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## **The New Silk Road importance for Polish-Chinese trade relations**

### **Znaczenie Nowego Jedwabnego Szlaku dla wymiany handlowej między Polską i Chinami**

**Abstract.** The aim of the research was to recognize the importance of the New Silk Road concept for trade relations between Poland and China. The study uses data from the Statistics Poland (Główny Urząd Statystyczny) on Poland's foreign trade turnover with China, as well as information from the source literature. The adopted research period covers the years 2010–2018. The analysis shows that the New Silk Road has a significant impact on global supply chains by reducing the time of transporting goods on the China-Europe route, and by expanding infrastructural, financial and IT links to improve international trade. The analysed route gives the ability for China to extend the influence zone, and strengthen its position in the international arena, and for European countries is a source of infrastructural development and increased trade. Poland, due to its geographical location, can act as a bridge connecting Western markets with Central Asia, and should seize the opportunity to become a logistics hub and distribution centre of goods transported on the New Silk Road. The challenge for Polish businesses, trade organizations and the government is to increase exports of goods and services to China via terminals in Gdańsk, Małaszewicze, Łódź and Sławków.

**Key words:** trade relations, the New Silk Road, terminal, Poland, China

**Synopsis.** Celem badań było rozpoznanie znaczenia koncepcji Nowego Jedwabnego Szlaku dla wymiany handlowej między Polską i Chinami. W opracowaniu wykorzystano dane Głównego Urzędu Statystycznego w zakresie obrotów handlu zagranicznego Polski z Chinami oraz informacje z literatury przedmiotu. Przyjęty okres badawczy obejmuje lata 2010–2018. Z analizy wynika, że Nowy Jedwabny Szlak istotnie wpływa na globalne łańcuchy dostaw poprzez skrócenie czasu przewozu towarów na trasie Chiny – Europa oraz ekspansję powiązań infrastrukturalnych, finansowych i IT służących poprawie prowadzenia wymiany handlowej. Chinom daje możliwość rozszerzania strefy wpływów oraz umacniania swojej pozycji na arenie międzynarodowej, a dla krajów europejskich stanowi źródło rozwoju infrastruktury i zwiększenia wymiany handlowej. Polska z racji swojego położenia geograficznego może stanowić swoisty pomost łączący rynki zachodnie z Azją Centralną. Powinna ona wykorzystać szansę stania się portem logistycz-

nym i centrum dystrybucyjnym towarów przewożonych na Nowym Jedwabnym Szlaku. Istotne wyzwanie dla polskich przedsiębiorstw, organizacji handlowych i rządu stanowi zwiększenie eksportu produktów i usług do Chin poprzez terminale w Gdańsku, Małaszewiczach, Łodzi i Sławkowie.

**Słowa kluczowe:** wymiana handlowa, Nowy Jedwabny Szlak, terminal, Polska, Chiny

## Introduction

One of the most important factors determining the country's economic development is transport, which acts as the "bloodstream" of the national economy. Transport is a key component of production and distribution processes of material goods and services. Transport is complementary to all human economic activities. In the era of globalisation, international trade and international competition are growing fast. As a consequence, the increased role of logistics and transport in the organization and management of efficient flows of resources and ensuring their availability at the lowest costs and in the shortest possible time has been observed [Nerć-Pełka and Wysocka 2012].

In Poland, there is a need to improve and develop a coherent and well-functioning transport system, integrated with the European and global system. Without effective transport, it is not possible to accelerate the country's economic growth and develop international trade. As a result of changes taking place in the international arena, the following new challenges are facing the national transport system [Resolution No 105 of the Council of Ministers of 24 September 2019]:

- the increase of transport services availability (for both Polish and foreign users);
- the reduction of transport costs and time, combined with a gradual energy efficiency improvement and an unit emission costs decrease;
- development of multimodality.

Transport development is possible due to investments intended for the existing infrastructure modernization as well as investments responsible for modern infrastructure facilities creation. Developed and well-maintained infrastructure attracts investments, enables opening to new markets and access to its own markets, facilitates the rational use of the workforce potential and promotes regional development [Walasek 2018]. Transport infrastructure strengthens the social, economic and spatial cohesion of the country and contributes to strengthening the economy competitiveness. The infrastructure, or more detailed the access to it, is a one of the most important determinants of enterprises, regions, countries and continents development.

