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Examining the Impact of the Middle Corridor on the Visegrad Group (V4) Countries

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Abstract

This study predominantly focuses on the Middle Corridor which is about the geo-economics of Eurasia with particular attention paid to V4 states. The paper uses social network analysis founded on graph theory with a view to exposing economic contacts and trade links between V4 countries focusing on the roles they play in regional trading and foreign direct investments. This is what makes V4, with its developed infrastructure and its strategic location, capable of increasing the power of Middle Corridor in the world economic relations.

The analysis proposes that the V4's participation in the Middle corridor could help foster more trade, economic cooperation, as well as energy safety, with the objective of pursuing sustainable development and diversification of energy supplies. Besides, this paper addresses how the Middle Corridor could contribute to the creation of an international network of economic interrelation, promote a local value chain-driven development and integrate various means of transport.

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Introduction

Globalization and the consequent changes on the global power constellation coupled with technological enhancements and climate change, are all defining features of the new era in the contemporary world economic order. During these changing times, the world needs to learn how to change along with it to make the best use of its opportunities. Through fostering innovation, inclusiveness, and sustainable development we can envision and create a better tomorrow for us all.

Some organisms were able to adapt and survive after the Cretaceous–Paleogene extinction event that happened around 66 million years ago². Much like an organism changing with its surroundings, economies have to adapt and make corresponding changes in response to the modern economy. Fostering economic cooperation, promoting technology and innovation, supporting sustainable development, encouraging cultural exchange, and facilitating political cooperation, states could contribute to the adaptation and resilience of economies in the new world order.

In an ever-evolving world, where the dynamics of global trade, connectivity, and economic cooperation continually redefine the contours of international relations, one geographic landscape stands at the crossroads of profound change and opportunity: *The Middle Corridor*.

A recent document from MGI³ reveals that the growth in global flows is currently propelled by intangible assets, services, and talent. The prevailing geopolitical dynamics are presenting considerable obstacles to global cooperation, which typically serves as a safeguard against global risks. As per the Global Trends 2040 report by the US National Intelligence Council, it is unlikely for any single nation to dominate all regions or domains, and a wider array of actors will engage in competition to advance their ideologies, objectives, and interests⁴.

The Geographical Significance of the Middle Corridor

The Middle Corridor is the most essential area of Europe due to its special geography, which is necessary for today's globalization. As a lynchpin for energy transit through South Caucasus, it links resource-rich regions of Central Asia with powerful industrial centers in Europe. Furthermore, its impact goes deeper than just economy; it provides opportunity for building of diplomacy, culture exchange, and even peace-keeping in the difficult environment that is region.

The Middle Corridor has potential to enhance RVC-led development in Heartland of Eurasia and link context-based RVCs with EU, Caucasus and Central Asia's national economic development policies of states. The World bank states that various policy domains play part in making GVCs succeed. Such

² James Barnet, "What Caused the Cretaceous/Paleogene Mass Extinction?," *Geology Today* 35 (2019): 45-47, <https://doi.org/10.1111/gto.12260>.

³ Migration Governance Indicator by The International Organization for Migration.

⁴ US National Intelligence, Welcome to Global Trends 2040 (March 2021), <https://www.dni.gov/index.php/gt2040-home/introduction>.



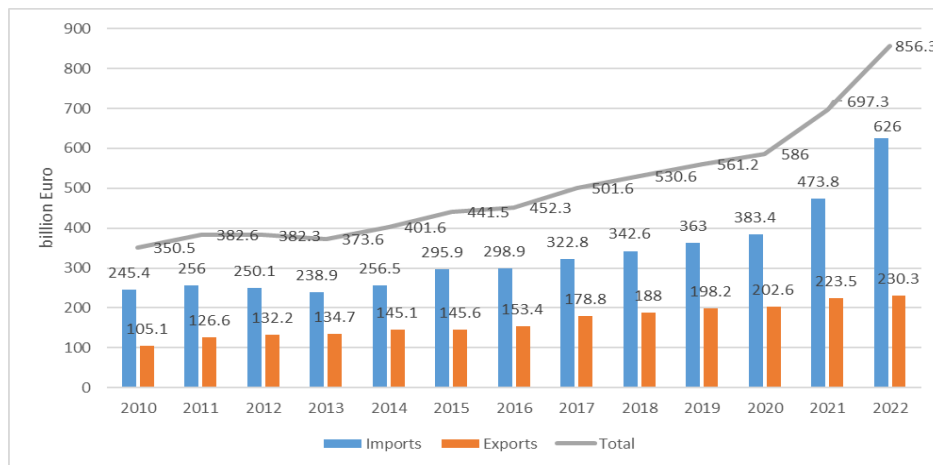
measures for example are trade policy, logistics and trade facilitation, regulating of business services, investments, business taxation, innovation, industrial development, adherence to global standards of governance and an enabling environment that creates business opportunities⁵.

