Could Romania become a trade hub on the TEN-T and the Belt and Road initiative?

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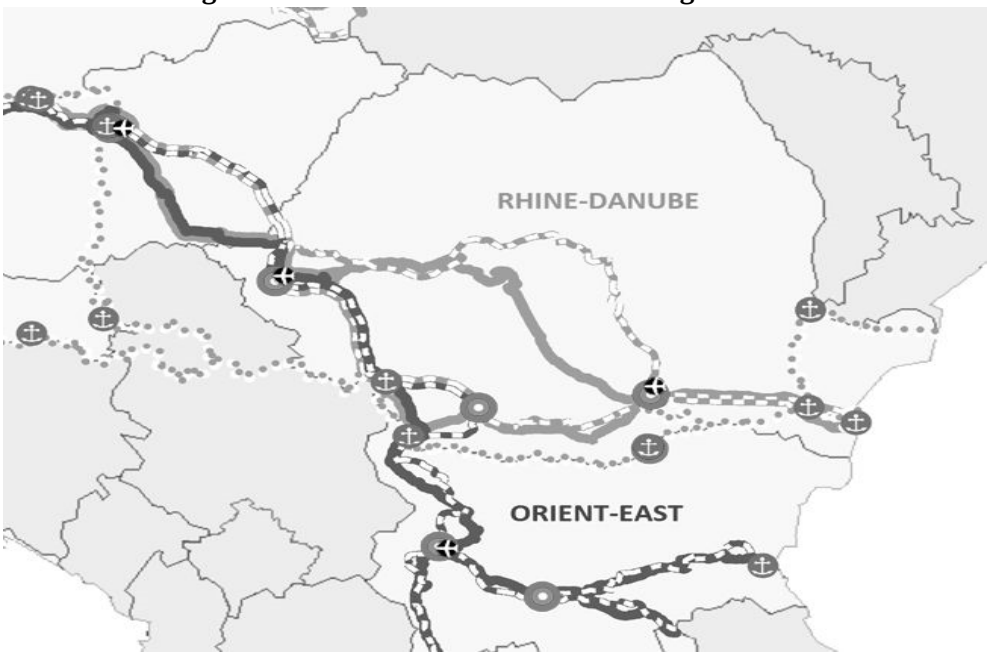
Abstract: In the context of the current trade wars, the major players are aiming at identifying new opportunities to keep the multilateral trade engine running. With the Belt and Road, a modern version of the ancient Silk Road, China launched an initiative that could encompass many stakeholders from various continents aiming to place herself at the core of the new world order.
This research focuses on the main transportation corridors of the Belt and Road initiative, analysing them through the lenses of several relevant indicators, to identify their attractiveness degree for the EU and China and thus answering the question in the title.
The analysis is based mainly on data provided by the World Bank, Eurostat, the National Bureau of Statistics of China.

Key-Words: logistics, trade, Silk Road, corridors, EU, China
JEL Classification: B27, F4, H54, P23

1. Introduction

The Silk Road has been one of the major trade routes of the world since antiquity, enabling trade and cultural exchanges between the peoples of Asia, Africa and Europe. According to a Chinese scholar, the beginning of the Silk Road dates back in the third century BC, as the trade between agricultural China and nomad tribes started developing (Liu, 2010).
Then, along the centuries its routes expanded so that during the Roman Empire, it became the longest road on earth, linking East Asia to Byzantium (Istanbul today), and from there in the Western Roman Empire and the adjacent territories.
The Road maintained its importance even during the Middle Ages. Before the conquest of Constantinople (Byzantium), the flow of goods from East Asia continued the ancient terrestrial corridors that reached or circumvented the Black Sea. In that context, Moldovia, Wallachia and Transylvania, and their trade centres, namely Brăila, Cetatea Albă, Chilia, Rucăr, Târgoviște, Tîrgușor, and so forth were important hubs on the way to Poland, Hungary and other countries in northern and central Europe (Pach, 1980).
The Chinese initiative known under the name Belt and Road, launched in 2013 by the Chinese president Xi Jinping aims at revitalising the old routes of the Silk Road, from a modern and original perspective.
According to published maps, the Chinese BRI will use several terrestrial routes of which at least two include Romania linking to Orient-East or Rhine-Danube TEN-T corridors (See figure 1). The Orient East corridor will connect central Europe with the ports of the North, the Baltic, the Black and the Mediterranean seas. It will also improve the multimodal connections of Central Europe to the coastlines, using rivers such as the Elbe and the Danube.