A good example of transport infrastructure is the New Silk Road, an extensive infrastructure network connecting China, Central Asia, the Middle East and Europe. It is worth noting that the original Silk Road was established over 2100 years ago during the Han Dynasty to tighten trade between China and European countries [Liu 2010]. However the "Silk Road" is not an ancient invention, and it dates back to 1877. Baron Ferdinand von Richthofen, a prominent geographer who worked in China from 1868 to 1872, used the phrase "Silk Road" for the first time in his five-volume atlas [Hansen 2012]. The historical role of the Silk Road is considered from the perspective of mutual benefit of states along the trade route [Silin et al. 2018].

The New Silk Road is also called the One Belt and One Road strategy. The initiative is based on six following pillars [Huang 2016]:

- Coordination of activities aimed at developing cooperation and communication mechanism.
- Promotion of undisturbed international trade by the economic integration at regional level and reduction of trade and investment barriers.
- Creation of interpersonal relationships by the organization of academic and cultural exchange.
- Improvement of connectivity by creating an appropriate technical infrastructure and developing a common system of standards.
- Financial integration based on joint financial institutions creation.
- Monetary policy coordination.

According to Cui and Song [2019], the New Silk Road will surely change the existing pattern of the international trade, which may substantially affect both global supply chain management and logistics development. The New Silk Road is based on two types of transport, i.e. maritime and railway. Currently, railway transport handles a small proportion of China-European Union goods turnover, in practice about 3–4%. Maritime transport of goods is much more developed. That branch of the New Silk Road is to increase China's economic ties not only with Europe, but also with Middle East countries. Both routes of the New Silk Road need not compete with each other, but should be rather complementary.

## **Research aim, material and methods**

As the New Silk Road leads through Central Asian countries to Western Europe via Poland, the purpose of the research was to recognize its significance for trade between Poland and China. The study uses data from the Statistics Poland (Główny Urząd Statystyczny – GUS) foreign trade turnover with China, as well as information from the source literature. Comparative analysis and inductive reasoning were used in the studies. The paper presents changes in the value of Poland's trade with China in 2010–2018 and the structure of imports and exports of goods in 2018. Then, the development of cooperation between Poland and China was described, and the New Silk Road initiative was presented. In the area of that concept, the importance of Polish terminals was pointed out. A descriptive and graphic method was used to present the results of the research.

## **Foreign trade turnover between Poland and China in 2010–2018**

China is Poland's largest trading partner in Asia and, on the other hand, Poland is the most important Chinese trading partner in Central and Eastern Europe. In 2010, Poland's trade in goods with China amounted to over USD 18.3 billion (Fig. 1). By 2018, it increased 84.3% to USD 33.8 billion. However, the trade structure was dominated by imports of goods from China to Poland. In 2010, its value was over USD 16.7 billion and by 2018 it increased to USD 31.3 billion.

