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CHINA'S PERCEPTION IN THE VISEGRAD COUNTRIES IN THE LIGHT OF TECHNOLOGICAL COMPETITION BETWEEN THE US AND CHINA

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This paper is divided into three sections. The first section looks at the technology indicators and overall economic performance of the Visegrad countries and places their performance in a European and global perspective. The next part examines the results of economic cooperation with China with a special focus on technology transfer and policies related to technology transfer from China. The third section broadens the view and contextualizes the country-specific results when it comes to Chinese cooperation and seeks to draw conclusions regarding the role of China in the catching-up process of these countries.

Keywords: China, US, Visegrad-Four, EU, tech competition, geopolitics.

JEL Classifications: O52, O53, O57, F17, N57, O14, O33, O38

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1. Introduction

Economic opportunities and geopolitical imperatives collide in the Visegrad countries' policies towards China; this clash of interests is evident when it comes to their interpretations of China's role in their technological catch-up process. To varying degrees, the Central European countries can be characterized by a lack of capital and the need for technology transfer. Although substantial funds are available from the EU budget¹, both R&D spending and other indicators of technological development in these countries lag the EU average. Therefore, the need for technology transfer is not a novelty in the region Central European, rather, looking back in history, it is one of the most enduring features of the region's economic development over centuries.

The reason why these countries seemed to cooperate enthusiastically with China after Global Financial Crisis (2008-2009) can be explained by the asymmetric nature of their economic relations with Western European countries and the US. Theoretically, China offers diversification of tech-

nology transfer channels as it has been a rising technology power in the last two decades. Although at this point it should be inserted that the media image of China in this area is somehow misleading, as the country only does better than the US in certain areas (5G technology, artificial intelligence) and obviously has better indicators when it comes to the size of the market.²

The Belt and Road Initiative (launched in 2013) and the 17+1 cooperation framework (established in 2012) implied greater cooperation with Central European countries in this area. At the same time, we can mention three main reasons why this cooperation had a different outcome for the members of the Visegrad Group (Poland, the Czech Republic, Slovakia and Hungary).

- First, fault lines emerged in the Visegrad Group over China's policy when geopolitical tensions between China and the US became more intense and required a reorientation of foreign policy in the Visegrad countries. We can add that the global pandemic in 2020 and 2021 exacerbated the already

¹ The EU's budget official name is multiannual financial framework, the recent budget¹ started in 2021 and finishes in 2026.

² Csaba Moldicz, *China, the USA, and Technological Supremacy in Europe (Rethinking Asia and International Relations)* 1st Edition, Routledge.

existing geopolitical tensions in the Visegrad countries, which reacted differently to the changing environment.

- Second, economic cooperation with China led to growing trade imbalances in Poland, the Czech Republic, while Hungary was able to contain the trade deficit and attracted significantly more investment from China than other Visegrad countries. Although it would be simplistic to explain foreign policy orientations in terms of economic data, we cannot but point out their relevance for policy making.

- Third, the US, which wants to forge a global alliance against China, is better off in Poland, where it can easily appeal to Polish concerns about a more assertive Russia and offer military protection in the context of NATO, while the foreign policy interpretation of Russia in Hungary is much less negative. In this environment, Poland is easily persuaded to jump on the bandwagon and join the global coalition against China.

2. Economic and technology performance of Visegrad countries

The Czech Republic is an outlier in the group, as its relative performance in terms of GDP per capita is closest to the EU average. Czech GDP per capita (measured in purchasing power parity) was 94 percent of the EU-27 average, while Poland (76 percent), Hungary (74 percent) and Slovakia (71 percent) lagged. However, the outstanding performance of the Czech Republic could not be repeated in inno-

vation, where various indicators show performance in research, innovation and digitalization.

