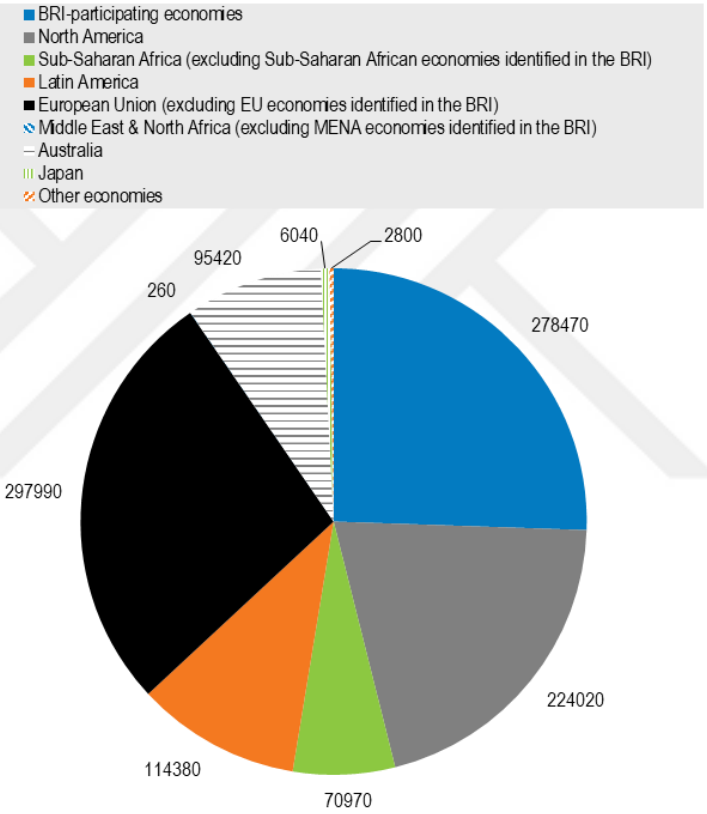

Figure 2. 7: American Enterprise Institute (AEI), China Global Investment Tracker Database. (2018). Chinese Investment in Foreign Companies, Cumulative Notional Amount Expressed in USD million, 2005-2018

[Figure]. Retrieved from http://dx.doi.org/10.1787/888933786420

*Source Note: Data are to end-June. It includes all investments of USD 100 million or greater. Ministry of Commerce, Republic of China (MoFCOM) data totals are around 10% higher for the same period due to the inclusion of small USD investments.

With this strategy China sought to halt its dependency on other countries when it comes to making high-tech products (ISDP, 2018, pp. 1-2). China seeks to sell its high technology goods to other countries as well as it wants to promote better and higher Chinese standards to other countries with the help of OBOR (Chai, 2017, pp. 1-17). Rapid trains, made by China, and exported to Thailand, Turkey, India, Indonesia, and Malaysia for the purpose of OBOR initiative sets a great example and outcome of "Made in China 2025" strategy. Recognition of quality of speed trains by OBOR countries as their domestic standards improves chances of gaining global recognition in all over the world. Implementation of 5G technology, and investments by Chinese telecommunication appliance producer like Huawei and ZTE, in Asia, Africa, and Latin America proves China's eagerness in making telecommunication networks via OBOR initiative (Chai, 2017, pp. 1-17).

c) Keeping Chinese Economy Alive & Energy Supply

OBOR is not only a foreign policy, but also a domestic policy to keep Chinese economy alive and help it to grow. Growth rate of China has gone down, and it has labor cost and aging population issues. China also is very much depended on other countries for energy resources (Minghao, 2015, p. 3). China is the biggest energy consumer and producer due to its very populated geography and its being fastest growing country in the world, but its demand of energy keeps rising (EIA, 2015).

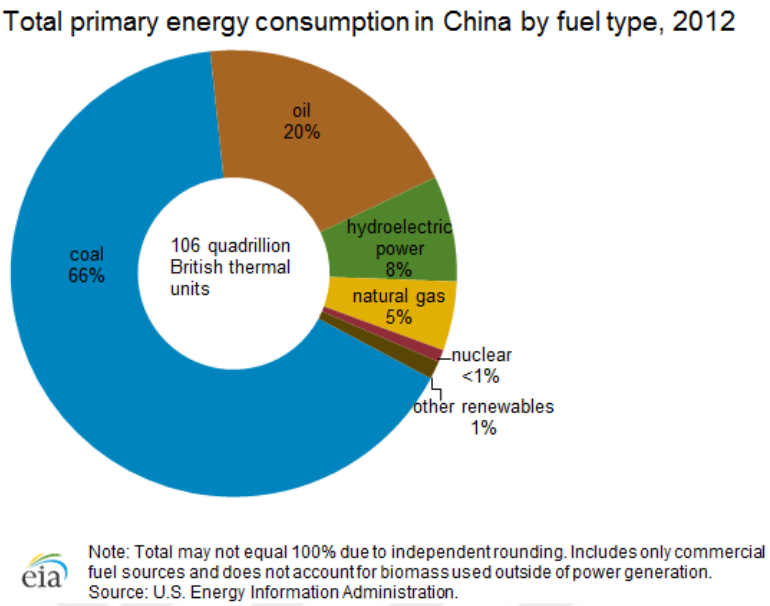

Figure 2. 8: American Enterprise Institute. (2012). Total Primary Energy Consumption in China by Fuel Type

[Figure]. Retrieved from https://www.eia.gov/international/analysis/country/CHN

As we see in the above figure that China consumes most coal with 20 % and oil comes second.

One of the most important objectives of OBOR is to fulfill the need of foreign gas and oil for China and OBOR participating countries can supply oil, natural gas, and coal to China because they hold a very significant amount of supply oil, natural gas, and coal. Hence, energy partnership with OBOR energy rich countries is crucial for China. Saudi Arabia, Iran, Russia, Angola, Iraq, Oman, and Pakistan are the major countries where China buys oil. Safety is a very big concern when it comes to importing oil this is because oil tanker and pipelines are used. For example, there were eight attacks and piracies in the Strait of Malacca (Bloomberg, 2019). China gets roughly 83% oil via Strait of Malacca. With the help of OBOR's two corridors, China-Pakistan Economic Corridor and Bangladesh-China-India-Myanmar Economic Corridor, China can get oils safer and efficient as

compared to Strait of Malacca route (See figure 2.9). Overall, corridors of OBOR enables China to import and supply its gas and oil more efficiently and most importantly in a diversified way and safer and cheaper (Sarker & others, 2018, pp. 119-134).

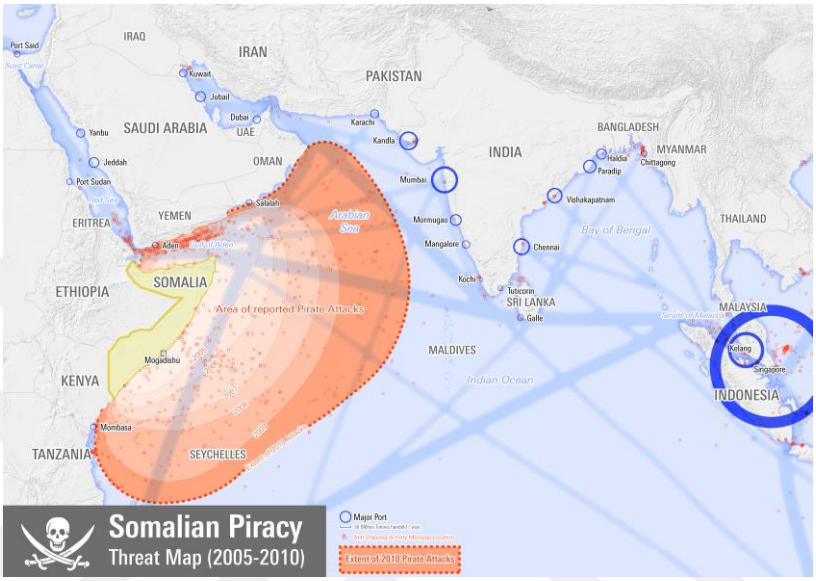

Figure 2. 9: Ganesh, Arun. National Institute of Design Bangalore. (Student). (2020). Somalian Piracy Threat Map 2010 [Map]. Retrieved from https://commons.wikimedia.org/wiki/File:Somalian_Piracy_Threat_Map_2010.png?uselang=tr#filelinks

d) China's Excessive Capacity

In 2008, most of the countries in the world including China were hit by an economic crisis which put an end to some institutions. The crises were believed to be began in the United State of America and the spread through rest of the world. Export plays an important role for the growth of Chinese economy. When the import trading partners such as, ASEAN countries, South Korea, Taiwan decreased their import from China because of the economic recession, Chinese economy was affected negatively. This development caused bankruptcy of export-based companies in China. As a result of closures of companies, jobless rate went up. Moreover, growth rate in GDP which was 13% in 2007 went down to 9% in 2008 (Zhang M. , 2009). In order to combat the

recession, government of China came out with incentive packages one of which targeted to rise commodity values very much. This approach was successful, but it resulted vast excess capacity of production of steel, cement etc. (Chai, 2017, p. 12).

The major steel maker in the world is China and production of steel keep surging year by year. Still sets a good example for excess capacity.

Overcapacity of Steel, 2008 versus 2014

- Capacity of steel was 644 million tones. * Capacity of steel was 1.14 billion tones.
- Production of steel was 512 million tones. * Production of steel was 813 million tones.
- Utilization rate was 80 % * Utilization rate was 71 %

2008 vs. 2014 scale of overcapacity: 132 million tones vs. 327 million tones. (Berger & Chamber, 2016, p. 16).

China wants to manage overcapacity because it has a bad impact on its economy since it diminished revenues of companies and rose their debts. China assumes that OBOR can bring solution to this disturbing problem since OBOR enables China to reach export markets easier by using the connectivity it provides. Plus, in the context of OBOR, China wants to export surplus capacity of cement to ASEAN member countries and it wants to relocate factories based in China to OBOR developing countries so that they can take benefit from making their infrastructure (Chai, 2017, pp. 12-13).

e) Internationalization of RMB

Following the agreement called Bretton Woods in 1944, USD was set be reserve currency of the world. Plus, other currencies were fixed to the USD's value so that today

currency of United States of America is very powerful and the most used global currency in the trade world with a lot of USD stocks at central banks throughout the world (Adkıns, 2020).

According to the IG, renowned online trading and investment firm, most frequently traded currencies, accounting 90 % of the trade are (Smith, n.d.).

- US dollar
- Euro
- Japanese yen
- Pound sterling
- Australian dollar
- Canadian dollar
- Swiss Franc
- Chinese renminbi
- Hong Kong dollar
- New Zealand dollar

China, ranking the second major economy, is seeking to internationalize yuan in order to lower the exchange rate peril, transaction fee and it wants to further the usage of yuan more by enhancing its trade. China views belt and road initiative a good opportunity to stimulate yuan. There are good examples how China embarks on its targets to promote yuan with OBOR member countries. For instance, Saudi Arabia, Angola and Russia are some nations where China purchases oil, and these countries are open to do trade using RMB. Another good example is the swap agreement, signed in 2016, with Turkey and China. As a result, the two counties involved in trade and investment agreements

amounted to USD 132 million. Moreover, China and Pakistan agreed on trading using their currencies (Yesmin, 2019).

To summarize, China is the country that takes the most benefit from the belt and road initiative; however, China declares that OBOR is a win-win based project. In this regard, China's effort to conduct trade using yuan particularly with OBOR countries is also beneficial to countries that are involved since it lowers the risk of exchange rate.

2.2.6. Visions of OBOR

Chinese Government organized the Belt and Road Forum for International Cooperation (BRF) on 14-15 May 2017 in Beijing, China. In the forum, which had 28 leaders of states, Xi Jinping outlined principles and intentions of OBOR in the speech he gave. There are five key areas he touched on.

a) Policy Coordination: Policy coordination in the context of OBOR initiative includes discussions, forming policies, mutual actions, strategies pertaining to developments and policy interactions within the states of OBOR participating countries. For instance, Shanghai Cooperation showed its support by issuing a declaration, 193 member countries from the UN advised intentional community to provide a safe atmosphere. Furthermore, China cooperated with South Pacific and Latin America to take part in OBOR.

b) Infrastructure Connectivity: For OBOR, connectivity is very crucial since it has lots of infrastructure projects involved. OBOR aims to ensure order of standardization. OBOR objects to build vast and efficient network of sea, transportation, pipelines and diminish the cost of transportation in supply chain. Corridors of OBOR as well as infrastructure projects in OBOR countries are a clear examples of building connectivity between countries (Group, 2019, pp. 1-33). Here are the ten most important projects of

OBOR; Jakarta-Bandung high-speed rail, Indonesia- Abuja–Kaduna Railway, Nigeria-Colombo Port City, Sri Lanka-Piraeus Port, Greece-Temburong Bridge, Brunei-Padma Bridge, Bangladesh-Punta Sierra wind farm, Chile-Yamal LNG project, Russia-China-Belarus Industrial Park, Belarus-Djibouti International Free Trade Zone, Djibouti. (Daily, 2019).

c) Unrestricted Trade: OBOR can only be beneficial if OBOR countries on trade corridors are eager to lift trade blocks, decrease import tariffs, make custom allowance easy and approve the certification of goods. (KEE, n.d.). For instance, Kazakhstan, Kyrgyzstan and Tajikistan and China agreed on a trade deal to make custom process faster for agricultural products, as a result of this, approval time at customs diminished by 90% (Group, 2019, pp. 18-19).

d) Financial Integration: Financial integration includes banks, funding mechanisms and financial organizations that contributes to OBOR project.

e) People to People Bonds: It is a cultural exchange organizing events like festivals, films, fairs etc. Giving out scholarships for students that are from the OBOR countries, under the name of OBOR is a good example of this. Another example is launching Confucius institutions in OBOR countries (Group, 2019, pp. 26-27).

2.2.7 The Funding of OBOR

Funding of OBOR's various projects have been carried out by number of financial organizations. Development banks of China takes the biggest share from funding. Amounted to 40 billion Silk Road Fund was established to back infrastructure, trade, energy and commercial activates of OBOR.

- **China Development Bank**

It was opened in 1994 and in 2015 it was legitimately a finance institution. It is the biggest financial institution having 37 main branches in the world. (CDB, n.d.).

For the development of OBOR, it backed 400 projects with banks roughly USD 110 billion. For example, CNB gave a loan to Indonesia for Jakarta Bandung rapid railway (OECD, 2018, pp. 18-20).

- **The Industrial and Commercial Bank of China**

Industrial and Commercial Bank was launched in 1984 which supported 212 OBOR projects that are valued to USD 67 billion (OECD, 2018, pp. 18-20).