Unlocking the Middle Corridor's Economic Potential

The Middle Corridor is one of the important alternative corridors which cuts the transits in the common Northern route which covers approximately 10,000kms to around 7,000kms and reduces the journeys from Asia to Europe from ten to twelve days⁶. The advantages emanating from this geographical efficiency make the Middle Corridor stand out as one of the most important thoroughfares in the international economy.

In this regard, it should be noted that despite its slight jump of 4.6 percent year on year in 2020, interchange between EU and China witnessed impressive gains over the last few years with even higher values recorded during both 2021 and 2022. In light of the recent geopolitical and geo-economic trends in the Eurasian space (such as the Russia-Ukraine war) (Figure 1)⁷. So, it is worth noting that these emerging opportunities allow for a reconceptualization of the freight forwarding potentials of the Middle Corridor.

Figure 1. EU Trade with China in Goods, 2010-2022



Source: Eurostat, 2023.

⁵ World Bank. "The Middle Trade and Transport Corridor: Policies and Investments to Triple Freight Volumes and Halve Travel Time by 2030".

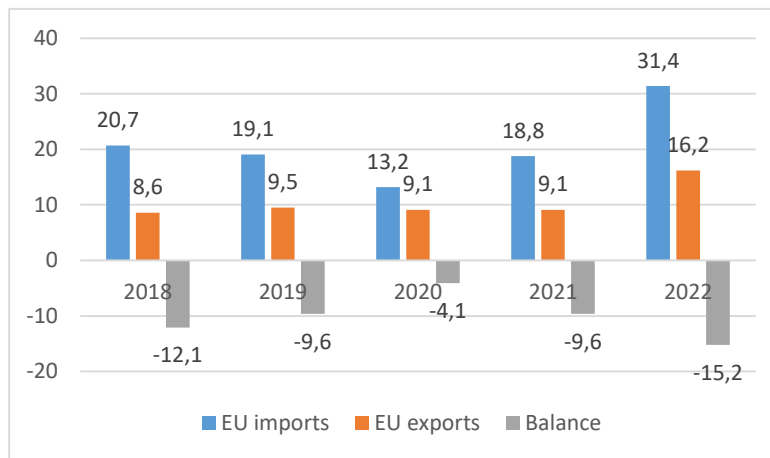
⁶ "Freight Traffic from China to Turkiye via Middle Corridor May Be Reduced," Report.az, 2022, <https://report.az/en/infrastructure/freight-traffic-from-china-to-turkiye-via-middle-corridor-may-be-reduced/>.

⁷ "China-EU - International Trade in Goods Statistics," Eurostat, last modified February 2023, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=China-EU_-_international_trade_in_goods_statistics.



The export-import flow between the EU's and Central-Asia, an essential segment for the Middle Corridor policy, shows unambiguous increases over the period 2018-2022. In 2018, with European Union's imports from Central Asia being up to 20.7 billion euros and the exports, which totaled 8.6 billion euros, this signified a more dynamic and mutually beneficial partnership. In 2020, this model started changing with the EU import sliding down to EUR13.2 billion and export leveling at EUR9.1 demonstrating positive balances. The reduction of this importation for a period of one year (that is partially caused by global economic crisis that happened because of the COVID-19 pandemic) highlights the need to employ durable transport routes such as the Middle Corridor. Nevertheless, this fall was brief, and in 2022, this positive trend resumed with EU imports from Central Asia shooting up to EUR 31.4 billion while exports increased significantly, amounting to EUR 16.2 billion (see Figure 2)⁸. These numbers not only affirm the increasing appetite of the EU towards imports from the Central Asia, but also represent the crucial function of trade channels like the Middle Corridor into making and preserving the favorable course of trade fluxes within the areas.

Figure 2. European Union and Central Asia: Trade in Goods, Billion Euro.



Source: European Commission. 2023

New Artery to the Middle Corridor

According to a detailed review by Kenderdine and Bucsky (2021)⁹ under the Asian Development Bank, total cargo shipment amounted to over one hundred twenty million tons in the year 2018 with

⁸ "European Union and Central Asia: Trade in Goods, Billion Euro," European Commission, 2023, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_international_trade_in_goods_-_latest_developments.