Gross domestic expenditure on research and development (R&D) is significantly lower in the Visegrad countries than in the Western part of the continent. In 2019, R&D spending as a percentage of GDP in Czech Republic was 1.94 percent, while the EU average was 2.19 percent. Performance was worse in other countries. (Hungary: 1.48%, Poland: 1.32%, Slovakia: 0.83%.) Neither the Digitisation Index nor the Innovation Scoreboard rankings - both indicators produced annually by European Commission - show the need for technological upgrading in these economies.

The catching up process of these countries since joining European Union has been largely based on imported knowledge, technology and capital. Most of these imported "goods" came from Germany after the economic and political transformation of these countries in the 1990s. While these countries benefited from this process on the one hand, it brought them into an increasingly asymmetric dependence on Germany and other Western investors. Myant summarizes this way:

"The kind of capitalism that has been established in CEECs, it is argued above, can reasonably be characterised as dependent. Key domestic actors have proved incapable of providing economic dynamism, leaving that role to incoming MNCs for which CEECs are but a small part of global operations. Without a substantial change from the estab-

Table 1: Basic innovation indicators of Visegrad Four Countries

| | Research and development expenditure in terms of GDP (2019, %) ³ | Digital Economy and Society Index ranking ⁴ | Innovation Scoreboard 2020 ranking ⁵ |
|----------------|---|--|---|
| EU-27 | 2.19 | - | - |
| Czech Republic | 1.94 | 17 | 16 |
| Hungary | 1.48 | 21 | 22 |
| Poland | 1.32 | 23 | 24 |
| Slovakia | 0.83 | 22 | 21 |

³ Eurostat database;

⁴ European Commission, *The Digital Economy and Society Index (DESI)*. Retrieved from: <https://ec.europa.eu/digital-single-market/en/digital-economy-and-society-index-desi>

⁵ European Commission, *European Innovation Scoreboard 2020*. Retrieved from: https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en

*lished variety of capitalism, economic prospects for the foreseeable future will depend on how these MNCs choose to use their CEEC operations.”*⁶

The opportunity to cooperate with China came at the right time for the Visegrad countries: disappointment with the EU, weaker growth impulses from the West, and a growing awareness of asymmetrical dependence on the West coincided with the rise of China, whose initiatives promoted economic and technological cooperation with China.

3. Economy and technology cooperation with China

Trade with China has been growing in the region over the last two decades, however just a glance at trade data shows that the China relationship is far from being the most important, and at the same time trade with China is unbalanced. Table 2 shows that, except for Hungary, trade deficits with China are huge and even growing when looking at long-term data. In 2019, Poland has a trade deficit with China accounting for 2.7 billion USD while its overall trade surplus was 5.2 billion USD. This comparison tells us why Poland is more cautious with deepening China trade. At the same time, we must add that these data are somewhat misleading as they don't report much of the Chinese goods are re-exported to other EU member states.

Looking at Chinese FDI in the region, Hungary

seems to be much more successful than other Visegrad countries. The table shows the actual size of Chinese FDI and its importance in terms of GDP. However, what we cannot see from the table is that the combined FDI value is insignificant to the attractiveness of the Western European countries. Germany alone attracted USD 48 billion between 2005 and 2020, while the Visegrad countries had an FDI stock of USD 9.12 billion at the end of 2020.

Technological cooperation seems to be a particularly sensitive issue, as the new Biden administration sees certain areas such as 5G networks, gears, and artificial intelligence (AI) as strategically important to the geopolitical contest with China and discourages its regional allies from using critical Chinese technology. The irony of the situation is that if there is one area where the Visegrad countries could benefit significantly from relations with China, it is 5G and AI.

