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ASSESSING THE ECONOMIC IMPACT OF CHINA'S BELT AND ROAD INITIATIVE IN CENTRAL ASIAN COUNTRIES

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ABSTRACT

The Central Asian nations, who gained their independence in the early 1990s, have extensive economic relations with China, which has been reinforced with the Belt and Road Initiative (BRI). In this context, China's BRI is one of the most important factors that have emerged in global politics and the international economy in recent years. The aim of this study is to analyze the economic effect of the BRI on Central Asian nations as China has invested substantially in this region in recent times. Whilst Chinese investment has been substantial, investments have not significantly increased post-BRI. Moreover, secrecy around some agreements and increased dependency on Chinese loans has led to concerns about potential debt trap situations in some Central Asian countries.

KEYWORDS

Belt and Road Initiative, Economic Corridors, Chinese Investment, China, Central Asia

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1. Introduction

China has long been a major force in the world's economic and political affairs. However, in an attempt to strengthen its position in the East given increasing competition from western nations and countries such as India, China introduced its Belt and Road Initiative (BRI) in 2013. Within the BRI, Central Asian nations play an important role due to their strategic location and abundant natural resources (Semenova, 2016; Melnikovova, 2020). For the aforementioned reasons, the resource rich Central Asian nations offer the possibility of acting as a transit corridor between China and Europe, effectively linking east to west and north to south via land routes. In this regard, the BRI can potentially assist Central Asian nations in achieving one of their major goals, namely improving regional transportation connectivity and developing the region into a hub for international trade (Semenova, 2016).

Through the BRI, China aims to achieve several objectives. These include, but are not limited to, becoming a part of the system of regional economic and political decision-making, potentially helping Central Asian countries become more independent in terms of external (Western) influence and to expand Chinese cultural and economic influence in the Central Asian region (Serikkaliyeva, 2019), not dissimilar from what the United States has tried to achieve through the Africa Growth and Opportunity Act (AGOA). Having said that, China's relations with Central Asian nations have evolved over the past two decades, especially given the impact Chinese investments have had on the region (Taliga, 2021). Chinese interest stems mainly from economic motivations, such as the search for new markets and access to natural resources in Central Asia. As a result, China has become the most important commercial partner and investor of Central Asian countries (van Twillert and Vega, 2023). The reasons why Central Asia is important for the BRI can be summarized as follows:

- Central Asia's strategic position: China is aiming to expand its markets beyond its borders. Most of the routes from China to Europe pass through Central Asia which makes the region a strategically important location for the BRI as it bridges China and Europe (Serikkaliyeva, 2019; Akmoldoev, 2022).
- China is the world's biggest consumer of oil and gas. Therefore, natural resource rich Central Asian countries are attractive to China (especially for the energy and mineral resources). China's economy needs these energy, oil and gas resources and wants unimpeded access to them (Taliga, 2021; Akmoldoev, 2022).
- Central Asia is known for its relatively low wages, low competition and a willingness by their governments to provide tax breaks and other subsidies for foreign investors in strategic industries (Taliga, 2021).

At the end of 2020, China invested approximately $40 billion in Central Asia (Khitakhunov, 2023), with most of the investment occurring in the energy sector followed by the chemical, real estate, transport and metal sectors. On May 19, 2023, the "China and Central Asia Summit" was held in Xi'an, Shaanxi's northwest China's province. At the summit, both sides agreed on (CGTN, 2023);

- working together to overcome challenges and build a stronger China-Central Asian community with a common future;
- expanding the scope of trade and cooperation in emerging areas like digital trade and green economy; and
- working together to tackle the "three forces" of terrorism, separatism and extremism, drug trafficking, transnational organized crime, cybercrime, and other activities.

Clearly, the potential impact of the BRI will be extensive, and this informs the aim of the research project, which is to understand provide a review of the BRI, the extent and areas of China's investment pre- and post-BRI within Central Asia and how China's loan financing can potentially affect Central Asian nations.

The remainder of this paper is structured as follows: Firstly, Section 2 discusses China's BRI, followed by the economic and investment analyses between the Central Asian countries and China, with the potential impact of Chinese loans under the BRI on Central Asian nations are presented in Section 3. The challenges and risks for Central Asia and China under the BRI are discussed in section 4 and in the last section, we conclude the research.

2. Review of China's Belt and Road Initiative

The Chinese government introduced a project, known as BRI, to the international community during President Xi's visit to Kazakhstan in 2013(Fulton 2016; Sarker *et al*. 2018; Shen, 2018; Stec 2018; Garlick 2020; Hoque and Tama 2020; Cinar 2021; Gursoy and Altinay 2021; Oreglia, Ren, and Liao 2021; Yilmaz, 2022). The project has been identified as the most important Central Asian policy development in recent years. Broadly, the BRI officially aims to expand China's economic and political influence around the world through strengthening the land and sea connections between China and major Eurasian and African nations through infrastructure development, trade, and strategic investments (Shen, 2018; Yilmaz, 2022; Uctu *et al*. 2025).

As of December 2023, 151 countries have signed a MoU to be part of the BRI with China. The BRI countries are spread across all continents; 44 Sub-Saharan Africa countries, 34 Europe and Central Asia, 25 East Asia and the Pacific countries, 22 Latin America and the Caribbean countries, 19 Middle East and North Africa countries, and 6 South East Asia countries (According to the website, 151 countries had signed MoUs, including Palestine, which is not recognized as an independent country) (Nedopil 2023). With 65% of the world's population, the majority of these countries are classified as developing countries (Yilmaz 2022). In addition; the BRI has partnerships with more than 30 international organizations, including the World Bank, the IMF and the UN (Oakes 2021; Yilmaz 2022).

The Silk Road Economic Belt and the 21st Century Maritime Silk Road are two essential components of the BRI. The Silk Road Economic Belt primarily comprises of investments that have been made along an overland route from China to Central Asia, Russia, and Western Europe. This has sparked the idea of recreating the historic Silk Road, which was the primary connection between Asia and Europe for centuries. The "maritime road," or 21st Century Maritime Silk Road, refers to Chinese influence along the sea route into Southeast Asia and India, the Middle East and Eastern Africa (Sarker *et al.* 2018; Garlick 2020; Oakes 2021). In addition to the land and sea route, the "Information Silk Road", which was rebranded as the Digital Silk Road (DSR), was also announced in 2015. The DSR, a component of the BRI that focuses on digital issues, seeks to "improve international communications connectivity" and support the globalization of China's expanding technology sectors (Shen 2018; Stec 2018; Ly 2020; Dekker, Okano-Heijmans and Zhang 2020; Oreglia, Ren, and Liao 2021; Rakhmat 2022). The BRI was then formalized as a national policy in 2015, with the goal of establishing an open-minded, comprehensive, balanced, and inclusive framework for regional economic cooperation (Gursoy and Altinay 2021).