Figure 1. EU TEN-T Corridors Including Romania



Source: Author based on the map provided by The European Commission, 2019

Rhine-Danube provides the link between east and west for the continental European countries, connecting France, Germany, Austria, Slovakia, Hungary, Romania, and Bulgaria all along the Rhine, Main and Danube rivers to the Black Sea by improving rail and inland waterway interconnections.
The Belt and Road initiative aims at reaching the EU single market through a series of terrestrial, maritime, air and mixed corridors (marine and terrestrial).

2. Analysis of the corridors

The research focuses on the terrestrial routes that start in China and end up in Western Europe and aims at differentiating them through qualitative and quantitative analyses based on indicators such as the Logistics Performance Index, compiled by the World Bank, the trade of China and the EU with the countries along the corridors, demography, GDP per capita and length.
In the new geopolitical context characterised by increasing trade restrictions, it is vital for the EU, but also her trading partners, supporters of the multilateral trading system to have a clear image of the opportunities at hand.
Most of the scholars and infrastructure specialists know about four main trade routes envisaged by the Chinese initiative (See Table 1).

Table 1: Belt and Road Corridors

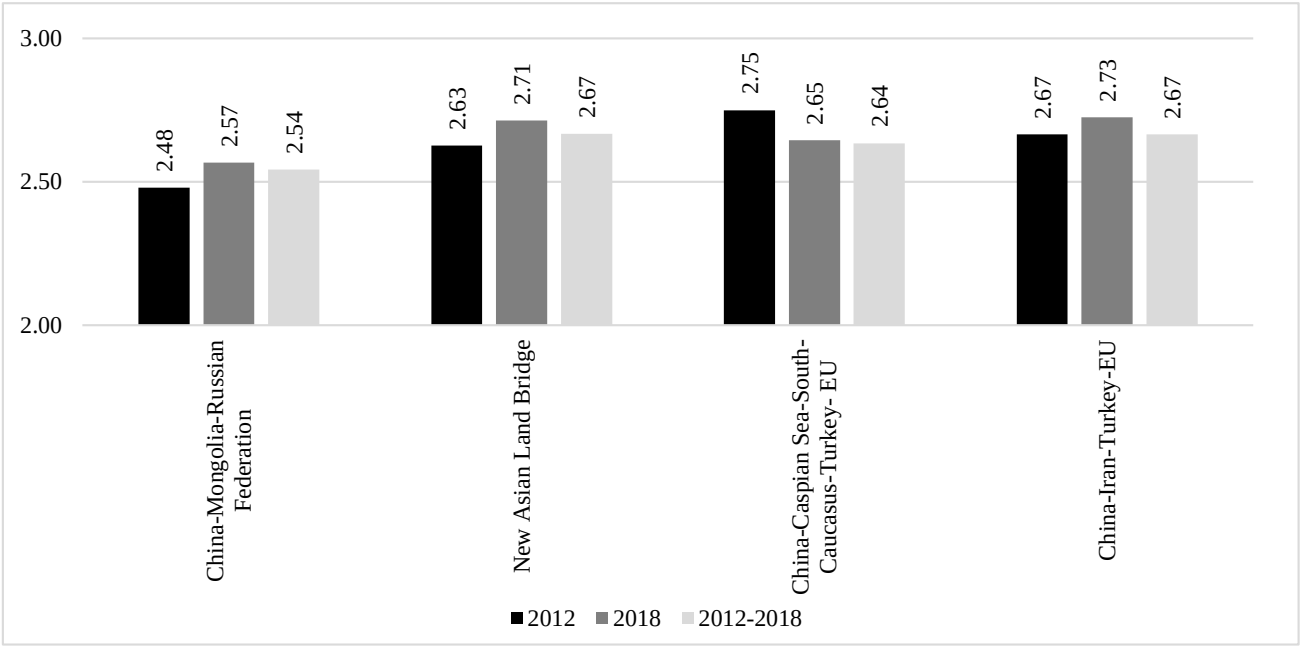
Sector	**China-Mongolia-Russian Federation-Belarus-EU**	**New Asian Land Bridge**	**China-Caspian Sea-South Caucasus-Turkey-EU**	**China-Central Asia-Iran-Turkey-EU**
European	Russian Federation, Belarus, EU countries	Russian Federation, Belarus EU countries	The EU countries (Bulgaria and Romania) Turkey	The EU countries (Bulgaria and Romania) Turkey
Middle	Russian Federation	Russian Federation	Georgia Azerbaijan Armenia Turkey	Iran
Central Asian	Mongolia, China	Kazakhstan, China	Turkmenistan	Kazakhstan