- **The Bank of China**

This bank was opened in 1912. It assured USD 100 billion financial fund for OBOR.

- **China Exim Bank**

China Exim Bank, also called as Import and Export Bank, is possessed and funded by Chinese government. It aims to boost China's export and help China to succeed in 'going global' strategy. With its 32 branches, it acts in line with China's main strategies (Bank E. , n.d.).

For OBOR, it supported infrastructure, railways, communication etc. with the loan which was about USD 80 billion. This bank gave loan to Malaysia to build the Penang Bridge which is the lengthiest cross-sea bridge in Southeast Asia (OECD, 2018, pp. 18-20).

- **The China Construction Bank**

It was established in 1954. The China Construction Bank, comes second in terms of its assets, raising at about USD 15 billion to support OBOR (Wu & Zhu, 2017).

- **The Silk Road Fund**

Silk and Road Fund mostly involves in the energy industry. For example, Karot Hydropower Project in Pakistan, which is situated in China-Pakistan Corridor of OBOR was financed by the Silk Road Fund (OECD, 2018, pp. 19-20).

- **The Asian Infrastructure Investment Bank** Founded by BRICS countries (Russia, Brazil, India, South Africa, and China), bank aims to support OBOR with loans worth to USD 2.3 billion. China also made contributions almost half of its issued capital (OECD, 2018, pp. 20-21).

3. IMPORTANCE OF TURKEY ON OBOR INITIATIVE & THE PROJECTS THAT WILL AFFECT THE SUPPLY CHAIN IN TURKEY

3.1. Turkey & China Agreements for OBOR

Turkey is one of the first countries that showed its support for OBOR so that there are number of official agreements related to OBOR signed between Turkey and China.

- Memorandum of Understanding on the Establishment of the New Silk Road Connection Joint Working Group.
- Memorandum of Understanding on Aligning the Silk Road Economic Belt and the 21st Century Maritime Silk Road and the Middle Corridor Initiative between The Government of the Republic of Turkey and The Government of the People's Republic of China.
- Agreement between Government of the Republic of Turkey and The Government of the People's Republic of China on International Road Transport of Passengers and Goods.
- Memorandum of Understanding on Electronic Commerce between the Ministry of Commerce of the People's Republic of China and the Ministry of Trade of the Republic of Turkey.

3.1.2. Geopolitical & Strategic Position of Turkey

For China to place Turkey on OBOR route in order to reach European continent comes as no surprise due to its proximity to Europe, Middle East, and Africa.

Turkey is located at the crossway of Middle East, Eastern Mediterranean, Balkans and Caucasus. It is partially positioned in Europe and Asia and it connects the two important continents. Turkey is also one of the biggest in the region with regard to population and land (Dewdney & Yapp, 2020). In terms of strategic position, Turkey is surrounded by four sea and it allows to reach 1.5.

billion human beings and market valued to USD 24 trillion GDP in Europe, Middle East, North Africa, and Central Asia in merely four hours of flight (Presidency, n.d.).

Figure 3. 1: TUBS**.** (2011). Turkey on the Globe. [Map]. Retrieved from https://tr.wikipedia.org/wiki/Dosya:Turkey_on_the_globe_ (Eurasia_centered).svg

Turkey geopolitically and strategically has an important place. (See Figure 3.1) It owns Mediterranean basin which is at the crossroads of important sea transportation routes, Black Sea basin and Turkish Straits (Çatal, 2019, p. 103).

Because of its connectivity and unique location, Turkey also is a home to some of the other infrastructure projects that supply gas and energy to its neighboring countries. Providing common benefit, based on win-win perspective, Turkey advances to become a hub for energy exchange. It is also a reginal country getting together west and east so that it backs its neighboring countries in supplying energy resources (Resources, n.d.).

- Russian-Turkey Natural Gas Pipeline (West Line)
- Turkish Stream Gas Pipeline
- Eastern Anatolian Natural Gas Main Transmission Pipeline (Iran - Turkey)
- Blue Stream Gas Pipeline
- Trans-Anatolia Natural Gas Pipeline Project
- Turkey-Greece Natural Gas Interconnection
- Baku-Tbilisi – Erzurum Natural Gas Pipeline
- Iraq-Turkey Crude Oil Pipeline
- Baku-Tbilisi – Ceyhan Crude Oil Main Export Pipeline
- Trans-Anatolia Natural Gas Pipeline Project
- Turk Stream Gas Pipeline

Projects written above illustrates the Turkey has a key location in terms of supply chain connectivity and gains trust from the countries partnered in such connections. Moreover, it proves the fact that Turkey has advanced to become a hub for supply chain.

3.1.3. Location of Turkey on OBOR & Middle Corridor

Turkey is located on China-Central Asia-West Asia Economic Corridor, also known as The middle corridor. This corrdior passes through respectively Georgia, Azerbaijan and Caspian Sea, and then it arrives in China by following Turkmenistan-Uzbekistan-Kyrgyzstan or Kazakhstan route (Affairs M. o., n.d.).

The first train with 42 carriages departed from Xi'an in China and arrived it destination Europe via Turkey,passing through subsea Marmaray railway tunnel. It was 11,483 km journey and decreased load transportation time between China and Turkey to 12 days from one month (Hatipoglu & Gokmen, 2019). (See Figure 3.2.)

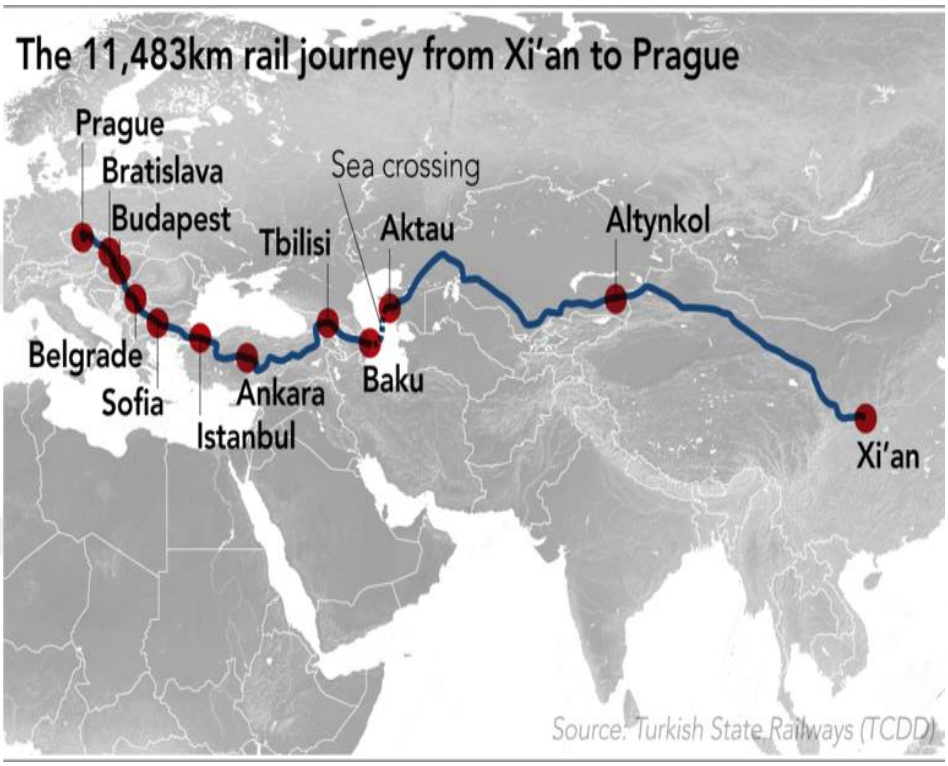

Figure 3. 2: Nikkei Asian Review, TCDD. (2019). Silk Road Train from China to Prague. [Map].

Retrieved from https://asia.nikkei.com/Spotlight/Belt-and-Road/Chinese-freight-train-skirts-Russia-on-new-route-into-Europe

Turkish Government thinks that middle corridor is more affordable in terms of transportation cost and faster in contrast to the Northern Corridor as a trade way between Europe and Asia. This is because it is 2.00km shorter. Additionally, the route on middle corridor has better weather condition than northern corridor and middle corridor would allow the goods to be dispersed to Middle East, North Africa, and Mediterranean countries through Turkey's ports. Last but not least, by establishing logistical centers free

trade areas at the ports of Azerbaijan Turkmenistan, Kazakhstan will enhance Trans-Caspian collaboration. In this sense, Turkey and Turkic Council signed "Common Cooperation Protocol" to ensure smooth transportation in the area (Affairs M. o., n.d.).

3.1.4. Role of Turkey on OBOR and Turkey's Perspective

It is clear to see the significant role of Turkey on OBOR. It is acting like a connection center with Asian and European countries not only geopolitically, also, economically, and culturally since it has ties with Middle Asia in terms of having mutual history and culture. Turkey, with its infrastructure projects, would likely be a vital country between Europe and Asia in good transporting for OBOR (Hastürk, 2019, p. 86).

In this context, Turkey would get China closer to Europe by railroad, believing the initiative's win-win mission, Turkey aims to take some benefits to grow its economy and enhance its domestic transportation system.

Turkey is a main part of the Old Silk Road and it is among the first countries that expressed its support for OBOR (Embassy, 2019).

In this manner, Turkey signed the deal of memorandum of understanding for the middle corridor 1st of July 2016 prior to the G20 Hangzhou Summit in China (Affairs M. o., n.d.).

An official working group which has bureaucrats both from ministries of transportation, customs, energy, and economy to oversee OBOR was formed by foreign ministry of Turkey (Atlı, 2017).

Turkish government is very interested in being part of OBOR and it wants to take its share from the trade that would emerge on the middle corridor. Turkish president Erdogan paid an official visit to China and had a talk with the president of China. In his talk, Erdogan told him that OBOR would increase integration within the region and it

would offer opportunity for the countries to adopt themselves to global economy. Furthermore, Turkey is a founder member of Asian Infrastructure Bank with its capital contribution amounted to USD 2.6 billion. In this sense, Turkey is willing to create an uninterrupted transportation link from China to London. To achieve this, Turkey is aware of the importance of improving its domestic transportation network and working on existing infrastructure projects as well (Turhan, 2019).

Turkey's 2023 vision that is in line with 2014-2018 development plan illustrates that, in terms of logistic, Turkey wants to become a logistic hub. Plus, Turkey wants to be successful in this vision and expects some outcomes such as improved competitiveness, trade, and reduced cost of logistic. More importantly, Turkey's one of the targets is to be among the first 15 countries in logistic performance index. (Komisyonu, 2018, pp. 13-14). According to Turkey's 11th Development Plan prepared by the Presidency of Turkey, Turkey is willing to integrate its logistic structure from scattered one and expand its speed railway line to 5.595km till 2023 and increase the volume of freight transportation. (See Figure 3.3)

Turkey also believes that once all desired railway lines are at completed, it will reduce the traffic congestion and the country will immensely gain in energy saving and fuel. Additionally, it wants to increase freight rail transportation to 10 % (Özmen & Aksu, 2020).

Figure 3. 3: Re-Produced by the Writer. (2019). TCDD Freight Transportation. [Graph]. Retrieved from https://www.uab.gov.tr/bakanlik-yayinlari

*Data is obtained from TCDD Statistics.

One can understand that Turkey's transportation target is in line with OBOR so that Turkey is not hesitant to be part of the project.

OBOR will also strengthen Turkey's role in the region as it supplies railroad connectivity. It is very significant that OBOR will ensure a safe environment throughout the railroad because transportation and flow of supply chain should arrive in Europe, via Turkey and safely without any interference and trouble. At OBOR summit in Beijing, Turkish President Erdogan told that OBOR would put an end to terrorism (Kadılar & Ergüney, 2017, pp. 88-89).

3.1.5. Targets of Turkey toward OBOR

Turkish Government is aware of Turkey's unique location so that, based on win-win perspective, it is very keen to be an active player on the middle corridor of OBOR for number of reasons. First of all, Turkey's 2023 vision, national development plan and logistic master plan clearly shows that Turkey aims to improve its existing infrastructure

and build railways for its own dynamic and for the purpose of the Middle Corridor since it wants to be a logistic center between China and Europe. While acting as a transport network Turkey targets to draw foreign direct investment from China as it needs to boost its economy. Furthermore, Turkey seeks to close the trade deficit with China besides its willingness to surge its export volume to China.

Secondly, one of the major export markets for Turkey is European Union Countries due to Turkey's proximity and custom union deal with EU. However, Turkey constantly looks for new regions to export more besides EU market and OBOR brings new and faster transport linking opportunity with Central Asia and Caucasus (Inan & Yayloyan, 2018, p. 43).

Thirdly, Turkey pays importance to enhancing its eastern region by building railways and logistic centers which would work in line with OBOR. As a result of such initiatives, Turkey objects to create more jobs related to logistic industry.

Besides, Turkey wants to bring a remedy to the problem of Turkish trucks, carrying export goods to Caucasian and Central Asian region, are exposed to long lines and extra tax on their fuel by Iran. Turkey wants to bypass Iran facilitating Baku-Tbilisi-Kars rail line which has built for the purpose of OBOR. BTK project would also improve eastern region (Inan & Yayloyan, 2018, p. 44).

Last but not least, although China picked Piraeus port of Greece on Maritime Silk Road as it is on the EU land. Turkey could improve its ports by building railways to expand them to Europe Turkish ports can be viewed as an alternative port by China over Piraeus port of Greece on Maritime Silk Road.

To conclude, OBOR will reduce the transportation time and increase connectivity with countries trade along the route and OBOR's key goal is to enhance the movement of goods more efficiently which will result in significant reduced lead time in supply chain management. Turkey strives to become a logistic hub between east and west and better integrate with OBOR, Turkey improves its infrastructure and build new railways, roads, airports, bridges, and logistic centers. As a consequence, all of these developments, in the context of supply chain management, will have a possible impact and results for logistic and trade in Turkey. In my thesis, I want to tell you in what way OBOR initiative affects supply chain management in Turkey as well as its probable economic effects in Turkish export.

3.1.6. Logistic Centers

Logistic centers allow several operators and forwarders to execute domestic and international freights and storage (TCDD Statistics, 2018, p. 105).

Logistic centers also optimize transport and storage cost, and it increases the efficiency of industrial process. In Turkey, there are 21 logistic centers (See the Figure and they are managed by General Directorate of Turkish State Railways and Ministry of Transport Maritime Affairs and Communication (Özel İhtisas Komisyonu, 2018, p. 16). As to the logistic master plan of Turkish Government, it wants to increase the number of logistic centers to 27 by the year of 2035.