Beijing's official statement, cited by Yilmaz (2022), states that the BRI is based on five areas of cooperation: (i) increasing investment and trade in the BRI; (ii) creating a free-trade zone along the Silk Road; (iii) strengthening regional financial coordination for infrastructure growth; (iv) improving the availability of natural resources; and (v) improving the BRI routes' transportation infrastructure.

China's growth strategy emphasizes the importance of development in terms of economic corridors. There are six economic corridors that cover a vast area of the world that is abundant in resources and energy, and the corridors serve as the foundation for the strategic plan for the BRI. These corridors are (OECD 2018; Haitas 2018; Hoque and Tama 2020; Azer, Min and Ülker 2021):

- *The New Eurasian Land Bridge Economic Corridor*, which connects Kazakhstan, Russia, Belarus, and Poland to Europe by rail (from Western China to Western Russia)
- *The China, Mongolia, Russia Economic Corridor* which connects to the land bridge and include rail and steppe road connections (from Northern China to Eastern Russia)
- *The China, Central Asia, and West Asia Economic Corridor*, which connects Iran, Turkey, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan (from Western China to Turkey)
- *The China Indochina Peninsula Economic Corridor* which connects Vietnam, Thailand, Lao People's Democratic Republic, Cambodia, Myanmar, and Malaysia (from Southern China to Singapore)
- *The China, Pakistan Economic Corridor*: This project links the landlocked city of Kashgar in Xinjiang, a free economic zone, with Pakistan's Gwadar port, a deep-water port (South-Western China to Pakistan) used for commercial and military purposes.
- *The China, Bangladesh, India, and Myanmar Economic Corridor*: A corridor that aims to connect China with the Indian subcontinent, but it should be noted that this corridor is likely to progress more slowly due to mistrust in security issues between India and China.

For the purpose of funding the projects in the BRI, two financial institutions were established. 40 billion US dollars were invested in the Silk Road Fund and the Asian Infrastructure Investment Bank (AIIB) (Azer, Min and Ülker 2021). Between 2013 and 2020, the overall value of commerce between China and BRI

countries had increased to US$9.2 trillion, and Chinese businesses have invested a total of US$136 billion in these nations (China Briefing, 2021). These investments are substantial and, depending on the nature of the contracts, have a large effect on both Chinese and Central Asian firms.

After Central Asian countries gained their independence, relations between the latter and China began to strengthen for several reasons. One of these reasons were for security, with a prime example being the establishment of the Shanghai Five Mechanism in 1996 to solve border disputes problems, especially between Russia, Kazakhstan, Kyrgyzstan, and Tajikistan. Another major reason (as shown in Table 1) was to establish greater collaboration and exchange in the areas of trade and the energy sector.

Additionally, the Shanghai Cooperation Organization (SCO), which currently consists of 18 member countries, including China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan as full members, was established in 2001 and required member states to develop interstate relations based on partnerships rather than alliances. (Serikkaliyeva 2019).

These types of agreements and institutional developments reveal the economic and political cooperation between China and Central Asian countries prior to the BRI from the early 2000s.

Table 1: Government-to-Government Cooperation Committee Communication between China and Central Asia

Country	Areas
Kazakhstan	Security, cross border rivers cooperation, economics and trade, finance, energy, transport, railway, mining, geology, ports and customs, science and technology, culture, and environmental protection
Kyrgyzstan	Economics and trade
Tajikistan	Economics and trade, science and technology
Turkmenistan	Security, energy, culture, economics, and trade,
Uzbekistan	Security, energy, culture, agriculture and science and technology

Source: Authors' construction based on data from Tsz Yan, 2020

However, with the implementation of the BRI, the connection between the region and China deepened. Table 2 shows the dates each country joined the BRI. In 2013, for instance, President Xi announced in Astana that China and Central Asia will develop strong networks of highways, rail, airports, and bridges to create a strategic regional route from the Pacific Ocean to the Baltic Sea (Xinhua 2013).

Table 2: Central Asian Countries in BRI

Country	Country Code	Region	Income Group	Likely date of joining
Kazakhstan	KAZ	Europe & Central Asia	Upper middle income	01-08-15
Kyrgyz Republic	KGZ	Europe & Central Asia	Lower middle income	01-12-13
Tajikistan	TJK	Europe & Central Asia	Low income	01-10-18
Turkmenistan	TKM	Europe & Central Asia	Upper middle income	06-2017
Uzbekistan	UZB	Europe & Central Asia	Lower middle income	01-06-15

Source: Author's own construction based on the data from https://greenfdc.org/, accessed on 29 March 2024

Moreover, the deepened relationship with China also presents an opportunity for Central Asian countries as they would want to benefit beyond tolls/transit fees from traffic through its borders, firstly to improve their infrastructure but also to obtain additional and sustainable economic benefits through trade (Serikkaliyeva 2019; Khalid and Chawla 2021).

Beyond the strategic location of Central Asia through which China can access the lucrative European market, China's investment in the region can also be seen as an attempt to secure access to the abundant natural resources of the region. Specifically, Central Asia is well endowed with oil and gas resources. Like other major powers in the world, China has made large investments in oil and gas fields, with the Chinese investments in the sector already highlighted earlier. In order to maintain control of its initiatives, China consolidated and restructured all of its aid and investment prior to the BRI under the BRI umbrella (Khalid and Chawla 2021).

3. Economic and investment analyses between the Central Asian Countries and China

Central Asia covers a large geographic area rich in mineral resources, with a diverse mix of countries in terms of economic size and income. The next section provides more information regarding the economic performance of Central Asian countries, Chinese investments in Central Asia and the impact of the latter investments.

3.1. Methodology

The research methodology employed is a descriptive literature review that brings the aims of the BRI, economic data regarding investments and growth and the most pressing issues facing the success of the BRI in Central Asia together. The quantitative data was collected, combined, and presented in graph or figure form and supported by other research and the authors' own insights. We note that the data for this study includes data that precedes the BRI for two reasons. Firstly, this shows China's economic interest in this region is not new, and secondly this allows us to attempt to determine if there has been a significant change in Chinese investment policy post the BRI. This study's data collection and analysis took place between April 2023 and March 2024.

