

RESHORING AND FRIENDSHORING AS FACTORS IN CHANGING THE GEOGRAPHY OF INTERNATIONAL SUPPLY CHAINS

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ABSTRACT

The text covers the projection of the potential impact of the currently observed processes in the world economy on the international supply chains' geography. The economic effects of the pandemic, the modern trade war and Russia's aggression towards Ukraine are considered key factors in changing this geography. When examining the importance of these factors, the matrix of three components of global supply chains is adopted: production centres, transport corridors and consumption centres. The reasoning allowed for rejecting both the scenario of maintaining the so-called hyper-globalisation and forming a bilateral system of two isolated and hostile economic systems. The presented arguments lead to the expectation of a mixed solution in the form of the simultaneous existence of a system of high globalisation and concentrated regional systems. The primary objective of this study is to identify and assess emerging trends in the configuration of international supply chains. On this basis, it is also intended to identify the most likely scenario for the future formation of the geography of international supply chains. The research used the literature study methodology and deductive inference of the consequences of the identified processes taken as premises for reasoning. The above-presented arguments lead to the assumption that the so-called hyper-globalisation is probably unsustainable. Various economic, political, technological and social factors make it impossible to sustain, let alone further develop, the current logic of shaping the global economic system. A world economy system with a hybrid structure is expected to emerge. The model of full globalisation will coexist with the model of a multilateral structure with a regional character centred around the main consumption and production centres. The factors determining the evolution of economic globalisation have been systematised. Their potential impact is described, and a likely scenario for change is presented. The achieved results can contribute to the design of economic policy at the level of individual countries and their groupings.

KEY WORDS

international supply chains, supply chains geography, globalization
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INTRODUCTION

Globalisation was and is a constitutive feature of the world economic system. Although the globalisation concept has multidimensional characteristics

(Walas-Trębacz, 2007, p. 51–80), its economic aspect is particularly important. This is because globalisation has resulted in a process of interdependence between the economies of individual states through industrial cooperation, the provision of services across national borders, the liberalisation of national labour markets favouring population migration and

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relatively free financial flows. These phenomena have developed a rationale for increasing the enterprises' economic and financial efficiency, which is geared towards maximising the basic measures that assess their management efficiency (Banaszyk, 2022, 26–42). In these conditions, the management method known as outsourcing, meaning the relocation of production or service links from the point of view of potential economic and financial benefits, was of key importance (Rybinski, 2007). The end result of these efforts was the created global business system, i.e., geographically dispersed economic entities linked by logistical processes (Mańkowski, 2020, p. 31–45). Indeed, business dynamics require the movement and storage (transport of things, mobility of people and warehousing) of resources that constitute the so-called factors of production and their outputs. Economic globalisation based on the geographical dispersion of interdependent economic actors has thus become a determinant of the need for practice and knowledge about the efficiency (effectiveness and economisation) of logistics processes, which is sometimes referred to as the logistics of the world economy (Gołemska, 2022, p. 17–30).

In particular, Nathalie Fabbe-Costes and Aurélien Rouquet have tried to prove that logistics is becoming one of the most important drivers of mainly economic and, of course, political and socio-cultural globalisation. The publication prepared by these luminaries of French logistics thought was published relatively recently, in 2019. Then, the world economy experienced a pandemic crisis, and now (2022), a crisis is triggered by the aggression of the Russian Federation against Ukraine; in addition, a trade war was initiated mainly between the USA and China. The pandemic crisis highlighted the extent to which European economies depend on supplies from China, particularly in such key industrial sectors as automobiles, textiles, electronics and even pharmaceuticals (Fulconis & Paché, 2021). The pandemic showed in a few weeks how fragile global supply chains are and clarified that economic globalisation has rational limits. In turn, the war crisis demonstrated the dependence of the European economy on supplies from Belarus, Russia and Ukraine. The latter two countries supply 26 % of world exports of wheat, 16 % of maize, 30 % of barley and about 80 % of sunflower oil and sunflower meal. Ukraine supplies the world with about half of the neonics used to etch microchips. Russia is the world's third-largest oil producer, the second-largest gas producer and a leading exporter of nickel used in car batteries and palladium used in car

exhaust systems (The Economist, 2022). The trade war has intensified protectionist practices, particularly raising tariffs on international trade¹.