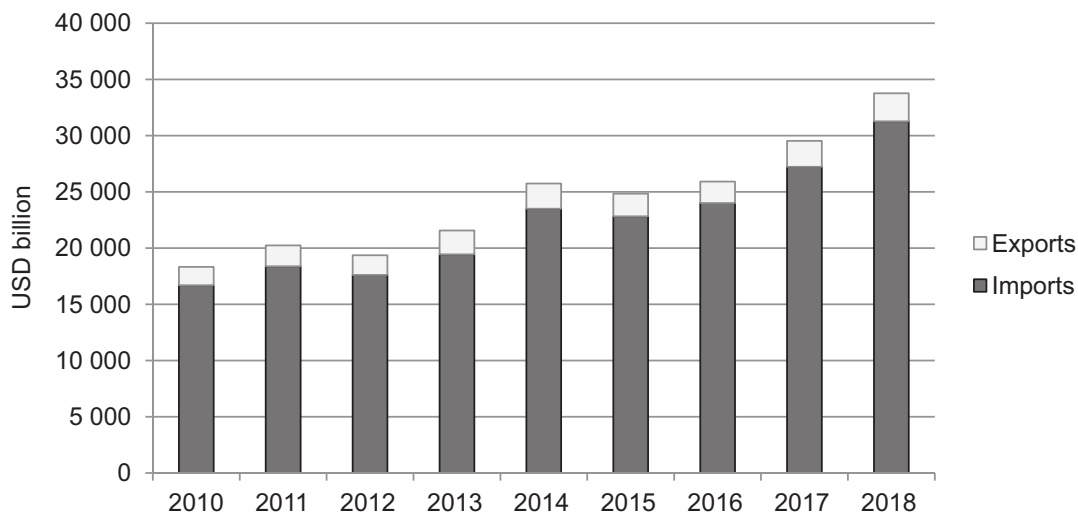


Figure 1. Foreign trade turnover between Poland and China in 2010–2018

Rysunek 1. Obroty handlu zagranicznego Polski z Chinami w latach 2010–2018

Source: own elaboration based on Statistical Yearbooks of Foreign Trade of 2011–2019 [GUS 2011–2019].

The value of Polish exports to China in 2010 was more than 10 times lower than imports and amounted to USD 1.63 billion, and by 2018 it increased 53.5% to USD 2.5 billion. As a consequence, the characteristic asymmetry in Polish foreign trade relations with China increased, i.e. in 2018 Poland imported goods from China with a value 12.5 times higher than the value of Polish exports to China. Trade deficit of Poland with China widened to a record level of USD 28.7 billion. Poles more and more willingly imported goods from China mainly due to the increasing quality of Chinese products, transport improvements, as well as constantly developing routes and tightening trade relations with Chinese enterprises.

Among the imported consumer goods from China to European countries including Poland, textiles, leather and leather-like products, clothing, electronics, chemicals, vehicles and automotive parts, agricultural products and food products dominate. Poland exports to China mainly copper, machinery, rubber, plastics and food products. In 2018, according to Statistics Poland data, the structure of Polish imports from China was dominated by machines, devices and transport equipment, which constituted 51.9% of the total value of imports (Fig. 2). A large part of imports also included various transport products (29.2%). Industrial goods classified mainly by raw material constituted a smaller share of imports (12.7%), and chemicals and related products constituted only 4.1%.

The structure of Polish exports to China was dominated by machines, devices and transport equipment, which constituted 33.2% of total export value (Fig. 3). A similar percentage concerned industrial goods classified mainly as raw materials. Transport products accounted for 16% of Polish exports to China, while chemicals and related products accounted for 5.5%.

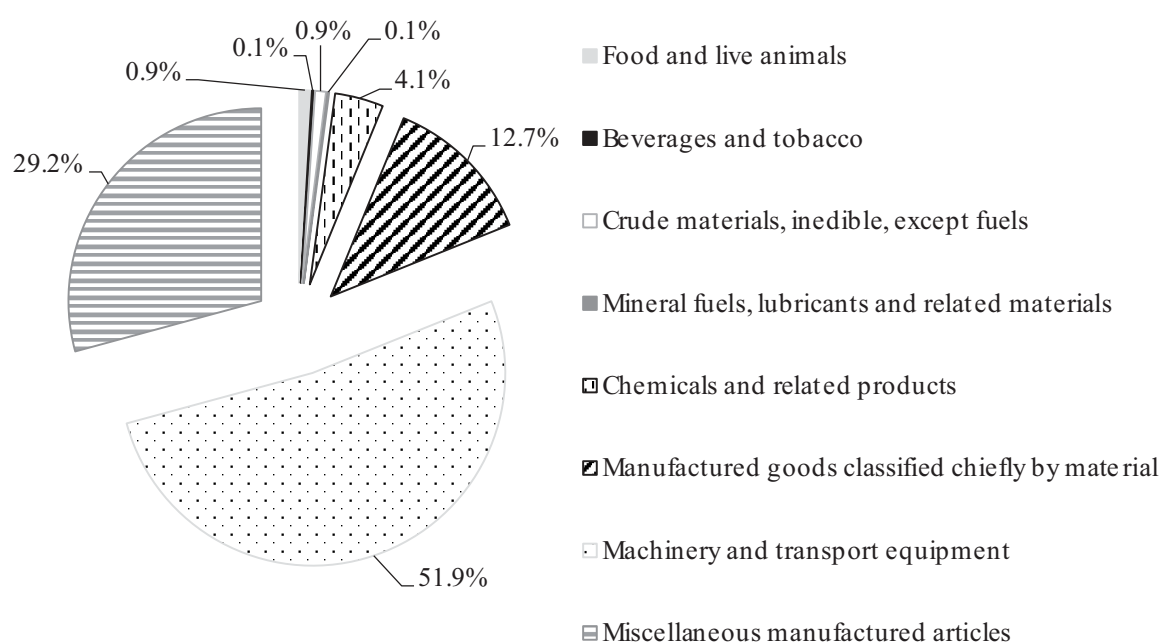


Figure 2. Import structure of goods from China to Poland in 2018

Rysunek 2. Struktura importu towarów z Chin do Polski w 2018 roku

Source: own elaboration based on Statistical Yearbook of Foreign Trade of 2019 [GUS 2019].