3.2. Economic performances of the Central Asian countries

In terms of demographics, the total population in Central Asia is approximately 78.62 million that amounts to nearly one percent of the total world population. Table 3 shows that the most populous country in Central Asia is Uzbekistan, with a population of over 35.64 million people. With a population of 19.62 million people, Kazakhstan ranks as the second largest state. The third-largest population belongs to Tajikistan (9.95 million), followed by Kyrgyzstan with 6.97 million, while Turkmenistan has the lowest population at just under 6.43 million people.

Table 3 provides key economic indicators of the Central Asian countries. Combined, the five Central Asian nations have a GDP of nearly 385 billion US dollars. The comparative economic activity of each country varies greatly, with Kazakhstan's GDP of 225.5 billion USD being more than 19 times greater than that of Kyrgyzstan at 11.54 billion USD. GDP per capita also varies substantially, with some Central Asian countries being classified as low-income countries and others as middle-income countries. In terms of GDP growth for 2022, Tajikistan has the highest growth rate per annum at 8.0 % followed by Kyrgyzstan with 6.3 %. Each Central Asian country seems to fare reasonably well with low levels of unemployment. Kyrgyzstan has the lowest unemployment rate at 4.0 % whereas Tajikistan has the highest rate at 7.0 %.

Table 3: Economic Indicators of Central Asian Countries (2022)

Country	GDP (USD billion)	GDP per capita (US $)	GDP growth rate	Unemployment	Population (million)
Kazakhstan	225.5	11,492	3.2	4.9	19,621,972
Kyrgyzstan	11.54	1,655	6.3	4.0	6,974,900
Tajikistan	10.49	1,054	8.0	7.0	9,952,787
Turkmenistan	56.54	8,792	1.7	4.1	6,430,770
Uzbekistan	80.39	2,255	5.7	4.5	35,648,100

Source: Authors' construction based on data from www.worldbank.org accessed on 28 March 2024.

As shown in Table 4, despite the region's low ranking among China's economic partners (the region contributes about 1% of China's total imports and exports), China is one of Central Asia's most important foreign economic partners, and imports from China to the region have nearly doubled in the last five years. However, with Russia's invasion of Ukraine in 2022, imports from China increased significantly. (This is mainly due to the sanctions imposed on Russia by the United States and some European countries, as well as the relationship between China, Central Asia, and Russia, which led to a significant increase in the volume of goods exported from China to Russia via Central Asia during same period). According to the table 4, Kazakhstan and Uzbekistan are the largest trading partners with China by imports, whereas Turkmenistan and Tajikistan are the lowest trading partners in Central Asia (0.48% Kazakhstan, 0.31% Uzbekistan, 0.03% Turkmenistan and 0.04% Tajikistan respectively from 2018 to 2022).

Table 4: China's Imports to Central Asian Countries (2018-2022)

Countries	Imports from China to Central Asia (billion, USD)						
	2018	2019	2020	2021	2022	Total	%
Kazakhstan	5.38	6.54	6.35	8.23	10.98	37.48	0.48
Kyrgyzstan	1.96	1.73	0.74	1.46	4.07	9.96	0.12
Tajikistan	0.59	0.60	0.43	0.67	0.84	3.13	0.04
Turkmenistan	0.31	0.43	0.44	0.51	0.86	2.55	0.03
Uzbekistan	3.53	5.05	4.42	4.86	6.32	24.18	0.31
Total	11.77	14.35	12.38	15.73	23.07	77.3	100

Source: Authors' own construction based on data from Mirzakhmedova, Ismailkhodjaev, and Fayzieva, 2024

As shown in Table 5, Kazakhstan, Tajikistan, and Uzbekistan's trade with China grew the fastest at more than 50% between 2015 and 2019, with exports from the Central Asian nations to China increasing by 35% from US$15,054 billion to US$20,276 billion, revealing an overall increase in trade.

Table 5: Trade in Goods: Exports from Central Asian countries to China (2015-2019) US$ million

Countries	2015	2016	2017	2018	2019	Growth rate (2015-19)
Kazakhstan	5,849	4,805	6,379	8,530	9,259	58%
Kyrgyzstan	59	71	87	54	66	13%
Tajikistan	52	31	47	77	84	62%
Turkmenistan	7,828	5,563	6,575	8,119	8,686	11%
Uzbekistan	1,267	1,607	1,471	2,324	2,181	72%
Total	15,054	12,078	14,559	19,104	20,276	35%

Source: Authors' construction based on data from China Briefing, 2021, last accessed on 28 August 2024

China's exports of commodities to countries in Central Asia rose by 49 percent during the same period, from US$17,563 billion to US$26,207 billion. Between 2015 and 2019, Uzbekistan's purchases from China increased by 126%, while Tajikistan and Turkmenistan's exports of commodities from China declined (Table 6).

Table 6: Trade in Goods: Exports from China to Central Asian countries (2015-2019) US$ million

Countries	2015	2016	2017	2018	2019	Growth rate (2015-19)
Kazakhstan	8,441	8,292	11,564	11,327	12,807	52%
Kyrgyzstan	4,282	5,605	5,337	5,547	6,312	47%
Tajikistan	1,795	1,725	1,301	1,426	1,612	-10%
Turkmenistan	815	338	368	317	431	-47%
Uzbekistan	2,229	2,007	2,749	3,942	5,045	126%
Total	17,563	17,969	21,320	22,558	26,207	49%

Source: Authors' construction based on data from China Briefing, 2021, last accessed on 28 August 2024

3.3. Chinese Foreign Direct Investment (FDI) to the Central Asia

Typically, Central Asian countries lack the capital required to extract the full value from the natural resources available in their countries. Apart from Kazakhstan, Central Asian countries need international sources of finance to develop more trade networks and to develop more market-focused economies. Within this context, Central Asian countries are acutely aware that infrastructure investment projects are not just domestic investment projects, but it can also be a means to maximize benefits from international trade. In brief, the Central Asian governments hope and expect that these infrastructure projects will open the landlocked region for international trade, which in turn could attract more foreign investment from countries other than China (Taliga 2021).

China's investment in the region expanded after the BRI was established, with the investment often taking the form of loans with explicit terms and conditions for repayment. Direct loans are China's main method of investment in low-income countries, and they are followed by FDI in industries such as transportation and energy. This pattern may be seen in the economies of Central Asian countries, especially in Kyrgyzstan and Tajikistan, which are smaller and more economically vulnerable. Many of the region's countries are eager to borrow money from China and are already heavily dependent on China as they are perceived to be risky borrowers by Western countries and international organizations (Melnikovova 2020; Twillert and Vega 2023).

