



Working paper

268.

October 2022

Gergely Kádár



Centre for Economic and Regional Studies - Institute of World Economics ELRN Working Paper Nr. 268 (2022) 1–32. October 2022

China's strategic considerations for infrastructure building

in the Central and Eastern European Region

Author: Gergely Kádár

KRTK VGI Working Papers aim to present research findings and stimulate discussion. The views expressed are those of the author(s) and constitute "work in progress". Citation and use of the working papers should take into account that the paper is preliminary. Materials published in this series may be subject to further publication.

The contents of this paper are the sole responsibility of the author and do not necessarily reflect the views of other members of the research staff of the Institute of World Economics, Centre for Economic and Regional Studies.

ISSN 1215-5241 ISBN 978--963-301-719-7



China's strategic considerations for infrastructure building in the Central and Eastern European Region¹

Gergely Kádár²

Abstract

The following essay aims to answer whether China has any strategic consideration for infrastructure building in the Central and Eastern European region. In order to do so, it first introduces the role of the infrastructure industry in China's economic development, the evolution of the industry, sectoral development within, as well as its China specific attributes. For comparative purposes, the nature of Chinese infrastructure strategy abroad - the Belt and Road Initiative is also detailed. The role of the Belt and Road Initiative, Europe and the Central and Eastern European region are discussed within the Chinese foreign policy context. Finally, based on all previous findings, Chinese infrastructure projects within the Central and Eastern European region were evaluated according to their contribution to China's interest in its infrastructure industry, foreign policy, and BRI objectives. The essay fails to pinpoint CEE region specific strategies - meaning it could not identify localized methods of implementation, a regional factor that makes CEE essential for Chinese interests, or an overarching vision independent from existing global strategies that would guide infrastructure investment within the CEE region. It concludes that Chinese activities there are based on previously existing practices, follow general foreign policy directions and are unambitious by scope and vision.

JEL: P25, 018, R11

Keywords: China, infrastracture, 16+1, CEE

The speed of development in the modern China has garnered the attention of researchers, businessmen and politicians alike. In terms of poverty alleviation and sustained economic growth, China's recent development was unparalleled in world history. In 2010, China overtook Japan to become the world's second largest economic power behind the United States, and since 2017 became the world's largest economy when measured by Purchasing Power Parity. By lifting around 800 million people out of

¹ This paper was written in the framework of the research project "China's and Russia's infrastructure push in Central and Eastern Europe: Mapping different responses to a multidimensional challenge" (FK-138317), supported by the National Research, Development and Innovation Office (NKFIH).

² kadargergo@gmail.com

poverty by 2021, China has claimed to eradicate extreme poverty within its borders. In the World Bank report on the Four Decades of Poverty Reduction in China, infrastructure investment was listed among the main contributors of China's success. (World Bank Group, 2022) Naturally, many regions of the world would aim to bandwagon on this continuous stream of success, especially since the outward infrastructure investment became the core idea of China's foreign policy, the Belt and Road Initiative. Central and Eastern Europe is one of the regions, which lies on the imagined New Silk Road. Whether the Chinese path of development could be emulated by other regions, or just be taken advantage of, are questions that has been raised repeatedly. The intention behind the Chinese activities and how they affect the development of the regions interacting with it, are consecutively scrutinized. This essay aims to answer to following questions by comparing China's infrastructure industry, investment strategy and foreign policy objectives: Could the Central and Eastern European - thereafter CEE - region meaningfully benefit from China's infrastructure development experience? Is China a dedicated partner for infrastructure development and how does cooperation look like with China? Finally, what are China's strategic considerations for infrastructure building in the CEE? Since the CEE is neither a unitary actor, nor an integrated economic region, the question follows; is China's strategy consistent throughout the CEE region?

INFRASTRUCTURE DEVELOPMENT IN CHINA

General industry attributes

The infrastructure industry constitutes the backbone of Chinese development. It is widely accepted that infrastructure building in the modern China played an overall positive role in the country's rapid economic growth, although this contribution varies greatly across different types of infrastructure. (Shi at al, 2017) (Bayana, Qiu 2017)

The slogan "If you want to get rich, fix your roads first" (要致富, 先修路–*yaozhifu, xianxiulu*) is deeply imprinted in the Chinese consciousness. The spillover and GDP multiplier effects of infrastructure investment are often treated as the omnipotent solution for development in their mission to urbanise the countryside. Both the Chinese scholarly world and the general public perception supports the idea that infrastructure development tends to have positive impact on productivity growth and the price of

property value. It does not only result in the social value-creation, but through propelling the property-prices high, creates an important source of local governmental revenue. (Bai & Qian, 2010) Since land in China is mostly a common property managed by the local governments, important revenue sources come from land leasing for real estate developers rather than taxation. Hence, as long as there is adequate infrastructure available, the high land leasing prices provide a good income for the local governments.

In essence, Chinese infrastructure investment in the past more than forty years is the product of the competition and employment of state-owned enterprises – SOEs –, as well as their access to and use of government owned land. Infrastructure investment comes from the government circulating large sums of money within its various institutions. The result is so far spectacular, in many cases leading to globally unparalleled statistics. (State Council 2020; State Council 2021) For example, there was more concrete usage in China between 2013-2015 than in the USA in the 20th century. (Furlong, 2022) Infrastructure constructions play an important role in both a developmental as well as in a political legitimacy generating perspective.

By now, China developed an economy with a large state role and a deep connection to world markets where infrastructure is at the central place. In this endeavour, China has showed country specific attributes to its modern economic as well as its infrastructure development model. Apart from the national factors, infrastructure investment in general has a specific list of characteristics including high entry barriers, monopolistic attributes, large scale, high regulatory control, etc. Newell mentions the China specific risks within the industry for private investors such as low transparency, state control of land supply, complexity of the transaction process, etc. (Newell et al, 2009) Hence, it is prudent to have a general overview of the initial environment, before we introduce the transnational and regional specific strategies of this industry.

Historical background

Today, China is generally recognizable for its modern infrastructure megaprojects that are often seem unimaginable from Central and Eastern European perspective. Due to the scale and longevity of its civilization, ancient Chinese history is filled with endevours of gargantuous proportions. Started at the same time as the Great Wall, the "Zhidao" and "Chidao" are considered as the oldest expressways in the world. The more than 2000 years old, 700 km long roads were at points up to 69 meter wide. (Shaanxi government webpage) Other exemplary monuments of its historic infrastructures include the 1,776 km long Capital–Hangzhou Grand Canal, the Silk Road system, the Zhaozhou and Lugou bridges, etc. (Bayana, Qiu 2017)

Uniting the people of China for massive infrastructure projects such as the Great Wall or the Great Canal are considered as the palpable proof and ever loved trope of the unified Chinese civilization. These projects have left a deep mark on the Chinese psyche representing the achievements of the unified Chinese civilization. They are viewed as the symbols of civilizational strength. Today's megaprojects are also presented as such to bolster Chinese nationalism. (Ong, 2011; UC Press Blog – Lampton, 2021) Ignoring these sentiments and their influence on the legitimization of the Chinese Communist Party would be reductionist in such a heavily state-controlled industry. Even the legendary hero Yu the Great, who learned to control the flood and founded the Xia, China's first dynasty, rose to prominence by successfully organizing a water management construction.