Sector	China-Mongolia-Russian Federation-Belarus-EU	New Asian Land Bridge	China-Caspian Sea-South Caucasus-Turkey-EU	China-Central Asia-Iran-Turkey-EU
			Kazakhstan China	Turkmenistan Kyrgyzstan Uzbekistan China

Source: Author, 2018

The first step of the analysis consists in calculating the average LPI[1] for each corridor, using the value of the index for each country along the assessed corridor, without taking into consideration China and the EU countries (See Chart 1). According to the World Bank (2019), the aggregated LPI (2012-2018) combines the four most recent LPI editions (2012, 2014, 2016 and 2018) to generate a "big picture" to indicate countries' logistics performance better.

Chart 1: Overall LPI Score of One Belt One Road Corridors in 2012, 2018 and aggregated between 2012-2018



Source: Author`s calculations based on the data provided by the World Bank (2019).

Regarding the aggregated LPI (2012-2018), two corridors, namely China-Iran-Turkey-EU and the New Asian Land Bridge registered the same score (2.67), but the first ranks better in the last year of the analysed timeframe (2.73 as compared to 2.71 the New Asian Land Bridge).

According to the calculations, the third corridor regarding LPI in 2018 and 2012-2018 is China-Caspian Sea-Caucasus-Turkey-the EU, and the fourth is China-Mongolia-Russian Federation-EU.

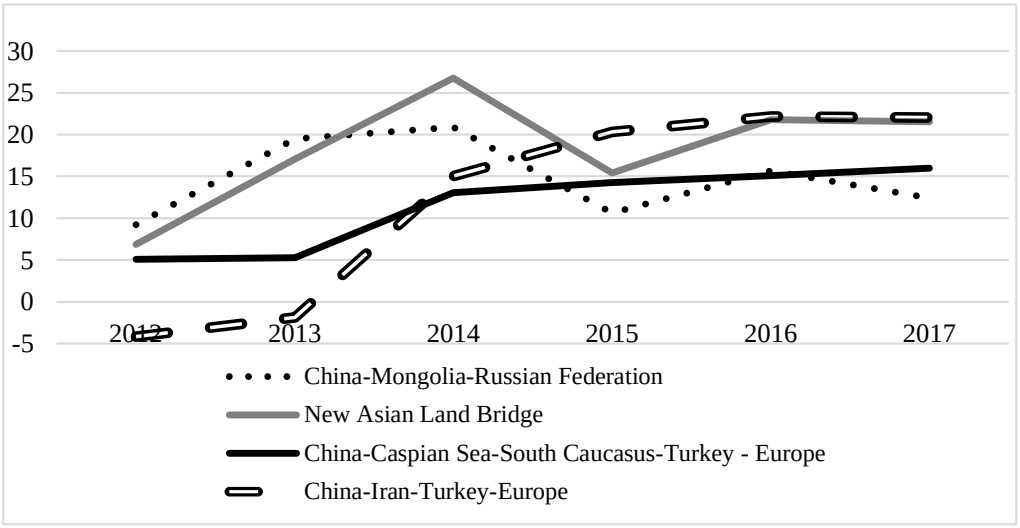
It is worth mentioning that Romania and Bulgaria could be entry points in the EU for the routes including the Caucasus and Iran.

Between 2012-2018 Turkey has the highest LPI among the countries along the evaluated corridors (3.29), followed by Kazakhstan (2.77), Iran (2.71), Russian Federation (2.69) and Belarus (2.54). Turkmenistan (2.34),

[1] The Logistics Performance Index is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance. It analyses customs, infrastructure, international shipments, logistic competence, tracking & tracing, timeliness.