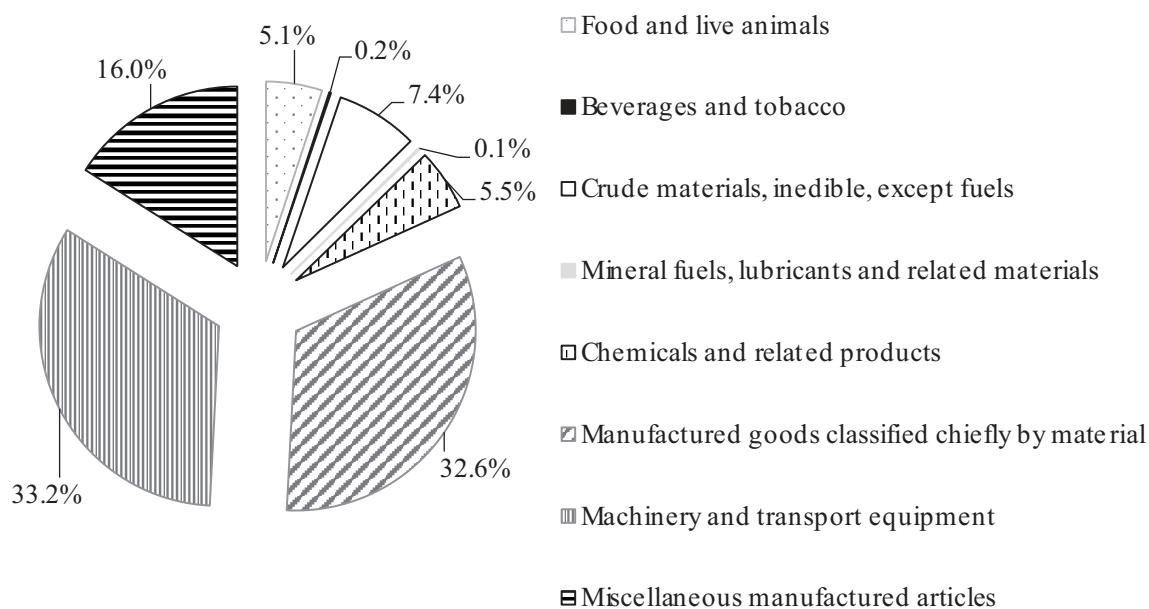


Figure 3. Export structure of goods from Poland to China in 2018

Rysunek 3. Struktura eksportu towarów z Polski do Chin w 2018 roku

Source: own elaboration based on Statistical Yearbook of Foreign Trade of 2019 [GUS 2019].

## **Development of Poland and China cooperation**

Lively cooperation between Poland and China was initiated in 2011, when the presidents of those countries signed an agreement on strategic cooperation. Since then, the period of ever closer mutual economic relations began [Szczudlik-Tatar 2015]. In 2012, Chinese government submitted a plan of 16+1 initiative based on 12 steps of mutual cooperation between China and 11 European Union Member States: Bulgaria, Croatia, the Czech Republic, Estonia, Lithuania, Latvia, Poland, Romania, Slovakia, Slovenia and Hungary, and with five Balkan countries: Albania, Bosnia and Herzegovina, Montenegro, Macedonia and Serbia. The aim of that cooperation was develop investment in infrastructure, transport, finance, tourism, and culture and science [China-CEEC 2015].

