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The long shadow of the Great Wall. Trade dependencies of V4's countries on China

Długi cień Chińskiego Muru. Zależności handlowe państw V4 od Chin

Abstract: This paper delves into the topic of trade interdependencies, which represent a crucial aspect of economic security policy. The increasing influence of China, coupled with its aspirations for global dominance, in addition to the challenge posed to the established liberal world order and the distribution of power, prompts us to explore the feasibility of utilising existing relationships as a means of economic coercion. Therefore, the research methodology employed in this study integrates complexities inherent in the realm of international political economy of trade and international economics. The study focuses on the trade relations of the Visegrád Group, drawing on data from the OECD, the International Trade Centre, and Eurostat, with a specific emphasis on trade in value added and gross trade, while examining the repercussions of Chinese imports. The findings suggest a modest yet rising dependence of V4 economies on China, particularly evident in the machinery, electrical, and electronics industries, which could potentially disrupt supply chains within the region and with Germany, their primary trade partner. This underscores the necessity for devising strategies at the European Union level and within the Visegrád Group to accurately pinpoint vulnerabilities and diversify existing trade ties.
Keywords: economic security, V4 economies, China, trade dependencies, derisking
Streszczenie: Artykuł odnosi się do kwestii zależności handlowych, które stanowią jeden z istotnych wymiarów polityki bezpieczeństwa ekonomicznego. Rosnąca rola Chin wraz z ich mocarstwowymi ambicjami, kontestacją liberalnego ładu międzynarodowego oraz układu sił każe zastanowić się nad ewentualnością wykorzystania istniejących powiązań jako ekonomicznego instrumentu nacisku. Tym samym zastosowane w rozważaniach podejście metodologiczne łączy refleksję charakterystyczną dla międzynarodowej ekonomii politycznej handlu i ekonomii międzynarodowej. Badanie obejmuje relacje handlowe państw Grupy Wyszehradzkiej na podstawie danych OECD, Międzynarodowego Centrum Handlu oraz Eurostatu w ujęciu handlu wartością dodaną oraz handlu brutto, koncentrując się na wpływie importu z Chin. Uzyskane wyniki wskazu-

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ją na umiarkowaną, lecz zarazem rosnącą zależność gospodarek V4 od Chin, zwłaszcza w sektorze maszynowym, elektrycznym i elektronicznym, co może stanowić potencjalny czynnik zakłócający funkcjonowanie sieci dostaw w regionie oraz z Niemcami, ich głównym partnerem handlowym. Oznacza to konieczność poszukiwania rozwiązań zarówno na poziomie Unii Europejskiej, jak i w ramach Grupy Wyszehradzkiej, które zmierzałyby do trafnej identyfikacji potencjalnej wrażliwości oraz dywersyfikacji istniejących powiązań handlowych.
Słowa kluczowe: bezpieczeństwo ekonomiczne, gospodarki V4, Chiny, zależności handlowe, de-risking

Introduction

Economic coercion instruments appear to be crucial for unlocking the potential for sustained economic growth, development, and maintaining the achieved standard of living. Recent experiences with strained supply chains originating from China have served as a wake-up call for policymakers and their analytical counterparts, shedding light on the issue of excessive reliance on suppliers from this particular region. Apart from China's ambitions for great power status, which will continue to give us migraines[1], the key task of identifying strategic interdependencies also stems from escalating global geopolitical tensions, as exemplified by the Russian aggression against Ukraine or the persistent turmoil in the Middle East.

Under these circumstances, there is a probability of utilising the intricate web of trade ties cultivated over the years as a potent tool for exerting pressure on the more vulnerable partner in this dynamic relationship known as the weaponisation of interdependencies[2]. Therefore, actions taken and proposed at the European Union level – for instance, the STEP initiative, the notion of strategic autonomy[3], and the proposition for establishing an intergovernmental body like the European Economic Security[4] – necessitate additional elucidation at the domestic level.

1 N.D. Kristof, *The Rise of China,* "Foreign Affairs" 1993, vol. 72, no. 5.
2 H. Farrell, A. Newman, *Weaponized Interdependence. How Global Economic Networks Shape State Coercion,* "International Security" 2019, vol. 44, no. 1. Cf. C.O. Fjäder, *Interdependence as dependence. Economic security in the age of global interconnectedness,* [in:] M. Wigell, S. Scholvin, M. Aaltola (eds.), *Geo-economics and Power Politics in the 21st Century. The Revival of Economic Statecraft*, London 2018.
3 Cf. M. Bauer, *The Impacts of EU Strategy Autonomy Policies – A Primer for Member States*, ECIPE Policy Brief 2022, no. 9.
4 Cf. M. Bauer, O. du Roy, V. Sharma, *A Forward Thinking to Open Strategic Autonomy. Navigating EU Trade Dependencies and Risk Mitigation*, ECIPE Policy Brief 2023, no. 13; G. Wolff, F. Steinberg,

Against this backdrop, the main aim of this research is to recognise crucial interrelations in the imports of commodities from Chinese suppliers by the Czech, Hungarian, Polish, and Slovak (V4 group). We analyse the extent and severity of dependencies and vulnerabilities to potential instances of economic coercion from China faced by the V4 countries.