Horn *et al.* (2019) in Melnikovova (2020) outlined three main characteristics of Chinese capital flows that are different from standard government loans. Firstly, most of the Chinese capital flows are classified as official flows. However, the loan agreements and conditions are more akin to commercial loan agreements and conditions, with many loans requiring collateral. Secondly, as China does not belong to the Paris Club (a group of creditor nations who share information about their official lending), it does not publish any reports on its official lending. In addition, loan data is also difficult to obtain from the debtor side. Thirdly, the type of loan typically depends on the level of development of the recipient nation. Developed and higher middle-income nations are likely to get portfolio debt flow, whilst lower-income countries will typically get direct loans. Unfortunately, for Central Asian nations, they mainly fall in the latter category, with Chinese loans often requiring Central Asian nations to provide collateral in the form of raw material, agricultural production, the right to explore a mineral find, or a share of the profits of state-owned firms.

Moreover, Chinese influence over countries who hold Chinese debt can be expected to increase. This is not necessarily a negative outcome, but an increase in China's "soft power" is typically seen as negative in the West. Additionally, the Central Asian nations need to avoid a Chinese debt trap, as debt can accumulate if not managed which may lead to an inability to repay the loans, leading to an increased Chinese influence depending on the nature of the loan agreements. As such, the lack of clarity and transparency on the loan agreements are problematic when trying to project the impact of the loans. Additionally, the potential debt trap is compounded if a nation's overall debt is unbalanced; in other words, if the nation's debt percentage is heavily linked to one or two countries.

As an example, Kyrgyzstan is one of the top five countries in terms of external debt to China. The Kyrgyzstan Ministry of Finance has noted that, out of a total public debt of 4.4 billion USD, of which 3.7 billion USD is external debt, 1.7 billion USD is owed to China. Other Central Asian countries are also heavily indebted to China, with Tajikistan ranked 20th and Turkmenistan ranked 23rd in terms of countries' external debt to China. Moreover, approximately 52% of Tajikistan's foreign debt were loans from the Chinese government (Akmoldoev, 2022). China also provides extensive finances to the Tajik economy through soft loans and grants for specific projects. Typically, China provides Tajikistan with "cheap" loans on concessional terms for 20 years or more and in return receives mineral deposits on more favorable terms than would be possible under a market related contract. All projects are under Chinese control, and, accordingly, most of the profits go to China. Despite its unwillingness to fully open to Chinese business, Uzbekistan ranks among the top 50 recipients of Chinese aid (Melnikovova 2020).

The extent of the debt to China that the Central Asian countries have is reflected in their debt to China/GDP ratios; with Turkmenistan being at 16.9%, Uzbekistan at 16% and Kazakhstan at 6.5%. It is worth repeating that, if countries fail to pay back this debt, as in the case of Tajikistan and Kyrgyzstan, it is unclear what the repercussions for Central Asian countries may be as the content of the loan agreements are often not publicly available. China may, for instance, request more concessions for Chinese companies. In addition, given the dependence on Chinese debt, it may be more difficult to renegotiate debt.

It is also important to note that China is in the process of formalizing and centralizing a double preferential loan structure in Central Asia. Double preferred loans are designed as a combination of interstate

concessional loans and export credits for doing business with Chinese enterprises. The latter loans have low interest rates and a long repayment time. These loans are initiated by the local government's expression of interest to the Chinese policy banks, with a letter of support from the Chinese Ambassador of the relevant country. Additionally, loans of this nature can be of a bilateral and multilateral type and can be channelled via the SCO loan structure or the Silk Road Fund.

All of the Kyrgyz and Tajik projects in Table 7 have been financed with this double preferential loan structure (Table 7). As highlighted earlier, and as of 2019, these two countries are among the most indebted countries to China worldwide. Not surprisingly, the contractors of many investments in these countries are Chinese companies (Tsz Yan 2020).

Table 7: China's Loans as Reported by Kyrgyzstan, Kazakhstan and Tajikistan (in US$, million)

	2013	2014	2015	2016	2017 (Jan-Aug)
Kyrgyzstan total debt	**3,159**	**3,437**	**3,601**	**3,743**	**3,985**
Loans from China	758	1,116	1,296	1,483	1,639
Loans from China (in percent, total)	24%	32%	36%	40%	41%
Kazakhstan total debt	**148,753**	**157,062**	**153,456**	**163,758**	**167,890***
Loans from China	15,840	15,969	13,248	12,589	11,975*
Loans from China (in percent, total)	11%	10%	9%	8%	7%
Tajikistan total debt	**2,188.5**	**2,095.9**	**2,194**	**n/a**	**n/a**
Loans from China	915	915	1,080	n/a	n/a
Loans from China (in percent, total)	42%	44%	49%	n/a	n/a

Sources: Authors' construction based on data from Ministry of Finance of the Kyrgyz Republic; National Bank of the Republic of Kazakhstan. *Data for the second quarter of 2017.

According to Laruelle (2018), about 40 percent (or $1.5 billion) of Kyrgyzstan's public debt and 50 percent (or $1.1 billion) of Tajikistan's are owed to Chinese institutions (mainly China Export-Import Bank or Exim Bank). Being heavily indebted to one nation is particularly risky and can lead to a potential loss of self-sufficiency.

China does attempt to diversify its investments in Central Asia and does not solely focus on extraction type investments. Instead of only funding infrastructure projects, China also funds manufacturing projects, such as bus production factories, cement plants, agricultural and green energy projects (Akmoldoev, 2022). Projects such as these are more beneficial to Central Asian nations in the medium to long-run as compared with mineral extraction-based projects. Examples of such projects are shown in Table 8, with China investing in several major infrastructure development projects that should improve regional physical connectivity by building and upgrading highways, railways, ports, and traditional and green energy infrastructures (Duarte, 2018).

Table 8: List of Belt and Road Infrastructure Efforts in Central Asia

Country	Project
Kazakhstan	Lianyuangang logistics cooperation base
Kazakhstan	China-Kazakhstan-Russia-Belarus-Poland- Germany via Alataw (train)*
Kazakhstan	China-Kazakh-Turkmenistan to Iran and Persian Gulf via Kuryk (train and ferry)
Kazakhstan-Turkmenistan	China-Kazakhstan-Caucasus-Europe via Kuryk (train and ferry)
Kyrgyzstan-Uzbekistan	China-Kyrgyzstan-Uzbekistan- Turkmenistan-Iran-Turkey-Europe via Irkeshtam (train)
Kyrgyzstan	Bishkek main roads renovation
Kazakhstan-Kyrgyzstan	Kazakh-Kyrgyz highway
Tajikistan	Vahdat-Yovon railway
Uzbekistan	Kamchiq tunnel
Kyrgyzstan	Repair Bishkek Thermal power plant
Uzbekistan	Repair 3 hydropower stations in Shahrisabz, Tashkent and Bozsu
Tajikistan	Dushanbe Thermal power plant
Kyrgyzstan	Irrigation Systems Renovation Project in the Issyk-Kul and Batken regions
Tajikistan	Nurek dam
Tajikistan	Rogun Dam electricity generator
Tajikistan	Khujand South-North 500kV transmission line
Tajikistan	Lolazor-Khatlon 200kV
Kyrgyzstan	Datka-Kemin 500kV transmission line
Uzbekistan	Angren Thermal Power station modernisation
Kazakhstan	Zinc mine renovation and expansion
Kazakhstan	Modernise environmentally friendly refinery in Shymkent
Kazakhstan	Sino-Kazakhs natural gas pipeline
Turkmenistan	China-Central Asia Natural Gas Pipeline
Tajikistan-Kyrgyzstan	CASA1000