In support of the so-called Prague proposals⁸, Poland signed a joint declaration with the US on cybersecurity in September 2019,⁹ Czech Republic is among the early skeptics of 5G cooperation with China, but the joint declaration on 5G was not signed until May 2020.¹⁰ Slovakia also signed this declaration with the US in October 2020.¹¹ However, this does not mean that Huawei would be completely ousted from the region. The core of the

Table 2: Merchandise trade with China in 1999 and 2019 (% , Billion USD)

| Year | Export to China (%) | | Export to China (1999, Billion USD) | | Import from China (%) | | Import from China (Billion USD) | |
|----------------|---------------------|------|-------------------------------------|------|-----------------------|------|---------------------------------|------|
| | 1999 | 2019 | 1999 | 2019 | 1999 | 2019 | 1999 | 2019 |
| Hungary | 0.28 | 1.36 | 0.07 | 1.6 | 2.18 | 6.1 | 0.61 | 7.1 |
| Czech Republic | 0.21 | 1.24 | 0.06 | 2.5 | 1.96 | 15.8 | 0.56 | 28.3 |
| Poland | 0.49 | 1.0 | 0.1 | 2.7 | 2.66 | 12.3 | 1.2 | 30.4 |
| Slovakia | 0.06 | 2.1 | 0.006 | 1.9 | 1.28 | 6.4 | 0.14 | 5.8 |

Source: World Bank WITS database

⁶ Martin Myant, *The Limits to Dependent Growth in East-Central Europe*, October 2018, *Revue de la Régulation*, p. 24.

⁷ China Global Investment Tracker compiled by the American Enterprise Institute uses a different approach to collect data on Chinese FDI in Europe and other regions. The AEI traces the investment back to the owner and do not include returns to China, these combined annual values of transactions are usually much higher than the data sets with the BOP approach.

⁸ The Prague Proposals are basically a collection of recommendations announced at the Prague 5G Security Conference in 2019. The thirty-two countries participating included the Visegrad countries too.

⁹ Donald J. Trump, Press Release - U.S.-Poland Joint Declaration on 5G Online by Gerhard Peters and John T. Woolley, The American Presidency Project. Retrieved from: <https://www.presidency.ucsb.edu/node/333992>

Table 3: Chinese FDI as % of GDP, ranking based on the relative size of Chinese FDI to GDP

| | Chinese FDI stock between 2005 and 2020 (Billion \$) | GDP (Billion \$, 2020) | Chinese FDI as of GDP (%) |
|----------------|--|------------------------|---------------------------|
| Hungary | 5.88 | 155 | 3.79 |
| Czech Republic | 0.96 | 241 | 0.40 |
| Poland | 2.28 | 594 | 0.38 |

Source: own calculation based on World Bank data and American Enterprise Institute's dataset "The China Global Investment Tracker"⁷ The data set was updated in early 2020.

joint declarations is the assessment of:

"1) Whether the supplier is subject, without independent judicial review, to control by a foreign government; 2) Whether the supplier has a transparent ownership structure; and 3) Whether the supplier has a record of ethical corporate behavior and is subject to a legal regime that enforces transparent corporate practices."¹²

Hungary is the only country in the group that has not signed this cooperation, ruling out cooperation with China in this area. Moreover, Huawei is one of the main Chinese investors in Hungary, and the company established its European logistics and production center in Hungary in 2005. Over a period of more than 15 years, the company has invested around USD 1.2 billion in Hungary, employs 2,000 people, and cooperates with around 600 Hungarian companies. The company estimates that the economic impact of Huawei's investment in Hungary is 0.39 percent of GDP.

Obviously, there are many layers to this story that have implications for technological cooperation with China, but they can only be briefly touched upon here:

- FDI screening. Although regulation of 5G and AI is the responsibility of member states, an EU guidance is crucial. The result of EU activities was the publication of the so-called 5G toolbox.¹³ In addition to the document's main conclusion that adequate progress has been made in strengthening the powers of national authorities, the report highlights the importance of FDI screening. The Czech Republic¹⁴ and Slovakia¹⁵ introduced a new foreign investment screening system in February and March 2021, respectively. Poland¹⁶ did the same in July 2020, while Hungary adopted its own version of the FDI screening law as early as 2019. All the legislative changes reflect a changed economic environment, in sharp contrast to the pre-crisis period (2008-2009), which was friendlier to foreign investment. Concerns are raised about so-called critical investments.