1. Methodological background

From a methodological perspective, our research aligns with the critical approach at the intersection of two realms: the international political economy of trade and international economics. A notable shift in thinking has emerged, signalling the waning influence of the neoliberal framework of globalisation. This shift is characterised by a departure from the predominant discourse centred around complex trade liberalisation, particularly in downplaying the significance of non-tariff barriers to trade and promoting deeper economic integration. Over the years, the actions of multinational corporations (MNCs) have had a significant impact on these processes, as contemporary business actors possess considerable leverage in shaping policy decisions[5].

A normative bias towards trade liberalisation has been also observed in the discourse of elite economics[6]. Nevertheless, recent tensions in international relations and global value chains have cast doubts on the overly positive view of economic integration and the reduction of trade barriers established by standard economic theory. In the name of oversimplified market efficiency, entire supply chains of strategic goods – along with the industries and jobs that made them – have moved overseas[7]. This, in turn, has prompted geopolitical and

Dealing with Europe's economic (in-)security, "Global Policy" 2024, vol. 15; E. Letta, *Much more than a market – Speed, Security, Solidarity*, April 2024.

5 D. De Bièvre, E. van Ommeren, *Multilateralism, Bilateralism and Institutional Choice: The Political Economy of Regime Complexes in International Trade Policy*, "Global Policy" 2021, vol. 12(S4).

6 M. Aistleitner, S. Puehringer, *The Trade (Policy) Discourse in Top Economics Journals*, "New Political Economy" 2021, vol. 26, no. 5.

7 J. Sullivan, *Renewing American Economic Leadership*, https://www.whitehouse.gov/briefing-room/speeches-remarks/2023/04/27/remarks-by-national-security-advisor-jake-sullivan-on-renewing-american-economic-leadership-at-the-brookings-institution [28.04.2023].

geoeconomic reactions that contribute to additional tensions and adjustments in cooperation arrangements.

This specific observation also shares many similarities with the concept of extraterritorial use of structural power, which focuses on the manner in which a dominant actor may enforce its standards and generate influence beyond its domestic boundaries, particularly to elicit anticipated reactions from businesses and decision-makers[8]. Consequently, there has been a shift in economic policies, emphasising the significance of economic resilience and national security[9], and expanding the range of tools linked to the various forms of economic statecraft. As a result, there has been an increasing trend towards more proactive strategic planning addressing these concerns in both political and academic discussions.

Our primary contribution lies in presenting empirical evidence of the strategic interdependencies that currently exist between China and its industrial companies, which have experienced significant technological upgrades. We closely examine the trade relations of the V4 countries, aiming to highlight specific areas where collaborative efforts are essential both at the regional level and within the framework of the European Union. Of particular concern is Europe's susceptibility to external reliance, which catalyses sceptical liberalism[10] and prompts adjustments to economic strategies to safeguard its industries and enhance global competitiveness[11]. Moreover, this shift may result in modifications to trade regulations and industrial strategies within the EU[12]. Interestingly, this new phenomenon does

8 See more: A. Malkin, T. He, *The geoeconomics of global semiconductor value chains: extraterritoriality and the US-China technology rivalry*, "Review of International Political Economy" 2023, vol. 31, no. 2.

9 Cf. G. Rosén, S. Meunier, *Economic Security and the Politics of Trade and Investment Policy in Europe*, "Politics and Governance" 2023, vol. 11, no. 4.

10 C. Nissen, J. Dreyer, *From optimist to sceptical liberalism: reforging European Union foreign policy amid crises*, "International Affairs" 2024, vol. 100, no. 2.

11 Cf. European Commission, *On significant distortions in the economy of the People's Republic of China for the purposes of trade defence investigations*, SWD(2024) 91 final, Brussels.