The question on the agenda is whether the mechanism for building material wealth in European societies should continue to be the result of the increasing value and volume of international trade, which correlates with the increasing people's spatial mobility as a result of business travel and tourism. Pandemics and wars may be viewed as the exception rather than the rule. However, the global economy's dependence on the reliability of the transport of goods along international supply chains is a constant factor that lifts economic risk probably now beyond acceptable levels. It did not take a pandemic or a war for the large container ship "Ever Given" to block shipping in the Suez Canal for one week in spring 2021. According to Lloyd Insurance estimates, each day of the Suez Canal blockade resulted in a loss of USD 6–10 billion. It is not out of the question that the likelihood of such blockades will increase, as the "Ever Given" is a 20 000 TEU-equivalent container ship, and the shipyards of the Asian triangle (China, South Korea and Japan) are planning to build 30 000 TEU container ships (Berkovich, 2021).

Leaving aside sensitive goods, e.g., products of the pharmaceutical industry, a smaller or longer delay in the acquisition and consumption of the final product by the final customers is not of major importance. However, economic globalisation in its contemporary form is more complex, as about half of all internationally traded goods are intermediate, i.e., necessary to sustain the continuity of production in the downstream links of international supply chains. Henri Regnault argued that the peculiarity of the globalisation process depends on the horizontal or vertical strategy pushed by leading multinational corporations. The former involves locating dependent (proprietary or technological) plants as close as possible to promising markets. The vertical strategy is related to the location of dependent plants in search of cost reductions in supply, energy or labour (international outsourcing) (Regnault, 2021, p. 10–11). Consequently, it is possible to evoke three potential scenarios for the future of economic globalisation (Regnault, 2021, p. 11–12):

Scenario 1: Maintenance of a large globalisation evolving in line with changes in the comparative advantages of different countries.

¹ E.g., average import tariffs from China to the US increased from 3 % to 21 % and from the US to China from 8 % to 21 % (Ambroziak, 2020).

Scenario 2: Marginal adaptation through limited regionalisation and variable geometry in the logic of sovereignty (immediate availability of medical goods, control of sensitive technologies such as 5G or artificial intelligence).

Scenario 3: Permanent fragmentation into rigid regional zones based on increased trade barriers (tariffs and different taxes, uniform standards of different zones but differentiation of zones). This would be the end of trade multilateralism in favour of bilateralism between regions and between countries, negotiated on a case-by-case basis.

The future is, of course, unknown, and its forecasting first requires establishing the current state.

The primary objective of this study is to identify and assess emerging trends in the configuration of international supply chains. On this basis, it is also intended to identify the most likely scenario for the future formation of the geography of international supply chains.

The key research questions focus on the reasons prompting the reconfiguration of international supply chains, the importance of economic, political and cultural conditions during this change, and the likely future of economic globalisation.

The research used the literature study methodology and deductive inference of the consequences of the identified processes taken as premises for reasoning.

1. CURRENT STATE OF LOGISTICS IN INTERNATIONAL SUPPLY CHAINS — LITERATURE REVIEW

Based on a report compiled by the United Nations UNCTAD (Global Trade..., 2022), international trade has seen steady growth in 2021. This is true for the exchange of goods and services. The value of world trade reached a record high in 2021 at USD 28.5 trillion, an increase of 25 % from the previous year. Admittedly, this was due to a slightly understated base due to the pandemic crisis, but in relation to 2019, the increase was 13 %. It is also noteworthy that international merchandise trade reached nearly USD 5.8 trillion in Q4 2021, a historical record. These figures seem to prove that the economic globalisation dynamics have remained high, which naturally results in the need for logistics services within international supply chains. According to UNCTAD, factors behind these dynamics are primarily rising commod-

