

<https://doi.org/10.19195/2658-1310.26.2.3>

Jarosław Kundera

ORCID: 0000-0003-0900-7447

University of Wrocław

jaroslaw.kundera@uwr.edu.pl

New Industrial Countries in Global Trade in 2007–2018

Date of submission: 10.01.2020; date of acceptance: 25.05.2020

JEL classification: F14

Keywords: New Industrial Countries, Global Value Chains, international trade

Abstract

New Industrial Countries in Global Trade in 2007–2018

After 2007 year the world economy entered not only a financial crisis, but also structural changes in the international division of labor. The crisis affected different sectors and trading partners, which influences their position in the global economy. While world trade has returned to a dynamic growth path since 2011, the global economy has undergone qualitative change due to the decline in exchange of well-developed countries and growth in trade of New Industrial Countries (NIC). The emerging trends of trade after the crisis is worth examining, for at least two reasons: firstly, because, through the crisis, they verify the theories of international trade, while at the same time giving a response — the thesis of which theories correspond to modern reality. Secondly, they shed light on the shaping of the future division of labor in the global economy and the new balance between sectors and partners. After 2007, international exchange was growing by increasing the demand for technologically advanced products, on diversity, and on services. The increase of NIC in global trade points to the importance of competitiveness factors, diffusion of knowledge and development of Global Value Chains. The EU and the USA are seeing the steady progress of NIC, especially when it comes to exchanging office and telecommunications equipment, chemicals, computers, construction and travel services, but they are of marginal importance when it comes to charges for intellectual property rights.

Introduction

The crisis of 2008–2009 sparked changes in the volume and structure of world trade, which challenge the existing assumptions of beneficial to all free trade.

Most opinion contends that the global production shifts after the crisis created again adjustment problems in the division of labor between different sectors, countries and regions. Some countries even refer to protection arguments and defense of the national interest in order to improve their position in trade and balance of payments. Due to the evolution of the global division of labor, current trade theories consider structural changes in the world economy, the place of individual partners and companies in Global Value Chains (GVC), their international competitiveness, the progress in transport and information technology (Wydymus, Głodowska, 2013, 23–33).

After 2007 developing countries have become more important trading partners; they account for one-third of world trade. Exports of manufactured goods and services in developing countries have risen to 80 % of their traditional exports, with 40% of selling going now to other developing partners. The most dynamic group of developing countries are the so-called New Industrial Countries (NIC), whose economies have not yet reached developed country status, but which have outpaced their counterparts in fast economic growth. These countries have moved away from an agriculture-based economy into a more industrialized one, usually export-oriented. Since there is no exact definition for NIC partners, the group is open to debate and experts typically enroll onto the list such countries as China (with Hong Kong) Malaysia, India, the Philippines, Taiwan, Thailand, Vietnam, Singapore, Indonesia, Brazil, Mexico, South Africa, and Turkey. Some authors include also Russia, Israel and few Arab countries into NIC, but there are some doubts if Russia is not rather well-developed country considering its GDP and economic structure.

It should be noted that NIC growth is extremely resource intensive, demanding raw materials, agricultural products, water, and oil. Before the crisis, most raw material prices recorded a two-digit rise and oil prices grew by about 400% to 144 dollar per barrel. China became the largest buyer of copper, absorbed a third of the global supply of steel and cotton and from 2011 to 2013 the construction of this country used more cement than was used in the USA economy throughout the 20th century (Jacques, 2012, 199). However, the financial crisis stopped this boom that moved quickly into the real economy: in 2009 global import decreases were up to 25% and commodity prices for raw materials fell by more than 50%. Due to lower trade, production processes were breaking up, the position of different sectors and partners has changed. While the growth rate of trade has returned to a dynamic path since 2011, international exchanges are threatening new barriers as the US trade war with China unfolds.

The structural changes in the world economy after 2007 sparked a new discussion between economists concerning the search for modern sources of international division of labor. Emerging trade trends are worth examining, for at least two reasons: firstly, because, through the crisis, they verify the theories of international trade, while at the same time giving a response — those theories which most correspond to the reality of the actual economy of NIC. Secondly, they shed light on the shaping of the future division of labor in the global economy, a new balance between

sectors and partners. The best verification of trade theory is of course the practice of international turnover, which concerns not only normal trading conditions, but also a period of imbalance, crises, or time to overcome them. Understanding how best to participate in international division of labor taking into consideration the NIC examples is becoming increasingly important to achieve structural transformation and development in the 21st century.