12 Cf. M. Mazzucato, *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*, London 2013; A. Baur et al., *Rethinking Geoeconomics: Trade Policy Scenarios for Europe's Economy*, EconPol Policy Report, vol. 7, November 2023; S. Lavery, *Rebuilding the fortress? Europe in a changing world economy*, "Review of International Political Economy" 2023, vol. 31, no. 1; S. Evenett et al., *The Return of Industrial Policy*, WP/24/1, International Monetary Fund 2024.

not foreshadow a clash between a liberal world and an authoritarian one, but rather suggests a long-term convergence of the two[13].

In terms of the technical dimension of this study, three different approaches are employed to recognise dependencies on China. Our assessment relies on the data covering trade in value added and gross trade, sourced from the OECD[14], ITC[15], and Eurostat[16] databases. In the first step, we utilise data on trade in value added from the OECD, spanning from 2016 to 2020, while delineating specific indicators and linkages between the V4 economies with China. Next, we analyse data concerning imports from China, disaggregated at a 6-digit HS level by the ITC for the years 2016 to 2023. We assume that a significant dependence is likely to emerge when China's share in a particular product category surpasses 30% (3-year moving average). The selection of this threshold is based on the nature of the Herfindahl-Hirschmann index (HHI), which gauges the level of market concentration. Should the HHI value exceed 2,500, the concentration is deemed exceptionally high. Lastly, Eurostat data for the period from 2020 to 2023 are incorporated, along with the methodology of the European Commission[17], where critical dependencies are pinpointed by combining three sub-indicators:

- concentration of EU imports from extra-EU sources (HHI exceeding the threshold of 4,000),
- importance of extra-EU imports in total demand (the share of extra-EU imports in total EU imports exceeding 0.5),
- possible substitutability of extra-EU imports with EU production (the ratio between the extra-EU import value and the total EU export value exceeding 1.0).

With that being explained, limitations of the employed methodologies stem from our oversight of potential network impacts within the examination. Consequently, a potentially strong import reliance on China could also manifest indirectly in the resilience of the V4 econo-

13 See more: M. Leonard, *The Age of Unpeace. How Connectivity Causes Conflict*, London 2021.
14 https://stats.oecd.org/Index.aspx?DataSetCode=TIVA_2021_C1 [3.04.2024].
15 https://www.trademap.org [8.09.2024].
16 https://ec.europa.eu/eurostat/comext [3.04.2024].
17 European Commission, *Strategic dependencies and capacities,* SWD(2021) 352 final, Brussels. Cf. I. Mejean, P. Rousseaux, *Identifying European trade dependencies*, http://www.isabellemejean.com/MejeanRousseaux_ITCEI.pdf [3.04.2024].

mies via connections with European countries, Germany in particular[18], intra-community supplies, and the dynamics of regional value chains. These value chains have been proliferated and extended, indicating that firms no longer consolidate all stages of production under one roof; on the contrary, production is split between multiple firms, often residing in a number of countries[19]. Hence, adjustments at the microeconomic level in response to emerging uncertainties are a subject of research requiring a comprehensive dataset of firm-to-firm trade information[20].

2. Literature review

Our research and findings represent, to the best of our knowledge, the first scholarly paper examining V4 economies and their recent dependencies on China. An review of the existing literature reveals the absence of up-to-date discussions on this specific research inquiry[21]. Nevertheless, we acknowledge that this domain constitutes a significant focal point for in-depth research undertakings carried out by think tanks and analytical centres[22]. According to the first findings, the V4 economies demonstrate a medium level of exposure to China, as indicated by their final demand[23].

A crucial reference for our research framework is the phenomenon of de-risking from China, which has been enacted at the European Union level. The strategic autonomy programme of the EU aims to con-

18 Cf. S. Elekdag, D. Muir, Y. Wu, *Trade Linkages, Balance Sheets, and Spillovers: The Germany-Central European Supply Chain*, "Journal of Policy Modelling" 2015, vol. 37, no. 2; A. Nölke, A. Vliegenthart, *Enlarging the Varieties of Capitalism. The Emergence of Dependent Market Economies in East Central Europe*, "World Politics" 2009, vol. 61, no. 4.

19 M. Šebeňa, T. Chan, M. Šimalčík, *The China factor. Economic exposures and security implications in an interdependent world*, Central European Institute of Asian Studies, March 2023.

20 Cf. J. Martin, I. Mejean, M. Parenti, *Relationship stickiness, international trade, and economic uncertainty*, http://www.isabellemejean.com/MMP_2023.pdf [3.04.2024].

21 One study based on data up until 2014 revealed that, in the context of OBOR strategy, the V4 countries had become a perfect gateway for Chinese expansion to the EU market. Furthermore, the value of added flows between China and the V4 counties had been more unbalanced, and there had not been a noticeable improvement in the role of the V4 states in China's gross exports in analysed sectors. See E. Cieślik, *Looking for the sectoral interdependence: evidence from the Visegrad countries and China*, "Quality & Quantity" 2019, vol. 53.