Kyrgyz Republic (2.38), Mongolia (2.40), Georgia (2.45) and Uzbekistan (2.50) registered the lowest aggregated LPI between 2012-2018.
As a preliminary conclusion, for the EU and China, the New Asian Land Bridge and China-Iran-Turkey-EU corridors rank the best regarding the aggregated LPI. From this standpoint, Romania and Bulgaria could become important trade hubs for the southern corridor (China-Iran-Turkey-EU) as entry points in the EU.
Regarding the trade, China`s balance of trade with the countries along the assessed corridors (See Chart 2)

Chart 2: China`s trade balance with the countries along OBOR`s Corridors, $ billions

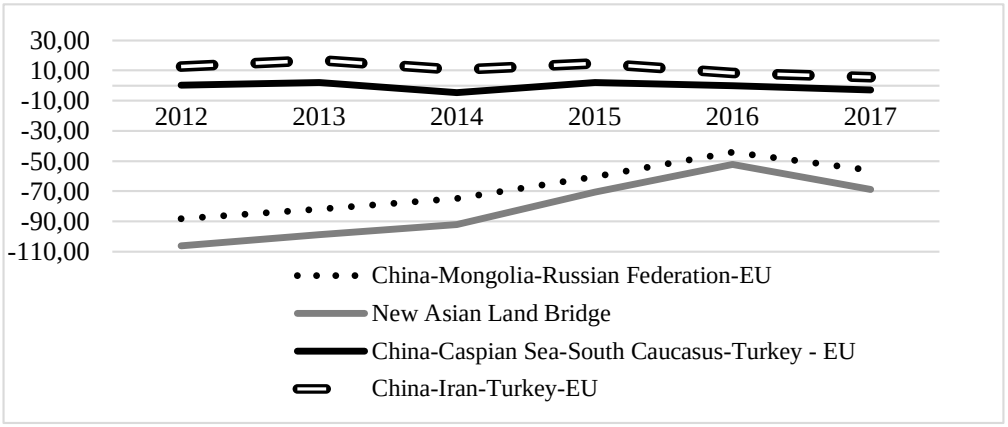


Source: Author`s calculations based on data provided by the National Bureau of Statistics of China (2019).

According to the data published by the National Bureau of Statistics, since 2014, China recorded trade surpluses with the groups of countries along the four corridors. In 2017, China-Iran-Turkey-EU was the most profitable route for Beijing, registering a trade surplus of $22.3 billion, followed by the New Asian Land Bridge ($21.56 billion) and China-Caspian Sea-Caucasus-Turkey-Europe ($15.97 billion).
Among the analysed countries of the corridors, China recorded trade surpluses with Poland ($14.5 billion), Turkey ($14.3 billion) and Kazakhstan ($5.1 billion).
China registered the highest trade deficit in relations with Turkmenistan ($6.2 billion), Mongolia ($3.9 billion) and Azerbaijan ($0.2 billion).
Eurostat (See Chart 3) reveals a grimmer picture regarding the trade balance of the EU with the grouping of the countries on the corridors. Thus, for the EU, the most favourable route was China-Iran-Turkey-EU, with a trade surplus of €5.4 billion in 2017, the only path with surpluses in the analysed stretch.
The EU registered trade deficits with the grouping of countries along the New Asian Land Bridge (€68 billion in 2017) and China-Mongolia-Russian Federation-EU (€56 billion in 2017) in the analysed timeframe, while the trade balance the countries along the route including the Caspian Sea swung above and below zero (€-2.89 billion in 2017).
In 2017, among the countries on BRI corridors, the EU recorded the highest trade surplus with Turkey (€15 billion). Belarus came the second with a trade surplus of €2.6 billion, followed by Uzbekistan (€1.5 billion) and Georgia (€1.4 billion).
The EU recorded the highest trade deficit with the Russian Federation (€59 billion), Kazakhstan (€12.5 billion) and Azerbaijan (€7.7 billion).

Overall, China-Iran-Turkey-EU is also the most profitable for the EU regarding trade, followed by China-Caspian Sea-South Caucasus-Turkey-EU. With the other two, the EU registers trade deficits along the analysed stretch.