Evolution of the modern infrastructure development in China 1949-1978: state plan period

After the end of the destruction of the Japanese invasion and the civil war in 1949, China has followed a regional self-sufficiency development strategy. The rebuilding of a modern China was often carried out with war preparation in mind. By the 1960's, infrastructure projects favoured the heavy industry complexes present in the North-East China region. The general trend was building railway connections to carry natural resources from the west to the industrializing east-cost in large quantities. (Bayana, Qiu 2017) During this time emphasize was given to construct new routes instead of upgrading existing ones. (Yu et al, 2012) (Shi at al, 2017)

1978-2000: reform and decentralization period

After 1978 and the fiscal decentralization in the 1990's, infrastructure investment became much more prominent both at the central and local government level. One such reason was to create a better business environment for state owned companies as well as for foreign direct investment. As a result, the total investment in fixed transport infrastructure asset grew 76 times between 1978 and 2008. By 1993, China's infrastructure spending of 6,5% of its GDP was well above the 4% average of developing countries. (Shi at al, 2017) Yet, even after such a tremendous growth, transport bottlenecks were still considered a serious problem, especially visible during important holidays such as the "Spring Festival" or the "Golden Weeks". (Bayana, Qiu 2017 pp. 37)

One side effect of the 1994 fiscal decentralisation was that local government had greater incentives and received more decision making power. After 1995, the central government received a bigger share of tax revenues while pushed the expenditures to the local governments. Hence, sub-national governments gained incentive to improve the local investment climate through public infrastructure projects. Soon they became the main source of infrastructure development spending. (Yu et al, 2012 pp. 28; Shi at al, 2017 pp. 8)

The 21st century: the Great Western Development Plan

After 2005, another wave of investment occurred with the reform of the investment system focusing on diversified ownership, market forces, etc. A new boom mainly occurred in the electricity and road development industries. (Shi at al, 2017 pp. 8) By 2010's the eastern region reached high levels of built infrastructure and the new development direction turned to the central and western regions. This trend was led by the Great Western Development Plan policy initiated with the new millennia. The western regions, being mostly landlocked and often mountainous, provided a major challenge for the transport infrastructure. Here, the Yangtze River was considered as the most efficiently solution to this geographic challenge. However, for long the river could only be efficiently

used from the coastal Shanghai until Yibin city in central China. (Yu et al, 2012 pp. 31) The solution was the Three Gorges Dam initiated in the 1990's and finished in the 2000's. The Three Gorges Dam - apart from providing approximately a hundred-billion kilowatt-hours of electricity per year – made large-scale waterway transport more available on the Yangtze River. Yet, by now, the ship lift is already overloaded and causing major traffic jams on water.

Moreover, infrastructure projects generally tend to have lower utilization efficiency in the more remote western regions due to the relative lack of industry and lower population density. These initial drawbacks are hoped to be compensated by attracting industry and investment to the West. However, N. Yu argues that in spite of the current policy focus on the western regions' development, the central provinces would benefit more from higher infrastructure investment, since the output elasticity of transport infrastructure is much higher there, while this region also has higher chances of industry relocation and technology spill over from the coastal areas. (Yu et al, 2012)

After the 2010's, the still often congested coastal regions economically speaking would benefit less and less from new transport routes. The central regions aimed to realize higher levels of trade, industry and technology through better connectivity to the coast, while the western region enjoys a newly found attention of the central governmental development policy, but lacks economic justification of the current level of new infrastructure. The general trend of underinvestment in the 1990's turned to overinvestment by 2008, which was especially strong in the western region. (Shi at al, 2017) From 2013, the Belt and Road Initiative set the strategic directions of infrastructure development.

By now the country's landscape has been drastically altered by the vast infrastructure asset available almost all over the nation. Inside China, basic infrastructure is more or less built everywhere except the most remote places of Western-China. In the coastal regions, by now only the projects with the highest technological level can find new opportunities.

Implications to the research question

With regards to the main question of this essay, its relevance to CEE, this section aimed to show the inward looking and state-lead nature of Chinese infrastructure development. So, is China an adequate partner for infrastructure development? The long lasting and deep involvement in infrastructure development resulted in abundant experience and huge capacities of the Chinese companies, who are capable to handle any CEE project regardless of size or complexity. Yet, due to the lack of colliding interests in the financing of infrastructure development in the CEE, key incentives are missing for such projects to manifest. Hence, China's success cannot be duplicated in the CEE region even if Chinese contractors are involved.

Sectoral development

1. Electricity

Before the reform period governmental regulatory and business activities were not separated, both functions were under one ministry following a state plan. In spite of the very high growth rate of installed capacity and electricity generation, 12,6% and 15,1% respectively, electricity shortages were widespread. (Bai & Qian, 2010 pp. 35-40)

The separation of functions started with the 1978 reforms. From 1985, non-state funding of electricity projects were allowed. The two-track development so iconic to the post-1978 China period - one inside, one outside of the state plan - emerged in the electricity industry, as well. From 1987, electricity corporations were set up in each province followed by the establishment of the National Electric Power Corporation in 1997. This national level mega-company was later divided into smaller entities along regional lines, including the two main monopolistic grid companies. The surplus electricity generated by 1997 resulted in the state reaction leading to shortages of supply by 2003. (Bai & Qian, 2010 pp. 35-40)

As a result, in the first 30 years of the reform period the electricity sector followed closely the real GDP growth rate. Since the 1990's, electricity had a positive and significant effect on economic growth, increasing over time. These positive effects were even more

pronounced in the western regions. Electricity generation experienced a fast expansion from the 2000's. (Shi at al, 2017 pp. 11) (Bai & Qian, 2010 pp. 35-40)

The importance of renewable sources of energy gained pace in China during the 21st century. After the completion of the Three Gorges Project, it has generated approximately 100 TerraWatts per hour electricity since 2012 and has been operating a ship lift since 2016. Yet China turned its head towards other sources of renewable energy. The Chinese extremely rapid rise of solar, wind and other renewable power capacities has made China the world's largest renewable power provider with a 323 gigawatts of solar and a 338 gigawatts of wind energy fleet. (Bloomberg, 2022) Under the Paris Agreement system, China aims to reach carbon neutrality by 2060. (CarbonBrief, 2022)

In this system, national and local government owned companies own almost all the installed capacities with a 5-10% share from privately or foreign owned enterprises. Local governments have incentives to invest more than the central one, since these companies mean major tax revenue sources. Government pricing and differentiated prices for users exist in the industry. The influential National Development and Reform Commission determines the prices while the State Electricity Regulatory Commission's task is to maintain a healthy competition. Competition is spurred among these SOEs to reach industry-leading positions or face restructuring or being cut off from the limited coal and water supplies. To maintain continuous investment, power grid companies usually employ their sister companies as subcontractors. These sister companies are collectively owned by their managers and employees, which provides good profitability and a strong desire for investment to the grid companies. (Bai & Qian, 2010 pp. 35-40)

2. Highways and Roads

Since the reform period, highways have replaced railways as the main passenger transportation mode, while highway freight transportation also grew at a stunning 13,6% annually between 1978 and 2006. (Bai & Qian, 2010 pp. 40-46)

After the central planning of the pre-reform era, in the 1980's road infrastructures were based on loans. At the same time, costs were shifted to the local governments, which in return were sponsored by additional fees on vehicle purchases. Soon highway tolls

were introduced as well. Investment into highway constructions comes from governments and provincially or centrally owned enterprises, although some asset management funds might own minority shares in these companies. Therefore, private and foreign ownership is not entirely excluded, but they do not function independently from the SOEs. (Bai & Qian, 2010 pp. 40-46)

Road infrastructure had much smaller and sometimes negative effect on GDP per worker growth, which only showed positive signs by the second half of the 2000's decade. It implies that roads tended to be bad investments in the short term with gradual improvement over time. While railways had positive correlation with private capital stocks, roads had a negative relations with regional private capital and FDI accumulation. (Shi at al, 2017 pp. 11)

3. Railway

Railways faced a similar 'from state plan to decentralization' model introduced previously. Railway prices were kept artificially low until 1986, when apart from the increased prices, tax exemptions, the profits and taxes collected here could be reinvested in the railway industry. Corporatization started from 1993 and spread throughout that decade, resulting in more flexible pricing. Yet the rate of return on railway investment was still so low that profit-oriented investment could not emerge. Railway development is therefore still rather centralized. (Bai & Qian, 2010 pp. 46-48)

As a result, railway's share in transportation has been shrinking fast. Since the start of the reform period, waterways overtook railways in freight transportation. (Bai & Qian, 2010 pp. 41) The development of railways are somewhat lagging behind in relative terms. From the perspective of its impact on local development, railways however, showed positive impact, with smaller, but increasing significance over time.