1. The New Industrial Countries in Global Value Chains

Knowledge and technical progress are considered as an increasingly important premise of today's international trade, not only for economically developed countries, but also for New Industrial Countries (NIC). Neo-factoring theories translate the exchange of economies specializing in the production of raw materials and labor-intensive production. In the context of globalization, the evolution of division of labor may be described with the help of gravity models of trade, international competitiveness, and supply value chains. The translation of exchanges during the recovery period is best used in demand-supply theories. As the conditions for trade are changed both for developed and NIC partners, the microeconomic approach including the theory of technological gap, or product lifecycle cannot be neglected.

The conditions of competitiveness of modern exports dictate not only the factors of production (comparative costs or the Hecksher-Ohlin theory), but also economic access to foreign indirect goods. Today, international production is organized within Global Value Chains (GVC), where the different stages of the production process are located across different countries. Baldwin and Venables point out that global production sharing is determined by international cost differences and frictions related to the costs of unbundling stages spatially. The interaction between these forces depends on engineering details of the production process, where lower frictions produce location changes, and parts may move against their comparative costs because of proximity benefits. They confirm that in terms of vertical production links and global networks, there is a rapid transfer of not only positive effects, but also negative: just-in-time inventory management significantly accelerated trade into the last crisis (Baldwin, Venables, 2010). Krugman also gives rise to the fact that companies gain economies of scale both in the production of final and intermediate goods and are seeking to improve for each stage of production in the cross-sectoral division of labor (Krugman, Obstfeld, Melitz, 2018, 248–252).

The growth of actual trade is a result of the fragmentation of production and the increasing importance of outsourcing, off shoring, and vertical specialization, which were in turn a result of the rapid decrease of transportation costs and transaction costs, development of information, and communications technologies. At present, international companies try to optimize their production processes by locating the various stages across different sites towards dispersion of value chain activities. The point is that each stage of the production process can be car-

ried out not only in the country, but also abroad, while being a link to the GVC of goods and services. The decisive factor in a production system organized by transnational corporations appears to have three elements: 1) global value chain; 2) geographical diversification of activities; 3) management in the international structure of co-operation (Hindle, 2016, 322). Low logistics costs and specialized transport systems allow companies to choose the optimal international location for its effective development, ranging from the deployment of technology centers, production facilities, to the delivery of parts and components, distribution and marketing. With the development of GVC between suppliers, subcontractors, intermediaries, final producers, and distributive center, countries specialize in few activities and join a global production network (Global Value Chain Development Report 2019).

The closer integration of NIC into the world economy by integrating their companies into global supply chains simultaneously constitutes a fundamental element of business cooperation and structural economic transformation. Participation in the international fragmentation of production can lead to increased job creation and economic growth, but in order to reap the gains from the value chain, countries must put in place the right kind of trade and investment policies. Such cooperation brings many benefits from the use of the brand of international corporations, its distribution networks, diffusion of modern methods of production and management. Some countries have fully embarked on GVC development, others only partly. The level of engagement of the economies in international production processes is usually measured firstly by the involvement of imported goods used in the production of exports treated as foreign added value; secondly, the value of intermediate goods (parts and of semi-finished products) as a percentage of global exports, are treated as the value added of the country.

In 2000–2007 Global Value Chains, especially complex ones, were expanding at a faster rate than other components of GDP. The higher the technology (knowledge) intensity of a sector, the more significant the increase of GVC activities. Such goods as machinery, computers, cars, iPhones and electronics rely heavily on imported inputs, both manufacturing and services, they have large amounts of imported inputs that go into the final assembly. The spread of GVC was especially beneficial for SME to participate in trade as the break-up of the production process makes it feasible for a specialized firm to find niche markets. The emergence of GVC has offered NIC partners new opportunities to integrate into the global economy, to develop exports and production and to create new jobs. Therefore, NIC are on average as engaged in the global value chains trade as developing countries (41.4%) and economies of developing countries in Asia had the highest growth rates in GVC. It is worth noting that the greatest benefits of cross-border division of labor are achieved by these economies and their companies at the beginning of the production chain (dealing with design, innovation, research and development, the setting of standards) and finally the production chain (dealing with

brand and marketing management). However, the lesser benefit of international trade is drawing by “factory countries”, which produce and assemble goods.