22 Cf. V. Vicard, P. Wibaux, *EU Strategic Dependencies: A Long View*, CEPII Policy Brief, no. 41, June 2023.

23 M. Šebeňa, T. Chan, M. Šimalčík, *The China factor…*

sider China's aspirations and the potential market access restrictions that could impact trade and competition within the EU[24]. Against this background, the real catalyst for change has been an increased focus by governments and corporations on national and economic security[25].

Given the reshaping of global value chains and the resulting tensions, it has finally become evident that "Global Factory China"[26] consistently follows a dual strategy: de-risk wherever you can and rely on globalisation where you must[27], while the dominant position across many sectors and the ability to produce nearly any product are strategic advantages China aims to keep[28]. Top-down driven technological leadership targeting 10 strategic sectors[29] has increasingly emerged as a foundational component within the framework of the ambitious "Made in China 2025" programme[30], enforced together with the Belt and Road Initiative[31] as well as through a multi-layered system designed to identify and fast track the growth of high-tech SMEs[32].

Consequently, there is a call for a more proactive approach to EU policymaking, thereby enhancing its capacity to define and execute

24 Cf. T. Poutala, E. Sinkkonen, M. Mattlin, *EU Strategic Autonomy and the Perceived Challenge of China: Can Critical Hubs Be De-weaponized?*, "European Foreign Affairs Review" 2022, vol. 27, Special Issue.

25 M.J. Zenglein, *The world's factory strikes back,* Mercator Institute for China Studies, 2024.

26 See more: R. Baldwin, *China is the world's sole manufacturing superpower: A line sketch of the rise*, https://cepr.org/voxeu/columns/china-worlds-sole-manufacturing-superpower-line-sketch-rise [3.04.2024].

27 F. Ghiretti, *De-risking is not new to China, so why the surprise at the EU's new policy?*, https://merics.org/en/comment/de-risking-not-new-china-so-why-surprise-eus-new-policy [3.04.2024]; cf. T. Moller-Nielsen, *China's 'de-risking' from West worsens EU industrial decline, experts say*, https://www.euractiv.com/section/economy-jobs/news/anna-chinas-de-risking-from-west-aggravating-eus-industrial-decline-experts-say [3.04.2024].

28 M.J. Zenglein, *The world's factory…*

29 Advanced IT, aerospace and aeronautics, agricultural equipment, automated machines and robotics, biopharma and medical products, maritime equipment and shipping, new-energy vehicles and equipment, new materials, power equipment, rail transport equipment.

30 Cf. A. García-Herrero et al., *EU–China Economic Relations to 2025. Building a Common Future*, A Joint Report by Bruegel, Chatham House, China Center for International Economic Exchanges and the Chinese University of Hong Kong 2017; L. Li, *China's Manufacturing Locus in 2025: With a Comparison of "Made-in-China 2025" and "Industry 4.0"*, "Technological Forecasting and Social Change" 2018, vol. 135; European Commission, *On significant distortions…*

31 B. Dziewałtowski-Gintowt, *One Belt, One Road Between Three Seas: China's Soft-Power Policy Towards 'New' EU Members*, "Yearbook of the Institute of East-Central Europe" 2019, vol. 17, no. 3.

32 A. Brown, *The accelerator state: Small firms join the fray of China's techno-industrial drive*, https://merics.org/en/report/accelerator-state-small-firms-join-fray-chinas-techno-industrial-drive [29.04.2024].

strategic objectives amidst the resurgence of geopolitics. Recent developments highlight the importance of having thorough understanding of economic exposure towards China as a basis for implementing the EU's de-risking approach, while acknowledging the fact that more industry-oriented economies (e.g. Czechia, Poland, and Slovakia) typically exhibit higher exposure to Chinese imports[33].