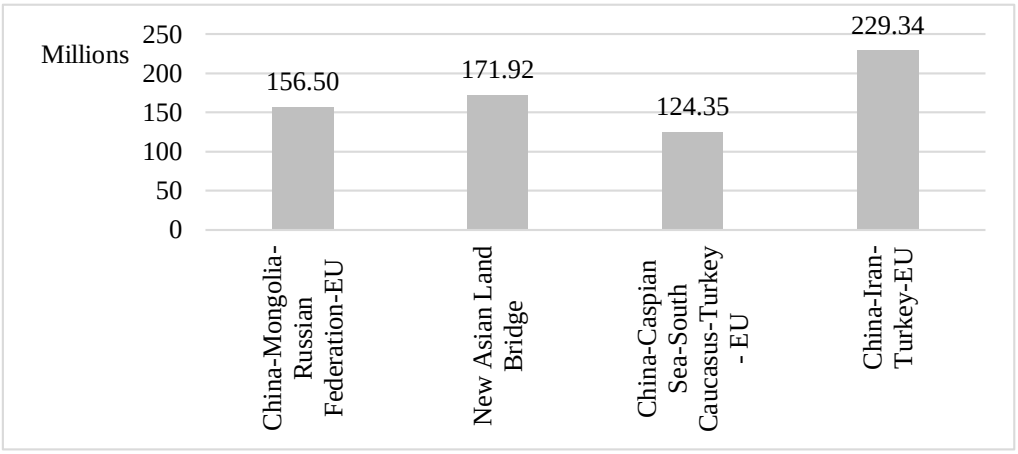
Chart 3: EU`s trade balance with the countries along OBOR`s Corridors, € billions



Source: Author`s calculations based on data provided by Eurostat, 2019

Regarding the market size of the countries along the corridors (See Chart 4) the countries along the China-Iran-Turkey-EU corridor have the highest population out of all four analysed corridors (229.34 million inhabitants), followed by the New Asian Land Bridge with 171.92 million inhabitants and China-Mongolia-Russian Federation-EU (156.50 million inhabitants).

Chart 4: Population of the countries along the corridors, in 2019, million inhabitants