- BRI and 17+1 cooperation. Both initiatives contain elements and references to cooperation in technology transfer, see the term "Digital Silk Road", however not too much has been achieved in these years. Digital cooperation between China and the Visegrad four countries is, if at all, bilateral.

¹⁰ Reuters, Czechs sign joint 5G security declaration with United States. May 6, 2020. Retrieved from:

¹¹ United States – Slovak Republic Joint Declaration on 5G Security. Media Note, Office of the Spokesperson, October 23, 2020.

¹² See endnote 8.

¹³ European Commission, Cybersecurity of 5G networks. EU Toolbox of risk mitigating measures. 2020. Retrieved from: <https://ec.europa.eu/digital-single-market/en/news/cybersecurity-5g-networks-eu-toolbox-risk-mitigating-measures>

¹⁴ Baker Mackenzie, Czech Republic introduces new foreign investment screening regime. 2021. Retrieved from: <https://foreigninvestment.bakermckenzie.com/2021/03/03/czech-republic-introduces-new-foreign-investment-screening-regime/>

¹⁵ Baker Mackenzie, Slovakia introduces new foreign investment screening regime. 2021. Retrieved from: <https://foreigninvestment.bakermckenzie.com/2021/04/13/slovakia-introduces-new-foreign-investment-screening-regime/>

¹⁶ Arkadiusz Rumiński & Łukasz Karpiesiuk & Iwona Domańska, New Foreign Direct Investment screening rules in Poland, 2020. Retrieved from: <https://ssw.solutions/en/new-foreign-direct-investment-screening-rules-in-poland/>

4. Balancing and hedging – foreign policy strategies

Hungary seems to be the outlier in the Visegrad countries' China policy at the moment. The sharpest contrast between foreign policy towards China can be seen in the case of Hungary and the Czech Republic. For this reason, we take a look at these two countries and draw a comparison in this context. In this context, the question arises how the difference emerged.

The reason behind the difference is that the Czech Republic has almost average development in the EU, while Hungary, despite the significant steps it has taken in recent years, still has to do its homework, and the need to catch up is more urgent in Hungary's case. In other words, foreign policy is less motivated by the immediate development needs of the economy Czech Republic and the price the country would pay for deeper cooperation with China seems too high, especially considering the international environment and the growing tensions between the US and China. At this point, it should be added that the Czech view carries two major risks: (a) the catching-up process seems to be completed, but it still relies on asymmetric trade and investment relations; (b) relations with China are easily damaged by inappropriate policies, but it takes a considerable period of time to repair them. The possibility of a change of course in foreign policy can never be ruled out, but the price offered by Americans for an anti-China foreign policy seems low, as American direct investment would flow into the country even if the Czech Republic adopts a more China-friendly tone, as the case of Hungary shows. And military and security threats also appear to be extremely low.

In characterizing the two foreign policies, one must resort to the foreign policy terms bandwagoning, balancing, and hedging. The spectrum of states' behavior is usually classified between "bandwagoning" and "balancing," where "balancing" means using political, economic, and military means to try to prevent a rising power from becoming a hegemon, and "bandwagoning" means entering into

an alliance with the rising power. Somewhere in between is the concept of hedging, a mix of cooperative and confrontational elements.¹⁷ Placing the two countries on this spectrum reveals clear differences. The Czech Republic is very sure which side it is on and pursues a balancing strategy towards China and a strategy of bandwagoning towards the US, while Hungary is close to hedging in both cases (See Table 4).

Hungary – which pursues a classic balance-of-power strategy – can also be described as a "swing state". The term "global swing state" became more popular in the early 2010s, when essentially four emerging countries were characterized in this way. Fontaine and Kliman formulate this:

*"These four rising democracies might be termed 'global swing states.' In the American political context, swing states are those whose mixed political orientation gives them a greater impact than their population or economic output might warrant. This applies to Brazil, India, Indonesia, and Turkey"*¹⁸

In the case of Hungary, this term simply means that the country is balancing between the two superpowers. And it is quite clear that the country cannot be placed in the group of Brazil, India, Indonesia, and Turkey, but the worldwide media attention that Hungarian foreign policy moves receive shows that Hungarian foreign policy has a greater influence than its population and economic power would suggest.