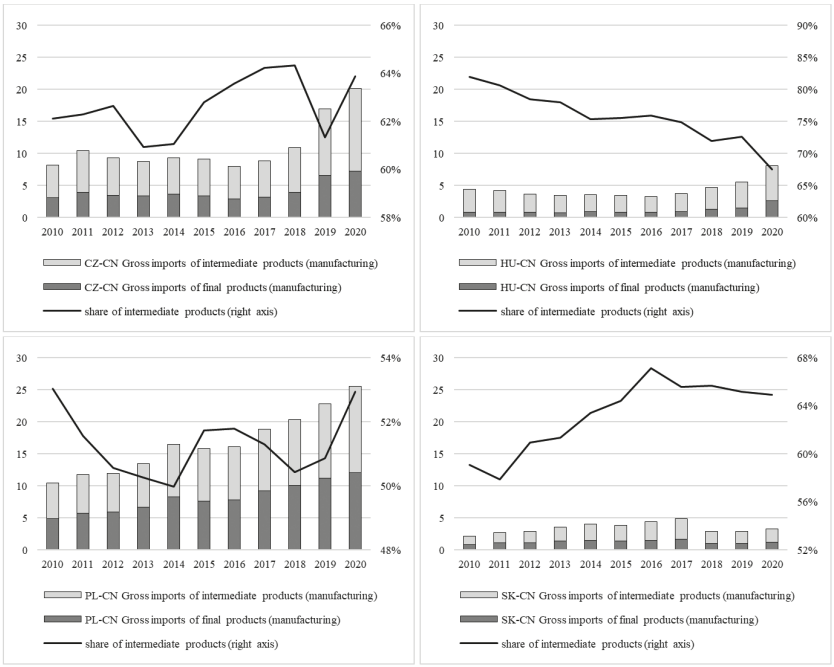
At the same time, corporate lobbying cautions that the European Union must strategically adjust economic security measures to prevent any adverse effects on the competitiveness of Europe[34]. It is also advised to refrain from overloading trade agreements with the unrelated policy objectives. Hence, not all trade vulnerabilities pose the same level of risk to the economy[35]. However, exposure coupled with narrow industrial specialisation indicates enhanced vulnerability towards trade weaponisation[36].

3. Findings and discussion

Companies operating in economies of the Visegrád Group (V4) have demonstrated a profound level of integration within global value chains (GVC). This phenomenon is substantiated by the observation that industrial exports from the Czech Republic, Hungary, Poland, and Slovakia (classified as group C: manufacturing) exhibit a considerable reliance on foreign value added, which was previously imported (without specifying its sectoral origin), through established linkages with international suppliers. The proportion of this dependency has varied within the range of 46–49% for the Czech Republic, 57–59% for Hungary, 36–38% for Poland, and 52–61% for Slovakia. Hence, we infer that the export activities of the V4 economies are closely tied to the inflow of imported inputs. An in-depth examination of manufacturing supplies from China reveals that over half of these goods can be categorised as intermediary products (see Fig. 1).

33 Cf. F. Vandermeeren, *Understanding EU-China economic exposure*, Single Market Economics Briefs 2024, no. 4, European Commission.
34 BusinessEurope, *Reboot Europe*, April 2024.
35 I. Mejean, P. Rousseaux, *Identifying European trade…*
36 M. Šebeňa, T. Chan, M. Šimalčík, *The China factor…*

Figure 1. V4 manufacturing imports from China, 2010–2020 (billion USD)

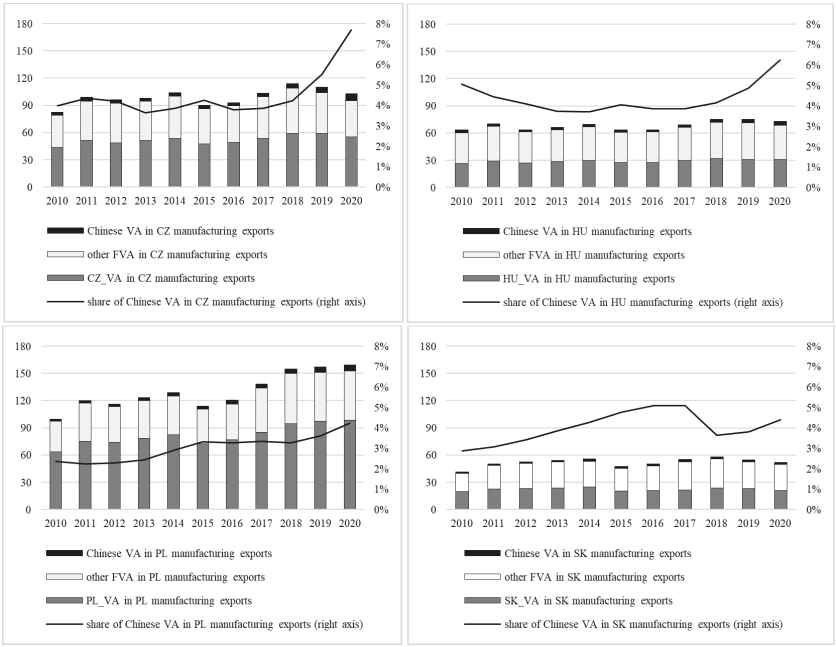


Source: own calculations based on OECD data.