Figure 3. 4: Ray Haber. (2019). Logistic Centers of Turkey. [Map]. Retrieved from https://rayhaber.com/2019/11/turkiye-lojistik-master-plani-ve-lojistik-merkezler/

The map above exhibits where the logistic centers are situated in Turkey. Red painted ones are open and operating. Blue painted ones are under construction and yellow ones are ones are at project and tender stage.

Turkey aims to connect industrial zones, factories, and ports with the logistic centers in order to form a new transportation concept in terms of national, regional, and global transportation. As a result of this, logistics centers will be effective in reducing the transportation costs in Turkey to the desired level. Furthermore, logistic centers will have the following areas.

- Container loading-unloading and stock areas.
- Customs bonded areas.
- Customer offices, parking lots and truck parking area.
- Warehouses, banks, restaurants, hotels, maintain centers and fuel stations.

When the logistic centers fully start to operate, it is expected that the logistic sector will produce an additional 35.6 million tons of transportation per year and gain 12.8 million m2 of container stock and handling area (Ministry of Transport Infrastructure, 2018, pp. 271-273). Freight carried by the logistic centers are shown on the table below. (See Table 3.1.).

Table 3. 1

Freight of Logistic Centers, 2007, 2018

Logictic Center	***2014-2018 from the Amount of Cargo Carried***	***Opening Date***
Samsun (Gelemen)	2.103	2007
Izmıt (Kosekoy)	1.467	2010
Usak	537	2012
Istanbul (Halkalı)	1.397	2013
Eskisehir (Hasanbey)	643	2014
Balıkesir (Gokkoy)	667	2014
Denizli (Kaklık)	716	2014
Kahramanmaras (Turkoglu)**	66	2017
Erzurum (Palandoken) ***	35	2018

Note. Adapted from "TCDD Annual Statistics", by TCDD, (2018).p. 62.

Retrieved from http://www.tcddtasimacilik.gov.tr/sayfa/istatistikler/

* Since the Samsun-Kalın line was closed due to road modernization work, transportation could not be made in 2016, 2017, and 2018.

** Turkoglu transports for 2017 are the November-December 2017 transport data.

*** Palandoken transports are the July-December 2018 transport data

Note: Numbers are (1000 Tone)

One of the reasons for the need of logistic centers, also labeled as logistic villages, is to answer the transportation demand from China, Central Asia, Caucasus, and Anatolia by combining all transportation nodes together in terms of OBOR (Turhan, 2019).

Turkey and China signed a deal of memorandum of understanding on e-commerce cooperation. As a result of this agreement, A Chinese B2B e-commerce company, DHgate, started to do business in Kayseri, Turkey. Since it is a B2B e-commerce company, it is crucial to have a logistic center to disperse its goods so that Kayseri is an important place because of its location and logistic center as well as human resources. In an interview over the inception of DHgate in Kayseri, President of Chamber of Commerce, Cemal Kasnalcı says that *"China wants to come to West, but it absolutely will use a bridge while coming. This bridge is Turkey and E-Commerce Bridge in Kayseri. For a product to arrive in Europe from China takes a serious time, but a Chinese thinks that if he or she uses Kayseri as a warehouse, bringing his or her product into Kayseri, he or she can decrease the lead time as soon as possible. To this end, warehouse is very important in e-commerce, maybe at first, it seems not very profitable for us, but we will see an action"* (TEB, 2017).

According to specialized commission report of Ministry of Development, Turkey could become a logistic hub if an effective logistic line that would be established with Asia in particular with China. And, in this manner, probable industrial investments of China in Turkey and logistic centers to be made in Eastern Turkey plays an important role and strengthen supply chain management in Turkey. Overall, we understand that logistic centers are in Turkey's master logistic plan which is in accordance with OBOR.

3.1.7. Marmaray

History of Marmaray project is dating back to old times. This railway tunnel was a dream of Ottoman Sultan Abdulmecid and it was voiced by him in 1860. It was first planned to repair tunnels on the columns to be constructed on the base of the strait which was calculated using new tech and advanced in 1902. (See Figure 3.7.) The desire to

make a tunnel link that goes down under the strait for transportation was in 1800s and, it was the year of 1987 when the initial suitable project was prepared. Updates of the project's studies in order to get the best route was finished in 1998. It was an important transportation plan to ease the traffic congestion for commuters of Istanbul. To this end, with the help of Japanese loan acquired by Turkish Government, Marmaray project, a project of century, was finally to be constructed. The project has rail network of 76.6 km and 13.6 km submerged tube tunnel. It is also a unique project because of its deepest submerged tunnel of the world that was immersed during its construction (AA, 2013).

Figure 3. 5: Marmaray. (n.d.). Ancient Marmaray Project. [Figure]. Retrieved from http://marmaray.gov.tr/marmaray-hakkinda

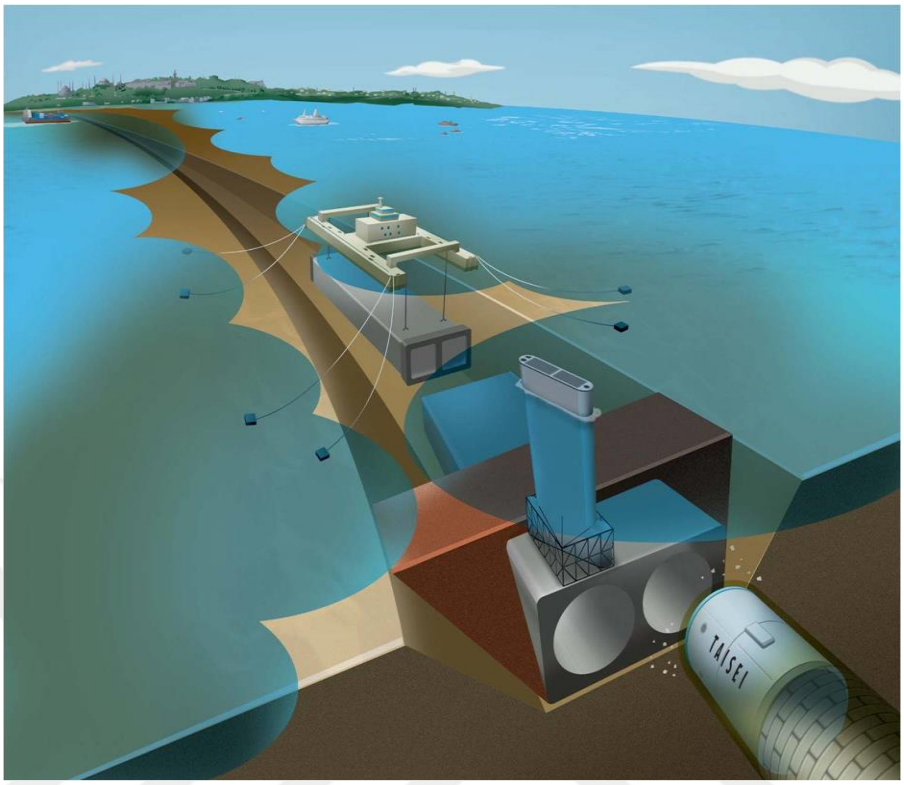

Figure 3. 6: Endüstri 4.0. (n.d.). Immersion of Tubes of Marmaray Project. [Figure]. Retrieved from https://www.endustri40.com/marmaray-iki-kita-arasindaki-demiryolu/

After the first test drive in 2013, Marmaray started to operate, transporting passengers from Asian side of Istanbul to European side and vice versa. This project is not an only important rail line for those living in Istanbul, it is also crucial as it is an uninterrupted railway link, connecting Beijing with London on OBOR middle corridor in the context of global trade and supply chain.

The first train with 42 carriages departed from Xi'an in China and arrived its destination, Prague in Europe via Turkey,going through subsea Marmaray railway tunnel in 2019. (See Figure 3.7.)

Figure 3. 7: Çoban, Onur, AA. (Photographer). (2019). First OBOR Train Passing Through Marmaray, Istanbul [Photograph].

Retrieved from https://www.aa.com.tr/tr/turkiye/marmaraydan-tarihi-gecis/1637801

As a result of this Marmaray helped the OBOR train to cross the Istanbul strait without any trouble. The fist domestic freight train crossed the Marmara sea via Marmaray on May 2020.

As Karaismailoğlu, Minister of Transport, states that normally, loads that needed to be transport by road from other parts of Turkey to Europe are transported first to Derince port and then by rail ferries to Tekirdag port to reach Europe. This process means extra transfer and cost in logistic. In order to ease this extra burden and shorten the transport time, Turkish railways started to carry loads to Europe via Marmaray. Since the ferry crossing is not required in the Sea of Marmara, it will provide a significant price advantage and competitive power. Moreover, 25.000 containers per year from the

industrial enters of Anatolia is expected to be shipped by railways, crossing the European part by means of Marmaray (DHA, 2020).

Also, a novel epidemic called COVID-19, started in Wuhan, a city in China in December 2019 and it has spread every part of the world. It was believed to be originated in an animal market in Wuhan. As a result, many people have been infected and thousands of others have died (Schumaker, 2020).

According to World Health Organization, The COVID-19 virus spreads mainly through spit or discharge from the nose once a person with COVID-19 positive sneezes or coughs so that almost all countries closed down theirs borders and imposed various restrictions to stem the spread of the COVID-19. As a result, foreign trade of many countries has been disrupted and contactless trade with neighboring countries has become very important.

Last but not least, following the announcement of the Ministry of Transport that railway transportation can be carried out via Marmaray in cooperation with TCDD, logistic companies have begun to show interest in starting cargo operations via Marmaray. The decision of TCDD came when the intermodal transportation as well as contactless transportation gained importance during COVID-19 pandemic. In this regard, forwarding firms have begun to take benefit from railway freight transportation from cities of Turkey to European countries and Central Asian countries. Plus, railway transportation is environment and cost friendly as compared to road transportation.

To sum up, On OBOR perspective, Marmaray project has an impact on Turkey' global and internal supply chain management because it is a golden connection point between

Asia and Europe on OBOR middle corridor and it has become a key transportation railway that cuts the shipping time and diminish the cost of logistic.

3.1.8. Yavuz Sultan Selim Bridge

Yavuz Sultan Selim Bridge was inaugurated in 2016 with a participation of high level officals. It was made to ease the traffic jam of Istanbul and connect it with the Sabiha Gokcen and Istanbul 3RD Airport via fast train since the bridge makes it easy to reach the Istanbul Airport, world's largest, with its integrated Northern ring motorway. Moreover, when the railway line is integrated with the Yavuz Sultan Selim, it would be the first such initiation in the world (Hürriyet, Yavuz Sultan Selim Köprüsü 3 yaşında, 2019).

Yavuz Sultan Selim Bridge is the latest bridge to be contructed passing through Istanbul Bosporus and it connects Europeian and Asian part of Istanbul, which is the Turkey's most dense city with a population of around 15,52 million.

The bridge stands out with its following features;

- World's biggest suspension bridge with its tallest towers of 322 meters.
- World's largest suspension bridge, 59 meters length.
- The bridge is 22 meters higher than the height of the Eiffel Tower in Paris.
- The longest suspension bridge with a railway on it. (ICA, n.d.).

Figure 3. 8: Dupuis, Jonathan. (Photographer). (2019). Yavuz Sultan Selim Bridge, Istanbul [Photograph]. Retrieved from https://commons.wikimedia.org/wiki/File:Yavuz_Sultan_Selim_Bridge_Istanbul.jpg#filelinks

3.1.9. Istanbul Airport

Istanbul Airport, encompasses a total area of 76,5 square meters, is regarded as the one of the mega projects of Turkey. Initial segment of the airport was launced on October 29, 2018, coinciding with the 100th anniversary of the Republic Day. The airport has been active at complete capacity since April 2019. It is possible to fly 45 cities of Turkey and 249 cities in 110 countries abroad (IGA, Welcome to your home, 2020). Thanks to its strategic location (See Figure 3.9), the airport's cargo and logistic area is easily accessible by flights within a couple of hours to Central Asia, East and North Europe, Middle East, and Europe.

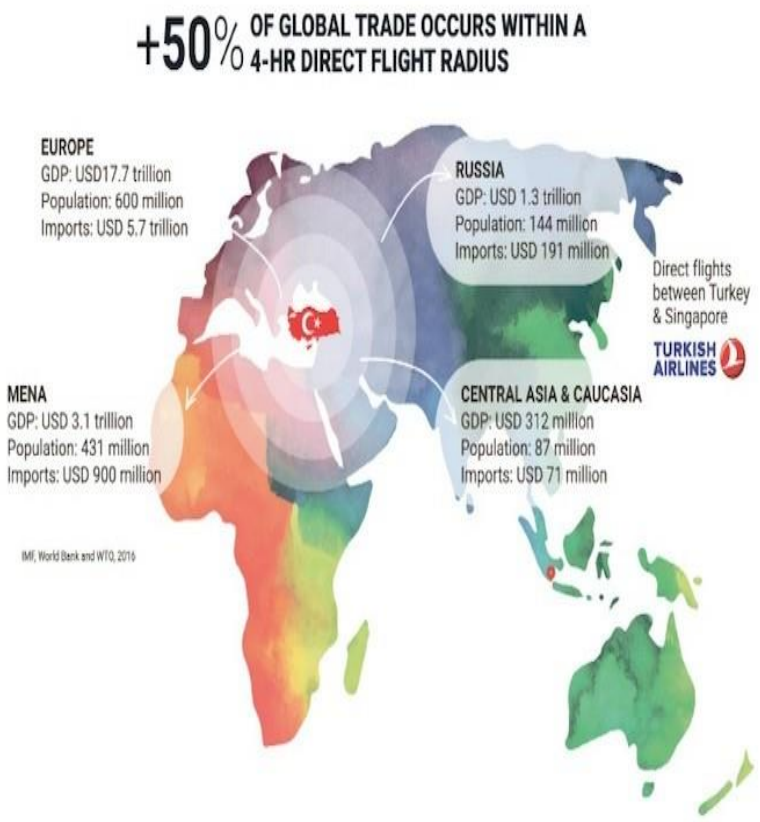

Figure 3. 9: Daily Sabah. (2017.). Turkey's Location by Flight. [Map].

Retrieved from https://www.dailysabah.com/economy/2017/09/12/turkey-offers-promising-business-environment-for-investors

Cargo and logistic center, encompasses 1.4 million square meters, has become home to many international cargo firms (IGA, Cargo Hub, n.d.).

Figure 3. 10: Kulttuurinavigaattori. (2019). Istanbul New Airport, Istanbul [Photograph]. Retrieved from https://en.wikipedia.org/wiki/File:%C4%B0stanbul_Yeni_Havaliman%C4%B1_airport_Dec_2019.jpg

Last but not least, Turkey is eager to use its uniqe location advantage so that when the railroad line is completed and the freight train from China may unload its thousands of goods that need to be transffered to Middle East and North Africa and other regions. In this manner, Turkish President, Erdogan, during his visit to China, said that *"We believe that Istanbul Airport will become one of the most important centers of China's Air Silk Road".* He also underlined the key projects, Yavuz Sultan Selim Bridge, Marmaray and Eurasia Tunnel, linking Europe with Asia (Hürriyet, Havanın 'İpek Yolu' merkezi İstanbul olacak, 2019).