ity prices, a post-pandemic rebound in manufacturing and deferred demand transforming the financial resources accumulated as a result of the support channelled to businesses and households by many governments into an effective demand stream (Global Trade..., 2022). In the years to come, the impact of these factors will no longer be significant, i.e., sustaining robust international trade growth in the future is problematic. In the European Union, similar trends have emerged. Imports of goods increased by 27 % in Q4 2021 compared to a similar period in 2019, while exports increased by 10 % in that period (Global Trade..., 2022).

UNCTAD's calculated measures of export efficiency (a composite indicator with a receptive field including growth rate, relationship to competitors and the level of competitiveness) and export volatility (fluctuations over the last six months) show for the European Union an efficiency of 0.51 at a stable level with little volatility — a measure of 0.01 (Global Trade..., 2022).

In the case of the Polish economy, the most important international trade partners for imports were Germany (a share in total imports of 21.9 % in 2020 and 2019) and China (12.3 % in 2019 and 14.4 % in 2020), and for exports, Germany (27.7 % in 2019 and 29.0 % in 2020) and the Czech Republic (6.1 % in 2019 and 5.9 % in 2020) (Statistical Yearbook..., 2021). Overall, Polish imports reached USD 265.8 trillion in 2019 and USD 260.6 trillion at current prices and exports USD 267.1 trillion in 2019 and USD 272.7 trillion in 2020.

According to the European Commission, changes in international trade in goods from the European Union's point of view have become apparent over the last decade. For imports, the highest dynamics of these changes concerned the growing share of China and India (China has the largest share, followed by the USA), and for exports, the shares of China and South Korea were growing (however, the USA is the EU's largest partner, China taking the second place) (European Commission, 2022).

According to the CSO, the structure of gross value added of manufacturing in 2020 was as follows: North America produced 17 % of this value, Europe 19.2 %, Asia and the Pacific 41.9 % (including China 31.3 %). These figures demonstrate that international trade in goods must primarily use transport corridors in the Europe, Asia and North America triangle.

A very useful tool for diagnosing the state of international supply chains is the concept reported by Jean-Paul Rodrigue (Rodrigue, 2012, p. 15–23).

Characterising these chains requires a combination of three geographical locations: the concentration of production, the concentration of consumption and the distribution of transport corridors between them.

Irina Rodionova's (Rodionova, 2021) research examined production volumes in six geographical regions: North America, Central and South America, Europe, Asia, Africa and Oceania. They covered the period from 2005 to 2019. The share by volume in the world industrial production of the leading countries is presented in Table 1.

Tab. 1. Countries' share of global production in % by volume

COUNTRY	2005	2019
China	13.69	29.67
USA	22.80	15.99
Japan	9.47	7.01
Germany	6.60	5.42
South Korea	2.64	3.05

Source: (European Commission, 2022).

Table 2 presents the data in a similar arrangement for different world regions.

Tab. 2. Regions' share of global production in % by volume

COUNTRY	2003	2016
North America	30.3	22.5
Central and South America	3.4	4.0
Europe	32.4	22.5
Africa	1.0	1.1
Asia	31.7	49.0
Oceania	1.2	0.9

Source: (European Commission, 2022).

The figures show that Asia is of key importance in the geography of global industrial production, with China, Japan and South Korea leading the way. This region is the origin of the most important international supply chains.

Taking the opposite perspective, focused on the level of consumer expenditure² realised in each region, it is possible to infer the most important destinations of goods moved along international supply chains. This is illustrated in Table 3.

2 Household final consumption expenditure (formerly private consumption) is the market value of all goods and services, including durable goods (such as cars, washing machines and household computers), purchased by households. It does not include the purchase of housing but includes imputed rent for owner-occupied housing. It also includes payments and fees to governments for permits and licenses. Here, household consumption expenditure includes expenditure by non-profit institutions serving households, even if reported separately by the country. It also includes any statistical discrepancy in the use of resources relative to the supply of resources.