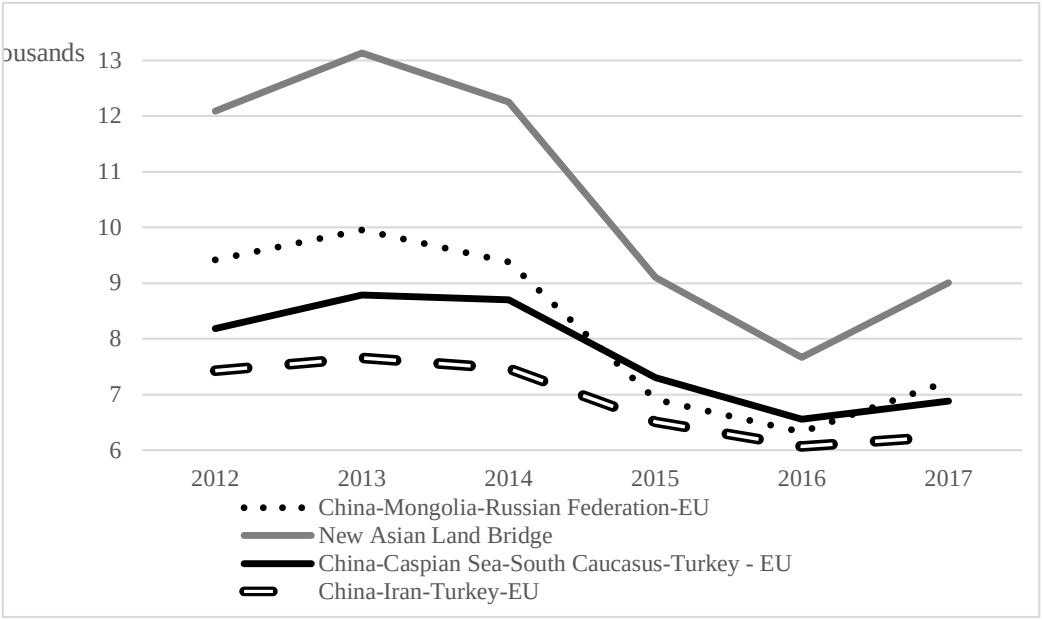


Source: Author`s calculations based on data provided www.worldometers.info, 2019

The most populous country in the assessed corridors is the Russian Federation (143.89 million inhabitants), followed by Turkey (82.96 million inhabitants) and Iran (82.82 million inhabitants).
The least populated countries are Mongolia (3.16 million inhabitants), Georgia (3.9 million inhabitants) and Armenia (2.93 million inhabitants). This indicator also favours the southern corridor through Iran, but also Romania and Bulgaria, points of entry to the EU.

Per capita GDP serves as an informal measure of a nation's prosperity. Regarding this indicator, in 2017, the New Asian Land Bridge has the best performance with an average GDP per capita of $8,504, followed by China-Mongolia-Russian Federation-EU ($6,733) and China-Caspian Sea-South Caucasus-Turkey-EU ($6,380). The corridor including Iran ranks the last in the analysis. Despite that, both China and the EU have favourable trade balances with it as compared to the New Asian Land Bridge, where the EU has a negative trade balance. China exports the most to the New Asian Land Bridge ($73.20 billion), followed by the corridor including Mongolia ($62.87 billion), while to the China-Iran-Turkey-EU corridor just ($61.67 billion) and to the "Caspian" one $36.44 billion (National Bureau of Statistics of China, 2019).

Chart 5: Average GDP per capita for the countries along the corridors excluding China and EU countries, $ thousands

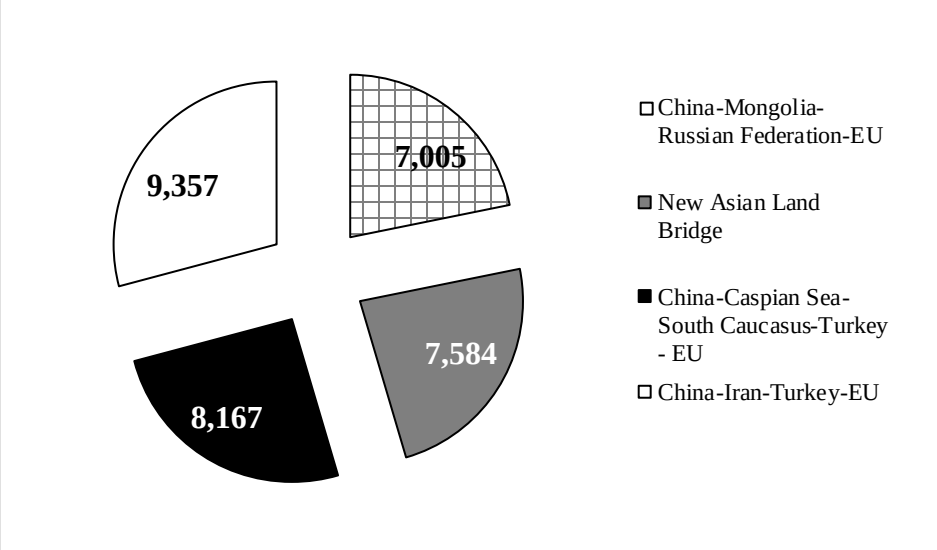


Source: The World Bank, 2019

On the other hand, the EU exported most to the southern corridor, including Iran (€103.59 billion), while to the New Asian Land Bridge €97.15 billion. For the EU, the "Caspian" corridor ranks the third with €95.23 billion, while to the "Mongolian" one around €92,44 billion (Eurostat, 2019).

Regarding the flying distances between the capitals of the countries along the corridors, an indicator that reflects the length of each corridor in a straight line, the longest one is China-Iran-Turkey-EU with about 9,357 kilometres, followed by the "Caspian" one (8,167 kilometres) and the New Asian Land Bridge (7,584 kilometres). The shortest corridor by air is China-Mongolia-Russian Federation-EU (7,005 kilometres).

Chart 6: Total flying distance between the capital of the countries on the corridors, km



Source: www.distancecalculator.net, 2019

The grid analysis applied to the results of the research helps to establish a hierarchy of the analysed corridors (See Table 2).