3.1.10. Baku-Tbilisi-Kars (BTK) Railway

First discussion involved ministers of transport of Azerbaijan, Georgia, and Turkey for BTK project's implementation in 2005 and the deal over the BTK was signed in Tbilisi in 2007. Main reason of this rail line project is to build a direct rail link with Turkey and Georgia and form a rail connection between Turkey and Azerbaijan over Georgia. Moreover, the railway connection also spans through China. This rail line creates a

gateway for Europe to reach the region via Turkey and it allows an uninterrupted travel to Turkic Republics (Üzümcü & Akdeniz, 2014, pp. 192-193).

Baku-Tbilisi-Kars (BTK) Railway (See Figure 3.12), opened in 2017, has initial capacity of 1 million travelers and 6.5 million tons of freight and it is expected to be increased 3 million travelers and 17 million tons of load per year by 2034 (MFA, n.d.).

Turkey wants to expand the BTK line by railway from Kars to Edirne (See Figure 3.11) to provide a smooth freight transportation between China and Europe. For this reason, Turkey works to extend the line via Yavuz Sultan Selim Bridge till Edirne, a city close to European border.

Figure 3. 11: Eko Trent Haber 7. (2010.). Edirne Kars Railway. [Map].

Retrieved from https://ekonomi.haber7.com/ekonomi/haber/623581-edirne-kars-hizli-trenin-gececegi-iller

The map shows the Edirne-Kars railway which has planned to make by Turkish Government. Edirne-Kars high-speed railway, linked with BTK, is expected to begin in Turkey from Kars and pass-through Erzurum, Sivas, Yozgat, Ankara, Istanbul and it reaches to Edirne, the city close to EU border. Edirne-Kars rapid train is regarded as a

very strategic railway link for the OBOR initiative as it will likely provide a smooth transport from China to Europe over Turkey.

Figure 3. 12: Baki66. (2008). Baku-Tbilisi-Kars Railway. [Map]. Retrieved from https://commons.wikimedia.org/wiki/File:Baku_Tbilisi_Kars_railway.JPG

BTK, decreasing the distance between Europe and China to 14 days, is important since it complements Transport Corridor Europe-Caucasus-Asia (TRACECA). TRACECA, introduced by EU, has not been running because of insufficient funding (Öğütçü, 2017).

Furthermore, BTK is significant for OBOR as it reduces the distance from China to Europe in supply chain. It plays a key role for Turkey in two other ways in terms of logistic efficiency. In Turkey, we often hear news about Turkish trucks being stuck in Iran and it causes late time delivery for Turkish exporters. As Inan & Yayloyan points out in their article, when trucks from Turkey need transport goods to Central Asian countries, they need to travel over Iran. Travelling via Iran is a trouble for forwarder companies and truck drivers this is because they get exposed to long and unnecessary inspections, moreover, extra fuel tax on fuel.

BTK project can be a solution to this issue since BTK freight train by passes Iran while travelling to Central Asian countries. Additionally, BTK railway helped to sustain supply chain for Turkish exporters and forwarding firms during COVID-19 outbreak just like Marmaray.

In this regard, to sustain supply chain and foreign trade, export products by a 940-meter freight train (See Figure 3.13) carrying 82 containers from Turkey was shipped using BTK railway. It went through Kazakhstan, Turkmenistan, and then it reached to its last destination, Uzbekistan. Along its route, the train stopped in several stations to unload. It unloaded all its freight in 9 days (Sabah, 2020).

***Figure 3. 13*:** Anadolu News Agency. (2020). Huge Export Train Set off for Middle Asia [Photograph].

Retrieved from https://www.aa.com.tr/tr/ekonomi/dev-ihracat-treni-orta-asya-ya-dogru-yola-cikti/1809378

This is a clear example of how BTK railway functions in exporting to Turkic countries from Turkey during the epidemic time.

3.1.11. Piraeus Port and some Ports of Turkey and in the Context of OBOR

China unlikely considers Turkey on Maritime Silk Road and it seems like China has chosen Piraeus port as a maritime shipment transfer port to Europe.

In this manner, Greece officially took part in OBOR's sea route in 2018 and Cosco, a Chinese shipping company, bought majority stake of Piraeus port. Piraeus port in Greece is important strategic port, located in Saronic Gulf, and it is the 7^{TH} largest port in Europe. China is willing to improve the port of Piraeus more so that it has promised to invest 600 million euros to make it the biggest transit port between Europe and Asia (Amaro, 2019).

Furthermore, in order to link Piraeus port with Belgrade and Budapest, a rapid train line (See Figure 3.14) which is 350 kilometer long, was agreed to construct. This is an important rail line for China to disperse its export goods to Europe since it would connect Piraeus port with Budapest, considered as center of the Europe.

Figure 3. 14: Financial Times. (2017). China's Proposed Land Sea Express Route [Map]. Retrieved from https://www.ft.com/content/003bad14-f52f-11e6-95ee-f14e55513608

However, when we look at the OBOR project as a whole and global supply chain view, it is apparent to understand that China does not want to be depend on any single country to reach Europe both through sea and land because there are various corridors on OBOR that enables China and Europe trade. To this end, ports of Turkey are not far from the city of Belgrade which has considered as a connection city toward Eastern Europe.

a) Ambarlı Port

Ambarlı port is situated in Istanbul and on the northwest shore of the Marmara Sea. It is the 3rd biggest port in Turkey with a capacity of 1.3 million TEU and it can reach to 3.5 million TEU. For two reasons this port sparked the interest of Chinese investors. First is that Turkey connects China with Europe on OBOR and Ambarlı Port is one of the key

ports of Turkey due to its efficiency, capacity and connectivity with Europe, Middle East, and North Africa. Hence, Cosco pacific purchased Ambarlı port for USD 940 million which equals 65 % of the share. This is by far the biggest Chinese investment in Turkey (Dünya, 2015).

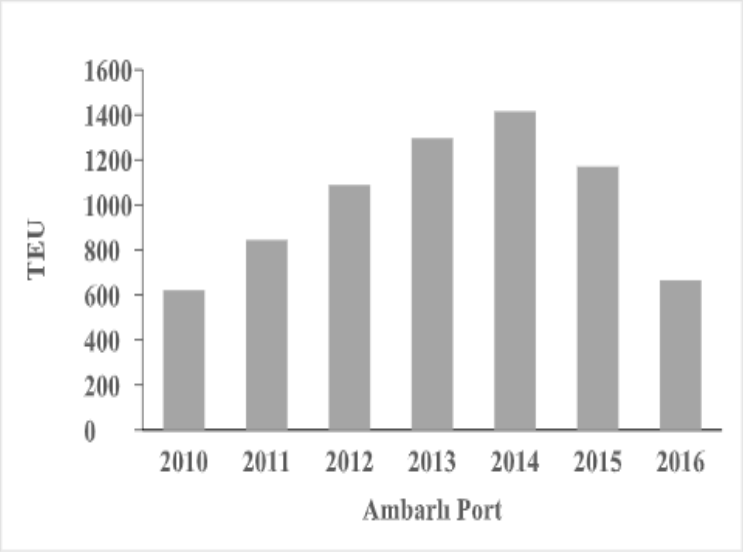

Figure 3. 15: Adapted from Kumport's Website**.** (n.d.). TEU of Ambarlı Port. [Graph]. Retrieved from http://www.kumport.com.tr/tr-TR/istatistikler/313654
*Data is obtained from the website above.

b) Candarlı Port

This port which is under construction is located in Candarlı. Even if China went for Piraeus port for Maritime Silk Road to reach Europe, Turkish businesspeople believes that Candarlı port can be included on Maritime Silk Road if this port is connected with a railway just like the port of Piraeus. They also think that Candarlı port can become a major port, serving as a production hub. In a meeting in 2018, a manager named Ergin

Erdinc believed that a railway line can be constructed to link Candarlı port with Europe and as a result, Candarlı port would bring advantages into the region (Ak, 2018).

Connecting ports in Turkey, as Piraeus port, with rapid rail ways plays a key role in terms of connectivity (Esmer, 2019) notes that "Turkish Ports are more favorable than Athens because of our port's proximity to Belgrade and port facility of our ports are better". In addition to that, As (Esmer, 2019) proposes that "it is suitable to connect Tekirdag with Ambarlı and the existing rail road between Izmir and Aliaga can be extended and linked with Tekirdag making extra 300 km rail line" (Esmer, 2019). (See Figure 3.16)

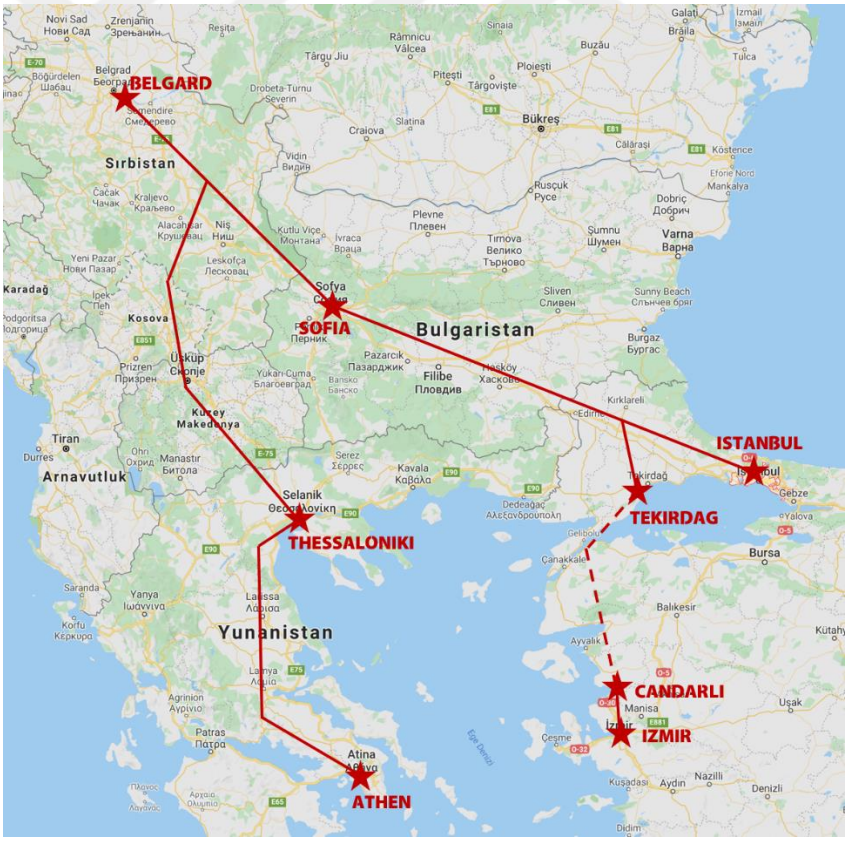

Figure 3. 16: Re-produced from Prof.Dr.Soner Esmer's study. (2020). Map Showing Connection of Candarlı Port with Belgrade [Map].

Retrieved from https://www.7deniz.net/yazar-bir-kusak-bir-yol-hik-yesi-sahi-pire-limani-bizden-ne-kapti-164.html

4. TURKEY- CHINA FOREIGN TRADE IN THE CONTEXT OF OBOR & FDI BY CHINA IN TURKEY

4.1.1. Trade Relationship between Turkey and China

The relationship between Turkey and China can be traced back to 3.000 years ago. Even if the Republic of China was established in 1949, the two countries signed a deal about forming diplomatic relationships in 1971. Turkey and China had different views over Korean War and Turkey took a stance against communism. Turkey's recognition of China in 1971 had a different impact on people in Turkey. Some of Turks supported the decision whereas some did not. However, in terms of trade, some thought that the decision can help Turkish exporters to expand to China and market agricultural products since the Chinese market had potential. Trade agreement was signed in 1974 which led to formation of Turkey- China Economic Committee. The agreement meant mutual cooperation in various fields which included science, aviation, industrial technic, mutual encouragement of investments, prevention of smuggling etc. The relationship between the two nations were poor, but it improved in the beginning of 1990. Despite the increase in the trade relations in the beginning of 1990, it was not at the desired level Foreign trade volume was more than USD 19 billion in 2010 and more than USD 24 billion in 2011 which means a growth, but also it was against Turkey as it is a trade deficit. (Yurdakul, 2013, pp. 231-232).

Even today, there is a huge trade deficit with China which is not in favor of Turkey. Share of China in Turkey's import keep rising. Share of China in Turkey's import is on surge. According to foreign economic relations committee's report, Share of China in Turkey's import was 8 %, in 2008, in 2012 it was 9, 9 % and in 2016 it was 13 %.

Table 4. 1

Turkey-China Trade, 2007-2018

YEARS	EXPORTS TO CHINA	IMPORTS FROM CHINA	VOLUME	BALANCE
2007	1.039.523	13.234.092	14.273.615	-12.194.569
2008	1.437.204	15.658.210	17.095.414	-14.221.007
2009	1.599.139	12.676.573	14.275.712	-11.077.433
2010	2.269.175	17.180.806	19.449.982	-14.911.631
2011	2.466.316	21.693.336	24.159.652	-19.227.019
2012	2.833.255	21.295.242	24.128.497	-18.461.987
2013	3.600.865	24.685.885	28.286.751	-21.085.020
2014	2.861.052	24.918.224	27.779.276	-22.057.171
2015	2.414.790	24.873.457	27.288.247	-22.458.666
2016	2.328.044	25.441.433	27.769.477	-23.113.389
2017	2.936.262	23.370.620	26.306.882	-20.434.358
2018	2.912.539	20.719.063	23.631.602	-17.806.524

Note. Adapted from "*Turkish Trade Ministry*", (2020).

Retrieved from https://ticaret.gov.tr/yurtdisi-teskilati/dogu-asya/cin-halk-cumhuriyeti/ulke- profili/turkiye-ile-ticaret

*Million USD

China is the biggest trade partner of Turkey (See Figure 4.1). Turkey's import from China stands at about USD 20.719 compared and Turkey's export to China USD 2.912 in the same year. When we look at the data shown in the table above, we understand that Turkey's export to China is extremely low as compared to China's export to Turkey which is absolutely not in favor of Turkey and it means a notable foreign trade deficit.