2. New Industrial Countries’ competitiveness in 2007–2018

Before 2007 four categories of countries had been highlighted in terms of their international competitiveness and capabilities as creators, recipients and technology donors: 1. Leaders (e.g. Switzerland, USA, EU countries, Japan, Korea, Singapore); 2. Potential leaders (e.g. China, Taiwan) 3. Dynamic followers (e.g. Thailand, Malaysia India); Side countries (e.g. Algeria, Pakistan, Kenya). While the leaders gain a competitive edge over their partners with more innovative capabilities, potential leaders try to create new products and gain access to new technology by purchasing a license or attracting foreign investment. In contrast, countries with less innovative capacity, so called dynamic followers, compete in the export of other products and services and strive to acquire foreign outlets by other means (lower production costs, price) (Kundera, 2018,28). Macro-economic competitiveness in the international division of labor is not easy to evaluate; the economy is classified here based on the criterion of action (competitive capacity) and effects (competitive position). The notion of competitive capacity refers to the long-term ability of the economy to cope with foreign competition. The competitive position is determined by the contribution of the national economy to international exchange: when it grows, a country improves its position, if it falls, a country loses its competitiveness. (Rymarczyk, 2010, 277–278). Competitive capacity largely depends on Research and Development expenditure (R+D). This expenditure has not weakened after 2007: the U.S. spends on research close to one third of the world’s outlay, i.e. 2.8% of GDP (430 billion dollars in 2011), Europe 326.7 billion dollars, (1.9% GDP), China spends much less — 174.9 billion dollars (1.6% of GDP) and India only 38 billion dollars (0.8% of GDP) (Bueber, Sudt, 2012, 1–3). R+D has become such an important part of the activities of transnational corporations, that in 2016 they invested a record sum of 647 billion dollars on R+D (two-fifths of all research inputs. In the last decade, the two branches have almost half of all the R&D industry’s expenditure, namely the computer industry and health protection. Other industries that intensively benefit from research and development expenditure are the automotive, aerospace, and telecommunications industries. Unlike in the USA or in Europe, most of China’s best performing innovative companies were to be found in the state sector (Jacques, 2012, 223).

The factors influencing international economic competitiveness are of course manifold and there are about 300 individual cases. Due to the very large number and diversity, these cases are grouped into four main categories: 1) Economic achieve-

ments; 2) Government efficiency; 3) Business efficiency; 4) the level of infrastructure. The most important indicators of the country's economic performance include, among others: size of total GDP and per capita, international trade and its balance, the volume of foreign investments, direct and portfolio, employment and inflation levels. Government efficiency is assessed in terms of deficit and public debt, fiscal policy, central bank activity, competition policy, government spending, and the quality of education. Business efficiency indicators include productivity, the functioning of labor markets, capital markets, the development of the banking sector, the internationalization of enterprises, the quality of management. Finally, the assessment of infrastructure considers factors such as quality of roads and motorways, rail and air connections, number of computers per capita, Internet development; R+D spending, number of Nobel Prizes, life expectancy, environmental protection.

Table 1. Ranking of the most competitive economies in the world in the Years 2007–2008, 2017–2018

Countries	Years 2007–2008	Countries	Years 2017–2018
1. USA	5.74	1. Switzerland	5.86
2. Switzerland	5.61	2. USA	5.85
3. Denmark	5.58	3. Singapore	5.71
4. Sweden	5.53	4. Holland	5.66
5. Singapore	5.53	5. Germany	5.65
6. Finland	5.50	6. Hong Kong	5.53
7. Germany	5.46	7. Sweden	5.52
8. Holland	5.41	8. United Kingdom	5.51
9. Japan	5.38	9. Japan	5.49
10. Canada	5.37	10. Finland	5.49
11. United Kingdom	5.30	11. Norway	5.40
12. Korea	5.28	12. Denmark	5.39
13. Austria	5.23	13. New Zealand	5.37
14. Norway	5.22	14. Canada	5.35
15. France	5.22	15. Taiwan	5.33
16. Taiwan	5.22	16. Israel	5.31
17. Australia	5.20	17. United Emirates	5.30
18. Belgium	5.14	18. Austria	5.25
19. Iceland	5.05	19. Luxemburg	5.23