⁹ T. Kenderdine and P. Bucsky, "Middle Corridor—Policy Development and Trade Potential of the Trans-Caspian International Transport Route," ADBI Working Paper 1268 (Tokyo: Asian Development Bank Institute, 2021), <https://www.adb.org/publications/middle-corridor-policy-development-trade-potential>.



approximately two point two million tons moved through the railway lines¹⁰. The success of this corridor is likely to improve when the interlinking of countries that run along it is enhanced. However, if other economy is going to be included in the scope of the middle corridor this would even enhance its potential more.

With this concept in mind, the Zangezur corridor linking the Caspian and Mediterranean seas, South-East, Central Asia, and Europe, becomes the primary channel of diversification of the trade way and its enhancement (Graphic 2). On its part, the Middle Corridor gains an extra route towards integration through the establishment of Zangezur Corridor among other linkages that make up an extended web of connectivity in the region.

The Zangezur corridor sees an opportunity of massive revenue to be realized by the special economic zones established therein. On July 1st, 2021, Azerbaijan opened the first ever free economic zone of its kind and dubbed it Alat Free Economic Zone (AFEZ)¹¹. It can be linked with the newly built Baku International Seaport which is nearby at Alat only about 50 miles far from the capital. The proposed AFEZ spans approximately 850 hectares and expects to bring in additional income while transforming the country's export oriented manufacturing environment¹².

Graphic 2. The Zangezur Corridor



Source. TRT World and Anadolu Agency

It should also be noted that Kazakhstan (Aktau and Atyrau) and Turkmenistan (Ashgabat) have significant EZs within this region. Kazakhstan's free economic zones-Aktau and Atyrau commenced operation in 2022, and their role should be perceived as an addendum of the Azerbaijan Free Economic

¹⁰ This study emphasizes on the huge market which is in the rail transportation segment of the Middle Corridor with the projection of over 80 million tonnes of capacity

¹¹ Museyibov, A. (2021, August 12). The Alat Free Economic Zone's Role in Azerbaijan's Long-Term Geo-Economic Strategy. Jamestown Foundation.

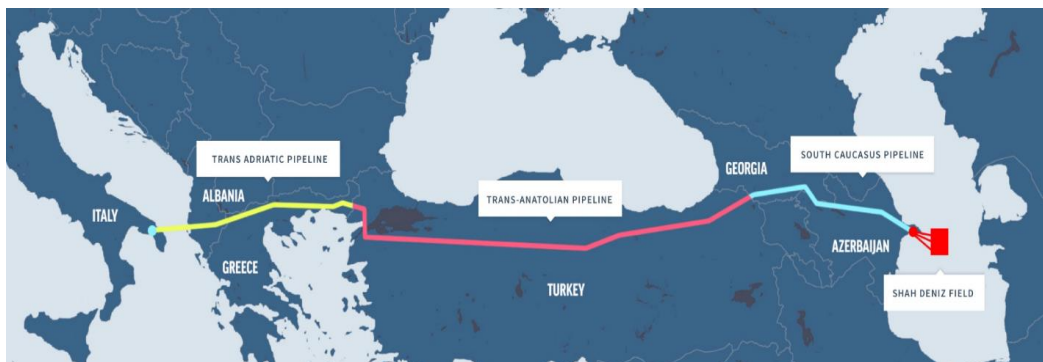
¹² News.Az. (2023, June 9). President Ilham Aliyev attends opening ceremony of first stage of Alat Free Economic Zone.



Zone. The future of the Ashgabat region also comes with great economic potential. Therefore, the Zangezur Corridor will provide easy transit of economic values between Special Economic Zones in the South Caucasus and Central Asia as well as other neighboring countries. The Middle corridor promoted increased economic linkage in these regions as well as in tune with EU interests. As a key driver of regional economic development and cooperation, the Middle Corridor will meet the EU's rising trade associations and economic engagement in this space.