The New Silk Road has significantly developed and improved the quality of Polish-Chinese cooperation, and gave the chance for increased imports from China to Poland. The route gave the opportunity for fast and economical transport of imported goods. The New Silk Road concept was firstly presented by Chinese president, Xi Jinping, during his visit to Kazakhstan in 2013 [Pepermans 2018]. For China, the New Silk Road (also known as One Belt and One Road initiative) is the continuing and deepening of the Chinese “Going Global Strategy”, i.e. an opportunity for further development by expanding its sphere of influence and strengthening its position on the international arena [Chen 2016]. The New Silk Road may also bring substantial economic benefits to other Eurasian countries [Li et al. 2015]. For European countries, the route contributes building or modernizing transport, transmission and telecommunications infrastructure, increasing trade and strengthening multicultural human relations.

The New Silk Road is a long-term and relatively new project, therefore it is constantly developing and evolving and its scale is increasing. The concept of the land and sea New Silk Road assumes the creation of transport corridor network connecting China with European Union countries, i.e. the main trade partners for China. The official route indicates one land section and one sea section, which connect in northern Italy. However, this is a simplification, because the concept of the New Silk Road is a conglomerate of routes and provides several variants of China transport connection with Europe. Some of connections already existed, such as railway connections from Chongqing to Duisburg or from Wuhan to Prague. Some have been launched after the announcement of New Silk Road initiative, such as the route from Chengdu to Łódź or from Yiwu to Madrid, while others are in plan [Majszyk and Niedziński 2015]. The New Silk Road is a flexible initiative and can even be expanded to include past projects as there are no deadlines or detailed parameters [Fallon 2015].

In 2014, in order to provide funding for the New Silk Road, the Silk Road Fund was established, estimated at USD 40 billion. The aim of the fund is to finance economic corridors and infrastructure elements. Moreover, in 2014 the Asian Infrastructure Investment Bank (AIIB) was established, currently associating 70 countries, including Poland, with capital of USD 100 billion. Additional financing for the New Silk Road is provided by the New Development Bank (NDB) created in 2015, with a capital of USD 50 billion, which consociates BRICS countries, i.e. Brazil, Russia, India, China and South Africa [pc 2017].

## **The role of Poland on the New Silk Road**

Poland has the chance to play the role of an important logistics hub and distribution centre for goods transported on the New Silk Road to European Union countries. Geographical location is a strength of Poland, and allows a convenient transport of Chinese goods to the European Union. Transported goods have to cross only two customs borders due to existence of the Eurasian Economic Union, i.e. custom union between Kazakhstan, Russia and Belarus. Moreover, Poland is the largest member of 16+1 group, which can be a key issue. It is worth mentioning that Germany, the Netherlands and the United Kingdom are China most important trading partners in Europe.

There are several major plans determining the route of the New Silk Road connecting China with the European Union. Selected planned routes are presented on Figure 4:

- The northern corridor assumes the use of the Russian Trans-Siberian Railway and runs from Kazakhstan, through the territory of Russia, to Belarus, and then to Poland. The corridor is currently in operation. Its advantages include the small number transitional countries and the lowest number of border crossings. However, the disadvantages are connected with difficult climate conditions and potential impediments on Russian part of the route, as Russia is a strong and demanding partner for China.
- The southern corridor begins near Kazakhstan, then passes through territory Turkmenistan or Kyrgyzstan, Tajikistan, and reaches Iran. Through Iran, the southern corridor leads to Turkey and then connects to Europe. Its main disadvantages include a large number of border crossings and growing political instability in the region.
- The central corridor crosses the Kazakhstan territory and uses the sea connection, reaching the Azerbaijani port of Alat, then passes through the southern Caucasus and reaches Europe in Turkey. The middle corridor is a good alternative because of the relatively “friendly” countries along its route. Its main disadvantage is the diversity of transport forms and political uncertainty in the Caucasus.

Polish container terminals may play an important role on the above presented the New Silk Road routes, in particular:

- Małaszewicze border terminal and connection to the Łódź-Olechów terminal;
- Hrubieszów-Sławków Południowy LHS railway and Sławków terminal;
- DCT Gdańsk – Deepwater Container Terminal Gdańsk, BTDG – Baltic General Cargo Terminal Gdynia, and GCT – Gdynia Container Terminal.

Key important for railway transport from China through Poland is Małaszewicze terminal, located 5 km from Polish-Belarusian border. In recent years there has been a sharp increase in the number of trains serviced by that terminal. In 2018 there were 2,200 trains, while in 2011 only 17. In 2018 over 98% of serviced containers in Małaszewicze terminal were from or to China. Currently (in 2019) Małaszewicze terminal is able to receive 2,825 trains a year. In order to further Małaszewicze terminal development the managing company PKP Cargo CL Małaszewicze, belonging to the PKP Cargo Group, obtained European Union funding for terminal expansion. After the works are completed – by the end of 2020 – the terminal will be able to service 3,285 trains yearly [Świdorski 2019].