In spite of the relative low speed of railway development, by now all major provincial cities are connected with high-speed railways which provide regular, highspeed and comfortable travel experience not available in regions like Central and Eastern Europe. Major cluster cities often use the so-called *rice character shaped* (*) developmental model and create time-based connection circles among major cities.³

Implications to the research question

Referring back to the CEE region, this section highlights the diversity of conditions within the infrastructure industry. The sectoral analysis introduces how the state created an environment of incentives that resulted in the modernization of Chinese industries and a network of bullet-trains, highways and renewable power-plants coveted by the CEE region as well. It also shows that Chinese infrastructure projects can generate positive effects on the local economic development, a concern often raised abroad with regards to the expensive Chinese contracts. Furthermore, understanding local conditions matters, since Chinese companies are currently involved in the electricity (Kaposvár solar plant, Tuzla thermal plant), road (Bar-Boljare highway, Peljesac Bridge, Sarajevo-Prijedor highway) and railway (Budapest-Belgrad railway) development projects within the CEE region. The conclusion is that if they wanted to, Chinese companies would not only be capable of accomplishing major and complex projects, but could provide technologically advanced solutions that benefit the local economy. Yet, these cases also illustrate how the state in China carefully orchestrated the necessary returns for investors in each sector by controlling prices. It is debatable whether Chinese companies would be interested in investing in the CEE region where their rate of return might depend on floating prices.

DRIVERS OF CHINESE OUTWARD INFRASTRUCTURE

Chinese infrastructure investment outside the territory of China serves several main purposes, which are often different from the industry motivations inside China.

Local overcapacity of production is the issue that is closest to the standard profit seeking behaviour and market principles. Since the Chinese market is getting more and more saturated, Chinese companies tend to look outside. Chinese foreign policy could

³Chongqing, a major city in the Western region, for example aims to reach other provincial capitals like Chengdu and Guiyang in 1 hour, Xi'an, Kunming, Wuhan, Changsha and Lanzhou in 3 hours, and Beijing, Shanghai and Guangzhou in 6 hours. (Chongqing Transport Bureau, 2020)

provide new profitable projects for its businesses. However, these companies are not familiar with the foreign infrastructure markets. They might not know how to operate and secure deals in a non-Chinese economic system, so they require the support of the state. The Chinese state helps directing these companies to the right places through national grand strategies, like the Belt and Road Initiative. Once the selected regions are clear, the Chinese state can use its diplomatic channels to secure deals with foreign governments for these Chinese SOEs. In this regard, these SOEs find new markets, obtain deals and also contribute to the Chinese state's goal of building connectivity, securing crucial trade routes, improve China's neighbourhood policy and the responsible big country image. However, we could see that profitability is not always the main concern of the infrastructure projects within China. Low profitability was especially rampant in the case of the railway transportation development. (Bai et al, 2010 pp. 48-49) With regards to the CEE region, we will see that the low total value of projects in the region cannot constitute as a meaningful solution for the Chinese extra capacities.

Resource seeking investments are also common. From a Chinese perspective infrastructure investment abroad does not need to serve the interest of the local economic development, but the profitability of the project and the security of the Chinese natural resource extraction companies operating in that specific country. They are meant to provide safe logistics out of the resource extraction location back to the industry base within China. In this case Chinese investment profitability has to be considered together with the value of the resources that the infrastructure supports. However, the CEE region is conspicuously absent of any resource the Chinese would consider crucial to their development.

The issue of connectivity is also one of the main goals. In the realm of connectivity building, China faces two big challenges. First, its land routes are underdeveloped compared to its sea trade; second, it has relatively bad connectivity to its neighbours. As for neighbouring countries, there is still a major connectivity gap resulting in a "proximity but not affinity" relations. (Zhang et al, 2022) The CEE region not being adjacent to China does not belong to China's immediate sphere of influence and so will not be included in its neighbourhood policies. Yet as for developing the land routes of the BRI, the CEE region is a natural priority region due to its geographic location.

Finally, there is a political level of investment, which is usually connected with the Belt and Road Initiative. These are symbolic projects to improve the image of China as a "responsible big country". These projects improve bilateral relations and increase connectivity to neighbouring countries. Usually they aim to create a Chinese sphere of influence through trade promotion. These connectivity projects usually happen in friendly regions, such as in Pakistan, or along the Laos-Myanmar-Singapore, or the Greece-Serbia-Hungary routes. They aim is to prove that China has a grand strategy that connects regions together through mutually beneficial win-win trade relations. It is possible for certain investment projects to serve several of the aforementioned objectives.

CHINESE OUTWARD INFRASTRUCTURE STRATEGY – THE BELT AND ROAD INITIATIVE

The Belt and Road Initiative (一带一路, also referred to as New Silk Road, or One Belt, One Road) - thereafter BRI, aims to integrate the Eurasian region through infrastructure development. The justification of the initiative lies in the fact that there is underinvestment in infrastructure, which created a bottleneck in trade and economic development in Asia. The BRI could also be seen as the answer to the recommendations of Infrastructure for Asia Connectivity, a book published by the Asian Development Bank one year before the announcement of the BRI. At the same time, the BRI is the international extension of the Great Western Development strategy aiming to develop Western-China by connecting it to Central Asia and Europe. (Furlong, 2022: 921) This shows that the BRI strives to tackle existing and relevant problems, which has already been present before the BRI became the symbol of Chinese foreign policy.

The Belt and Road Initiative

The BRI was introduced to the world in 2013 by Xi Jinping. Although the prereform People's Republic of China often postured itself as the leader of the Third World with Mao's own definition to the First, Second and Third Worlds, the BRI is considered to be China's first comprehensive strategy to exert international leadership.⁴ (The Economist, 2017) The project involves more than 60 countries in three continents; Africa, Asia, and Europe. An inland and a maritime route, the Silk Road Economic Belt and the 21st Century Maritime Silk Road, respectively, would connect the two final destinations, China and Western Europe.

The proliferation of Free Trade Agreements and Regional Trade Agreements and the actions of the World Trade Organisation have successfully reduced rule-based trade or tariff barriers among nations. Many of the most expensive barriers that remain are physical barriers resulting from a low level of connectivity. In contrast to other regional integration initiatives, the BRI is advanced on the basis of the hardware - physical assets - of trade promotion. The BRI strategy aims to bring about increased connectivity; shortened travel time with decreasing trade costs; an inflow of money in areas suffering from underinvestment; the establishment of international financial institutions e.g. the Asian Infrastructure Development Bank, the Silk Road Fund; new finances - the internationalization of China's national currency, the Renminbi, currency swap agreements or regional bond markets. (Callaghan and Hubbard, 2016:120) It also contains strategic potentials related to an emerging economic alliance between China and Europe; the economic isolation of marine powers (USA, Japan) and a shift towards the continental regions with great potentials in cutting trade costs; and the economic integration of Central Asia.