As a result of this situation, the proportion of Chinese value added, both total (see Fig. 2) and specifically from the manufacturing sector (see Fig. 3), in the manufacturing exports of the Czech Republic, Hungary, Poland, and Slovakia has progressively increased over time. This indicates that for every 100 USD of manufacturing exports from the V4 countries, there was a range of 2.2 to 7.6 USD attributed to Chinese value added (total), with 1.2 to 4.3 USD originating solely from manufacturing activities.

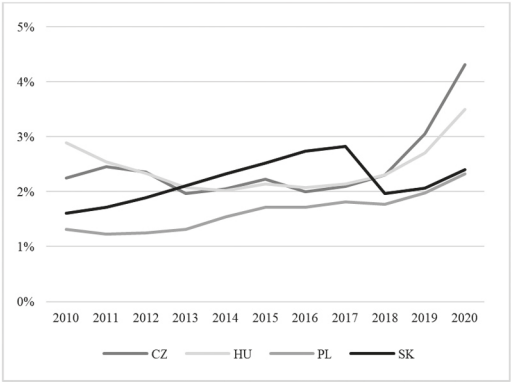
The increasing dependence on Chinese value added is also evident in the V4 final demand, as illustrated in Fig. 4. Within the V4, every 100 USD of foreign value added consumed consisted of amounts ranging from 3.9 to 16.5 USD of Chinese content, with 2 to 9 USD originating from Chinese value added attributed to manufacturing. Regarding final consumption in the year 2020, the V4 region showed a particular focus on computer, electronic, and optical products (C26), with shares of 43% in Czechia, 21% in Poland, and 18% in Slovakia. Additionally, notable proportions were allocated to textiles, apparel, leather, and related products (C13T15) at 16% in both Poland and Slovakia;

Figure 2. Foreign and domestic value added in V4 manufacturing exports, 2010–2020 (billion USD)



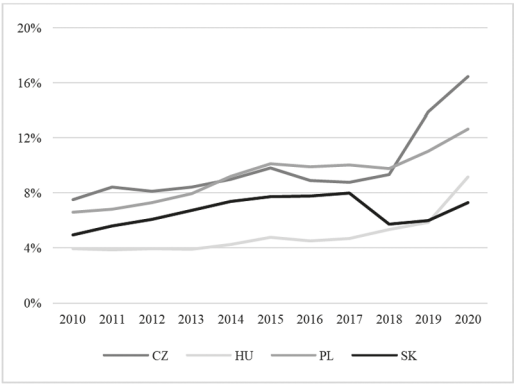
Source: own calculations based on OECD data.

Figure 3. Shares of Chinese value added from manufacturing in V4 manufacturing exports, 2010–2020



Source: own calculations based on OECD data.

Figure 4. Shares of China in foreign value added in V4 final demand, 2010–2020



Source: own calculations based on OECD data.

machinery and equipment (C28) at 12% in Slovakia; and other forms of manufacturing, repair, and installation of machinery and equipment (C31T33) at 11% in Hungary.

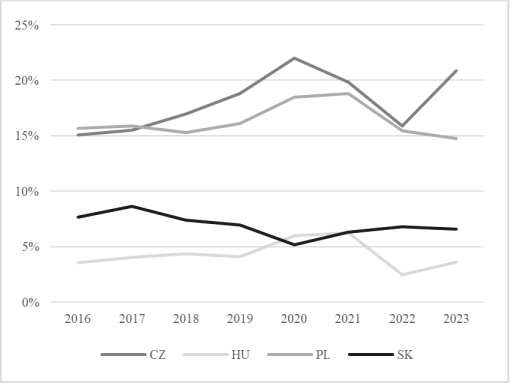
It is important to acknowledge that the high level of aggregation of data provided by the OECD precludes the detailed analysis of specific product subgroups. Consequently, this limitation hinders the ability to identify potential shortages that could arise if supplies from Chinese partners were constrained or halted. Such disruptions have the capacity to impede various production processes, influence consumer purchasing decisions, and affect the quality of life in V4 countries. Essentially, the absence of even a minor component can disrupt the production of a particular good, leading to challenges in acquiring it due to limited availability of substitutes, both physically and economically, in the short- or even mid-term.