Sławków Terminal is located on the final section of the broad-gauge railway line (1,520 mm) and has been improved its transshipment, storage, forwarding, logistics and

## China's One Belt, One Road

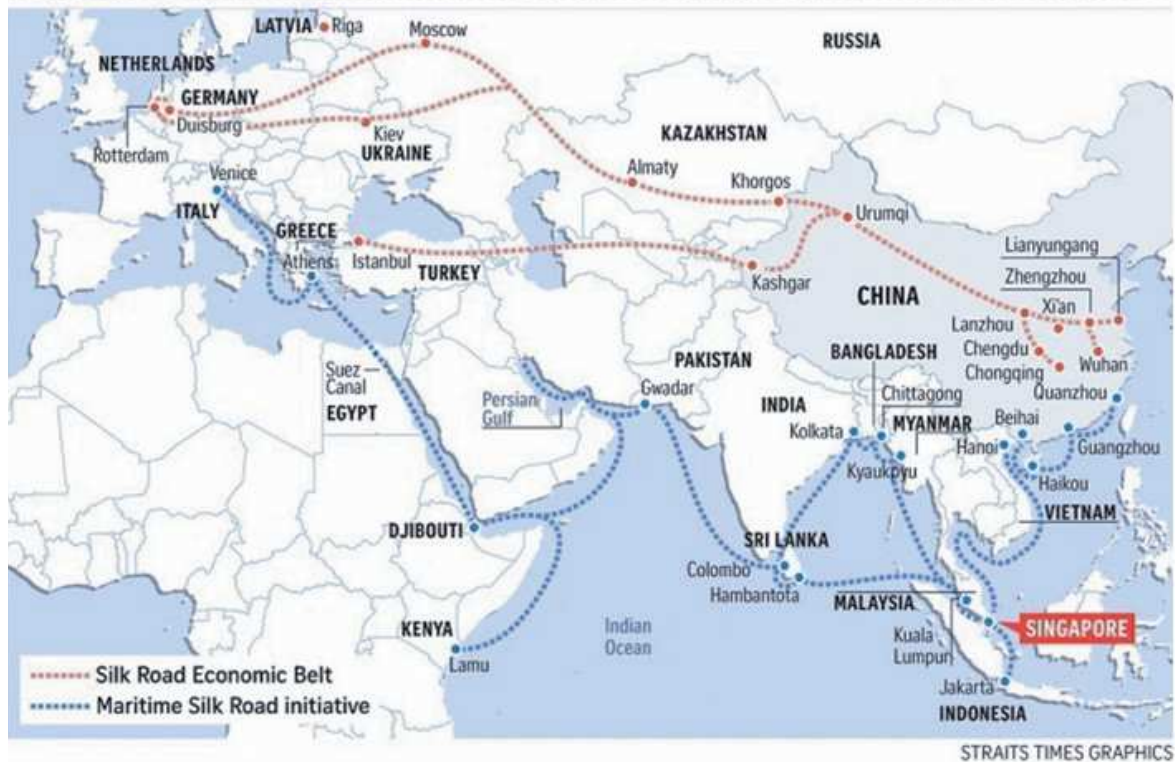


Figure 4. The New Silk Road routes  
 Rysunek 4. Nowy Jedwabny Szlak  
 Source: Straits Times.

customs offer for many years. It can be used for handling: containers, semitrailers, swap bodies, loose goods (coal, coke, anthracite), Pelle salt, cereals, metallurgical products, iron, glass, wood, palletized goods, goods in big bags and chemical products. Sławków terminal has the following annual capacity: about 285 thousand TEU of container handling, 380 thousand t of metallurgical products, 200 thousand of palletized goods, 2 million t of bulk goods, 365 thousand other bulk goods. Principals of transshipment services have the option of weighing loads on rail and road scales. It is also possible to use three large warehouses on Sławków terminal, i.e. with an area of 8,500 m<sup>2</sup>, 4,860 m<sup>2</sup> and the area for 1,760 Euro-pallets [Perenc 2018]. At Sławków terminal conditions for direct and indirect transshipment in the following three routes have been created:

- broad gauge wagons – standard gauge wagons;
- standard gauge wagons/standard gauge wagons – cars;
- cars – cars.