Moreover, the Europe is partnering with Middle Corridor on important megaprojects in Eurasia for the sake of energy security and connectivity enhancement. Some of these projects include Trans-Anatolian Natural Gas Pipeline (TANAP) and the Trans-Adriatic Pipeline (TAP) which Azerbaijan has been praising and implementing¹³. Therefore, being a forward-looking actor, the EU supports these efforts which are of great interest for diversification of energy resources and their transportation systems. The southern Gas corridor includes a total length of 1850 km of TANAP, which is a backbone of SGC and is designed to ensure diversification of the EU's energy security. The Southern Gas Corridor that stretches over 3,500 kilometers will provide the European Union with an adequate substitute for Azerbaijani gas with a volume of up to 31 billion cubic meters¹⁴. The TANAP runs across Azerbaijan, Georgia, and Turkey leading it join TAP which continues throughout Bulgaria, Greece, Macedonia, Albania, Serbia then Bosnia and Herzegovina. Looking ahead the master plan intends to increase TANAP capacity from 16 BCM to 31BCM per year. (Graphic 3)¹⁵.

Graphic 3. Southern Gas Corridor



Source: Southern Gas Corridor. Extraction from www.sgc.az/en

Additionally, the EU's interest in the Trans-Caspian Fiber Optic (TASIM) initiative demonstrates its commitment to enhancing digital connectivity between Europe and Asia, with the project aiming to establish a cross-border fiber-optic network spanning from Frankfurt to Hong Kong, encompassing the entire expanse of Eurasia.

¹³ Ministry of Energy of the Republic of Azerbaijan, "The Southern Gas Corridor," 2023, https://minenergy.gov.az/en/layiheler/cenub-qaz-dehlizi_2196.

¹⁴ Ibid, 14.

¹⁵ "Southern Gas Corridor," 2023, <https://www.sgc.az/en>.



In addition to it, it is noteworthy that Azerbaijan has embarked on a significant initiative aimed at establishing the "Caspian-European Green Energy Corridor" in collaboration with European partners (Graphic 4). An important milestone in this effort occurred on December 17, 2022, in Bucharest, Romania, where an agreement pertaining to "green energy" was solemnly emphasized among the Governments of the Republic of Azerbaijan, Georgia, Romania, and Hungary. This accord, denoted as the "Agreement on a strategic partnership in the field of green energy development and transmission between the Governments of the Republic of Azerbaijan, Georgia, Romania and Hungary" not only marks a historic agreement but also heralds a new era of opportunities for Azerbaijan¹⁶.

This visionary initiative has already spurred the establishment of the Green Energy Advisory Council, entrusted with overseeing the realization of the project. On February 3, 2023, a high-level discussion convened in Baku, with the active participation of relevant ministers from Azerbaijan, Georgia, Hungary, and Romania, focusing on the conceptualization of future activities related to the development and transmission of "green energy". Furthermore, in June of the same year, the third ministerial meeting took place as part of the Baku Energy Week. These deliberations were instrumental in advancing the objectives outlined in the Agreement reinforcing Azerbaijan's commitment to sustainable energy and enhancing its role as a key player in the region's evolving energy landscape.

Graphic 4. Caspian-European Green Energy Corridor



Source: Prepared by the Center for Analysis of Economic Reforms and Communications of the Republic of Azerbaijan (CAERC)

These megaprojects, with their substantial investments and operational capacities, collectively advance the EU's goal of mitigating energy vulnerabilities and fostering closer cooperation with

¹⁶ "Azerbaijan, EU Discuss Establishment of Caspian-European Green Energy Corridor," Report News Agency, 2023, <https://report.az/en/energy/azerbaijan-eu-discuss-establishment-of-caspian-european-green-energy-corridor/>.



nations along the Middle Corridor, thereby positioning the EU as a key player in shaping the geopolitical and economic dynamics of the region.

Welding the EU with the Rest of Eurasia

In Europe's overall transportation strategy, **the Trans-European Transport Network (TEN-T) Core Corridors** are crucial, and their importance extends outside of the EU to areas like the South Caucasus, Central Asia, and Türkiye. The Middle corridor is in line with several TEN-T corridors including Mediterranean corridor and the Orient/East-Med Corridor. Such alignments give a boost in synergy effects as well as logistical transit chains essential for trade between Europe and Asia passing through the South Caucasus and Türkiye. With the Middle Corridor connecting with TEN-T core corridors, transport of goods and people become easy and time taken in transit is lowered as seen in Graphic 5¹⁷.

Many of these TEN-T core corridors are designed towards a specific geographical region and objective that collectively builds towards the development of a complex and interlinked European transportation system. For instance, the Baltic-Adriatic Core Corridor that links countries such as Poland, Czech Republic, Austria, Slovenia, and Italy among others. Stretching from the Baltic to the Adriatic it is. The objective of this corridor is to facilitate trade between northern and Baltic regions with the Mediterranean. It promotes sustainable and ecological transport alternatives and uses the different modes of transport such as roads, rails, and seas.