Tab. 3. Regions' share of global consumption in USD bn

COUNTRY	2020
North America	941.79
Central and South America	216.4
Europe	280.67
Africa	35.56
Asia	389.73
Oceania	207.27

Source: (The Global Economy, 2023).

The figures in Table 3 show that North America is the main destination for goods, followed by Asia and Europe.

The spatial gap between producers and consumers requires the creation of international transport corridors and, within them, the provision of logistics services. Transport services are of key importance. These, in turn, require efficient transport terminals, i.e., seaports, road and rail hubs and airports from which various transport modes can depart and enter. These terminals are recognised as nodes that significantly determine the efficiency of the movement of goods.

According to Kavin O'Connor (O'Connor, 2010, p. 354–362), only 44 regions of global logistics importance are responsible for handling nearly half of land freight and about two-thirds of sea freight. Key logistics hubs with an intermediary function in global freight transport are New York and Tokyo, as well as Hong Kong–Shenzhen, Singapore and Amsterdam–Rotterdam. Other locations with strong logistics functions are, in particular, Los Angeles–Long Beach, Tokyo–Yokohama, Shanghai–Ningbo and Dubai–Gulf. On the one hand, this results in high congestion in these regions and, on the other hand, in the desire of owners and managers of logistics companies to compete for land that allows the expansion of logistics infrastructure. Arguably, the development potential of these locations is close to being fully exploited.

The issue of logistical risk is also an important research perspective. Following Andrzej Szymonik, it refers to “conditions in which the logistician knows the probable size of the probability of obtaining business by a purposefully organised and interconnected set of such elements (subsystems) as, e.g., procurement, production, distribution together with the relations between them and their properties, conditioning the flow of material and information streams” (Szymonik, 2014, p. 128). These conditions and, therefore, the assessment of the efficiency of interna-

tional supply chains are currently undergoing change. Crucial in this regard is the trade war between the US and China (resulting, e.g., in obstacles to maritime transport through the Straits of Malacca (Paszak, 2021)), the pro-environmental socio-economic policies of the European Union and, more recently, the Russian war aggression against Ukraine, as well as the ongoing COVID epidemic. “At the same time, it is predicted that the likely outcome of these factors could be a division of the world economy into two blocs — one oriented around China, the other around the United States, with the European Union mainly but not entirely in the latter camp. Attempts to isolate each of these blocs and then reduce the influence of the other are possible. The economic consequences for the world and for the geography of international supply chains could be enormous” (Banaszyk & Gorynia, 2022, p. 154).

The geography of global supply chains is thus approaching a tipping point, the crossing of which marks a major modification. As indicated, this is not due to a single, isolated factor but the simultaneous impact of many, including political, ecological, sanitary and economic reasons, arising due to the current Industry 4.0 revolution, which means the use of contemporary information and communication technology, the Internet of Things, cloud computing, augmented reality, industrial robots, etc., in a coherent cyber-physical system that significantly improves customer service and reduces operating costs. Industry 4.0 makes it possible to use these innovations to build a completely transformed value chain and redefine the product life cycle within a self-organised manufacturing system (Kumar, Bawge & Kumar, 2021, p. 67).

Leaving aside political and formal-legal factors, the economic globalisation determining the need for international supply chains can be explained from an economic point of view. This is being addressed by the developers of economic activity location theory (Piętak, 2014, p. 5–28). Bearing in mind the widespread assessment that no universal and universally accepted theory has been developed to date, the following can be concluded from the efforts to date. Initially, many theorists were inclined to the view that the most important factors of industrial location are the characteristics of the sales market, factor markets and transport costs — the optimal location of an enterprise allows the highest profit to be achieved. Next was the recognition of the importance of industrial districts, also called clusters, due to their ability to reduce costs, i.e., increase profits (Banaszyk, 2022,