20. Malaysia	5.01	20. Belgium	5.23
21. Ireland	4.99	21. Australia	5.19
22. Israel	4.97	22. France	5.18
23. New Zealand	4.93	23. Malaysia	5.17
24. Luxembourg	4.85	24. Ireland	5.16
25. Qatar	4.83	25. Qatar	5.11
26. Saudi Arabia	4.72	26. Korea	5.07
27. Chile	4.72	27. China	5.00
28. Spain	4.72	28. Iceland	4.99
29. China	4.70	29. Estonia	4.85
30. Arab Emirates	4.68	30. Saudi Arabia	4.83

Source: Global Competitiveness Report 2008–2009, World Economic Forum, 2009; Global Competitiveness Report 2017–2018, World Economic Forum, 2018.

The Global Competitiveness Report estimates that in the period 2007/2008–2017/2018 there was a change of leader in terms of the most competitive economy in the world (table 1). In 2017/2018, the highest competitiveness indicators were won by Switzerland (5.86), slightly ahead of the United States (5.85), which had the highest indices between 2007 and 2008. In third place was ranked Singapore (indicator 5.71), which overtook traditionally highly competitive economies like Denmark and Sweden. In the ten years following the crisis some European Union member states were beyond the twenty highlighted economies, like France (5.18), Spain (4.70), Portugal (4.57), or Italy, whose indebted economy fell to 47th position (4.54). Meanwhile, in the period 2007/8–2017/8, the NIC (Hong-Kong, Israel) and oil countries (United Arab Emirates) were promoted to the forefront of competing economies. In 2018, China ranked 27 of the most competitive economies (5.00) just behind South Korea (5.07) but overtaking European countries such as Iceland (4.99) and Estonia (4.85). As for the countries of Central Europe the Czech Republic (4.77) was placed in 32nd position, just behind Thailand (4.72). Poland was promoted from 51st to 39th position (indicator 4.59), just in front of India (4.59), in the years 2007/8–2017/8.

3. New Industrial Countries in Merchandise Trade in 2007–2018

In the global economy, a certain traditional division of labor has been established, where developed countries exported most industrial goods and services with high added value and imported from developing countries raw materials and poorly pro-

cessed products. This type of division of work is subject to gradual evolution, and the crisis of the years 2008–2009 seems to be a turning point signaling “qualitative adjustment”. The exchange of goods covers now about 78% of the value of world trade, where 75% are processed products. In global trade, an increasing number of technologically intensive products, which are difficult to imitate, are gaining in importance. In 2008 the share of high-tech products in the total exports of the processing industry represents 38% in Asia, in North America 30.3%, in EU countries 21.2%, (Wydymus, Głodowska, 2013, 67); a new phenomenon is the rise in trade of intermediate goods and services, where NIC intensively participate, which represent 56% of the goods trade and 73% of services (Miroudot, Lanz, Ragoussis, 2009, 93).

Before the economic crisis, the EU was the largest trading bloc in the world economy with 11 of its member states among the 30 leading exporters of goods. The EU countries, as well as USA and Japan, were among the largest exporters of services. As far as the value of goods exports in 2007 is concerned, Germany was ahead of China, the USA and Japan, successively France, the Netherlands and Italy, and even Belgium were larger exporters than Korea and Russia (table 2). Among the group of New Industrial Countries, Singapore was in 13th position (299.3 billion dollars export), Mexico in 14th (272 billion dollars), Taiwan in 15th (246 billion dollars), Malaysia in 18th (176.2 billion dollars), Brazil in 23rd (160.6 billion dollars), Thailand in 24th (153.1 billion dollars), India in 25th (145.3 billion dollars). As regards imports, the largest market in 2007 was the USA, ahead of the EU — 27 Member States, China was in 3rd position (956 billion dollars import). Both China and Japan had a much larger share of global exports than imports. Among other NIC partners, Mexico was the 13th largest largest importer, Singapore 14th, Taiwan 16th, India 17th, Turkey 18th, Malaysia 24th, Thailand 25th and Brazil 27th largest importer in the world.