In the subsequent phase of our analysis, we scrutinise the gross imports at the HS6 disaggregation level. By utilising the criterion of at least 30% share from China, measured through a 3-year moving average[37], for each HS6 product category, the 2023 data demonstrates the existence of 541 China-dependent clusters within Czech

37 The average for year n represents the average calculated from the shares of years n, n-1, and n-2. Hence, the 3-year moving average for the years 2018–2023 encompasses Chinese shares in the V4 total imports from 2016 to 2023.

imports, 430 clusters within Hungary, 1,004 clusters within Poland, and 568 clusters within the imports of Slovakia. The collective proportions of these clusters in the total imports during the period from 2016 to 2023 were marginal for Hungary and Slovakia (ranging between 2% and 7%), but notably higher for Czechia and Poland (ranging between 13% and 21%) (see Fig. 5).

Figure 5. Cumulative shares of China-dependent HS6 categories* in the V4 total imports, 2016–2023



* For HS6 categories with Chinese shares exceeding 30% (3-year moving average) in the V4 total imports.
Source: own calculations based on ITC data.

As for the most valuable China-dependent HS6 product clusters, the sample predominantly focuses on machinery, electrical, and electronic commodities[38], aligning with our data-driven analyses of trade in value added. Furthermore, the outcomes underscore the significance of trade relations with China in the automotive sector, a pivotal industry in the economies of the Visegrád Group. Consequently, potential disruptions stemming from China could adversely affect the smooth operation of regional value chains connecting the V4 economies with Germany's industrial complex.

In the ultimate phase of our analysis, we reveal the outcomes broader assessment of strategic dependencies[39]. The distinctive feature

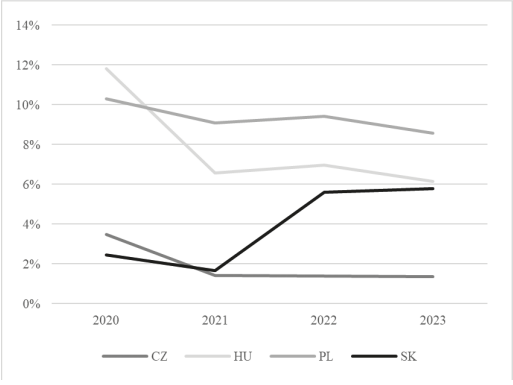
38 Data-processing machines, their parts and accessories; static converters; lithium-ion accumulators; smartphones for wireless networks; machines for reception, conversion and transmission of voice; printed circuits; flat panel display modules; artificial graphite.

39 European Commission, *Strategic dependencies*…

of this approach is its primary emphasis on the extra EU-27 imports. Rhetorically, the EU would still greatly prefer an open, transparent, and regulated global trade regime, one that must respond to changing global dynamics, including the impact of China's own de-risking on the EU[40]. Consequently, within the European internal market, intra-community deliveries are not expected to give rise to any tensions. Additionally, they are meant to facilitate the coordinated mitigation of potential disruptions originating beyond the European Union. This assumption can be viewed as idealistic, yet it underscores the necessity of formulating strategies that ensure the resilience and reliability of supplies throughout the entire EU.

Utilising this approach with Eurostat data covering the period from 2020 to 2023 yields the subsequent results. The number of HS6 product categories in which the Chinese share surpasses 30% varies from 79 to 121 for Czechia, 189 to 226 for Hungary, 238 to 319 for Poland, and 50 to 68 for Slovakia. Their cumulative shares in extra-EU27 imports as of 2023 are illustrated in Fig. 6. Poland exhibits the most substantial share (just under 9%), followed by Hungary and Slovakia (approximately 6% each), whereas Czechia's strategic dependence on China in extra-EU27 imports is comparatively less significant (around 1.5%).

Figure 6. Cumulative shares of China-strategically dependent HS6 categories* in the V4 extra-EU27 imports, 2020–2023



* For HS6 strategically dependent categories with Chinese shares exceeding 30% in the V4 extra-EU27 imports.
Source: own calculations based on Eurostat data.

40 F. Ghiretti, *De-risking is not…*

The aforementioned shares are driven by the fact that Hungarian, Polish, and Slovak imports of strategically dependent HS6 product categories from China predominantly consist of goods characterised by medium and high levels of technological sophistication. Specifically, based on data from 2023, 89% of each Hungarian and Slovak imports, as well as 77% of Polish imports fall into this category. Conversely, in the case of Czechia, there is a lower proportion of mid-tech and high-tech goods at 38%, with a similar level of unclassified and other goods at 40%.

Table 1 compiles a sample of HS6 product categories that exhibit strategic dependence on China, based on data for the year 2023 in terms of their import values from China. From this comparison, it is evident that Chinese resources, including both intermediate and final goods, play a significant role in influencing the manufacture of products essential for the digital and green transition. It should also be noted that certain strategically dependent goods require production technologies with high energy consumption. This, in turn, underscores the need for a more thorough examination of the shortcomings in EU policy that place greater emphasis on decreasing the carbon footprint, as seen in the implementation of measures such as the Carbon Border Adjustment Mechanism (CBAM).