p. 57–60). Slowly, there was also a realisation of the impact of the increasing size of these clusters in creating negative economic externalities, raising private and public costs. Over time, the benefits of expanding international trade complemented this one-sided approach of seeking ways to maximise profits. The importance of comparative advantages and the availability of economic resources was first pointed out, and later, the impact of economies of scale was added. The latter factor makes it most possible to reduce costs, i.e., increase profits. A further evolution of location theory resulted from synthesising the achievements of location theory and regional development theory. This emphasised the combined influence of endogenous economic resources, the size of effective demand, trade costs (including transport) and economies of scale, the pursuit of which usually leads to the emergence of imperfect competition. The above concepts can be classified as part of the so-called mainstream in economic science. Alongside it, a heterodox current is also developing, including behavioural economics (Polowczyk, 2004, p. 3–7). It emphasises the socio-psychic aspects of economic decision-making, i.e., sentiments, worldview and political beliefs and the imperfections of human reasoning as being just as important as objective economic factors, allowing for strictly logical decisions optimising economic criteria.

2. RATIONALE FOR CHANGING THE GEOGRAPHY OF INTERNATIONAL SUPPLY CHAINS — THE RESEARCH ASSUMPTIONS

The reconfiguration of international supply chains is likely to be driven by the impact of several causal factors. The first is a welcome change in the decision criteria for managing these chains. In line with the dominant guidelines of the neo-liberal school of thought in economic sciences since the 1980s, the main criterion was to maximise profit in the long term. From an operational point of view, it was recommended to maximise shareholder value added (EVA), i.e., the difference between the profitability of net assets and the cost of capital employed in the business (Banaszyk, 2022, p. 28–29). This approach is now being increasingly criticised. The drive towards resilient supply chains is coming to the fore. Resilience can be defined as the fundamental competence to respond efficiently to significant

changes that disrupt the achievement of established plans without falling into long periods of crisis. Resilience should include three main components: productivity, security and agility. Productivity refers to the relationship between the volume of production sold and the amount of resources consumed to produce that production. On the other hand, safety refers to sanitary protection and stable working conditions. Finally, agility is the flexibility to adapt to changing demand requirements. Agility and safety are constrained by productivity, ensuring at least a break-even point in supply chain management outcomes. There is, therefore, no way to be positive about a business activity that results in losses (Banaszyk, 2022, p. 34–36). Consequently, this means abandoning the ruthless pursuit of profit.

Another causal factor is politics. Its impact can be explained from the perspective of behavioral economics achievements to some extent. After all, politics is an activity subordinated to professed axiological values. The trade war between the USA and China and the hot war between Ukraine and Russia, as well as many other unrests in the world, are the result of the political aspirations of various states, their groupings or accidental alliances. The above-mentioned export specialisations of Belarus, Russia and Ukraine are a source of supply shock in the markets for the products indicated, forcing the search for alternative suppliers and substitute products. Even if it is possible to unlock the export opportunities of these countries, the residualisation criterion will require the creation of redundant producers and supply chains. According to an April 2022 White House report on supply chains, China currently refines 60 % of the world's lithium and 80 % of its cobalt, two key minerals critical to producing high-capacity batteries (Hayashi, 2022). Undoubtedly, resilience will also force Western countries (North America and Western and Central Europe) to minimise their dependence on China. Investments in creating new production facilities in closer and politically friendly countries can be expected. Profit-maximising outsourcing is likely to be replaced by residency-enhancing nearsourcing and friendsourcing. Nearsourcing is “the manufacture or acquisition of products and services from foreign suppliers located in geographical areas close to the buyers' facilities while being able to offer low prices” (Cagliano, De Marco & Rafele, 2013, p. 490). Its economic benefits mainly arise from shorter transport corridors, impacting costs. In addition, delivery times are also shorter, increasing flexibility, i.e., reacting more efficiently to fluctuations in demand. The

idea of friendsourcing was popularised by Janet Yellen, the US Secretary of the Treasury, who described it as “deepening relationships and diversifying US supply chains with more trusted partners” (GEP, 2022). A survey of US business executives showed that bottlenecks in transportation and logistics top the list (46 %) of key drivers of supply chain disruption, followed by labour costs (45 %) and raw material costs (43 %) (GEP, 2022). Guided by the principle of friendsourcing, global supply chains can be rebuilt to reduce their dependence on countries with autocratic governments and non-market economies, namely China and Russia. It is a compromise between full globalisation and isolationism and between offshoring and domestic production (Hayashi, 2022).