Existing constraints of Asian connectivity - the birth of BRI

One year before the announcement of the BRI, the Asian Development Bank published a book (Bhattacharyay, 2012) with the following conclusion. The potentials for growth through infrastructure and connectivity investment in Asia are tremendous. Meeting the combined infrastructure requirement of all the examined regions in Asia would lead to a total welfare gain of US\$ 1781.5 billion. (Bhattacharyay, 2012:19-46)

⁴ It should be noted that Shanghai Cooperation Organisation (SCO) is the first multilateral organisation where China played a leading role after the Dengist policy of Biding time and hiding ones capacities – (韬光 养晦 – *Taoguang yanghui*).

The lack of public funds, and an institutional and governance framework, low private sector participation, risks and uncertainties in regional investment, and the need for soft infrastructure constitute for the main obstacle in infrastructure building in Asia. (Brooks and Stone, 2010:1-19) Pomfret and Sourdin gave very good examples on how, in spite of the occasional good condition of physical infrastructure in Central Asia, delays at border crossings impede trade flows and so, increase costs. (Pomfret and Sourdin, 2014 pp.14-15) Furthermore, based on a global transportation accessibility index measurements conducted on the BRI region, priority should be given to road and railway construction, especially in Central Asia. (Shi et al, 2019) In this evaluation the BRI's aims are consistent with the challenges listed by Bhattacharyay and so, the BRI has the potential to deliver the anticipated economic and welfare gains.

However, in an economics-centred initiative, such as the BRI, quick and palpable gains for its participant countries are crucial for the credibility and legitimacy of new institutions and for kick-starting integration. Western Europe looks for lower trade costs and increased trade volumes; Eastern and South Europe for investment and revenues of transhipment and related services; and Central Asia for increased connectivity and integration to global value chains. (Vandenberg and Kikkawa, 2015) In another perspective, small poor landlocked countries benefit more from integration, while big ones also consider national and regional security. (Obydenkova, 2011 pp. 98) Trade and connectivity gains from BRI can be expected primarily for landlocked countries in the CEE region as well such as Austria, Hungary or Serbia. (Gerstl, 2018)

Being the architect and the main salesman of the whole project, China has the most complex set interests in relation to the BRI. The BRI is by design tightly connected to China's domestic politics. The country's future is with no doubt tied to the success of this grand project. The initiative, benefits China through the integration of economically isolated regions of China (mainly Central and Western China) into international trade, the creation of demand for the Chinese economy and for gaining access to natural resources (e.g. petroleum from Central Asian countries) (Mariani, 2013 pp. 6-7), countering foreign initiatives (the US lead TPP, TTIP, or even Russian efforts in Central Asia) (Mariani, 2013) in the quest for global competitiveness and moving towards the regionalization of world economy. Further gains are increased regional and energy supply security for China,

- 15 -

(Brugier, 2014) as well as greater soft power projection. (Callaghan and Hubbard, 2016 pp. 120) The BRI as well reflects this trend of changing investment directions. After the absorption of a huge amount of FDI⁵ from the 1990's onwards, starting from its 'Going Out' strategy, Chinese investment abroad is soaring. Reflecting China's domestic environment, the BRI aims to solve the overcapacity of production and absorb the huge foreign exchange reserves of China, while projecting its infrastructure driven development experience. (Ren, 2016 pp. 440) Moreover, GDP growth among the BRI countries tend to outpace the world average, which forecasts a growing demand.

Tendencies of the infrastructure capacity exports prior to the BRI

Chinese infrastructure projects outside of China did not start with the BRI. There were big railway projects in Africa, the Tanzania-Zambia line for example, since the 1970's. China's development programs usually manifest in a combination of investments in priority sectors – mainly energy and transport – financed by low-cost loans. In return for this assistance, China usually secures its access to oil, natural gas and minerals such as cobalt, uranium, platinum, manganese, iron, lead, etc. These projects are often called "resource for infrastructure deals" also known as the "Angola model". Apart from its direct routes to natural resources, China aims to control a network of ports, airport and railways at strategic locations. The Port of Piraeus bought in 2016, the Tirana Airport or the Haifa Port could be considered such investments. (Parepa, 2020)

⁵ It is important to note that most of the FDI to China arrived from Hong Kong or Taiwan. PRC claims sovereignty over both territories as they are covered by and adhere to the One China Policy.

and Eastern European Region

THE ROLE OF EUROPE AND THE CENTRAL AND EASTERN EUROPEAN REGION IN THE CHINESE FOREIGN POLICY

Evolution of China's foreign policy and the role of Europe

Since the establishment of the People's Republic of China, the "Five Principles of Peaceful Coexistence"⁶ are the basic values with its relations to the world. Chinese foreign policy went through significant evolution since the 1978 reform era, which led to today's BRI strategy. Deng Xiaping's "bide our time and build up our capabilities" and "never be the leader" strategies are the past now. The first changes came with the concept of "China's peaceful rise", (Zheng, 2005) "peaceful development" and a "harmonious world" promoted by Hu Jintao in the eve of the 21st century. (Zheng, 2007) With joining the WTO in 2001, for the first time China claimed its place under the sun and was considered to be an inseparable part of the world economy. With Xi Jinping's rise to power these ideas were replaced or evolved to the "great rejuvenation of the Chinese nation", the "Chinese dream" and the "community of shared destiny". (Chai, 2013; Zhang, 2018) These ideas envision a strong China who is involved in the world affairs through "win-win cooperations". From this time on China acted as a "responsible big country", established new mechanism for multilateral cooperation – including the 16+1 in the CEE region –, were more active in the realm of security and public diplomacy, as well as launched its sino-centric developmental and connectivity strategy through the BRI. Infrastructure investment and the BRI could be seen as a tool for Chinese quest for strategic autonomy in a political economic sense. (Parepa 2020) The BRI is also relevant to the EU-China and CEE-China relations since in geographic terms, Europe was named as the final destination of this project.

China-Europe relations in the light of infrastructure development

The European Community established diplomatic relations with the People's Republic of China in 1975, followed by trade agreements in 1978 and 1985. There was a short cold period after the Tiananmen incident, but by 2003, the EU-China strategic

⁶ The five principles are sovereignty and territorial integrity, mutual non-aggression, noninterference in internal affairs, equality and mutual benefit, and peaceful coexistence.

partnership was born. For the area of infrastructure within the EU's new China strategy, priority was given to the EU-China Connectivity Platform, created in 2015. The strategy also states that the BRI must become an open platform with market norms. The main task of the EU-China Connectivity Platform is to coordinate between the Investment Plan for Europe, the TEN-T and the BRI initiatives. (Gerstl, 2018)

Europe, more specifically the European Union, is an important partner of China. Especially due to the EU's economic size and its high level of development. The EU is a crucial trading partner, source of investment and technology, a partner in fighting global challenges, such as climate change. (Shambaugh, 2004) China and the EU are each other's biggest trading partners since 2020. Yet within the Chinese thinking of world politics, the EU is still often considered in relation to the United States. (Shambaugh, 2007 pp. 6-8; Li, 2022) Since post-World War II bipolar world order and the USA's unipolar moment in the 1990's (Krauthammer, 1990), within the Chinese psyche the economic and military might of the USA could be accounted for as the gold standard of national power. Even though in terms of its combined economic size is bigger than the USA, the EU is politically too fragmented and complicated for the Chinese to be able to handle easily. This complicated structure and internal bureaucracy of the EU leads to unexpected difficulties for the Chinese, trying to manage their so-called "bilateral" relations. The fact that the EU's mention of a "systemic rivalry" (European Commission, 2019) arguably caught the Chinese leadership by surprise and created a very strong negative response. China makes great efforts to delete the word "systemic rival" from the political discourse in Chinese foreign relations. Yet, the work of the standardized high-level communication platform between China and the EU under the EU-China Strategic Partnership has been uninterrupted.