Łódź-Olechów terminal is served by Spedcont company. It has very good conditions to increase the scale of its operations, thus the number of connections is constantly increasing. His role has long gone beyond the container handling area, in favour of an important link in the intermodal supply chain. Regarding the New Silk Road initiative, Łódź Olechów terminal may become an important logistics hub enabling the movement of loads from China and other Far East countries to European countries, while minimizing the costs of transshipment and transport between terminals. Spedcont reloading terminal in Łódź has 2,800 running meters of tracks, 42,000 m<sup>2</sup> of storage area for 5,000 TEU, both for containers and exchangeable bodies<sup>1</sup>.

<sup>1</sup> <https://www.spedcont.pl/oferta.html> [access: 05.11.2019].



The New Silk Road maritime route will enter Europe in the southern part of the continent and due to geographical location will favour the Balkans and Hungary. In Poland, a significant element for the functioning of the New Silk Road maritime route will be ports in Tri-City (Gdańsk, Gdynia, Sopot). They can act as a transshipment hub for smaller ships with delivery to Finnish and Russian ports. The Tri-City port complex has a very large transshipment and storage potential. The total reloading capacity of DCT Gdańsk – Deepwater Container Terminal Gdańsk, BTDG – Baltic General Cargo Terminal Gdynia, and GCT – Gdynia Container Terminal is around 5 million TEU [Perenc 2018].

Due to the functioning of the New Silk Road land and sea routes, international trade of goods between Asian and European countries can be present by various transport modes that are suitable for long-distance transport. The advantages of maritime transport include the mass character, relatively low operating costs and environmentally friendliness. The current size of ships, their modern technological solutions, and relatively small crews make maritime transport is getting more and more popular. As a consequence, most of loads from China, Korea, Singapore, India to Western and Central Europe are transported by sea. The only disadvantage of the New Silk Road maritime transport is the relatively long transport time of 30–40 days. However, an important advantage is the relatively favourable price for the sea freight which amounts USD 1,380–1,630 per twenty-foot container [Perenc 2018]. It should be noted that effective liner shipping vessel sharing is essential for maritime Silk Road initiative in terms of building efficient maritime transport networks [Qiu et al. 2018].

Railway transport may be another important channel of international transport on China-Europe route. The railway in these transports can use a broad-gauge railway line (1,520 mm) along the LHS line to Sławków or through the customs border in Małaszewicze (on tracks with a gauge of 1,435 mm). It should be noted that reloading at border stations causes additional costs and extends the transport time. The advantage of the New Silk Road railway routes is a shorter delivery time of 14–20 days. However, a significant disadvantage of it are high transport costs (in comparison to maritime transport), as the price of railway freight is about USD 9,000 per twenty-foot container.

## **Conclusions**

1. Efficient transport plays a crucial role in foreign trade and globalization and integration processes. Without efficient transport, it is not possible to accelerate the country economic growth and develop foreign trade. Transport development is possible due to infrastructural investments. The New Silk Road, the extensive infrastructure network connecting China, Central Asian, Middle East and European countries, is an important initiative tightening international trade relations.
2. The new Silk Road has a significant impact on global supply chains by reducing the time of transporting goods on the China-Europe route, and improves trade by expanding infrastructure, financial and IT links. The analysed route gives the ability for China to extend the zone of influence, and strengthen its position in the international arena, and for European countries is a source of infrastructure development and increased trade.

3. Poland, due to its geographical location, can act as a bridge connecting Western markets with Central Asia, and become a logistics hub and a distribution centre for goods transported on the New Silk Road. Therefore, it is important from Polish perspective to handle cargo at every stage, starting from storage, further transport management, documentation and optimization of logistics processes.
4. In the analysed period imports of Chinese goods dominated in Polish-Chinese trade relations. Increasing quality of Chinese products, transport improvements and tightening trade relations with Chinese companies were the source of worsening Polish trade balance. A challenge for Polish government, enterprises, and trade organizations is to increase exports of goods and services to China using the New Silk Road through terminals in Gdańsk, Małaszewicze, Łódź and Sławków in subsequent years.

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