Source: Authors' construction based on data Tsz Yan, 2020

From the discussion above, China is clearly an important trade, investment, loan, and joint industrial and infrastructural project partner with Central Asian countries. However, China pursues a trade policy that is akin to a mercantilist trade policy toward Central Asia as there is a lack of access to Chinese markets for Central Asian nations. Within this context, it has been argued that the region needs to reevaluate its cooperation policy with China due to the lack of access to Chinese markets, the burdens created by the Chinese loans, and the preferential treatment received by Chinese firms within Central Asia (Khitakhunov, 2023).

Table 9 and table 10 contains data on China's investments in Central Asian nations, followed by Figure 1, which shows Chinese investment per Central Asian nation as percentage of total Chinese investment in Central Asia by year. From this data, it is clear that Kazakhstan receives the largest proportion of Chinese investment in the region. Moreover, for the other nations in the region; capital flows can be sporadic, with Kyrgyzstan, Tajikistan and Turkmenistan especially vulnerable to inconsistent capital flows.

Table 9: China's Investments and Constructions in Central Asian Nations (2005-2022) US $ million

Year	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan	CE region
2005	4,500	-	-	-	-	4,500
2006	1,910	-	700	-	-	2,610
2007	1,310	-	-	150	990	2,450
2008	420	-	-	-	-	420
2009	3,540	-	260	4,320	-	8,120
2010	2,260	-	-	-	290	2,550
2011	850	390	-	-	-	1,240
2012	2,100	-	520	2,920	2,270	7,810
2013	5,300	-	-	-	460	5,760
2014	3,220	3,790	-	600	890	8,500
2015	750	550	350	-	-	1,650
2016	350	-	170	-	-	520
2017	4,970	-	-	-	570	5,540
2018	420	-	-	-	200	620
2019	1,930	-	540	-	630	3,100
2020	320	-	310	-	420	1,050
2021	1,050	-	-	7,070	1,740	9,860
2022	410	-	480	-	1,200	2,090
Total	**35,610**	**4,730**	**3,330**	**15,060**	**9,660**	**68,390**

Source: Authors' construction based on data from the American Enterprise Institute, www.aei.org April 2023

The data also indicate that, whilst Kazakhstan has received a larger value of investments from China, the flow of capital has been intermittent as compared to Uzbekistan, who has received more consistent flows, albeit at smaller values.

Interestingly, Chinese investments in Central Asia in the pre-BRI period (2005-2012) averaged 3,71 billion USD per year, whilst the post-BRI period (2013-2022) averaged 3.87 billion USD per year. The latter data seems to show that the BRI has not led to a significantly *increased* level of investment in Central Asia. This is somewhat surprising, as one would expect investment to have increased post-BRI.

Although briefly mentioned before, it is worth emphasizing that China's elite have identified the Central Asian region as the final bridge connecting the Chinese mainland with key BRI land locations. As a result, China has a keen interest in creating energy corridors in Central Asia. China is currently the second-largest consumer of oil and gas in the world, and Kazakhstan and Turkmenistan are its principal energy partners in the Central Asian region (Serikkaliyeva, 2019). However, an elementary analysis of the economic indicators such as GDP and FDI reveals that the Central Asian nations' cooperation with China under the BRI has not yet led to a significant direct economic advancement for the countries, nor even an increased level of investment pre-BRI.

Moreover, Chinese investment is focused on the energy and other selected sectors that are critical to the Chinese economy. From Table 10 the evidence is obvious in this regard. Overall, nearly 70% of all investment in Central Asia is in the energy sector, with the transportation sector being the second largest at roughly 10%. In Kazakhstan, of the total 35,61 billion US dollars investment, China invested 23,67 billion US dollars, or two thirds of their total investment, in the energy sector, with 12.5% and 11.2% of the remaining investments in the country being in the chemical and transport industries respectively.

In Turkmenistan, China *only* invested in the energy sector. While not as extensive, the main investment in Uzbekistan is again in the energy sector, with 53.8% of total investment being in the latter sector. Similarly, in Kyrgyzstan, 2,89 billion US dollars or 61.1% of total investment was in the energy sector. Tajikistan, is the only country where China's dominant investment is in the non-energy sector, with the Tajik metal sector receiving 37.2% of total Chinese investment. This emphasis on the energy sector in the region is clearly strategic given the extent and focus of the Chinese capital flows.

Table 10: China's Investments and Constructions in Central Asian Nations (2005-2022)

Sector	Kazakhstan		Kyrgyzstan		Tajikistan		Turkmenistan		Uzbekistan		Central Asian Region	
	Millions of US $	% of total	Millions of US $	% of total	Millions of US $	% of total	Millions of US $	% of total	Millions of US $	% of total	Millions of US $	% of total
Energy	23,670	66.5	2,890	61.1	920	27.6	15,060	100	5,200	53.8	47,740	69.8
Chemicals	4,440	12.5	-	-	-	-	-	-	940	9.7	5,380	7.9
Transport	3,990	11.2	1,690	35.7	560	16.8	-	-	560	5.8	6,800	9.9
Real Estate	350	1.0	-	-	610	18.3	-	-	1,860	19.3	2,820	4.1
Metals	2,550	7.2	150	3.2	1,240	37.2	-	-	190	2.0	4,130	6.0
Agriculture	240	0.7	-	-	-	-	-	-	290	3.0	530	0.8
Finance	110	0.3	-	-	-	-	-	-	230	2.4	340	0.5
Utilities	100	0.3	-	-	-	-	-	-	-	-	100	0.1
Entertainment	-	-	-	-	-	-	-	-	290	3.0	290	0.4
Others	160	0.4	-	-	-	-	-	-	100	1.0	260	0.4
Total	**35,610**	**100**	**4,730**	**100**	**3,330**	**100**	**15,060**	**100**	**9,660**	**100.0**	**68,390**	**100**