Graphic 5. TEN-T Core Corridors



Source: PortNews Magazine

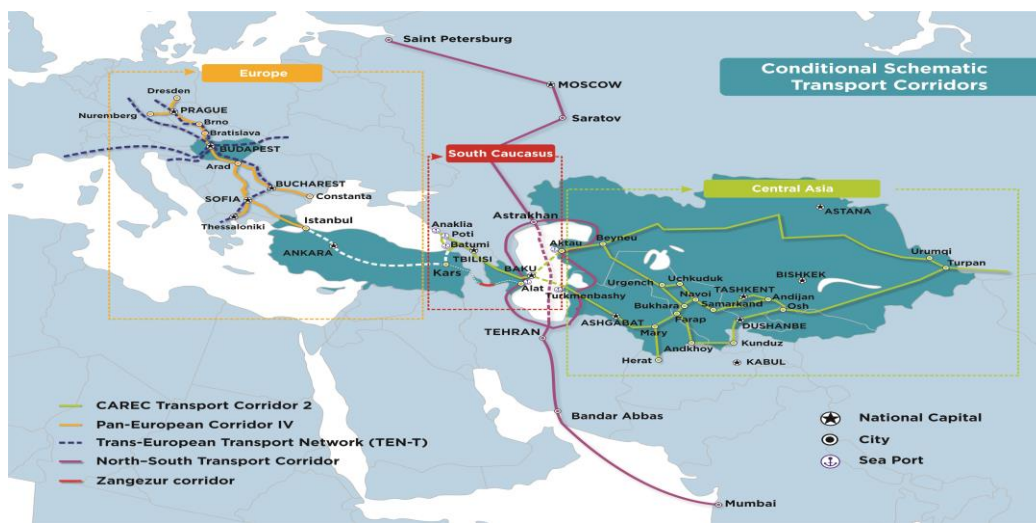
Additionally, some of the transport corridors within the EU may connect to other corridors going through Central Asia, the South Caucasus and Türkiye with respect to this, it is very relevant in case a

¹⁷ "Trans-European Transport Network," Port News, 2023, <https://www.portnews.it/en/european-observatory/radar/trans-european-transport-network/>.



state is land locked and wants connection to European markets. This will enhance the creation of transport corridor networks which will enhance trading between Central Asia, the South Caucasus and Europe. The Corridors align their objectives of improved connectivity, trade facilitation, and economic growth with the EU's interests that seek to promote regional stability and cooperation by integrating with the TEN-T Core Corridors. (Graphic 6)¹⁸.

Graphic 6. Conditional Schematic Transport Corridors Connecting the Middle Corridor



Source: prepared by the CAERC

Role of Visegrad Countries (V4) and Impact of the Middle Corridor

General Overview of V4 Countries

The Middle Corridor boasts of a strategic location and an ideal economic atmosphere that makes it one of the most important global economics. Thus, the V4 countries from a geopolitical location within central Europe play a vital role in boosting the effectiveness of the middle corridor upon world trade activities. The V4 (countries meeting in Europe) would benefit immensely from intensified regional interactions that can be supported by the Middle Corridor. With the Middle Corridor linking Asia with Europe, the V4 states might explore fresh markets, expand trade relations, and firm-up economic exchanges with areas found on the Middle Corridor¹⁹.

¹⁸ Gasimli et al., Turkic States Economy.

¹⁹ Foreign Policy Research Institute. "The Middle Corridor through Central Asia: Trade and Influence Ambitions".



Meanwhile, the V4 countries with solid infrastructure can offer expertise and investments in developing transport links of the Middle Corridor²⁰. Development of the joint infrastructure for the V4 countries is not just about them. Such activities will fuel economic progress along the Middle Corridor. However, energy security is essential in the V4 states' national interests. Energy diversification among others and energy routing are among the primary goals of V4 countries and the Middle Corridor suits them well. Joint programmes within energy sector improve both V4's energy security and that of the EU.

It is also part of the objectives of the Caspian-European Green Energy Corridor in which sustainable development becomes crucial for the V4 countries. The V4 countries' sustainability agenda, as well as the overall objectives for environmental management within Middle corridor can also be enhanced through collaborative efforts on green energy projects.