Some foreign direct investment has been made because of the desire to avoid legally enforced, costly environmental and climate protection installations. Of course, certain environmental rules exist in every country receiving these investments, but they are not equally strict everywhere. Besides, even if, out of concern for their business reputation, investors are willing to take care of the environment voluntarily, the intensification of economic activities tends to worsen its condition. This is according to the so-called Kuznets curve, according to which a country's economic level must exceed a certain threshold beyond which the state of the environment begins to improve (although recent studies suggest that after a period of improvement, further economic development worsens the state again) (Genstwa, 2020, p. 39–50). However, currently recommended nearsourcing and friendsourcing take place in a changed legal and cultural environment. It is worth citing the European Green Deal (European Commission, 2020) or the Glasgow COP26 Climate Package (Consilium, 2022). For ecological and other reasons, it can, therefore, be expected that the pursuit of profit maximisation will recede into the background in favour of sustainability and corporate social responsibility (before profit (Tepper, 2020)).

Health security is the next factor prompting the reorganisation of international supply chains. However, it is not a question of guaranteeing a continuous and reliable supply of pharmaceuticals, medical infrastructure or components for the final production of the former two. Indeed, the experience of the COVID pandemic demonstrated the threat of microbial proliferation, which also has a serious impact on economic life. According to expert studies, the crisis caused by the pandemic in some way affected 93 % of

employees worldwide. According to the International Labour Organisation, this meant a loss of 8.8 % of working time, or 255 million jobs (Global economic, 2021). A decline in GDP per capita affected 90 % of countries worldwide (Yeyati & Filippini, 2021). The perturbations of the real economy were reflected in the financial markets. Governments in many countries launched unprecedented bailouts of businesses and households. The result of these policies was budget deficits, which were particularly large in the economies of developed countries (Yeyati & Filippini, 2021).

Unsurprisingly, inflation has emerged globally and in Poland, and states usually adopted monetary policy targets (beyond 1.5–2.5 %). It is not excluded that the above phenomena signal the danger of an emerging or already beginning stagflation because of coexisting elevated inflation and a supply shock manifested in a change in the consumption structure. It is worth remembering the behaviour of many government representatives who abandoned the previously dominant policy of austerity and favoured QE (quantitative easing). Thus, there is no income rationale for the demand weakening. The causes of supply shocks, on the other hand, relate to the so-called breaking of international supply chains. The pandemic exposed the weaknesses of concentrating production facilities in the poor South and Far East and countries with not particularly demanding labour law or nature conservation from a cost viewpoint (Banaszyk & Gorynia, 2022).

3. PROSPECT OF RELOCATING INTERNATIONAL SUPPLY CHAINS — THE RESEARCH RESULTS

Given the phenomena presented above, the macro-risk assessment of the use of international supply chains is undoubtedly changing. The popular systematisation of supply chain risks into micro, i.e., with sources inside companies, and macro, i.e., with sources external to companies and of a natural or human-induced nature, is adopted here. Natural risks arise from natural events (e.g., earthquakes, volcanic eruptions, etc.). Human-induced risks are caused by human actions (e.g., terrorism, war, legal or political obstacles) (Johnson & Haug, 2021, p. 704). Managers of companies involved in international supply chains are, of course, not directly influenced by macro-risks but are obliged to implement responses to counteract

these growing risks, which can take place over a longer or shorter time horizon.