Table 1. Sample of HS6 strategic dependencies in V4 imports from China in 2023

	HS6 product category	Share of China in extra-EU27 imports (%)	Value of imports (million EUR)
CZ	Products containing nicotine, intended for inhalation without combustion (HS 240412)	93.7	67
	Permanent magnets of metal and articles intended to become permanent magnets after magnetization (HS 850511)	95.8	35
	Flat panel display modules with drivers or control circuits, of liquid crystals (HS 852491)	86.3	142
	Electric sound or visual signalling apparatus (HS 853180)	97.5	76
	Frames and forks, and parts thereof, for cycles (HS 871491)	72.0	54

	HS6 product category	Share of China in extra-EU27 imports (%)	Value of imports (million EUR)
HU	Artificial graphite (HS 380110)	96.0	274
	Preparations based on graphite or other carbon (HS 380190)	93.9	88
	Parts of telephone sets (HS 851779)	93.4	529
	Printed circuits (853400)	73.9	453
	Photovoltaic cells (HS 854143)	99.6	143
PL	Units for automatic data-processing machines (HS 847180)	66.8	336
	Parts and accessories of automatic data-processing machines (HS 847330)	71.8	841
	Flat panel display modules with drivers or control circuits, of organic light-emitting diodes OLED (HS 852492)	52.7	306
	Parts suitable for use solely or principally with transmission and reception apparatus (HS 852990)	79.3	1021
	Photovoltaic cells (HS 854143)	99.4	668
SK	Spark-ignition reciprocating or rotary internal combustion piston engine (HS 840790)	98.6	15
	Permanent magnets of metal and articles intended to become permanent magnets after magnetization (HS 850511)	89.1	16
	Lithium-ion accumulators (HS 850760)	88.1	777
	Flat panel display modules without drivers or control circuits, of liquid crystals (852411)	54.7	91
	Speed indicators and tachometers, stroboscopes (HS 902920)	44.3	48

Source: own calculations based on European Commission and Eurostat data.

4. Policy implications and conclusion

China is here to stay. The complex nature of contemporary production processes and widespread interdependencies make it difficult to envision a scenario where the Chinese factor does not play a role in daily affairs. This matter is further emphasised by the supply-based

nature of V4 imports from China. Many production networks are extensive and elaborate, and unravelling them can thus be difficult and slow, which can actually increase vulnerabilities and insecurities during transition processes[41]. Considering the fact that the mechanical electric, electrical, and automotive sectors form a significant portion of the V4 commodity exports[42], these trends can potentially influence the desired development of its composition towards the dominance of products characterised by medium to high technological sophistication. Moreover, it is essential to acknowledge the substantial rise in the final consumption of Chinese value added derived from manufacturing.

The stereotypical perception of China as a supplier of low-quality goods produced through imitation of foreign innovations necessitates immediate correction[43]. In light of this scenario, potential obstacles should prompt merit-based discussions concerning nearshoring and friendshoring strategies, along with efforts to prioritise the diversification and strengthening of supply chain resilience to ensure promising prospects for future economic growth and development. Given the significant presence of Chinese shares in the imports of specific products to V4 economies, it would be challenging to anticipate that the production capacity of friendly or like-minded countries could effortlessly compensate supply shortages. Hence, the likelihood of alternative nations promptly replacing China as a supplier in these sectors is rather slim, which makes the current situation more intricate and perplexing.

With that being said, it is imperative for political decision-makers and economic stakeholders to critically evaluate and address potential vulnerabilities through a comprehensive and thorough examination and analysis of the underlying principles and fundamental pillars upon which the economic security of the V4 countries and the European Union rests[44]. Such an in-depth exploration is crucial as it serves

41 S. Breslin, L. Kauppila, E. Sinkkonen, *Is "De-Risking" Possible? Responding to China Related Economic Insecurities*, https://eh4s.eu/publication/is-de-risking-possible-responding-to-china-related-economic-insecurities [29.04.2024].

42 Cf. ITC data.

43 A. Steiber, *Management in the Digital Age. Will China Surpass Silicon Valley?*, Cham 2018.

44 See: *China Economic Database*, Bruegel, https://www.bruegel.org/dataset/china-economic-database [8.09.2024]; M. Draghi, *The future of European competitiveness. Part A: A competitiveness strategy for Europe*, September 2024.

as the bedrock for formulating and implementing evidence-based strategies and measures aimed at averting and mitigating risks that stem from interdependencies.

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