The role of Central and Eastern Europe within the Chinese foreign policy

The fact that there is a strong core-periphery and even political economic divide within the EU between the west, south and east is well known. Yet, this divide within the EU is also present in terms of their relations to China. While the industrially developed western core regions are major source of technology, investment, trade and a strong

market for China, the CEE region is a relative blank spot in these regards. Since the Chinese and CEE region countries could not count on the economic actors to start meaningful cooperation, interactions were initiated on the political level. After the 1990's, the CEE region was in a state of transitioning away from the socialist system to a market economy. (Maldini, 2007; Turk, 2014) During this time, they were preoccupied with restructuring their own economy, build their new political alliances and did not pay much attention to China. (Castrillón-Kerrigan, 2022 pp. 70) The main target was the successful accession to NATO and the EU. This tendency did not change until after the financial crisis that hit the European economies particularly hard. Also by this time, the Chinese economy has reached a level of development that mitigated previous contempt from the outside world. While the western world was facing major economic challenges by 2010, China has gradually evolved into the world's second largest economic power and reached great improvement in the overall human development of its population.⁷

Second, the CEE region is not only strategically insignificant for China, but the countries within it are too small for the Chinese foreign policy to capture their essence and respond to their nuances. Hence, during the 1990's China also did not pay much attention to the CEE region in comparison to the technologically advanced Western Europe. At this time, cooperation was mainly conducted on a bilateral basis. (Gerstl, 2018 pp. 39) One of the first of such engagements was President Jiang Zemin's visit to Hungary in 1995, followed by President Hu Jintao's travel to Poland, Hungary and Romania in 2004. China later entered into strategic partnerships with Serbia and Poland by 2009 and 2011, respectively. Then, in 2012 the regional 16+1 cooperation started. (Gerstl, 2018)

The 16+1 cooperation⁸ is based on annual high-level meetings in a rotating basis among hosts. Political documents like the ones named the "Twelve Measures for Promoting Friendly Cooperation with Central and Eastern European countries" and the "Medium term agenda for cooperation between China and Central and Eastern European countries" guides the activities of the cooperation. (China-CEE Webpage) The cooperation

⁷ China's Human Development Index rose from 0,499 in 1990 to 0,699 by 2010 and to 0,761 by 2019. (Human Development Report 2020)

⁸ The 16+1 format was briefly renamed into 17+1 when Greece joined, but with Lithuania exiting the cooperation mechanism and the subsequent departure of Estonia and Latvia made the original 16+1 name obsolete.

- 19 -

could be relevant from a Chinese infrastructure investment perspective for the following reasons. Facilitating infrastructure and energy projects are prominent within the medium term agenda. Furthermore at the Suzhou Summit, Li Keqiang emphasized the connection between mainly infrastructure focused BRI and the 16+1 cooperation. Lastly, the China-CEEC Investment Cooperation Fund was created with the purpose to provide funding for joint investment opportunities with a budget of 800 million USD. (China-CEE Webpage)

The 16+1 cooperation was often described as a strategy to divide the internal cohesion of the EU. The Chinese government strives to deemphasize this narrative in all venues within the 16+1 cooperation. They continuously reiterate that they are not meant to cause internal divide inside the EU. This claim supports the idea that China finds it cumbersome to deal with a complex, non-unitary Europe.

The Chinese perception of the region is based on a South-South type of cooperation (Kowalski, 2017), nothing more than agricultural exporters and seekers of Chinese educational investment. Based on Xi Jinping's speech during the 2022 China-CEEC Summit; "China intends to import, in the coming five years, more than 170 billion US dollars of goods from CEE countries."⁹ "We need to deepen agricultural cooperation in a bid to double CEE countries' agricultural exports to China and raise two-way agricultural trade by 50 percent over the next five years. We propose setting up a farm produce wholesale market in the CEEC region..." "We will hold a new round of Education Policy Dialogue and Higher Education Institutes Consortium meetings this year, and support establishing a university in Hungary by Fudan University." (China-CEE Webpage)

⁹ In comparison, the German export to China was 124 billion US dollars in 2021.

THE CENTRAL AND EASTERN EUROPEAN REGION IN THE CHINESE INFRASTRUCTURE BUILDING STRATEGY – THE BELT AND ROAD INITIATIVE

Challenges of formulating a strategy within the CEE region

Outward investment can be identified as resource, market, efficiency or strategical asset seeking. (Dunning, 1988) Chinese outward investment are often resource seeking. China being a manufacturing powerhouse – "the factory of the world" – pays great attention to its secure oil, coal, rare and non-rare metal supplies from all over the world. Infrastructure development usually accompanies these Chinese resource acquisitions. These tend to have the strategic consideration to protect Chinese investments and most importantly to secure the supply lines for the home economy. The CEE region does not have significant amount of natural resources that could be used as base material for the Chinese industry. Australian minerals, oil from the Middle-East, gas from Russia and a wide variety of such resources from African countries would be the general example of such endeavours. For market, or efficiency seeking enterprises the EU membership of some of the CEE countries could be appealing, although the Chinese economic policy makers are turning their companies inwards to service their on markets first.

The other problem is that foreign policy directions are exclusively guarded by the central government. However, infrastructure investment is mostly conducted by local governments and state-owned-enterprises. This results in the trend that the actors of infrastructure investment do not develop their independent going-out strategies. If they were, they would not consider the difficult terrain of a moderately developed area with strict European Union regulations. The prime target destinations of Chinese infrastructure companies would be the less developed areas of the ASEAN, South or Central Asia, such as Pakistan or Sri Lanka, or the African continent. Moreover, as it was mentioned earlier, Chinese infrastructure projects abroad are strictly speaking not Chinese loans. Hence, Chinese infrastructure projects in the CEE region are expected to have strategic considerations, especially under the BRI framework, or accompany other forms of Chinese investment linking it back to the home-country.

As we saw, the CEE region has never been part of the traditional Chinese sphere of influence. It is relatively unimportant in China's trade relations and is irrelevant in terms of China's security concerns. It is not an ideal place for Chinese infrastructure projects, since it is the periphery area of Western European enterprises, mostly being part of the European Union with its high standards, historically developed earlier than China and has an existing and functioning infrastructure. Therefore, Chinese infrastructure companies would have to play in a foreign field with high levels of competition, for an average market with an already existing infrastructure. "The reality is that Chinese economic presence in the region is minimal from the perspective of both FDI and CEE exports, and little has changed in these regards since the founding of the 16+1 platform." (Grübler at al, 2018) Furthermore, Eastern Europe had among the highest risk levels for infrastructure projects in the Belt and Road projects.¹⁰ (Zhang et al, 2022 pp. 8189; Andrić, 2019) As we will see later based on actual data, the non-EU member Balkan region might be somewhat more appealing to the Chinese.

Based on the low level of previous economic interactions, China is not familiar with the local conditions and has only developed a reactive attitude toward the CEE region. This idea is supported by the phrasing of following sentence concerning infrastructure investment at China's Twelve Measures for Promoting Friendly Cooperation with Central and Eastern European Countries: "The 16 central and eastern European countries may file project application to the"...China side. Another sentence "China will send trade and investment promotion missions to central and eastern European countries" shows the low level of previous engagement with the region. This cooperation method resonates well with the Dengist "crossing the river by touching the stones" strategy, which has worked so miraculously for the Chinese reform period, but proves the flexible and nondeterministic nature of this cooperation mechanism, as well.

¹⁰ According to Andrić's research the Eastern European BRI projects faced high levels of social risks, cultural differences, and safety measures on construction sites; poor quality of materials; and economic risks - meaning inflation, interest rate fluctuations, changes in exchange rates between the local currency, Chinese yuan, and the US dollar, taxes, price instability, cash flow imbalances, and other factors. (Andrić, 2019)

Infrastructure Projects

Chinese infrastructure projects in Serbia accounted for approximately 7,1 billion euros, in Hungary 2 billion euros, in Bosnia-Hercegovina 1,9 billion euros, in Montenegro 0,9 billion euros, in Macedonia 861 million euros and in Poland 727 million euros.¹¹ (CEECAS, 2021) The total amount of Chinese infrastructure projects in the CEE reached 13,6 billion euros.