Source: Authors' construction based on data from the American Enterprise Institute, www.aei.org April 2023

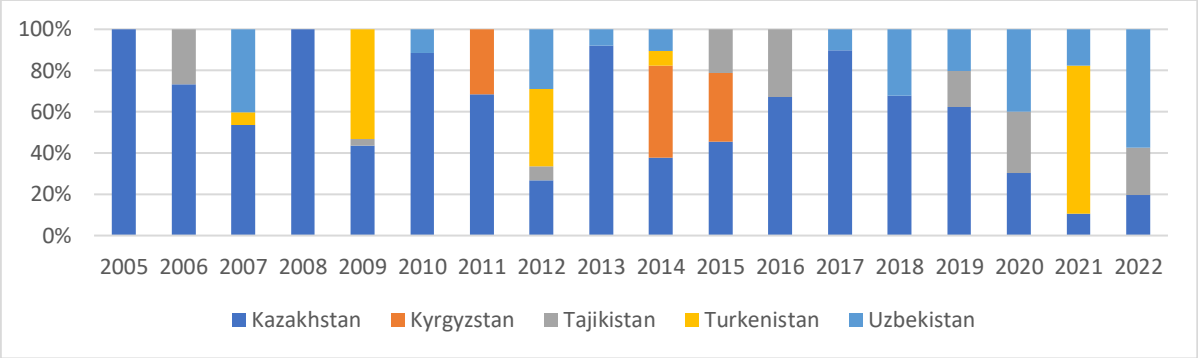


Fig. 1. *China's Investments in Central Asian Nations as percentage of total Chinese investment in Central Asia (2005-2022)*

Source: Authors' construction based on data from the American Enterprise Institute, www.aei.org April 2023

Overall, however, there is some evidence to suggest that the BRI will have a positive impact on Central Asian economies. The World Bank reports highlight the positive impact of BRI transport projects on Central Asian countries' exports, Foreign Direct Investment (FDI) and GDP. It is expected that the reduced shipping time will make the region more competitive and their country more attractive to foreign investors. Theoretically, one would observe an increase in foreign direct investment and exports as a result. Moreover, the productivity of the economies involved should increase and lead to an increase in GDP.

Recent World Bank estimates of the impact of BRI on some countries indicate that both Kyrgyzstan's and Tajikistan's GDP could increase by approximately 32%, and Kazakhstan's GDP by 21%. However, net gains will be significantly lower given the high costs of building the infrastructure (Taliga, 2021).

4. Discussion: The Risks for Central Asia and China under the BRI

There are many challenges and risks under the BRI that have been noted by scholars. Ciborowski *et al*. (2021) identified the most important challenges and risks connected with the BRI focusing on participants involved, the world economy, and China itself. Figure 2 summarizes the main risks.

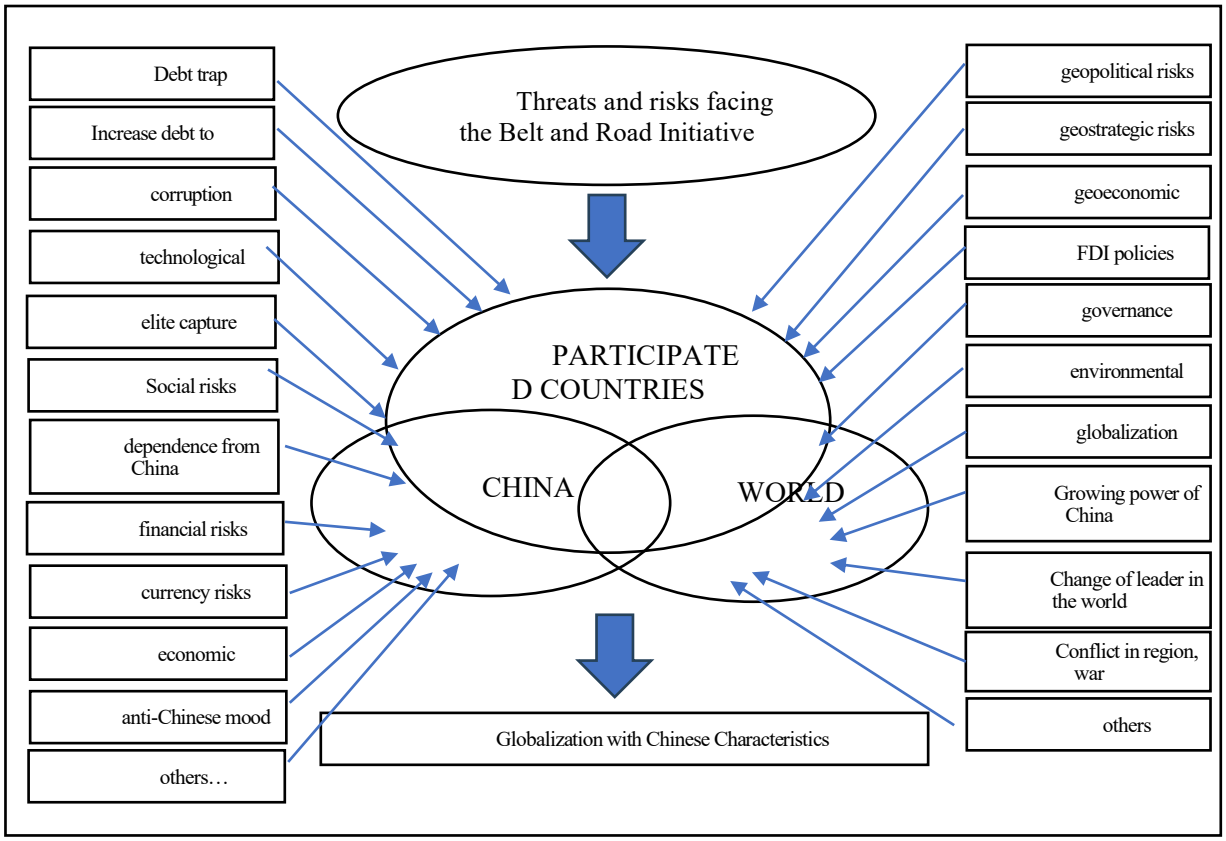


Fig. 2. *Threats and risks facing the BRI*

Source: Ciborowski et al., 2021, p. 372

Some of the risks and threats related to Central Asian nations require some elaboration:

- *The lack of accountability and transparency*: There have been serious allegations of malpractice involved in major projects in the region (Cinar 2021). Cinar identified this only for Kazakhstan but there are other cases elsewhere in Central Asia.
- *The lack of publicly accessible information:* There is no clear communication and implementation on the BRI, which creates confusion, perhaps internationally so (Jin 2024). In order to get detailed information on any project, the public must submit a special request to the relevant authorities. However, the latter decides what kind of information and to what extent information is shared. Moreover, trade unions do not have access to an employers' business data as most data is classified as confidential (Taliga 2021).
- *China's goals are not development-oriented* (Oakes 2021): Potentially, China's goal may be to gain strategic control over other countries. In addition, the implementing agencies focus more on the benefits of China without considering the concerns of local governments, communities and companies (Jin 2024).
- *The aid dependency trap* (Ciborowski *et al*. 2021; Akmoldoev 2022): Garlick (2020) is clear that the "Silk Road" concept is a method that China is using to improve its global image (Garlick 2020).[13] High interest payments on loans may trap some countries in debt and make them dependent on China (a practice known as "debt trap diplomacy"). If debtor countries fail to repay the money lent, China will seize control of any strategic assets paid for by the loans, such as airports, power plants, or other vital infrastructure (Oakes 2021). The BRI overall has been interpreted as a means for China to shift its priorities toward costly, large-scale physical infrastructure construction projects, some of which have already landed poor countries in a "debt-trap," costing

China prestige and occasionally financial default on loans (Baark 2021). Some Belt and Road countries, according to the World Bank and OECD, are politically and/or economically considered high-risk investment destinations. China's state-owned institutions signed MoU between 2013 and 2020 to finance tens of billions of dollars to many countries. China investing in these countries left the idea of China taking advantage of global financial systems (Oakes 2021; Umbach 2024).

5. Conclusion and Implications

China plays a significant influence in the global economic and political systems. They enhanced their economic growth and improved their trade relations with other countries, particularly after the 1990s. Currently, China, in conjunction with the BRI initiative, has established a major political opening and has had substantial consequences in both Asian nations and the rest of the world. In this context, the importance of the BRI for both the Chinese government as well as the Central Asian nations cannot be overstated. Already, the value of Chinese investments is growing, with selected sectors in Central Asia benefiting from these investments. There are, however, clear areas of concern. Firstly, the Chinese government's aim does not centrally focus on the economic development of the Central Asian nations. If the latter group of countries do not maximize the benefits of these investments and limit the extent to which China controls the agreements, the latter investments will not significantly change the domestic economies. The inability to reach Chinese markets is one example that needs further investigation. Secondly, it is clear that China has strategic aims with their investments, especially in the energy sector. Central Asian countries must ensure that the Chinese government's strategic aims do not cause internal conflict in the future. Interestingly, Chinese investments have not, on average, increased significantly post-BRI. Thirdly, Central Asian nations must make all investments, debt contracts and other agreements publicly available. This clause alone will potentially assist greatly in reducing the dominance of China in the BRI set-up as China would not be able to unduly exert "soft power" on Central Asian nations.

Some restrictions apply to this research. The data for this study was gathered from specific websites using a literature review. Access to more appropriate data is restricted due to secrecy around some investments, which is one of the challenges noted earlier. The BRI and its impact on Central Asian nations are significant issues not just at the national or regional levels but also globally. Furthermore, China has engaged in investment and construction initiatives that are likely to be different and come with their own set of difficulties and opportunities. For this reason, future research should be focused on identifying the specific problems associated with the BRI before exploring potential solutions. To carry out future research, quantitative studies can be conducted by collecting data from experts in each country on the importance of the BRI and how the BRI actually impacts each country. Ideally, such studies will include all relevant data from investments and loan agreements between China and the Central Asian countries involved.

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REFERENCES

1. Akmoldoev, K. (2022). How realistic is Belt and Road Initiative for Kyrgyzstan and Central Asian countries? *Ordnungspolitische Diskurse* (No. 2022-5). OrdnungsPolitisches Portal (OPO).
2. Azer, Ö. A., Min, W., & Ülker, Y. (2021). The strategic importance of the "Belt and Road Initiative" connectivity with the "Middle Corridor" program in Turkey. *Güvenlik Bilimleri Dergisi, 10*(2), 543–566. https://doi.org/10.28956/gbd.1028717
3. Baark, E. (2021). *China's international technology standards strategy and the Digital Silk Road*. Retrieved August 28, 2024, from https://research.nus.edu.sg/eai/wp-content/uploads/sites/2/2022/07/EAIBB-No.-1604-China-Standards-and-Digital-Silk-Road-2.pdf
4. CGTN. (2023). *Three takeaways from the China-Central Asia Summit*. Retrieved August 28, 2024, from https://news.cgtn.com/news/2023-05-20/Three-takeaways-from-the-China-Central-Asia-Summit-1jXfehTxA0E/index.html
5. China Briefing. (2021). *China and Central Asia: Bilateral trade relationships and future outlook*. Retrieved August 28, 2024, from https://www.china-briefing.com/news/china-and-central-asia-bilateral-trade-relationships-and-future-outlook/
6. Ciborowski, R., Oziewicz, E., & Pangsy-Kania, S. (2021). The Belt and Road Initiative—Shared development or a threat for the world economy? *European Research Studies Journal, 24*(1), 364–381.
7. Cinar, M. (2021). The China-Central Asia-West Asia Economic Corridor of the Belt and Road Initiative's economic impact on Kazakhstan. *SocArXiv*, 3a6d9. Retrieved August 28, 2024, from https://osf.io/download/60f9ab17a13c600193b09d65/
8. Dekker, B., Okano-Heijmans, M., & Zhang, E. S. (2020). *Unpacking China's Digital Silk Road*. Retrieved August 28, 2024, from https://www.clingendael.org/sites/default/files/2020-07/Report_Digital_Silk_Road_July_2020.pdf
9. Duarte, P. (2018). China in the heartland: The challenges and opportunities of OBOR for Central Asia. In M. Laruelle (Ed.), *China's Belt and Road Initiative and its impact in Central Asia* (pp. 11–21). The George Washington University, Central Asia Program. www.centralasiaprogram.org
10. *Economic indicators of Central Asian countries*. (2022). Retrieved August 28, 2024, from https://data.worldbank.org/?locations=KZ-KG-TJ-TM-UZ
11. Fulton, J. (2016). An analysis of two corridors in China's One Belt One Road Initiative: China-Pakistan and China Central-West Asia. In *Proceedings of International Conference on Inter-Regional Connectivity: South Asia and Central Asia*. GC University.
12. Garlick, J. (2020). The regional impacts of China's Belt and Road Initiative. *Journal of Current Chinese Affairs, 49*(1), 3–13.
13. Gursoy, D., & Altinay, L. (2021). The Silk Road and the service industries. *The Service Industries Journal, 41*(7–8), 441–445. https://doi.org/10.1080/02642069.2021.1928823
14. Haitas, D. (2018). Ukraine and China's Belt and Road Initiative. *Herald of Lviv University of Trade and Economics, 6*, 232–238. Retrieved August 28, 2024, from https://journals-lute.lviv.ua/index.php/visnyk-law/article/view/690
15. Hoque, M. M., & Tama, R. A. Z. (2020). China's Belt and Road Initiative: Global politics and implications. *European Scientific Journal, 16*(31), 279–299. https://doi.org/10.19044/esj.2020.v16n31p279
16. Fang, J. (2017). The Belt and Road Initiative: Progress, problems and prospects. In D. Remler & Y. Yu (Eds.), *Parallel perspectives on the global economic order: A U.S.-China essay collection*. Center for Strategic & International Studies. Retrieved August 28, 2024, from https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/170922_Remler_ParallelPerspectives_Web.pdf
17. Khalid, I., & Chawla, M. I. (2021). China's BRI: Regional prospects and implications. *Psychology and Education Journal, 58*(1), 4229–4235.
18. Khitakhunov, A. (2023). *Economic cooperation between Central Asia and China*. Retrieved August 28, 2024, from https://www.eurasian-research.org/publication/economic-cooperation-between-central-asia-and-china/
19. Laruelle, M. (2018). *China's Belt and Road Initiative and its impact in Central Asia*. The George Washington University, Central Asia Program. Retrieved August 28, 2024, from https://centralasiaprogram.org/wp-content/uploads/2017/12/OBOR_Book_.pdf