Table 2. The largest exporters and importers in 2007 in billion USD and their share in % of the world’s turnover

Countries	Export	%	Countries	Import	%
EU (27) extra	1697.8	16.4	EU (27) extra	1952	18.4
1. Germany	1326.4	9.5	1. USA	2020.4	19.0
2. China	1217.8	8.7	2. Germany	1058.6	6.7
3. USA	1162.5	8.3	3. China	956.0	6.7
4. Japan	712.8	5.1	4. Japan	621.1	4.4
5. France	553.4	4.0	5. UK	619.6	4.4
6. The Netherlands	551.3	4.0	6. France	615.2	4.3
7. Italy	491.5	3.5	7. Italy	504.5	3.5

8. UK	437.8	3.1	8. The Netherlands	491.6	3.5
9. Belgium	430.8	3.1	9. Belgium	413.2	2.9
10. Canada	419.0	3.0	10. Canada	389.6	2.7
11. South Korea	371.5	2.7	11. Spain	372.6	2.6
12. Russia	355.2	2.5	12. Korea	356.8	2.5
13. Singapore	299.3	2.1	13. Mexico	296.3	2.1
14. Mexico	272.0	2.0	14. Singapore	263.2	1.8
15. Taiwan	246.0	1.8	15. Russia	223.4	1.6
16. Spain	241.0	1.7	16. Taiwan	219.6	1.5
17. Saudi Arabia	234.2	1.7	17. India	216.6	1.5
18. Malaysia	176.2	1.3	18. Turkey	170.1	1.2
19. UAE	173.0	1.2	19. Australia	165.3	1.2
20. Switzerland	172.1	1.2	20. Poland	162.7	1.1
21. Sweden	169.1	1.2	21. Austria	162.4	1.1
22. Austria	162.9	1.2	22. Switzerland	161.2	1.1
23. Brazil	160.6	1.2	23. Sweden	151.3	1.1
24. Thailand	153.1	1.1	24. Malaysia	147.0	1.0
25. India	145.3	1.0	25. Thailand	140.8	1.0
26. Australia	141.3	1.0	26. UAE	132.0	0.9
27. Poland	138.8	1.0	27. Brazil	126.6	0.9
28. Norway	136.4	1.0	28. Czech Republic	117.9	0.8
29. Czech Republic	122.4	0.9	29. Denmark	99.6	0.7
30. Ireland	121	0.9	30. Hungary	95	0.7

Source: International Trade Statistics, (2008). World Trade Organization.

In 2018 world exports of merchandise had increased by 20% in value terms since 2008 to 19,475 billion USD (including re-export). According to World Trade Statistical Review 2019, the top ten traders in merchandise trade accounted for 52% of the world's total trade. Generally manufactured goods increased from 66% of world trade in 2008 to a 68% share in 2018. The position of developing economies was constantly improving in 2018. They had a 44% share in world merchandise trade. From 2011, exports from developing countries to other developing countries surpassed exports to developed economies. This so-called “South-South” trade represented 4.28 trillion dollars, equaling 52% of total developing economies' exports in 2018.

After the economic crisis, China was promoted to the largest exporter in the global economy with an export value of 2487 billion dollars in 2018 (excluding the exports of Hong Kong). If we compare the data from tables 2 and 3, it shows that China has overtaken the EU with the value of external exports — 2309 billion dollars and the US with exports of 1664 billion. In 2018 Chinese exports exceeded half of Germany's exports (1561 billion dollars) and three times Japan's exports (738 billion dollars). In the period 2007–2018 the promotion of other Asian economies is also seen, as regards their participation in global exports: Mexico from 14th position in 2007 (272 billion — 2.0% of world exports) to 13th position in 2018 (451 billion — 2.3% of world exports), the economy of India from 25th (145.3 billion — 1%) in 2007 to 20th position (326 billion — 1.7%), Vietnam to 27th position in world trade with export volumes — 246 billion (1.3% of global exports). Brazil, Thailand, and Taiwan have slightly changed their position in global exports between 2007–2018 with nearly the same share. As a result of the temporary decrease in crude oil prices, Russia and Saudi Arabia fell from 12th (2.5%) and 17th (1.7%) to 15th and 22nd position (2.3% and 1.2% of world export), respectively.