Impact of the Social Network Analysis on V4 Countries

Significant knowledge about the dynamics of regional economies can be gained by carefully examining the products of the networks of trade and foreign direct investment (FDI) for the Visegrad Group (V4) nations, namely the Czech Republic (CZE), Hungary (HUN), Poland (POL), and Slovakia (SVK)²¹. Relevant findings²² into the dynamics of these partnerships are provided by the examination of their trade and Foreign Direct Investment (FDI) networks, with an emphasis on degree centrality metrics, the Revealed Comparative Advantage (RCA) index, and key exporting products²³.

Additionally, as seen by its high degree centrality in Figure 3, the Czech Republic's significant participation in the V4 trade network is a result of its advantageous geographic location, diversified industrial base, and longstanding trade relations. The trade patterns of the Czech Republic indicate a diverse approach to trade, as evidenced by the country's significant relationships with both EU and non-EU nations. Additional analysis of the Czech Republic's main trade sectors, including machinery and automobiles, reveals the country's advantages and disadvantages in the international marketplace.

Furthermore, Slovakia's trade centrality score highlights its integral role in regional trade, particularly in the automotive and electronics sectors. Slovak Republic's trade patterns, heavily influenced by its EU membership and geographical proximity to key markets, demonstrate its economic strategy focused on high-value manufacturing and export-oriented growth (Figure 3).

²⁰ International Institute for Strategic Studies. "Greater consensus on improving the Middle Corridor".

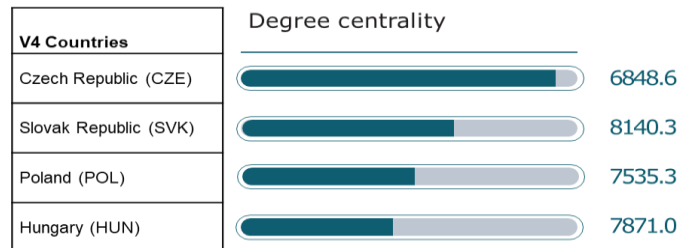
²¹ Social Network Analysis (SNA) is utilized in the analysis part based on the graph theory. The primary dataset used in this study is the International Monetary Fund's Coordinated Direct Investment Survey (CDIS). This is the dataset, which employs 2019 as its base year in order to minimize influences of global economic fluctuations caused by Covid-19 pandemic. Using Python-based NetworkX package, graph theory ideas are incorporated for network creation.

²² Anand Bihari and Manoj Pandia, "Eigenvector Centrality and Its Application in Research Professionals' Relationship Network," in Proceedings of the 2015 1st International Conference on Futuristic Trends in Computational Analysis and Knowledge Management (ABLAZE 2015) (2015), 10.1109/ABLAZE.2015.7154915.

²³ Hausmann, R., Hwang, J. & Rodrik, D., 2007. What You Export Matters. *Journal of Economic Growth*, 12(1), pp. 1-25.



Figure 3. Degree Centrality Measures of V4

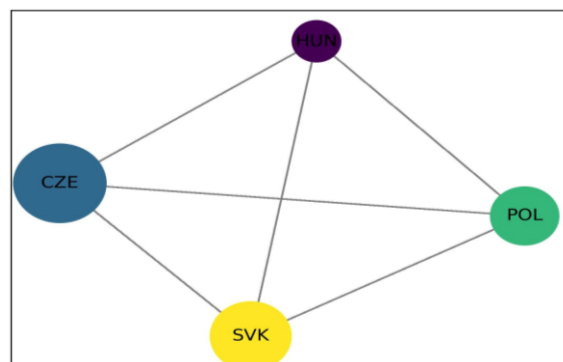


Source: Author's own elaborations

On the other hand, Poland's centrality (7535.3) indicates a considerable trade network, reflecting its diverse economic structure and significant role in regional trade (Figure 3). It can be attributed to its large market size, diversified economy, and strategic position as a bridge between Eastern and Western Europe. Poland's trade structure, emphasizing sectors like machinery, food products, and textiles, reflects its historical economic transformations and ongoing efforts to diversify its trade portfolio (Graphic 7).

However, Hungary's centrality in the trade network, while lower than its V4 counterparts, is nonetheless noteworthy, underscoring its active participation in regional trade (Graphic 7). Hungary's economic focus on sectors such as pharmaceuticals, automotive, and electronics, coupled with its strategic initiatives to bolster trade ties within and beyond the EU, presents a nuanced picture of its trade dynamics. Indeed, it does not mean that the efforts should be limited which Hungary must work on further development and cooperation.