In order to put this 13,6 billion euro in perspective, the total infrastructure investment in China is estimated to US\$3.3 trillion over the five-year period 2013-2018, while 78.9% of fixed assets infrastructure investment by value (approx. US\$1,986 billion) are classified as "stateholding", while the remaining 21.1% (approx. US\$530 billion) is financed by either public-private joint ventures or private sector investors. In 2019, China invested over US\$120 billion in its ten largest infrastructure projects by value. (RICS, 2021) The 55 km long Hong Kong–Zhuhai–Macau Bridge with a cost of US\$18.8 billion alone is comparable to and exceeds of all the Chinese infrastructure projects combined in the CEE.

Out of these, the Port of Piraeus in Greece, the Smederevo Steel Plant in Serbia, the Peljesac Bridge in Croatia and the Budapest-Belgrade Railway line were emblematic enough to be included in Xi Jinping's speech in 2022. In an era, where China is turning to the "dual circulation"¹² development focusing on its local demand, a 13,6 billion euro business offered by the CEE will not wake the interest of the Chinese infrastructure industry.

Furthermore, recent attempts to measure the amount of all Chinese investment within the CEE region highlight specific nuances of Chinese infrastructure investments. "Others include the value of infrastructure projects constructed by Chinese contractors, even though the cost is borne by the national government itself. It must be emphasised

¹¹ It is important to note the that the lack of reliable data sources on the exact amount of China's investment in CEE countries has been a major challenge in the accurate evaluation of this matter. Member state central banks, national governments, statistical offices, or the Chinese Embassies have published significantly different figures. (CEECAS, 2021) Other sources of Chinese investment data, such us the China Global Investment Tracker (Find here: <u>https://www.aei.org/china-global-investment-tracker/</u>) gives us a good comparison of Chinese investment presence all around the world.

¹² The dual circulation model was put forward in 2020 to integrate the Chinese domestic and export markets with emphasize given to a domestic market oriented developmental path.

that infrastructure projects financed by Chinese loans do not fit into the category of China's foreign direct investment". (CEECAS, 2021 pp. 7) "Almost 79% of the China related infrastructure construction projects in the CEE region are located in the countries of the Western Balkans. Most of the costs of such projects (75-85%) are financed by Chinese loans, and the total value of the constructions add up to significant amounts compared to the GDP of the relevant economies. The level of loans offered by China may reach 18% of the GDP in Montenegro, 12% in Serbia, 10% in Bosnia-Herzegovina and 7% in North-Macedonia." (CEECAS, 2021 pp. 12) This pattern goes along with standard Chinese business procedures described earlier.

Hence, one could hardly point out any distinctive CEE region strategy, neither in the implementation of its projects, nor in its value and scope.

Representative cases of BRI in CEE

Budapest-Belgrade Railway line - a prime example of the Chinese BRI dream

The city of Venice has been declared the final gateway of the Maritime Silk Road, which will be connected to Rotterdam, the European end of the Silk Road Economic Belt. Nonetheless, competition for the European market rose from another major port in Athens. The Maritime Silk Road would use the port of Pireaus as the main entry point of goods for Southern, Eastern and Central Europe. The port currently partly belongs to a Chinese state owned enterprise, COSCO. COSCO's concession to the operation of two piers in the port resulted in investments that increased the throughput of containers growing five-folds between 2009 and 2013, with a 230 million euro investment in further enlargement after 2013. Greater intake capacity, shorter handling time and lower costs in that port all contribute to the fall in trade costs. With strengthening the port's inland railway links to the national railway system, the traded goods move on into the European market through land. (Van der Putten and Meijnders, 2015) At the same time in December, 2014 a Memorandum of Understanding (MOU) was signed on the modernization of the Budapest-Belgrade railroad, which would fit into the connection of the port of Pireaus to Budapest through Macedonia and Serbia. The Chinese side was going to make an offer on preferential credits up to 85% of the total investment of US\$

2.89 billion. 334 km railway is going to be modernized of the total 374 km. This would enable trains to a maximum 160km/h speed, which could reduce traveling time from eight to two and a half hours. The constructions were aimed to be finished by 2017, but soon the EU intended to investigate this case as a potential infringement of EU regulations on public tenders. (Hungarian Telegraphic Office, 2014; Shepard, 2017) Even though only Hungary is a member of the EU, and so subjected to EU law, each participant suffers the consequences of delayed implementation. Apart from starting a flagship project based on good political relations, a fear from marginalisation drove Serbia and Hungary towards the BRI aims and made their contribution towards building new infrastructure projects.

The project ticks all the brackets for headlines and debates¹³ about Chinese strategies. It is a railway line meant to connect Asia and Europe, located in a landlocked area, built by Chinese contractors and paid by Chinese loan, it's a flagship project born from political relations and can be viewed as Chinese encroachment into the Western sphere of influence. From the Chinese perspective, this line represents the seamless implementation of their BRI strategy. If it were not for the strategic nature of BRI, this project would have never happened.

In reality, the upgrade of an existing train line that goes 160 km/h through the Pannonian Plain would not even impress the citizens of a Tier-3 city in China, let alone promoted by national leaders. The 160 km/h speed is acceptable, if the train track is 1,800 km long and is located at more than 5,000 metres above sea level, which is the case for the Lhasa-Chengdu railway line aimed to be finished by 2030. (The Economist, 2021) The Chinese psyche, accustomed to such levels of spectacles from its infrastructure industry would not consider anything less worthy of attention.

Lodz - BRI in action without the spectacles of Chinese investments

Compared to the Budapest-Belgrade Railway project the name of the Polish city, Lodz is mostly unknown even to those who follow the mainstream discussions on the BRI, or China – CEE relations, but is well known to everyone involved in the transcontinental

¹³ Opponents of the project emphasized the low return-per-investment ratio, the classification of certain details of the project and alleged nepotism during the tendering (Investigate Europe, 2021)

railway logistics business. To quote the title of a media article; "If Poland is China's gate to Europe, Lodz is its heart". (Asia Times, 2021) As the BRI, in its very essence, intended to connect China to Europe on land by railway, most of the trains coming from China enter the EU in Lodz. This is the railway route that people actually frequently use for transporting freight. This city lies on the fastest direct freight route between China and the EU, which creates ample opportunity for local logistic companies. (CSEBA, 2018; TVP World, 2018) "The increasing demand for rail freight inevitably adds pressure to the already frequently congested main border crossing between Poland and Belarus." (Upply, 2021) As one of the few success stories of the BRI, in 2016 an estimated 27-40% of trains between China and Europe were loaded or unloaded in Lodz. (Kamiński, 2019 pp. 228) In spite of the lack of functionalist, cultural or rational base, inadequate financial resources and significant assymetries, the Lodzkie-Sichuan relations thrive on this cooperation. Kamiński explains how this relationship developed from the direct freight train between Lodz and Chengdu cities starting in 2013 at the initiative of a local Polish logistics company. This was further cultivated and capitalized by local politicians developing new business opportunities, academic cooperation, as well as formal regional political ties. The cooperation extended to the opening of a regional representative office in 2014 and contributed to selecting Chengdu as the location of the new Polish Consulate General in 2016. (Kamiński, 2019 pp. 236-38)

Even though there is so much scholarly, political and media attention paid to the Sino-Hungarian and Sino-Serbian relations and the Budapest-Belgrade Railway line, Poland might have higher levels of integration with China. This is reinforced by Zhang et al measuring the level of integration between China and the BRI member countries. (Zhang et al, 2022) Hungary plays a leading role in policy coordination connectivity among the BRI participant countries and is located at an overall 6th place in a joint index of policy coordination, infrastructure connectivity, trade, finances, and people-to-people ties. Surprisingly, Poland occupies the 5th place ahead of Hungary.