The corridor China-Central Asia-Iran-Turkey-EU ranks first regarding four indicators (LPI, EU`s trade balance, China`s trade balance and population. That translates in better logistics, better trade attractiveness for both the EU and China and higher market.

The New Asian Land Bridge ranks first regarding the GDP per capita, and second regarding LPI, China`s trade balance, population and the length of the corridor.

China-Mongolia-Russian-Federation-Belarus-EU is the shortest air corridor, ranking second regarding the GDP/capita.

The grid analysis applied to the results displayed in Table 2 established the hierarchy based on the used indicators. The best ranking of the analysed indicators is rated 4, the last 1. The relative value of each indicator is also between 1 and 4, one being the least important and four being the most important.

Table 2: Grid Analysis

Options	LPI	Trade EU	Trade China	Population	GDP/capita	Length
Weights	**4**	**5**	**5**	**4**	**2**	**1**
China-Mongolia-Russian-Federation-Belarus-EU	1	2	1	2	3	4
New Asian Land Bridge	3	1	3	3	4	3
China-Caspian-Sea-South Caucasus-Turkey-EU	2	3	2	1	2	2
China-Central Asia-Iran-Turkey-EU	4	4	4	4	1	1

Table 3: Grid Analysis - Weighted scores

Corridors\Rankings	LPI	Trade EU	Trade China	Population	GDP/capita	Length
Weights	**4**	**5**	**5**	**4**	**2**	**1**
China-Mongolia-Russian-Federation-Belarus-EU	4x1=4	5x2=10	5x1=5	4x2=8	2x3=6	1x4=4
New Asian Land Bridge	4x3=12	5x1=5	5x3=15	4x3=12	2x4=8	1x3=3
China-Caspian-Sea-South Caucasus-	4x2=8	5x3=15	5x2=10	4x1=4	2x2=4	1x2=2

Turkey-EU						
China-Central Asia-Iran-Turkey-EU	4x4=16	5x4=20	5x4=20	4x4=16	2x1=2	1x1=1

Table 4: Grid Analysis - Ranking

Corridors\Rankings	LPI	Trade EU	Trade China	Population	GDP/capita	Length	Total
Weights	**4**	**5**	**5**	**4**	**2**	**1**	
China-Mongolia-Russian-Federation-Belarus-EU	4	10	5	8	6	4	37
New Asian Land Bridge	12	5	15	12	8	3	55
China-Caspian-Sea-South Caucasus-Turkey-EU	8	15	10	4	4	2	43
China-Central Asia-Iran-Turkey-EU	16	20	20	16	2	1	75

According to the grid analysis, the option with the highest score is the most attractive given the deciding factors, which in this case are the chosen indicators. Thus, the hierarchy is as follows:

1. China-Central Asia-Iran-Turkey-EU
2. New Asian Land Bridge
3. China-Caspian-Sea-South Caucasus-Turkey-EU
4. China-Mongolia-Russian-Federation-Belarus-EU.

6. Conclusions

The Silk Road played an essential role in the history of humanity, by connecting people with different cultures and beliefs from the Far East to Western Europe. The empires rose and fell, but its trade routes endured.

The Belt and Road initiative comes with a new approach of an old tradition trying to promote trade and cultural exchanges along an even more full area.

Romania, through its geographical location, could be a valuable trade hub, in the new geopolitical environment, in which the major commercial players are trying to redraw the trade routes and flows.

The paper emphasised that Romania through its kingdoms (Moldova, Wallachia and Transylvania) has been on the Silk Road since the antiquity since some of the routes to western Europe had to reach its shores via the trade routes around the Black Sea directly or coming from Byzantium.

Romania is the entry point to the EU on the TEN-T Rhine-Danube Corridor, but also to Orient-East Corridor, thus being an important trade hub towards the western EU. Both mentioned corridors connect to the trade routes coming from Turkey or South Caucasus countries.

In this context, the results of the research place Romania on the route of the corridor that ranked first, namely China-Iran-Turkey-EU and on the corridor China-Caspian-Sea-South Caucasus-Turkey-EU that ranked third

To answer the question in the title of this research, Romania indeed could become a trade hub of the Belt and Road and TEN-T corridors.

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