20. Ly, B. (2020). Challenge and perspective for Digital Silk Road. *Cogent Business & Management, 7*(1), 1804180. https://doi.org/10.1080/23311975.2020.1804180

21. Mirzakhmedova, D., Ismailkhodjaev, S., & Fayzieva, K. (2024). *Following China's export of sanctioned goods through Central Asia to Russia*. Retrieved August 28, 2024, from https://thediplomat.com/2024/01/following-chinas-export-of-sanctioned-goods-through-central-asia-to-russia/

22. Melnikovova, L. (2020). China's interests in Central Asian economies. *Human Affairs, 30*, 239–252. https://doi.org/10.1515/Humaff-2020-0022

23. Nedopil, C. (2023). *Countries of the Belt and Road Initiative*. Shanghai, Green Finance & Development Center, FISF Fudan University. Retrieved March 29, 2024, from https://greenfdc.org/countries-of-the-belt-and-road-initiative-bri/

24. Oakes, S. (2021). *China's Belt and Road Initiative*. Retrieved September 20, 2022, from https://www.hoddereducation.co.uk/media/Documents/magazine-extras/Geography%20Review/Geog%20Rev%20Vol%2035%20No%202/GeographyReview35_2_China.pptx?ext=.pptx

25. OECD. (2018). *China's Belt and Road Initiative in the global trade, investment and finance landscape*. In *OECD business and finance outlook 2018*. OECD Publishing. https://doi.org/10.1787/bus_fin_out-2018-6-en

26. Oreglia, E., Ren, H., & Liao, C.-C. (2021). The puzzle of the Digital Silk Road. In N. Kassenova & B. Duprey (Eds.), *Digital Silk Road in Central Asia: Present and future*. Retrieved August 28, 2024, from https://daviscenter.fas.harvard.edu/digital-silk-road

27. Rakhmat, Z. (2022). *China's Digital Silk Road in Indonesia: Progress and implications*. LSE Ideas. Retrieved August 28, 2024, from https://www.lse.ac.uk/ideas/Assets/Documents/updates/2022-SU-IndoChina-Updated.pdf

28. Sarker, M. N. I., Hossin, M. A., Yin, X., & Sarkar, M. K. (2018). One Belt One Road Initiative of China: Implication for future of global development. *Modern Economy, 9*(4), 623–638. https://doi.org/10.4236/me.2018.94040

29. Serikkaliyeva, A. (2019). The role of the Central Asian region in China's New Silk Road Economic Belt project. *Eurasian Research Journal, 1*(1), 66–81.

30. Shen, H. (2018). Building a Digital Silk Road? Situating the internet in China's Belt and Road Initiative. *International Journal of Communication, 12*, 2683–2701.

31. Stec, G. (2018). *The invisible Silk Road: Enter the Digital Dragon*. Retrieved August 28, 2024, from https://www.eias.org/wp-content/uploads/2016/03/EU_Asia_at_a_Glance_Stec_DSR_2018-1.pdf

32. Taliga, H. (2021). *Belt and Road Initiative in Central Asia*. ITUC. Retrieved April 5, 2023, from https://www.ituc-csi.org/IMG/pdf/belt_and_road_initiative_in_central_asia.pdf

33. The American Enterprise Institute. (2023). *China Global Investment Tracker*. Retrieved April 8, 2023, from https://www.aei.org/china-global-investment-tracker/?ncid=txtlnkusaolp00000618

34. van Twillert, N., & Vega, S. H. (2023). Risk or opportunity? The Belt and Road Initiative and the role of debt in the China-Central Asia-West Asia Economic Corridor. *Eurasian Geography and Economics, 64*(3), 365–377. https://doi.org/10.1080/15387216.2021.2012816

35. Tsz Yan, N. Y. (2020). Operation reality of the Belt and Road Initiative in Central Asia. In A. Abdoubaetova (Ed.), *China's Belt and Road Initiative in Central Asia: Ambitions, risks, and realities* (Special Issue 2). OSCE Academy in Bishkek.

36. Uctu, R., Essop, H., & Sahbaz, A. (2025). Unveiling the transformative impact of China's Digital Silk Road on South East Asian countries. *East Asian Policy, 17*(3), 79–96.

37. Umbach, F. (2022). *How China's Belt and Road Initiative is faring*. Retrieved August 28, 2024, from https://www.gisreportsonline.com/r/belt-road-initiative/

38. Semenova, V. (2016). *The impact of China's Belt and Road Initiative on the Central Asian countries*. Retrieved August 25, 2024, from https://publikaciotar.uni-bge.hu/1596/1/mtmt_Hallgato%CC%81i_ko%CC%88tet_intreakti%CC%81v_p428-466.pdf

39. Xinhua. (2013, September 7). *Xi suggests China, Central Asia build Silk Road Economic Belt*. Retrieved August 28, 2024, from http://en.people.cn/90883/8393079.html

40. Yilmaz, B. (2022). *The Belt and Road Initiative and the impacts on Turkey as a part of the Middle Corridor* (Research Division Asia, WP NR. 02). SWP-German Institute for International and Security Affairs.