CONCLUSION

This paper aimed to answer the following question. What are China's strategic considerations for infrastructure building in the Central and Eastern European region?

The findings of this paper are twofold. First, accomplishing general foreign policy goals such as building the "BRI", cultivate friendly relations through "win-win cooperation" are visible during political summits in the CEE region, but might not coincide with the core-interest of China. The CEE is only interesting to the point of providing trade routes to Western Europe. Second, the occupation of the overcapacity in the Chinese infrastructure industry by securing projects through political support and preferential bank loans is not going to go far in the CEE. Even though Chinese companies have the necessary capabilities to cater for the technological requirement of the CEE, the countries there are much more stringent on infrastructure spending, since unlike the Chinese government, that money will not come back to them from the SOEs. Thus, they can use Chinese companies sporadically in a few selected projects. Due to the low demand from the CEE region, projects here will not have meaningful effect on the Chinese infrastructure industry and will not compel the Chinese industry players to develop a region specific strategy.

The CEE region consists of 16 countries and it matters immensely whether BRI projects will go through the region in a few countries, in either the north or the south, or it spreads along the whole region building comprehensive networks of trade. So far, there is not much evidence for China being interested in infrastructure development of this region beyond the extent of building connections between China and Western Europe.

Apart from finishing the BRI routes, it is expected from China to lean back to its standard operating procedure developed for unfamiliar challenges by "crossing the river by touching the stones". In the case of the CEE region, they set up regular communication channels with the region and look for opportunities coming from the member states.

The question follows; do these points show any sign of CEE region specific strategy? Not really, the CEE infrastructure projects do not show unique attributes neither in their implementation, nor in their general aim. Projects here are not serving

independent CEE regional goals but are part of the larger BRI strategy. Finally, with a relative low number of projects the CEE does not reach a level of engagement that justifies for a strategic title. This leads us to the conclusion that there is no distinctive or visible strategy followed through on Chinese infrastructure building in the Central and Eastern European region. It is not due to the lack of capabilities from the Chinese side, but the absence of incentives to engage the region. Hence, contemplating what China's country specific strategy would be for each member state within the 16+1 cooperation loses all meaning.

Bibliography

1.

- Andrić, J. M.; Wang, J.; Zou, X.; Zhang, J.; Zhong, R. (2019): Fuzzy Logic–Based Method for Risk Assessment of Belt and Road Infrastructure Projects. Journal of Construction Engineering and Management 145(12):04019082
- Bai, C.; Qian, Y. (2010): Infrastructure development in China: The cases of electricity, highways, and railways, Journal of Comparative Economics, Elsevier, vol. 38(1), pages 34-51, March.
- Bayane, M.B.; Yanjun, Q. (2017): Transport infrastructure development in China. Journal of Sustainable Development of Transport and Logistics, 2(1), 29-39. doi:10.14254/jsdtl.2017.2-1.3.
- Bhattacharyay, B. N.; Kawai, M.; Nag, R. M. (2012): Infrastructure for Asian Connectivity. Asian Development Bank Institute and Asian Development Bank. http://hdl.handle.net/11540/126. License: CC BY-NC-ND 3.0 IGO.
- Brooks, D.; Stone S. F. (2010): Trade Facilitation and Regional Cooperation in Asia. Cheltenham, UK ; Northampton, MA: Cheltenham, UK ; Northampton, MA : Edward Elgar, Print.
- Brugier, C. (2014): China's way: the new Silk Road. Brief No14, European Union Institute for Security Studies
- Callaghan, M.; Hubbard P. (2016): The Asian Infrastructure Investment Bank: Multilateralism on the Silk Road. China Economic Journal: 1-24. Print.
- Castrillón-Kerrigan D. (2022): China-CEE Relations in a New Era: The Drivers behind the Development of the Platform for Regional Cooperation 16+1 Revista CS. 63-84. 10.18046/recs.i37.5227.
- Chai, W.; Chai, M. (2013): The Meaning of Xi Jinping's Chinese Dream. American Journal of Chinese Studies, 20(2), 95–97.
- Dunning, J. H. (1988): The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions. Journal of International Business Studies, 19(1), 1-31. EBSCOhost. http://dx.doi.org/10.1057/palgrave.jibs.8490372
- Furlong, K. (2022): Geographies of Infrastructure III: Infrastructure with Chinese Characteristics. Progress in Human Geography 46, no. 3: 915– 25. <u>https://doi.org/10.1177/03091325211033652</u>.
- Gerstl, A. (2018): China's New Silk Roads. Categorising and Grouping the World: Beijing's 16+1+X EuropeanFormula. Vienna Journal of East Asian Studies, 10, pp. 31–58. https://doi.org/10.2478/vjeas-2018-0002

- Grübler, J.; Bykova A.; Ghodsi M.; Hanzl-Weiss, D.; Holzner, M.; Hunya, G.; Stehrer, R. (2018): Economic Policy Implications of the Belt and Road Initiative for CESEE and Austria. wiiw, Policy Notes and Reports 23, Wien.
- Kamiński, T. (2019): What are the factors behind the successful EU-China cooperation on the subnational level? Case study of the Lodzkie region. Asia Europe Journal, 17(2), 227–242. https://doi.org/10.1007/s10308-018-00532-0
- Kowalski, B. (2017): China's foreign policy towards Central and Eastern Europe: The "16+1" format in the South–South cooperation perspective. Cases of the Czech Republic and Hungary, Cambridge Journal of Eurasian Studies, April 2017. 1: #7R65ZH
- Krauthammer, C. (1990): The Unipolar Moment, Foreign Affairs, Vol. 70, No. 1 (1990/1991)
- Li Y.; He Z. (2022): The Remaking of China–EUrope Relations in the New Era of US–China Antagonism. Journal of Chinese Political Science (2022)27:439–455
- Maldini, P. (2007): Introduction. In Maldini, P., & Vidović, D. (eds.), Transition in Central and Eastern European countries: Experiences and future perspectives (pp. 7– 16). Zagreb: Political Science Research Centre.
- Mariani, B. (2013): China's role and interests in Central Asia. Saferworld, October. Print.
- Matura T. (2021): Chinese Investment in Central and Eastern Europe A reality check; CEECAS Report
- Newell, G.; Chau, K.W.; Wong, S. K. (2009): The significance and performance of infrastructure in China. Journal of Property Investment & Finance, 27(2), 180-202.
- Obydenkova, A. (2011): Comparative Regionalism: Eurasian Cooperation and European Integration. The Case for Neofunctionalism? Journal of Eurasian Studies 2.2: 87-102. Print.
- Ong, A. (2011): Hyperbuilding: Spectacle, Speculation, and the Hyperspace of Sovereignty. In A. Roy & A. Ong (Eds.), Worlding Cities (pp. 205–226). Wiley-Blackwell.
- Parepa, L. A. (2020): The Belt and Road Initiative as continuity in Chinese foreign policy, Journal of Contemporary East Asia Studies, 9:2, 175-201, DOI: <u>10.1080/24761028.2020.1848370</u>
- Pomfret, R.; Sourdin, P. (2014): Global Value-Chains and Connectivity in Developing Asia with application to the Central and West Asia region. ADB Working Paper Series on Regional Economic Integration, No. 142, November. Print
- Ren, X. (2016): China as an Institution- Builder: The Case of the AIIB. The Pacific Review: 1-8. Print.
- Shambaugh D. (2004): China and Europe: The Emerging Axis. University of California Press, Current History Vol. 103, No. 674, China and East Asia (SEPTEMBER 2004), pp. 243-248