Short-term countering of macro-risks probably has no effect on changing the geography of international supply chains. It consists primarily of “waiting out” problems. The basic practice is to increase stocks, which can apply to materials, raw materials and finished goods. Attention is drawn, e.g., to the “exceptional inventory cycle” implemented by companies in Poland. The turn of 2021 and 2022 was a time of stockpiling inventory for fear of supply discontinuity and the prospect of rising prices (Morawski, 2022).

Long-term macro-risks can already significantly modify the geography of international supply chains. If one applies the systematisation of supply chain components outlined above, i.e., production centres, transport corridors (with point and line infrastructure), and consumption centres, new insights into potential changes are revealed. An additional factor influencing such modifications is arguably the nature of the supply chain. One proposal for classifying supply chains is to divide them according to the volume of goods moved, their variety and the uncertainty of demand for them (Chopra & Sodhi, 2014, p. 75).

With regard to production centres producing mass and undifferentiated goods with predictable demand, changes in production locations are probably not to be expected. Consequently, traditional transport corridors will move goods to existing consumption centres. A change in principals in inventory management may mitigate various obstacles to the continuity and reliability of transport. This involves a more rational approach to the concept of just-in-time (JIT) delivery³.

However, if these goods are diversified assortments and produced on a small scale, regardless of the ability to forecast demand, priorities are likely to change. A key determinant of this change is the technical and technological advances most generally referred to as Industry 4.0. They will require investment in production capacity and the necessary logistics infrastructure. It is worth noting that the business's financial performance will be affected by two contradictory pressures. On the one hand, investments require capital, which will undoubtedly increase the cost of production activities⁴. On the

³ The rationalisation of JIT is supposed to mean abandoning just-in-time delivery within global supply chains while applying it even more within regional supply chains (Pisch, 2020).

⁴ If the threat of stagflation is real, overcoming supply shocks should take place through capacity-enhancing investments. It would, therefore, be logical for these to be supported by the state's economic authorities.

other hand, however, Industry 4.0 technology will reduce these costs through computerisation, robotisation and automation. The transport costs raised by the dynamics of fuel and insurance prices will also have an impact. The severity of these costs decreases when the length of transport routes is significantly reduced. On balance, especially for production where it will not be possible to discount economies of scale, relocating production centres closer to consumption centres may prove financially attractive. One may think that the paradigm of economic science is also evolving in this direction. Indeed, Dani Rodrik predicts that the hitherto core values of economic theory and practice of seeking to enhance globalisation, promote consumerism and take advantage of the opportunities of financial markets are beginning to be displaced by an appreciation of work and production in regional areas. Rodrik calls this new paradigm productivism, the essence of which is the spread of productive economic opportunities across all regions and all segments of the labour force (Rodrik, 2022).

CONCLUSIONS

The arguments presented above lead to the assumption that the so-called hyper-globalisation is probably unsustainable. Various economic, political, technological and social factors make it impossible to sustain, let alone further develop, the current logic of shaping the global economic system. This probably does not mean a complete abandonment of the so-called sunk costs of infrastructure and institutionalisation of the global business model pursued to date. However, the economic and financial calculations are evolving. There are many commodities for which mass demand will persist, and their production, using the economies of scale, including in transport, will provide the opportunity to utilise the existing transport potential and, to some extent, the production potential built up under the hyper-globalisation model. At most, production centres will shift from China to other Far Eastern countries (India, Vietnam, Indonesia, Malaysia, etc.) over time.

However, many commodities will be subject to a reduction in the production volume, if only due to a reduction in the consumption scale (abandoning over-consumptionism), and new technologies for their production will allow profitable production in the countries of the rich North. In addition to the economic rationale, a change may be important in

economic policy in these countries towards the recommendations of the so-called supply-side economics, i.e., the creation of valuable jobs without the need to expand social assistance for the poorer population segments.

As a result, a world economy system with a hybrid structure is expected to emerge. The model of full globalisation will coexist with the model of a multilateral structure with a regional character centred around the main consumption and production centres.

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