Graphic 7. Degree Centrality Nodes of V4 Countries



Source: Author's own elaborations

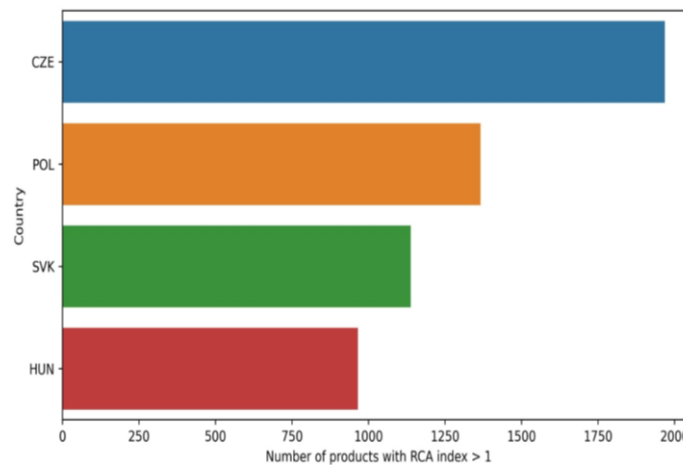
The Czech Republic's leading position in RCA with 1968 products suggests a diversified economic structure, with a particular emphasis on sectors such as machinery and transport equipment. This diversification not only provides a buffer against market fluctuations but also positions CZE as a key



player in the European industrial landscape. Hence, Poland 's diverse range of products with a high RCA index also highlights its multifaceted economic base.

With 1138 and 965 items, respectively, Slovakia (SVK) and Hungary (HUN) exhibit noteworthy but different economic profiles. SVK's industrial policies and FDI attraction methods are in line with its emphasis on electronics and the automotive industry. HUN's RCA distribution, on the other hand, shows a concentration in machinery and pharmaceuticals, which is influenced by its recent policy measures and past economic development.

Graphic 8. Number of Products with RCA Index >1 in V4 Countries



Source: Author's own elaborations

Meanwhile, the total export corresponds with the high degree of RCA index because as countries getting more number of products with RCA index greater than 1, it in turn affects the export capacity of those countries. In this regard, CZE plays a leading role and its total export reaches to 40 billion USD whereas POL is following CZE with total export of about 35 billion USD. Moreover, although SVK's total export exceeds 25 billion USD, it is together with Hungary lacking behind CZE and POL among V4 countries.

According to Table 1, all four countries are recorded with degree centrality of 2. The total number of neighbors connected directly to an interconnection node represents this measure. It means that in this situation there are two links to a particular country may be by way of relationships or exchanges between other entities in the network. The third measure known as In-degree centrality or 1 per country, signifies of incoming links. It may indicate how dependent these nations are on the network, meaning that they may be input from, by other nations in the network.

Likewise, the out-degree centrality for each country is also shown as one for all four countries. Thus, these countries have some form of outward relations in the network. These commonalities in the values for all of the four countries suggest a relatively standard level of connection and sway among



them in their environment under review, which could be taken to imply that each country has about the same status or role as any other one of them.

Table 1. Centrality Measures of V4 Countries

Country	Degree Centrality	In-Degree Centrality	Out-Degree Centrality
Hungary (HUN)	2	1	1
Czech Republic (CZE)	2	1	1
Poland (Pol)	2	1	1
Slovak Republic	2	1	1

Source: Authors' own elaborations²⁴

Due to equal degree centrality, this means countries interact at approximately the same proportions, hence this suggests balance between them. If well handled, this equilibrium can promote an environment that embraces equality and respect, key ingredients for successful working together. These countries have equal influence on each other, as indicated by the corresponding in-degree and out-degree centralities. The reciprocal nature of this process helps keep steady, beneficial relationships. Additionally, unified centrality measures suggest a high degree of coherence among the V4 states. Indeed, this cohesion is paramount in order to act in concert in external relations, including talks with EU or at major summits. Finally, such information may indicate similar levels of starting and reacting in general to joint activities among these nations within a common program as well as for inter-regional efforts.

²⁴ Freeman, L. C. "Centrality in Social Networks: Conceptual Clarification." *Social Networks* 1, no. 3 (1979): 215-239.