To sum up, we can conclude that Hungary will adopt an "open for business" attitude towards investment and technology transfers from China, which is in line with the country's economic interests, while other Visegrad countries will pursue a strategy more influenced by American and German geopolitical interests. Hungary's attitude towards other Asian nations is the same as we can see in the case of China because it is mainly motivated by diversification efforts rather than geopolitical considerations. Obviously, cooperation with China in the automotive industry is the next logical step. In this case, Korean and Chinese investors can com-

¹⁷ John D Ciorciari, Jürgen Haacke, *Hedging in international relations: an introduction. International Relations of the Asia-Pacific, Volume 19, Issue 3, September 2019, Pages 367–374.*

¹⁸ Richard Fontaine & Daniel M. Kliman (2013). *International Order and Global Swing States. Center for Strategic and International Studies. The Washington Quarterly 36:1 pp. 93-109.* Retrieved from: https://csis-website-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/TWQ_13Winter_FontaineKliman.pdf

Table 4: Foreign policy strategies of the Czech Republic and Hungary

| The chosen strategy | Czech Republic | Hungary |
|-----------------------------|----------------|----------------------------------|
| vis-à-vis China | Balancing | Hedging (closer to bandwagoning) |
| vis-à-vis the United States | Bandwagoning | Hedging |

Source: own compilation

plement each other's investments in Hungary and in certain cases compete with each other.

5 Conclusions

The Visegrad countries have very similar motivations to cooperate with China, but the slight differences in economic development and geostrategic location lead to very different outcomes in their China policies. With the exception of Hungary, the Visegrad countries seem to adopt a hawkish stance on China and take their cue from the US in China affairs. At the same time, all four countries were enthusiastic about the economic opportunities of cooperation with China. Kavalski explains this turnaround in policy with four different reasons: unfulfilled promises of China, the pressure of the US and the EU, the negative perception of the protests Hong Kong and the internal fatigue caused by the expansive project of the BRI and the 17+1 cooperation in China.¹⁹

We could also see that Hungary's policy towards China in general and 5G security is much friendlier than Polish, Czech and Slovak stance towards China, at the same time Hungary's position in trade is more balanced, the country also benefits more from Chinese FDI, but this is only one reason for a different policy in Hungary.

The other reason is more complex but helps to understand the possible outcome of competition. The US and China have very different approaches to economic development. Chinese interventions, particularly direct or indirect steering of Chinese business investment and technological cooperation, make good political relations between China and the country in question more important to the outcome of economic cooperation, while U.S. foreign policy does not directly influence these business decisions, so ironically Hungary can afford a hedging strategy against both China and the

United States. The realization that Hungary can have the best of both worlds has been incorporated into Hungarian foreign policy and has put the Hungarian economy in a happy position in the long run. ♦

Summary

Bài báo được chia thành ba phần. Phần đầu xem xét những chỉ báo công nghệ và hiệu quả kinh tế tổng thể của các quốc gia Visegrad và đánh giá hiệu quả đó trong bối cảnh Châu Âu và toàn cầu. Phần tiếp theo nghiên cứu kết quả hợp tác kinh tế với Trung Quốc với trọng điểm là chuyển giao công nghệ và các chính sách liên quan đến chuyển giao công nghệ từ Trung Quốc. Phần ba phát triển quan điểm này và bối cảnh hoá kết quả của từng quốc gia trong hợp tác với Trung Quốc và đưa ra kết luận về vai trò của Trung Quốc trong quá trình bắt kịp công nghệ của các quốc gia này.

¹⁹ Emilian, Kavalski, *How China lost Central and Eastern Europe. The Conversation*, 2020. Retrieved from: <https://the-conversation.com/how-china-lost-central-and-eastern-europe-142416>