- Shambaugh D.; Sandschneider. E.; Hong Z. (2007): China-Europe Relations: Perceptions, Policies and Prospects. Routledge
- Shi, Y.; Guo, S; Sun, P. (2017): The Role of Infrastructure in China's Regional Economic Growth. Journal of Asian Economics <u>http://dx.doi.org/10.1016/j.asieco.2017.02.004</u>
- Shi H.; You Z.; Feng Z.; Yang, Y. (2019): Numerical Simulation and Spatial Distribution of Transportation Accessibility in the Regions Involved in the Belt and Road Initiative, Sustainability, MDPI, vol. 11(22), pages 1-14, November.
- Turk Z. (2014): Central and Eastern Europe in Transition: An Unfinished Process? European View (2014) 13:199–208
- Yu, N.; De Jong, M.; Storm, S.; Mi, J. (2012): The Growth Impact of Transport Infrastructure Investment: A Regional Analysis for China (1978-2008). Policy and Society, 31, 25-38. https://doi.org/10.1016/j.polsoc.2012.01.004
- Vandenberg, P.; Kikkawa, K. (2015): Global Value Chains along the New Silk Road. ADBInstitute policy brief, No. 2015-2(May) Print.
- Van der Putten, Frans-Paul and Meijnders, Minke. China, Europe and the Maritime Silk Road. Clingendael report, March 2015
- Zhang D. (2018): The Concept of 'Community of Common Destiny' in China's Diplomacy: Meaning, Motives and Implications. Asia & the Pacific Policy Studies, vol. 5, no. 2, pp. 196–207 doi: 10.1002/app5.231
- Zhang L.; Jiang C.; Cai X.; Sun H.; He X. (2022): Evaluation and prediction of the connect index between the Belt and Road countries and China based on the DANP method[J]. Mathematical Biosciences and Engineering, 19(8): 8187-8214. doi: 10.3934/mbe.2022382
- Zheng B. 2005 China's "Peaceful Rise" to Great-Power Status Council on Foreign Relations, Foreign Affairs, Sep. Oct., 2005, Vol. 84, No. 5 (Sep. Oct., 2005), pp. 18-24
- Zheng, Y.; Tok, S. K. (2007): Harmonious society and harmonious world: China's policy discourse under Hu Jintao. Briefing Series, 26

2.

- Asia Times. "If Poland is China's gate to Europe, Lodz is its heart" Asia Times, July 2021 retrieved from: <u>https://asiatimes.com/2021/07/if-poland-is-chinas-gate-to-europe-lodz-is-its-heart/</u>
- Bloomberg. China Is on Track to Double Its Solar Panels From Last Year's Record; Bloomberg News, May 2022, retrieved from: <u>https://www.bloomberg.com/news/articles/2022-05-30/china-set-to-double-last-year-s-record-solar-panel-installations</u>

CarbonBrief. Why China is set to significantly overachieve its 2030 climate goals; CarbonBrief, May 2022, retrieved from: <u>https://www.carbonbrief.org/guest-post-why-china-is-set-to-significantly-overachieve-its-2030-climate-</u>

goals/#:~:text=China's%20international%20climate%20pledge%20(its,in%202030%20from%202005%20levels.

Chongqing Transport Bureau, Practicing new ideas and planning new development, January 2020, retrieved from: https://jtj.cq.gov.cn/sy 240/bmdt/202001/t20200102 5987990.html

CSEBA "Lodz benefits from China-Poland rail cargo connection" CSEBA. September 2018, retrieved from: <u>http://www.cseba.eu/news/lodz-benefits-from-china-poland-rail-cargo-connection/226/</u>

Cooperation between China and Central and Eastern European countries webpage, retrieved from: <u>http://www.china-ceec.org/eng/; http://www.china-</u> <u>ceec.org/eng/zyxw 4/202202/t20220209 10640454.htm</u>; <u>http://www.china-</u> <u>ceec.org/eng/ldrhw_1/2012hs/hdxw/201610/t20161020_6828798.htm</u>; <u>/https://www.fmprc.gov.cn/mfa_eng/wjdt_665385/2649_665393/201511/t20151124_67_9424.html</u>

The Economist. "What Is China's Belt and Road Initiative?" The Economist Newspaper, 14 May 2017.

The Economist. "China will soon open a new stretch of rail across Tibet" The Economist Newspaper, June 2021. retrieved from: <u>https://www.economist.com/china/2021/06/03/china-will-soon-open-a-new-stretch-of-rail-across-tibet</u>

- European Commission. (2019): "EU-China A strategic outlook" Joint Communication, retrieved from: <u>https://ec.europa.eu/info/sites/default/files/communication-eu-china-a-strategicoutlook.pdf</u>
- Forbes. Shepard, Wade. "Another Silk Road Fiasco? China's Belgrade To Budapest High-Speed Rail Line Is Probed By Brussels." Forbes. Forbes Magazine, 27 Feb. 2017. Web. 17 July 2017.
- Human Development Report (2020): The Next Frontier: Human Development and the Anthropocene. Briefing note for countries on the 2020 Human Development. Report China, retrieved from: <u>https://hdr.undp.org/sites/default/files/Country-Profiles/CHN.pdf</u>
- Hungarian Telegraphic Office. "Elérkeztünk Az EU-Kína Együttműködés Legfontosabb Pillanatához." Kormányzat. Magyar Távirati Iroda (Hungarian Telegraphic Office), 17 Dec. 2014.
- Investigate Europe. (2021): From Budapest to Belgrade: a railway line increases Chinese influence in the Balkans, Investigate Europe, retrieved from: <u>https://www.investigate-europe.eu/en/2021/from-budapest-to-belgrade-a-railway-line-increases-chinese-influence-in-the-balkans/</u>

- 32 -

RICS World Built Environment Forum Webpage, retrieved from: <u>https://www.rics.org/eu/wbef/megatrends/markets-geopolitics/case-study-how-does-china-pay-for-her-infrastructure--an-introduction/</u>

- State Council, PRC. China's transportation development turns country into 'strong power', The State Council Information Office of the People's Republic of China, May 2021, retrieved from: http://english.www.gov.cn/news/topnews/202105/31/content WS60b4c7c7c6d0df57f98 da7c0.html
- State Council, PRC. Sustainable Development of Transport in China, The State Council Information Office of the People's Republic of China, Dec. 2020, retrieved from: <u>http://www.scio.gov.cn/zfbps/32832/Document/1695320/1695320.htm</u>.
- Shaanxi government webpage, retrieved from: http://en.shaanxi.gov.cn/as/hac/ch/201704/t20170427_1595074.html
- TVP World "China-Poland freight trains boost economic development in Łódź" TVP World. August 2018, retrieved from: <u>https://tvpworld.com/38677429/chinapoland-freight-trains-boost-economic-development-in-lodz</u>
- UC Press Blog: David M. Lampton (2021) Is Big Infrastructure in China's DNA?, retrieved from: https://www.ucpress.edu/blog/54909/is-big-infrastructure-in-chinasdna/#:~:text=In%20our%20team's%20research%2C%20we,tide%20of%20PRC%20engin eering%20and
- Upply "China-Europe Rail Freight: Review of the First Semester of 2021" Upply. September 2021, retrieved from: <u>https://market-insights.upply.com/en/china-europe-rail-freight-review-of-the-first-semester-of-2021</u>

World Bank Group. (2022): Four Decades Of Poverty Reduction In China: Drivers, Insights For The World, And The Way Ahead, retrieved from: <u>https://thedocs.worldbank.org/en/doc/bdadc16a4f5c1c88a839c0f905cde802-</u> 0070012022/original/Poverty-Synthesis-Report-final.pdf