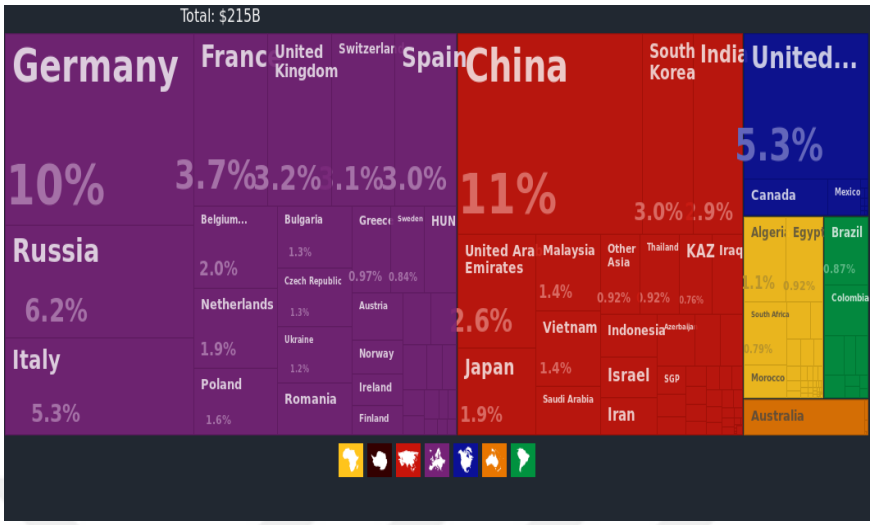

Figure 4. 1: AJG Simoes, CA Hidalgo. The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development. Workshops at the Twenty-Fifth AAAI Conference on Artificial Intelligence (2011). Where does Turkey import from?

Retrieved from https https://oec.world/en/visualize/tree_map/hs92/import/tur/show/all/2017/

The visual shows Turkey's top import countries in 2017. China comes first with the percentage of 11 % and Germany ranks second by 10 %.

Trade deficit with China has always been on the table just like today. There was an intense visitation to China made by the former minister Kursat Tuzmen, who was in charge of the foreign trade. He visited China consequently in 2006, 2007, and 2008 in purpose of balancing the trade deficit with China and drawing foreign direct investment from China to Turkey. Such visits triggered Chinese investors, as a consequence, Chinese showed interested in taking part in tenders of nuclear power plant in Turkey which regarded as a significant result. Additionally, TUSIAD opened a branch in Beijing, nonetheless growing trade volume against Turkey and the China's membership of World Trade Organization had a bad impact on Turkey's foreign trade to third countries. When

we look at the reasons of unbalanced trade between Turkey and China, we clearly see that the major reason is that Turkey usually exports same products to China, on the other hand, we see that China's export to Turkey consist of different kind of items (Çolakoğlu, 2013, pp. 253-255).

Table 4. 2

Turkey's Export to China, (Top 5 G.T.I.P), 2016-2018

G.T.I.P No.	***Item***	***2016***	***2017***	***2018***
2515	Marble and travertine, alabaster, limestone	728	943	772
2610	Chrome ores and concentrates	204	258	221
2528	Natural borates and their concentrates	105	128	140
2607	Lead ores and concentrates	63	109	127
2616	Precious metal ores and concentrates	127	125	125

Note. Adapted from "*Turkish Trade Ministry*", (2020)

Retrieved from https://ticaret.gov.tr/yurtdisi-teskilati/dogu-asya/cin-halk-cumhuriyeti/ulke-profili/turkiye-ile-ticaret

*Numbers are Thousands USD

When we look at the top 5 products that are exported to China in last three years, we see that products are mostly, marble, travertine, alabaster, limestone, chromium ores, precious metals, and gold etc. These products mean that they are semi-finished products, raw materials and they do not require advanced technology. On the other hand, when we view the items (See Table 4.3) that Turkey imports from China, we understand that they are technology-based products such as mobile phones, processing machines, fans, static converters, electrical engines, generators etc.

Trade deficit with China is not a new issue. It is still a big problem that needs to be addressed in order to balance the trade relationship with China so that Trade Ministry of Turkey identify China as an export target country, giving extra incentives for Turkish exporters to increase their sale to China.

Table 4. 3

China's Export to Turkey (Top 5 G.T.I.P), 2016-2018

G.T.I.P No.	***Item***	***2016***	***2017***	***2018***
8517	Telephone devices, other devices for receiving or providing audio, video, or other information	3222	2829	2062
8471	Automatic computing machinery and their units etc.	1126	1271	998
5402	Synthetic filament yarns	547	594	521
8529	Parts and parts for devices only or mainly related to 85.25 85.28	383	537	369
8414	Air or vacuum pumps, air or other gas compressors, fans, ventilation hoods with aspirator	284	335	367

Note. Adapted from "*Turkish Trade Ministry*", (2020)

Retrieved from https://ticaret.gov.tr/yurtdisi-teskilati/dogu-asya/cin-halk-cumhuriyeti/ulke-profili/turkiye-ile-ticaret

*Numbers are Thousands USD

There are potential food products that Turkey can export to China. They are olive oil, grapes, and figs. As for the textile products, China can import leather, furs, cotton fabrics etc. from Turkey. When we investigate the trade relation of Turkey with China, it seems like it has never been in the way Turkey desires because figures show us that China has been increasing its export volume not only to Turkey, also to other countries.

Furthermore, China enjoys benefits from low-labor cost so that it lowers the competitiveness of Turkish exporter's export, in particular in textile industry, to nearby regions (Dilek, Özdemir, & İstikbal, 2019, pp. 16-31). The reason I gave a short history of Turkey & China trade as well as the efforts by Turkey to balance the trade between the two countries is to show that not much improvement has been made to balance the trade between China and Turkey.

On every occasion, Turkey mentions that it is unhappy with the trade deficit with China so Turkey ponders how it can close the gap. Therefore, it wants to boost its export to China by diversifying export products, focusing more on high-technology items and Turkey desires to draw foreign direct investment from China, considering OBOR initiate is an opportunity in terms of Turkey China trade.

It should also be noted that doing import in global supply chain has become necessity this is because outsourcing is required for a country to cater to demand of its %90 need (Nebol, 2016, pp. 255-256). According to (Nebol, 2016), in terms of logistic supply chain, there are some challenges in global trade. They are,

- Long lead times
- Transport and Transportation

In global trade, rapid delivery is important, and it has an impact on all manufacturing process and customer satisfaction. Faster delivery of import goods that are used to make export products means faster production and happy export client. At this point, on OBOR perspective, it would be a wise idea to have a look at what countries are better and faster connected with Turkey on OBOR middle corridor. It is clear to see that those countries are the countries that are near Asia and China, Turkey's biggest trade partner. In this

manner, BTK railway line cuts the transportation time from China and Middle Asian countries to Turkey. Normally, it takes weeks for a ship to arrive from China to Turkey, but, via OBOR train using BTK railway line, it takes merely about 12 days. This is an important development for Turkish importers that are importing components or raw materials from China to manufacture products to export from Turkey to other countries. Overall, Turkey can take a great benefit from faster lead time and transportation with the help of OBOR train. More importantly, having import products delivered at a faster pace as compared to sea shipment would empower Turkish industry and increase their competitiveness in global trade.

4.1.2. Foreign Direct Investment of China in Turkey

According to United Nation, United States of America has received FDI more than any other country and the second most FDI receiver is China in 2019. Furthermore, it is predicted that FDI in China will be increased in the year of 2021 as well (Nan, 2020). China is also one among the countries that invested most in other countries. As for the FDI by China in Turkey, investments between the two nations were not very active till 2000, but this image started to grow gradually after 2000. However, as compared to other countries in the Middle East, China's investment in Turkey is low, ranking 6. Turkey has about USD 15 billion investment stock of China and it is high likely that China would rise its interest and investments in Turkey (Dilek, Özdemir, & İstikbal, 2019, p. 44). China has committed to invest a tremendous amount of money for OBOR initiative. It was predicted by Morgan Stanley that China would invest about USD 1.2-1.3 trillion by 2027 (CFR, 2020). Turkey, a key actor on the middle corridor, wishes China to invest more to develop its infrastructure, boost its economy and tackle the alarming issue of its trade deficit with China. Turkey is willing to continue its relationship with China based

on win-win perspective so that it pays importance in particular to mutual infrastructure cooperation.

Table 4. 4

China's FDI for OBOR in Turkey, 2014-2019

Year	***Investor***	***Quantity in Millions***	***Share Size***	***Sector***
2014	ICBC / Tekstil Bankası	$320	76%	Finance
2015	Sinomach / OEDAS and OEPAS	$380	75%	Energy
2015	China Merchants, CIC, China Ocean Shipping	$920	65%	Logistics
2016	Bank of China	$110	100%	Finance
2016	ZTE / Netas	$100	48%	Technology
2019	State Power Investment, AVIC	$1.320	79%	Energy
2019	China Merchants-led consortium	$690	N/A	Transport

Note. American Enterprise Institute. (2020). Retrieved from https://www.aei.org/china-global-investment-tracker/

The table above shows the FDI related to OBOR project by China in Turkey since 2014. To give a better understanding of the value of foreign investments by China, I obtained the data starting from 2014, the date when OBOR project was announced. We also understand that investments for OBOR involves in finance, energy, logistic technology. When China bought 65 % stake of the Ambarlı port, it was big news in Turkey since it is the 3rd biggest port in Turkey. Turkey is a developing country and OBOR initiative enables to create connectivity in supply chain and logistic. Such FDI of China in Turkey improves Turkey's goal to become a logistic center, also called as a hub, not only for OBOR also for the global trade. Moreover, China is able to make Turkey as a production hub because of Turkey's proximity advantage to Europe, North Africa, and Middle East

and near Asia, taking benefit from low labor cost and talented young-dynamic population and more importantly custom union deal with EU. In this regard, when we look at the countries signed up OBOR's middle corridor, it is obvious that Turkey has more ability and experience in manufacturing. To evaluate a countries' ability in manufacturing, it can be a good idea to have a look at the GDP rates and export of goods and services data so that when we look at the GDP per capita of the countries on OBOR's middle corridor and export of goods and services, Turkey seems to be advantageous. (See Table below).

Table 4. 5

GDP of OBOR'S Middle Corridor, 2016-2018

Countries	***2016***	***2017***	***2018***
Turkey	10,820.6	10,513.6	9,370.2
Turkmenistan	6,389.5	6,587.1	6,966.6
Uzbekistan	2,567.8	1,826.6	1,532.4
Kyrgyz Republic	1,120.7	1,242.8	1,279.9
Iran, Islamic Rep.	5,265.9	5,627.7	N/A
Tajikistan	802.5	806.0	826.6

Note. World Bank. (2020). Retrieved from https://databank.worldbank.org/reports.aspx?source=2&series=NY.GDP.PCAP.CD&country=#

*Created from: World Development Indicators

*Series: GDP per capita (current US$)

Table 4. 6

Export of Goods and Services of Middle Corridor Countries, 2016-2018

Countries	***2016***	***2017***	***2018***
Turkmenistan	8,011,714,285.7	8,521,428,571.4	9,239,000,000.0
Turkey	189,717,174,596.9	211,240,391,710.8	227,780,558,155.9
Uzbekistan	12,166,506,404.9	12,897,521,865.5	14,700,073,463.6
Kyrgyz Republic	2,440,818,089.6	2,638,474,037.5	2,649,044,237.2
Iran	93,867,660,645.4	113,240,667,700.1	N/A
Tajikistan	899,345,304.2	1,125,302,642.2	N/A

Note. World Bank. (2020). Retrieved from https://databank.worldbank.org/reports.aspx?source=2&series=NE.EXP.GNFS.CD&country=#

*Created from: World Development Indicators

*Series: GDP per capita (current US$)

The table above indicates that Turkey has more value of export of goods and services than other countries on OBOR middle corridor which certainly makes Turkey shine among them. To this end, if China wants to invest and use any country on middle corridor as a production hub, Turkey can be a good candidate. Furthermore, Turkey's location is better than other the other 5 countries on the table above. After unloading its goods in Europe, OBOR train would return to China via Turkey so that Turkey strives to think of loading the train with goods to back to China to boost its exports, benefiting quick delivery time by railway.

5. COMPARATIVE STUDY & CLAIMS AND AFFECTED ARGUMENTS

COMPARATIVE STUDY

The purpose of this comparative study is to figure out the efficiency of BTK railway in terms of transport time and cost as compared to road transport by truck. For comparative study, loading destination is selected as Istanbul, Bagcılar district. Delivery point by truck is picked as central Tashkent and delivery point by freight train is Tashkent central train station. To make this comparative study as accurate as possible, the study has been conducted based on real-time conditions.

Detail of the Load: Freight shown in the table below has been adjusted to fit 4 X 40' HC (See Figure 5.1)

Table 5. 1

Packing List

PACKING LIST							
№	Description	HS CODE	Packages	Box inside	Quant.	Net W.	Gross W.
1	Baby Diaper	9619008101	998	2	1.996	4.888,22	5.000,00
2	Baby Diaper	9619008101	4.010	3	12.030	18.150,43	18.600,00
3	Baby Diaper	9619008101	290	2	580	1.567,52	1.600,00
4	10kg Deterg.	34029019	3.900	1	3.900	39.000,00	43.000,00
5	Baby Diaper	9619008101	316	2	632	1.464,61	1.500,00
6	Baby Diaper	9619008101	998	2	1.996	4.888,22	5.000,00
7	Baby Diaper	9619008101	4.010	3	12.030	18.150,43	18.600,00
8	Baby Diaper	9619008101	290	2	580	1.567,52	1.600,00
	Total:		14.812,00			89.676,96	94.900,00

Note. By the writer, 2020

The packing list consist of baby diapers and a 10kg detergents. Since the transportation is carried out by containers, the cost of the price is not based on the type of the load, it is based on number of containers.

Figure 5. 1: MC Containers. (n.d.). 40’ HC Shipping Container. [Photograph]. Retrieved from https://mccontainers.com/product/40-high-cube-hc-shipping-container/

Five forwarding companies were asked for quotation in order to obtain transportation time and shipment price by truck and BTK freight rail and two of them quoted for freight train whereas 5 others quoted for road shipment (See Table 3.3).