Policy Recommendations and Concluding Remarks

Taking into account all aforementioned facts and points, several policy recommendations are formulated:

- *Enhancing regional integration will be a driver for the trade facilitation and connectivity considering the rising role of the Middle Corridor.*

Initially, the Middle Corridor as a bridge between Asia and Europe offers massive possibilities of trade and improved connectivity. Developing stronger economic linkages and infrastructures will propel the V4 into the critical logistics and business heart of this area. However, this is not merely concerning physical connectiveness between member states; it involves the harmonization of policies, aligning regulations, and common infrastructure projects between the member countries. These will simplify cross border trade, remove logistic hindrances towards achieving efficiency in the corridor of trade. Leveraging this competitive advantage will be critical in determining whether the future economic of the V4 would grow or not. These countries should improve on integration to attract more investments, increase their trades and be able to compete favorably in the world of international economics. Additionally, this strategy complies with EU's objectives on economic convergence and competitiveness. With the change of the economic landscape globally, the capacity of the V4 countries to act simultaneously as one powerful, agile and effective economic region of Europe will form the basis of their endurance. Thus, enhanced regional integration is a short-term strategy towards gaining a significant place in the world market network. Therefore, it is needed to utilize the Czech Republic's significant participation in the V4 trade network, underpinned by its diversified industrial base, to enhance regional integration. This can be achieved through developing stronger economic linkages and infrastructure projects that tap into the Czech Republic's extensive relationships with both EU and non-EU nations.

- *Diversifying energy sources will reduce the dependence on one supplier and investment in alternative energy sources will greatly reduce the dependence on traditional energy supplies by promoting sustainable development.*

Traditional energy sources that are usually imported and vulnerable to geopolitical influences become the risky factor in terms of national economy's stability and sustainability. These risk can be addressed by the V4 through investment on alternative sources like renewable energy including solar, wind and biomass as well as new technologies in energy storage and distribution. Hence, the move to diverse energy source is not just for the sake of security, but reflects global trend towards environmental sustainability that reduces carbon emission level. With the shift in the world towards healthier sources of energy, V4's investment in various green initiatives will make them a forerunner in sustainability. Besides, it presents opportunities for the economy in terms of new industries and tech developments. Thus, diversification will in the future provide a stable and more independent energy supply while contributing on a global scale to fighting of climate change. Therefore, the move to a mixed energy model would be inevitable for the V4 countries not only as an initial measure of energy security, but also in order to fulfil the objectives set during long term sustainable development efforts.



- *Investing in sustainable practices alongside with the Middle Corridor including V4 region will serve to the global environmental goals and the long-term sustainable economic development*

Such an investment conforms to international environmental objectives as well as guarantees economic and ecological durability for the area in the future. This brings V4 to meaningful participation in the sustainability of the Middle Corridor, thereby strengthening the green and innovative character of this transit route. However, they have made an international commitment to sustainability that will only strengthen this corridor's reputation while supporting the efforts to maintain the viability of the corridor as a safe environmental passageway from Asia to Europe.

- *Bolstering digital connectivity in V4 region will position V4 countries as the drivers on the Middle Corridor considering the rising competitive advantage in the digital era.*

Improved connectivity between V4 and Asia and Europe as well as increased competitiveness of the region on the global market due to enhanced digital infrastructure. Enhancement in digital infrastructure entails more than the physical development of broadband and 5G networks; it includes digital literacy among the human resource and digitalization of the services and industries. Investments in digital infrastructure as digital technologies drive global economic growth can help attract investors, enhance innovations for the V4 sectors to be competitive in the world economy.

- *Promotion of multilateral cooperation beyond the EU will increase V4's global influence and foster international partnerships.*

The core idea of this strategy lies in cultural, economic, and political communication with the Middle Corridor states as well as other countries. The V4 should enter into multilateral partnerships so as to take advantage of each other's strengths, pool resources and knowledge, and collectively tackle similar problems. Through this approach, they are able to take stronger positions within the international arenas, thereby enhancing economic and diplomatic diversification for a more inclusive and broad based international appearance. Hence, Slovakia's key role in regional trade, particularly in automotive and electronics, should be leveraged. Efforts should focus on integrating Slovakia's industrial policies and FDI attraction methods into broader V4 initiatives to enhance high-value manufacturing and export-oriented growth. Meanwhile, Poland's considerable trade network and diverse economic structure present opportunities for broader regional trade enhancement. Efforts should be made to diversify the V4's trade portfolio by building on Poland's strengths in machinery, food products, and textiles. Despite Hungary's lower centrality in the trade network compared to its V4 counterparts, its active participation in regional trade and focus on sectors such as pharmaceuticals, automotive, and electronics should be bolstered. Hungary should work on further development and cooperation, integrating its strategic trade initiatives within the V4 framework.



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