Table 5. 2

Transport Comparison Istanbul-Tashkent

Mode	***Route***	***Approximate Transportation Time***	***Cost USD per 40' HC***
Rail	A	25 days	6.000
Road	B	20	7.000
Road	C	15-20	7.700
Road	D	15-17	7.900
Rail	E	25 days	8.000

Note. By the writer, 2020

Route A (BTK Train) in the Table: Istanbul--Kosekoy or Derince (Izmit TCDD railway station)--Kars--Ahılkelek (Georgia)--Baku (Port of Alat)--Turkmenistan (Port of Turkmenbashi)--Tashkent (Uzbekistan)

Route B in the Table: Turkey-Georgia-Russia-Kazakistan-Uzbekistan

Route C in the Table: Turkey-Georgia-Azerbaijan-Kazakistan-Uzbekistan

Route D in the Table: Turkey-Georgia-Azerbaijan-Kazakistan-Uzbekistan

Route E (BTK Train) in the Table: Istanbul-- Derince (Izmit TCDD railway station) --Kars--Ahılkelek (Georgia)--Baku (Port of Alat)--Kazakistan (Port of Aktau)--Tashkent (Uzbekistan)

When we have a look at the table above, it is clear to see that BTK train is a cheaper option as compared to shipment by truck because by BTK it costs USD 6000 per 40' HC whereas it costs USD 7.000 per truck. Furthermore, BTK train brings an additional supply chain advantage during the COVID-19 epidemic time as a truck driver may face an isolation at the time of entrance into a country along the way.

Last but not least, I observe an eye-catching price difference between the two quotations for BTK railway which is illustrated in the table above. One forwarder offers USD 6.000, (Rail A in the table) on the other hand, another forwarding firm quotes USD 8.000 (Rail E in the table). When I investigated the reason of the price difference, I found that the transportation company (Rail A) rents containers and give it to the sender firm to load and when the rented containers arrive in Uzbekistan, they need to be unloaded and then handed over within 48 hours to the agent that the forwarding company has. However, the other forwarding (Rail E) company does not have any agent in Uzbekistan so that it pushes the consigner to buy containers which means a hassle and additional cost which is

around USD 2.000. Therefore, in my view, forwarding firms should have agents in the countries along the BTK route. Otherwise, they will not be competitive.

When I investigated why the BTK train delivers a few days longer than a truck, I found the following findings. The first is that the Marmaray railway line which is a way of uninterrupted railway connection for a train from European part of Istanbul to the city of Kars, but it works just overnight because during the day Marmaray is used as a way of transportation for people of Istanbul to cross the Bosporus. The second is the density on BTK line due to COVID-19. The third is the break of gauge; when BTK train arrives in Georgia, Ahılkelek after leaving Kars, it faces a problem because the width of Turkish train track is 1435mm whereas it is 1520mm in Georgia, Azerbaijan, Turkmenistan, Kazakistan and Russia. Therefore, the train must stop, and containers should be transferred to another train to sustain its journey to Uzbekistan. Even if it is suitable to transfer containers from one train to another, it is still an extra time and cost. The fourth one is the receiving SMGS railway bill because Turkey uses CIM railway bill and SMGS railway bill must be obtained when crossing into Georgia (See Figure 5.2.).

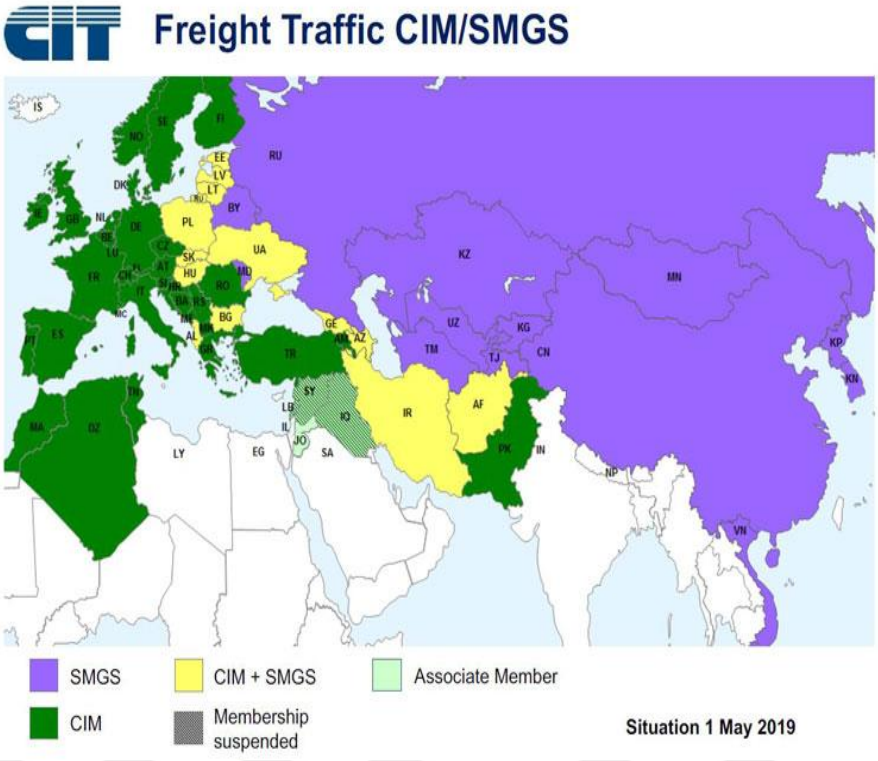

Figure 5. 2: CIT, Global Railway Review. (n.d.). Freight Traffic CIM/SMGS. [Map]. https://www.globalrailwayreview.com/article/80492/new-legal-regime-rail-freight/

Final reason is the waiting time and re-transferring the containers onto the ship at the port of Alat in Azerbaijan to cross Caspian Sea.

Overall, BTK train brings advantages in terms of cost and it is a very useful transportation method particularly during COVID-19 epidemic time and most importantly it provides a cheaper option against truck delivery.

CLAIMS AND AFFECTED ARGUMENTS

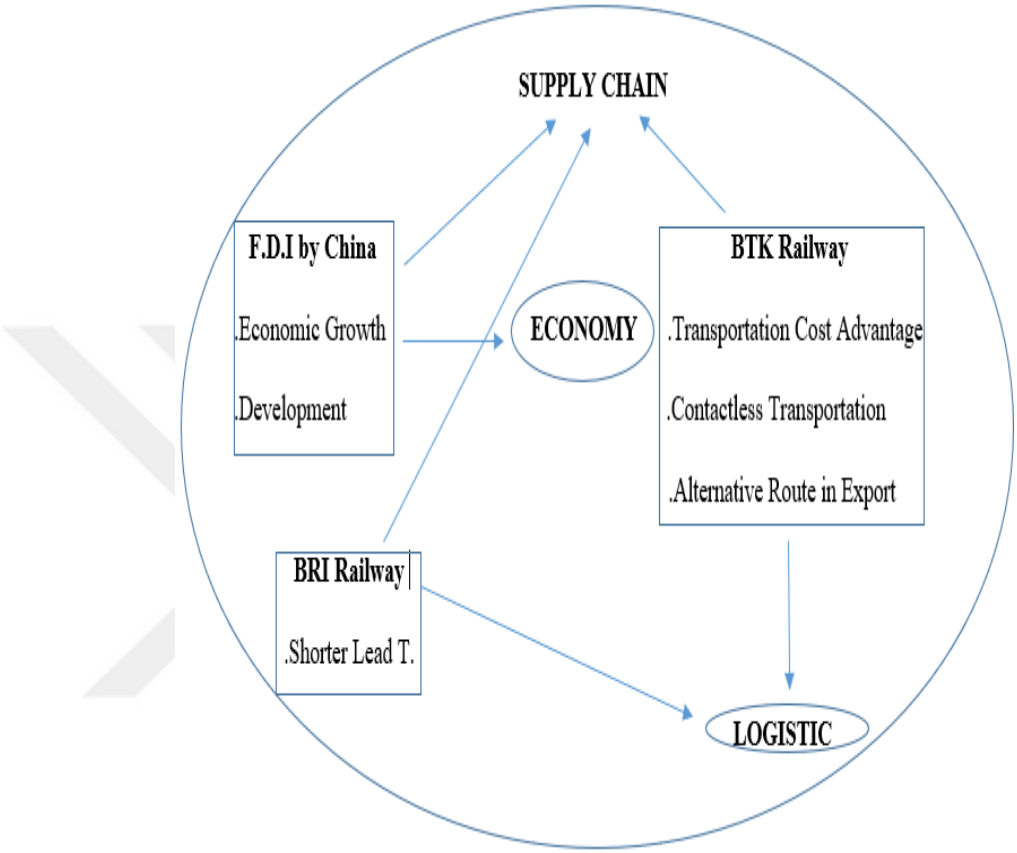

Figure 5. 3: By the writer, Claims and Affected Arguments, 2020. [Template].

The template above showcases the main claims affects the arguments of this thesis. First of all, China ramps up its FDI in Turkey after the commencement of OBOR. FDI by China in Turkey stood at USD 320 million in the year of 2014, this number increases to USD 1.56 billion in 2015. Furthermore, FDI by China in Turkey went up by %115 when we compare the year 2014 (USD 320 million) and 2019 (USD 691 million). (See table 4.4.) It is expected to rise more as the OBOR project continuous to grow. Turkey is a developing country so that China's FDI helps the Turkish economy as it brings cash into Turkey. The railway between Turkey and China decreases the transportation time to 12 days from one month. This development affects logistic and supply chain management

between Turkey and China because the long transportation time between the two countries is the biggest issue in the mutual trade. Transportation by BTK facilitate price advantage for Turkish exporters aiming to export their products to Central Asian countries. Also, BTK provide contactless international trade between Turkey and Central Asian countries including China. Furthermore, it allows new trade routes. It is quite obvious that OBOR holistically, as indicated on the template above, has an impact on supply chain management Turkish economy, transportation industry and international trade.

CONCLUSION

The aim of this study is to figure out the influence of One Belt One Road Initiative on Supply Chain Management in the context of BTK railway line. Belt and Road Initiative is the world's biggest infrastructure project, which is targeted to revitalize the Historical Silk Roads. For this reason, it is important to understand and analyze the Old Silk Roads. Therefore, on the second chapter, I briefly wrote about it and outlined how it associate with OBOR. People exchanged goods, ideas and generate trade with one country to another on the Silk Roads. Actually, Silk Roads was an important commerce road for supply chain because countries exchanged products to produce and make money. Not only did people exchange products and did trade, Silk Roads lead to wars and clashes between nations. When we look at the OBOR project we understand it is an infrastructure project to provide uninterrupted trade corridors starting from China to Europe. OBOR, like Historical Silk Roads, has become a crucial project, which enables faster and efficient trade link.

In the second chapter of this study, I also searched what triggered China to start OBOR project in 2013. I found out that China seized the opportunity when the USA left the TPP accord. China took benefit the absence of the United States of America in Asia. China declared that it can be a symbol of globalization (Reiff & Lit., 2018, p. 2). After that I wrote about what contries are on Economic Belt, land based, and Maritime Silk Road, sea-based and gave a picture of targets of OBOR as well as told about the six corridors of OBOR. Surely, OBOR helps improve infactucture and economines of participating countries, but China is the country that benefits the most from this project. Therefore, I investigated how China wants to make the most out of OBOR.

After giving some information about the reason why China declared this initiative, I studied what China wants to accomplish through OBOR. My researched indicated that China wants to improve its own poor regions with the investments for OBOR, it wishes to improve manufacturing industry and with OBOR reach more countries to sell its high-tech products. Plus, China objects to reach energy resources easier and faster using the corridors of OBOR in particular Maritime Silk Road. Furthermore, China has overcapacity of steel and China tries to reduce the surplus of steel via OBOR. Lastly, China pays importance to internationalization of RMB by generation more trade with OBOR.

Turkey is a home to various supply chain projects. It is on China-Central Asia-West Asia Economic Corridor on OBOR. With its 2023 vision, Turkey wants to become a logistic hub. Logistic centers in Turkey will help the products come from China and combine all transportation modes together in terms of OBOR.

Chapter three mentions how infrastructure projects made or being made in Turkey affects supply chain management in Turkey. Marmaray , transports passengers from Asian side of Istanbul to European side and vice versa. Marmaray is not only important rail line for inhabitants in Istanbul, but also an uninterrupted railway link, linking Beijing with London on OBOR middle corridor in the context of global trade and supply chain. For the supply chain flow Marmaray plays an important role because it started to carry loads that would otherwise be carried via sea of Marmaray. When goods are transported via Marmaray, it provides a good price advantage. Plus, it is expected that 25.000 containers per year would be shipped by Marmaray. However, we should consider the fact that Marmaray is being used for passenger transportation and for OBOR train

travelling from China to Europe is not able to pass the sea of Marmaray during the day. Railway line which plans to build on Yavuz Sultan Selim Bridge seem to be the only way for OBOR train to pass Marmaray sea efficiently and smoothly.

In the chapter four, I touched upon trade between Turkey and China. Turkey should export more product to China in order to close the trade deficit.

Answers to the Research Questions:

Q1: Will BTK railway line bring added value to Turkey?

The comparative study I carried out on this thesis showed me the fact that shipping products with a 40' HC by BTK railway to Tashkent is USD 6000 whereas, shipping a 40' HC to Tashkent by truck is USD 7.000. (See table 5.2). The shipment price difference is significant and important for Turkish exporters. Plus, during the pandemic truck drivers were not allowed to deliver goods from Turkey to Central Asian countries, but with the help of BTK railway, it was possible to ship export containers from Turkey to Central Asian countries. BTK started to operate in 2017. Since the commencement of BTK railway, 275.000 tons of freight was transported on the BTK railway. Turkey wants to carry 3 million tons of freight in the medium term and 6.5 million tons in the long term via BTK railway line (B.İ.K, 2019). Baku-Tbilisi-Kars (BTK) Railway (See Figure 3.12), opened in 2017, has initial capacity of 1 million travelers and 6.5 million tons of freight and it is expected to be increased 3 million travelers and 17 million tons of load per year by 2034 (MFA, n.d.). As a result of this study, I figured out the fact that BTK plays an important role because it provides a cheaper transportation price as compared to delivery by truck. it has been understood that BTK railway line is really helping to diminish the

cost of transportation and provide a smooth link with Turkey and Middle Asian countries especially during the COVID-19 epidemic time.

Q2: Candarlı Port in Turkey could have been chosen by China for the Maritime Silk Road, but China selected Piraeus. Due to this choice, what has been the economic cost to Turkey?

A railway line that can be made to connect Candarlı port with Tekirdag and it is possible to reach from Tekirdag to Europe. I believe that Candarlı port could have been selected over Piraeus Port. When we look at the turnover that Piraeus Port has made and expected to make in the future is substantial. Plus, if Candarlı Port were selected then the amount of the turnover may have benefited the Turkish economy.

The turnover of Piraeus increased to 77.8 million USD in the 6 months of 2019. Container handling capacity was 880.000 TEUs in 2010 and this number rose to 4.15 million TEUs in 2017. According to chairman of the COSCO company, the shipping company that operates the port, the company has produced 8.000 jobs since 2009 and they assume that by 2025 the port will have expanded its revenue roughly by 523 million USD providing 31,000 jobs (CGTN, 2019).

Q3: Will Yavuz Sultan Selim Bridge be a key connection point for OBOR train to reach Europe via Turkey?

Unlike the two other suspension bridges, July 15 Martyrs Bridge and Fatih Sultan Mehmet Bridge, Yavuz Sultan Bridge comes with two railways which makes it different and important for supply chain since it allows freight trains travel on it. In this regard, it is high likely to be used to serve to middle corridor of OBOR when the railroad line on it is completely ready for freight train of OBOR. This is because Marmaray predominantly

is used for passenger travel during the daytime in order not to disrupt Marmaray commuters so that freight trains usually pass through Marmaray during midnight.

In this regards, Yavuz Sultan Selim bridge is the key connection bridge on OBOR from China up till London, allowing supply chain flow from China to Europe.

SUGGESTIONS

In the light of this thesis, I would like to share some suggestions for readers and researchers looking into the Belt and Road Initiative from the perspective of supply chain and trade.

- Yavuz Sultan Selim Bridge is the most important connection point for OBOR train to reach Europe via Turkey this is because OBOR train has to pass through the Marmaray Sea in order to arrive in Europe. Therefore, the railway track on the YSS bridge should be made as soon as possible so that OBOR train can travel smoothly.
- The Edirne-Kars railway line aims to link with BTK railway line; however, this needs to be built to provide faster and an uninterrupted rail transportation.
- The Turkish Government should make more of an effort to bring FDI into Turkey from China.
- Turkish exporters should use the BTK railway line more often as it facilitates price advantage over transportation by road.
- It seems very challenging for Turkey to close the trade deficit with China. Thus, Turkish manufacturers should be more active in the market of China and eager to promote their products, particularly food products, to China. Also, Turkish companies should keep focusing on markets in Europe, Middle East, and Africa.
- With OBOR, in my opinion, Turkey brings China closer to Europe so this may pose a threat to Turkish exporters exporting their products to Europe. Therefore, Turkish businesses need to focus on producing products which have added value and superior quality in order to compete with Chinese businesses.

REFERENCES

AA. (2013, 10 29). *Turkey's Marmaray opens in Istanbul*. Retrieved May 14, 2020, from Anadolu News Agency: https://www.aa.com.tr/en/turkey/turkeys-marmaray-opens-in-istanbul/208260

Adkıns, T. (2020, April 7). *Countries That Use The U.S. Dollar*. Retrieved May 29, 2020, from Investopedia: https://www.investopedia.com/articles/forex/040915/countries-use-us-dollar.asp

Affairs, M. o. (n.d.). *Turkey's Multilateral Transportation Policy*. Retrieved May 9, 2020, from Minstry of Foreign Affairs: http://www.mfa.gov.tr/turkey_s-multilateral-transportation-policy.en.mfa

Affairs, M. o. (n.d.). *Turkey-People's Republic of China Economic and Trade Relations*. Retrieved May 5, 2020, from Ministry of Foreign Affairs: http://www.mfa.gov.tr/turkey_s-commercial-and-economic-relations-with-china.en.mfa

AJG Simoes, CA Hidalgo. The Economic Complexity Observatory: An Analytical Tool for Understanding the Dynamics of Economic Development. Workshops at the Twenty-Fifth AAAI Conference on Artificial Intelligence (2011). *Where does Turkey import from?*

Retrieved from https

https://oec.world/en/visualize/tree_map/hs92/import/tur/show/all/2017/

Ak, S. (2018, June 29). *Çandarlı Limanı Çin'in Rotasında Olmalı*. Retrieved May 16, 2020, from Ticaret: http://ticaretgazetesi.com.tr/candarli-limani-cinin-rotasinda-olmali

Amaro, S. (2019, November 15). *China bought most of Greece's main port and now it wants to make it the biggest in Europe*. Retrieved May 16, 2020, from CNBC: https://www.cnbc.com/2019/11/15/china-wants-to-turn-greece-piraeus-port-into-europe-biggest.html

American Enterprise Institute (AEI), China Global Investment Tracker Database. (2018). *Chinese*

Investment in Foreign Companies, Cumulative Notional Amount Expressed in USD million,2005 2018

[Figure]. Retrieved from http://dx.doi.org/10.1787/888933786420

American Enterprise Institute. (2012). *Total Primary Energy Consumption in China by Fuel Type*

[Figure]. Retrieved from https://www.eia.gov/international/analysis/country/CHN

Anadolu News Agency. (2020). *Huge Export Train Set off for Middle Asia* [Photograph]. Retrieved from https://www.aa.com.tr/tr/ekonomi/dev-ihracat-treni-orta-asya-ya-dogru-yola-cikti/1809378

Aris, S. (2016, September). One Belt, One Road: China's Vision of "Connectivity". *CSS Analyses in Security Policy*, 1-2. Retrieved from https://css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-securities-studies/pdfs/CSSAnalyse195-EN.pdf

Ark, N. (2020). *Nouah's Ark*. Retrieved May 5, 2020, from Turkey Location.

Atlı, A. (2017, February 26). *Turkey seeking its place in the Maritime Silk Road*. Retrieved May 5, 2020, from Asia times: https://asiatimes.com/2017/02/turkey-seeking-place-maritime-silk-road/

Babones, S. (2017, December 28). *The New Eurasian Land Bridge Linking China And Europe Makes No Economic Sense, So Why Build It?* Retrieved from Forbes: https://www.forbes.com/sites/salvatorebabones/2017/12/28/the-new-eurasian-land-bridge-linking-china-and-europe-makes-no-economic-sense-so-why-build-it/#3b949705c9c0

Baki66. (2008). *Baku-Tbilisi-Kars Railway.* [Map]. Retrieved from https://commons.wikimedia.org/wiki/File:Baku_Tbilisi_Kars_railway.JPG

Bank, E. (2020). *About the Bank*. Retrieved April 29, 2020, from The Export and Import Bank of China: http://english.eximbank.gov.cn/Profile/AboutTB/Introduction/

Bank, W. (n.d.). *OBOR Corridor Map.* Retrieved from World Bank: https://www.worldbank.org/en/topic/regional-integration/brief/belt-and-road-initiative

Berger, R., & Chamber, E. (2016). Overcapacity in China An Impediment to the Party's Reform Agenda. *Eu Chamber*, 16.

B.Rİ. (2019, October 27).*İpek Demiryolunun İki Yıllık Serüveni*. Retrieved December 10, 2020, from B.R.İ: https://www.bik.gov.tr/demir-ipek-yolunun-iki-yillik-seruveni/

Bloomberg. (2019, July 4). *China Raises Security Warning on Ships Plying Malacca Strait*. Retrieved April 26, 2020, from Bloomberg: https://www.bloomberg.com/news/articles/2019-07-03/china-raises-warning-for-shipping-in-malacca-strait-people-say

CDB. (n.d.). *About CDB.* Retrieved April 29, 2020, from China Development Bank: http://www.cdb.com.cn/English/gykh_512/khjj/

CFR. (2020, January 28). *China's Massive Belt and Road Initiative*. Retrieved May 21, 2020, from CFR: https://www.cfr.org/backgrounder/chinas-massive-belt-and-road-initiative

CGTN. (2019, November 11). *Chinese Investment Turns Piraeus Port into an International Hub.* Retrieved January 18, 2021, from https://news.cgtn.com/news/2019-11-11/Chinese-investment-turns-Piraeus-Port-into-an-international-hub-LwQReuE1Ve/index.html

Chai, P. (2017, March). Understanding China's Belt and Road Initiative. *Lowy Institute*, 1-17. Retrieved from https://www.lowyinstitute.org/sites/default/files/documents/Understanding%20China%E2%80%99s%20Belt%20and%20Road%20Initiative_WEB_1.pdf

Cheung Kong Graduate School of Business. (2015). *China's GDP per capita by Province* [Map]. Retrieved from https://knowledge.ckgsb.edu.cn/2015/09/16/chinese-economy/regional-disparities-in-china-time-for-a-lift-up/

Chin, H., & He, W. (2016, May). The Belt and Road Initiative: 65 Countries and Beyond. *Global Sourcing Fung Business Intelligence Centre*, 8. Retrieved from https://www.fbicgroup.com/sites/default/files/B%26R_Initiative_65_Countries_and_Beyond.pdf

CIT, Global Railway Review. (n.d.). *Freight Traffic CIM/SMGS.* [Map]. Retrieved from https://www.globalrailwayreview.com/article/80492/new-legal-regime-rail-freight/

Çatal, S. (2019). Kuşak ve Yol İnisiyatifi'nin Türkiye'nin Ekonomi Güvenliğine Etkileri. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 103. doi: 0000 0001 9959 5531

Çoban, Onur, AA. (Photographer). (2019). *First OBOR Train Passing Through Marmaray, Istanbul* [Photograph].

Retrieved from https://www.aa.com.tr/tr/turkiye/marmaraydan-tarihi-gecis/1637801

Çolakoğlu, S. (2013). Türkiye İlişkilerinin Son On Yılı (2000-2010): Fırsatlar Ülkesi Çin'den Türkiye Pazarına Dönüşüm. In S. Esenbel, İ. Togan, & A. Atlı, *Türkiye'de Çin'i Düşünmek* (pp. 253-255). İstanbul: Boğaziçi Üniversitesi Yayınevi.

Daily, C. (2019, April 4). *10 amazing Belt and Road Initiative projects*. Retrieved April 28, 2020, from China Daily: http://www.chinadaily.com.cn/a/201904/04/WS5ca53641a3104842260b44e9_11.html

Daily Sabah. (2017.). *Turkey's Location by Flight.* [Map].

Retrieved from https://www.dailysabah.com/economy/2017/09/12/turkey-offers-promising-business-environment-for-investors

Derudder, B., Liu, X., & Kunaka, C. (2018, October). Connectivity Along Overland Corridors of the Belt Road Initiative. *MTI Global Practise, World Bank Group,* 11. Retrieved from http://documents.worldbank.org/curated/en/264651538637972468/pdf/Connectivity-Along-Overland-Corridors-of-the-Belt-and-Road-Initiative.pdf

Dewdney, J. C., & Yapp, M. E. (2020, April 26). *Turkey*. Retrieved May 5, 2020, from Britannica: https://www.britannica.com/place/Turkey

DHA. (2020, May 7). *Marmaray'da yarın bir ilk yaşanacak.* Retrieved May 14, 2020, from Hürriyet: https://www.hurriyet.com.tr/gundem/son-dakika-haberler-marmarayda-yarin-bir-ilk-yasanacak-41512180

Dupuis, Jonathan. (Photographer). (2019). *Yavuz Sultan Selim Bridge, Istanbul* [Photograph]. Retrieved from

https://commons.wikimedia.org/wiki/File:Yavuz_Sultan_Selim_Bridge_Istanbul.jpg#filelinks

Dilek, Ş., Özdemir, B. Z., & İstikbal, D. (2019). *Türkiye Çin Ekomik İlişkileri.* SETA. Retrieved May 20, 2020, from https://setav.org/assets/uploads/2019/07/R144.pdf

Dünya. (2015, September 17). *Dünya*. Retrieved May 16, 2020, from Dünya Haber: https://www.dunya.com/sirketler/kumport-limani-cosco-pacific039e-satildi-haberi-292370

Economist. (2016, October 1). *Rich province, poor province*. Retrieved from Economist: https://www.economist.com/china/2016/10/01/rich-province-poor-province

EIA. (2015, May 14). *China*. Retrieved from USA Energy Information: https://www.eia.gov/international/analysis/country/CHN

Ekinci, M. B. (2014). The Silk Roads From Past to the Future and Their Interactions With the Foreign Trade of Turkey. *Avrasya Etüdleri*, 10. Retrieved from http://static.dergipark.org.tr/article-download/3de4/5f3f/8baf/imp-JA38GP35GT-0.pdf?

Eko Trent Haber 7. (2010.). *Edirne Kars railway.* [Map].

Retrieved from https://ekonomi.haber7.com/ekonomi/haber/623581-edirne-kars-hizli-trenin-gececegi-iller

Embassy, C. (2019, 5 1). *Bir Kuşak Bir Yol Girişimi" Çin ve Türkiye Halklarına Yararlar Getiriyor*. Retrieved May 5, 2020, from China Embassy : http://tr.china-embassy.org/tur/xwdt/t1660067.html

Endüstri 4.0. (n.d.). *Immersion of Tubes of Marmaray Project.* [Figure].

Retrieved from https://www.endustri40.com/marmaray-iki-kita-arasindaki-demiryolu/

Esmer, S. (2019, June 20). *"Bir Kuşak Bir Yol" Hikâyesi: Sahi Pire Limanı bizden ne kaptı?* Retrieved May 16, 2020, from 7deniz: https://www.7deniz.net/yazar-bir-kusak-bir-yol-hik-yesi-sahi-pire-limani-bizden-ne-kapti-164.html

Financial Times. (2017). *China's Proposed Land Sea Express Route* [Map]. Retrieved from https://www.ft.com/content/003bad14-f52f-11e6-95ee-f14e55513608

Fmprc. (2013, September 14). Retrieved April 21, 2020, from President Xi Jinping Returns to Beijing after Concluding Visits to Four Central Asian Countries and Other Activities: https://www.fmprc.gov.cn/mfa_eng/topics_665678/xjpfwzysiesgjtfhshzzfh_665686/t1077763.shtml

Fmprc. (2013, September 9). *President Xi Jinping Delivers Important Speech and Proposes to Build a Silk Road Economic Belt with Central Asian Countries*. Retrieved June 1, 2020, from fmprc: https://www.fmprc.gov.cn/mfa_eng/topics_665678/xjpfwzysiesgjtfhshzzfh_665686/t1076334.shtml

Ganesh, Arun. National Institute of Design Bangalore. (Student). (2020). *Somalian Piracy Threat Map 2010* [Map]. Retrieved from https://commons.wikimedia.org/wiki/File:Somalian_Piracy_Threat_Map_2010.png?uselang=tr#filelinks

Gleave, S. D. (2018). The new Silk Route – opportunities and challenges for EU transport, European Parliament, Policy Department forStructural and Cohesion Policies, Brussels. *Research for TRAN Committee*, 22. Retrieved from

https://www.europarl.europa.eu/RegData/etudes/STUD/2018/585907/IPOL_STU(2018)585907_EN.pdf

Group, L. (2019). *BRI Progress, Contributions and Prospects.* Beijing: Foreign Languages Press Co. Ltd.

Günay, E., Çetiner, S., Sevinç, S., & Kütükçü, E. (2019). Tarihi İpek Yolundan Modern İpek Yolu Projesine: Türkiye Çin Ekonomik İş Birliği Çerçevesinde Orta Koridor ile Bir Kuşak Bir Yol Girişimi. *Kahramanmaraş İBB Dergisİ*, 160-161. Retrieved from http://static.dergipark.org.tr/article-download/7264/6058/0dc7/5e075f4b32b03.pdf?

Hastürk, V. (2019). Çin Ekonomisindeki Dönüşümün Küresel Ekonomi Üzerine Etkileri: Bir Kuşak Bir Yol Projesi . *Marmara University Master Thesis*, 86. Retrieved May 5, 2020

Hatipoglu, M., & Gokmen, E. (2019, 11 7). *First China Railway Express line train reaches Turkey*. Retrieved May 9, 2020, from Anadolu Agency: https://www.aa.com.tr/en/turkey/first-china-railway-express-line-train-reaches-turkey/1637811

Hong Kong Trade Development Council. (n.d.). *Belt and Road Initiative: Six Economic Corridors Spanning Asia, Europe and Africa*

[Map]. Retrieved from http://m.hktdc.com/business-news/article/The-Belt-and-Road-Initiative/The-Belt-and-Road-Initiative/obor/en/1/1X3CGF6L/1X0A36B7.htm

Hürriyet. (2019, July 3). *Havanın 'İpek Yolu' merkezi İstanbul olacak*. Retrieved May 20, 2020, from Hürriyet: https://www.hurriyet.com.tr/gundem/havanin-ipek-yolu-merkezi-istanbul-olacak-41262219

Hürriyet. (2019, August 26). *Yavuz Sultan Selim Köprüsü 3 yaşında*. Retrieved May 19, 2020, from Hürriyet: https://www.hurriyet.com.tr/ekonomi/yavuz-sultan-selim-koprusu-3-yasinda-41312318

ICA. (n.d., 5 19). *İlklerin Köprüsü YSS*. Retrieved May 19, 2020, from ysskoprusuveotoyolu: https://www.ysskoprusuveotoyolu.com.tr/TR/icerik/ilklerin-koprusu-yss-126

IGA. (n.d.). *Cargo Hub*. Retrieved May 20, 2020, from Istanbul Airport: https://www.istairport.com/en/commercial/cargo-hub/cargo-hub

IGA. (n.d.). *Welcome to your home*. Retrieved May 20, 2020, from Istanbul Airport: https://www.istairport.com/en

Inan, F., & Yayloyan, D. (2018). *New Economic Corridors in the South Caucasus and the Chinese One Belt One Road.* Ankara: TEPAV. Retrieved May 4, 2020, from https://www.tepav.org.tr/upload/files/1523615843-0.New_Economic_Corridors_in_the_South_Caucasus_and_the_Chinese_One_Belt_One_Road.pdf

İsayev, E., & Özdemir, M. (2011). Büyük İpek Yolu ve Türk Dünyası. *Zeitschrift für die Welt der Türken Journal of World of Turks*, 113. Retrieved from http://www.acarindex.com/dosyalar/makale/acarindex-1423939408.pdf

ISDP. (2018, June). Made in China 2025. *Institute for Security & Development Policy*, 1-2.

Judy Bonaviva, S. J. (1993). *The Silk Road From XI'AN to Kashgar.* Chicago: Passport Books. Retrieved from https://archive.org/stream/silkroadfromxian0000bona#page/n5/mode/2up

Kadılar, R., & Ergüney, E. (2017). One Belt One Road Initiative: Perks and Challenges for Turkey. *Turkish Policy Quarterly, 16,* 88-89. Retrieved May 5, 2020, from http://turkishpolicy.com/files/articlepdf/one-belt-one-road-initiative-perks-and-challenges-for-turkey_en_7378.pdf

Kane Wu. (n.d.).

KEE, K. K. (n.d.). *Understanding China's Belt and Road Initiative and its Implications for Malaysia*. Retrieved from Baker Tilly: https://www.bakertilly.my/public/files/d46322a8a433370a0e6c125cdaffcd006e944c476db40cf7a8215a7cfbaefc22.pdf

Komisyonu, Ö. İ. (2018). *Lojistik Hizmetlerinin Geliştirilmesi.* Ankara: T.C. Kalkınma Bakanlığı. Retrieved from http://www.sbb.gov.tr/wp-content/uploads/2020/04/LojistikHizmetlerininGelistirilmesiOzelIhtisasKomisyonuRaporu.pdf

Kulttuurinavigaattori. (2019). *Istanbul New Airport, Istanbul* [Photograph]. Retrieved from

https://en.wikipedia.org/wiki/File:%C4%B0stanbul_Yeni_Havaliman%C4%B1_airport_Dec_2019.jpg

Liu, Q., & Ke, L. (2018). One-Belt-One-Road policy implication on logistics route competition: Case study of China-Germany trade. *University of Hamburg*, 3.

Marmaray. (n.d.). *Ancient Marmaray Project.* [Figure].

Retrieved from http://marmaray.gov.tr/marmaray-hakkinda

MC Containers. (n.d.). *40' HC Shipping Container.* [Photograph].

Retrieved from https://mccontainers.com/product/40-high-cube-hc-shipping-container/

Major, J. (n.d.). *Silk Road*. Retrieved April 18, 2020, from Asia Society: https://asiasociety.org/education/silk-road

McKenzie, B., & Associates, S. R. (n.d.). Belt & Road: Opportunity & Risk The prospects and perils of building China's New Silk Road. *Baker McKenzie*, 1-10. Retrieved from https://www.bakermckenzie.com/-/media/files/insight/publications/2017/10/belt-road/baker_mckenzie_belt_road_report_2017.pdf?la=en

Mercator Institute for China Studies. (n.d.). *Infrastructure Projects being Planned and Undertaken as of December 2015 in China's Belt and Road Initiative* [Map]. Retrieved from https://www.merics.org/en

Mercator Institute for China Studies. (n.d.). *China's 21st Century Maritime Silk Road* [Map]. Retrieved from https://www.spiegel.de/international/world/china-increasing-overseas-ambitions-with-maritime-silk-road-a-1110735.html

MFA. (2020). *Turkey's Multilateral Transportation Policy*. Retrieved 5 15, 2020, from TR Foreign Affairs: http://www.mfa.gov.tr/turkey_s-multilateral-transportation-policy.en.mfa

Minghao, Z. (2015, October). China's New Silk Road Initiative. *Instituto Affari Internazionali* , 3.

Ministry of Transport Infrastructure. (2018). *Ulaşan ve Erişen Türkiye 2018 Demiryolu.* Ankara: Ministry of Infrastructure and Transport. Retrieved from https://www.uab.gov.tr/bakanlik-yayinlari

Nan, Z. (2020, January 21). *China's FDI rises 5.8% to over 940b yuan in 2019*. Retrieved May 21, 2020, from China Daily: https://www.chinadailyhk.com/article/119213

NASA/Goddard Space Flight Center. (2010). *Extent of Silk Route/Silk Road* [Photograph]. Retrieved from https://commons.wikimedia.org/wiki/File:Silk_route.jpg

Nebol, E. (2016). *Tedarik Zinciri ve Lojistik Yönetimi.* Ankara: Nobel Akademik Yayıncılık.

Nikkei A**s**ian Review, TCDD. (2019). *Silk Road Train from China to Prague.* [Map]. Retrieved from https://asia.nikkei.com/Spotlight/Belt-and-Road/Chinese-freight-train-skirts-Russia-on-new-route-into-Europe

OECD. (2018). *China's Belt and Road Initiative in the Global Trade, Investment and Finance Landscape.* Paris: OECD. Retrieved from https://www.oecd.org/finance/Chinas-Belt-and-Road-Initiative-in-the-global-trade-investment-and-finance-landscape.pdf

Owennson. *This is the map of the Countries which signed the Belt and Road Initiative Cooperation Documents* (2019). [Map].

Retrieved from https://en.wikipedia.org/wiki/File:Belt_and_Road_Initiative_participant_map.svg

Öğütçü, Ö. N. (2017, 11 1). *Why Baku-Tbilisi-Kars Railway Matters*. Retrieved May 15, 2020, from Avim: https://avim.org.tr/en/Yorum/WHY-THE-BAKU-TBILISI-KARS-RAILWAY-MATTERS-1

Özel İhtisas Komisyonu. (2018). *Lojistik Hizmetlerinin Geliştirilmesi.* Ankara: Ministry of Development. Retrieved May 13, 2020, from http://www.sbb.gov.tr/wp-content/uploads/2020/04/LojistikHizmetlerininGelistirilmesiOzelIhtisasKomisyonuRaporu.pdf

Özmen, E., & Aksu, C. (2020, May 9). *Bakan Karaismailoğlu açıkladı! 2 şehir arasındaki o mesafe 14 dakika kısalacak*. Retrieved May 9, 2020, from Hürriyet: https://www.hurriyet.com.tr/ekonomi/bakan-karaismailoglu-acikladi-2-sehir-arasindaki-o-mesafe-14-dakika-kisalacak-41513392

Presidency, T. (n.d.). *Strategic Location*. Retrieved May 3, 2020, from Investment office of Turkish Presidency: https://www.invest.gov.tr/en/WhyTurkey/Top-Reasons-to-Invest-in-Turkey/Pages/strategic-location.aspx

Ray Haber. (2019). *Logistic Centers of Turkey.* [Map].

Retrieved from https://rayhaber.com/2019/11/turkiye-lojistik-master-plani-ve-lojistik-merkezler/

Reiff, P. G., & Lit., D. (2018). One Belt, One Road (OBOR). 2.Retrieved from HYPERLINK "https://www.academia.edu/37694544/China__ONE_BELT_ONE_ROAD_OBOR_BRI_" https://www.academia.edu/37694544/China_-_ONE_BELT_ONE_ROAD_OBOR_BRI_

Research for Tran,EU New Silk Route. (n.d.).

Resources, M. o. (n.d.). *Transit Pipelines and ProjectsShare:*. Retrieved May 3, 2020, from Republic of Turkey Ministry of Energy and Natural Resources: https://www.enerji.gov.tr/en-US/Pages/Transit-Pipelines-and-Projects

Sabah. (2020, April 19). *Longest freight train on Baku-Tbilisi-Kars railway departs from Turkey en route to Central Asia*. Retrieved May 16, 2020, from Daily Sabah: https://www.dailysabah.com/business/transportation/longest-freight-train-on-baku-tbilisi-kars-railway-departs-from-turkey-en-route-to-central-asia

Sarker, N. I., & others. (2018, April). Oil, Gas and Energy Business under One Belt One Road Strategic Context. *Open Journal of Social Sciences*, 119-134. doi:10.4236/jss.2018.64011

Sarwar, F. (2018). China's One Belt and One Road: Implications of 'New Eurasian Land Bridge' on Global Power Play in the v. *NUST Journal of International Peace & Stability*, 136-137.

Schumaker, E. (2020, April 23). *Timeline: How coronavirus got started*. Retrieved 5 15, 2020, from abc news: https://abcnews.go.com/Health/timeline-coronavirus-started/story?id=69435165

Silk Roads. (n.d.). Retrieved from Unesco: https://en.unesco.org/silkroad/about-silk-road

Smith, W. H. (n.d.). *What are the top 10 most traded currencies in the world?* Retrieved May 29, 2020, from IG: https://www.ig.com/za/trading-strategies/what-are-the-top-10-most-traded-currencies-in-the-world-200115

TCDD Statistics. (2018). *2014-2018 Annual Statistics.* Ankara: TCDD. Retrieved May 13, 2020, from http://www.tcddtasimacilik.gov.tr/sayfa/istatistikler/

TEB (Director). (2017). *Kayseri, Çin'in Avrupa'ya Açılan Kapısı Olacak* [Motion Picture]. Retrieved May 14, 2020, from https://www.youtube.com/watch?v=v9Q6ZHcf6bg

TUBS**.** (2011). *Turkey on the Globe.* [Map]. Retrieved from https://tr.wikipedia.org/wiki/Dosya:Turkey_on_the_globe_(Eurasia_centered).svg

Tezcan, M. (2014). The Iranian Branch of the Silkroad and the Prevention of the Silk Trade by Iran. *International Journal of Turkish Literature Culture Education*, P.97 96-123.

Turhan, C. (2019, April 24). *Bir Kuşak Bir Yol, coğrafyamızın geleceğini yeniden şekillendirecektir*. Retrieved May 8, 2020, from Milliyet: https://www.milliyet.com.tr/yazarlar/dusunenlerin-dusuncesi/bir-kusak-bir-yol-cografyamizin-gelecegini-yeniden-sekillendirecektir-2863153

Unesco. (n.d.). *About the Silk Roads*. Retrieved from Unesco: https://en.unesco.org/silkroad/about-silk-roads

Üzümcü, A., & Akdeniz, S. (2014). Yeni İpek Yolu: TRACECA ve Bakü-Tiflis-Kars Demiryolu Projesi. *Avrasya Etüdler*, 192-193.

Williams, T. (2015). Mapping the Silk Roads. *University College London*, 2-7. Retrieved from https://www.researchgate.net/publication/280096308_Mapping_the_Silk_Roads

Wood, F. (2002). *The Silk Road Two Thousand Years in The Hearth of Asia.* Berkeley & Los Angeles, California, USA: University of California Press. Retrieved from https://archive.org/stream/silkroadtwothous0000wood#page/n7/mode/2up

Wu, K., & Zhu, J. (2017, August 2017). *China Construction Bank raising $15 bln in funding for Belt and Road deals -sources*. Retrieved April 29, 2020, from REUTERS: https://www.reuters.com/article/ccb-fundraising/china-construction-bank-raising-15-bln-in-funding-for-belt-and-road-deals-sources-idUSL8N1L809L

Yesmin, S. (2019, February 1). *The internationalization of RMB*. Retrieved May 29, 2020, from China Daily: https://global.chinadaily.com.cn/a/201901/02/WS5c2c2a45a310d912140520d8.html

Yiwei, W. (2019). *Çin'in Kazan-Kazan Projesi Çağdaş İpek Yolu: Bir Kuşak Bir Yol.* İstanbul: Canut.

Yurdakul, D. (2013). Türkiye-Çin Ekonomik ve Ticari İlişkileri. In S. Esenbel, I. Togan, & A. Atlı, *Türkiyede Çin'i Düşünmek* (pp. 231-232). Istanbul: Boğaziçi Üniversitesi Yayınevi.

Zhang, M. (2009, April 14). *The Impact of the Global Crisis on China and its Reaction*. Retrieved April 27, 2020, from Real ınstituto Elcano: http://www.realinstitutoelcano.org/wps/portal/rielcano_en/contenido?WCM_GLOBAL_CONTEXT=/elcano/elcano_in/zonas_in/ARI62-2009

Zhang, X., & Zhang, S. (2017). China Mongolia-Russia Economic Corridor and Environmental Protection Cooperation. *Institute of Northeast Asian Studies, Heilongjiang Provincial Academy of Social Sciences*, 162.