Table 3. The largest exporters and importers in billion USD and their participation % of the world's turnover in 2018

Countries	Exports	%	Countries	Imports	%
1. China	2487	12.8	1. USA	2614	13.2
2. UE-extra	2309	11.8	2. UE-extra	2337	11.7
3. USA	1664	8.5	3. China	2136	10.8
4. Germany	1561	8.0	4. Germany	1286	6.5
5. Japan	738	3.8	5. Japan	749	3.8
6. The Netherlands	723	3.7	6. UK	674	3.4
7. South Korea	605	3.1	7. France	673	3.4
8. France	582	3.0	8. The Netherlands	646	3.3
9. Hong Kong	569	2.9	9. Hong Kong	628	3.2
10. Italy	547	2.8	10. South Korea	535	2.7
11. UK	486	2.5	11. India	511	2.6
12. Belgium	464	2.4	12. Italy	501	2.5
13. Mexico	451	2.3	13. Mexico	477	2.4
14. Canada	450	2.3	14. Canada	469	2.4
15. Russia	444	2.3	15. Belgium	450	2.3
16. Singapore	413	2.1	16. Spain	388	2.0

17. UAE	346	1.8	17. Singapore	371	1.9
18. Spain	345	1.8	18. Taiwan	286	1.4
19. Taiwan	336	1.7	19. Switzerland	279	1.4
20. India	326	1.7	20. Poland	267	1.3
21. Switzerland	311	1.6	21. UAE	253	1.3
22. Saudi Arabia	299	1.5	22. Thailand	250	1.3
23. Poland	261	1.3	23. Russia	249	1.3
24. Australia	257	1.3	24. Vietnam	244	1.2
25. Thailand	252	1.3	25. Australia	236	1.2
26. Malaysia	247	1.3	26. Turkey	223	1.1
27. Vietnam	246	1.3	27. Malaysia	217	1.1
28. Brazil	240	1.2	28. Austria	193	1.1
29. Czech Republic	202	1.0	29. Brazil	189	0.9
30. Austria	185	0.9	30. Indonesia	189	0.9

Source: World Trade Statistical Review (2019). WTO, Geneva.

According to World Trade Statistical Review, the value of global imports was 19,867 billion US dollars in 2018. As regards the evolution of imports in the period 2007–2018, the USA (2614 billion dollars — 13.2% of world imports) remained the largest market in the world economy, ahead of the EU (2337 billion dollars in 2018) and China (2136 billion dollars — 10.8%). While in 2007, only 8 economies from NIC were among the 30 major markets, there were 12 countries in 2018. In the period 2007–2018 the importance of the outlets of countries such as India increased to 11th position (511 billion dollars — 2.6% of global imports), Mexico — 13th position (477 billion dollars — 2.4%), United Arab Emirates to 1.5% (268 billion dollars), Thailand from 1.0% to 1.3%, Vietnam to 1.2%, Malaysia to 1.1%, Indonesia to 0.9%.

Before the crisis, the international division of labor was based around the same proportion of exchanges: the so-called Ricardo' goods (fuels and other raw materials, food), Heckscher–Ohlin' goods (standardized goods) as well as goods technologically advanced. Among the most important products mentioned in 2007, there were both: fuel — 2862 billion dollars, non-ferrous metals — 360 billion dollars, ore and minerals — 308 billion dollars, food — 1,114 billion. dollars standardized: clothes — 362 billion dollars, household items — 254 billion and higher added value products: telecommunications equipment — 1,561 billion dollars, cars — 1,234 billion dollars) chemicals — 1,279 billion dollars (International Trade Statistics, 2008). However, after the crisis in 2016 crude oil remains the most important commodity

in international trade (786.3 billion dollars), it shows the promotion in the world export of goods such as telephone devices (532.2 billion dollars), integrated circuits (516.7 billion dollars), drugs (322.1 billion dollars), computers (320.4 billion dollars), solar panels (112 billion dollars). Important world trades remain the following: cars (672.9 billion dollars), automobile parts (349.2 billion dollars), trucks (113.4 billion dollars), (International Trade Statistics, 2016).

In 2018 the global export of agricultural crops reached a value of 1,765 billion US dollars. From 2008 to 2018 the share of agricultural products in global world trade grew from 8% to 10%. In 2018 the largest exporter of agricultural crops remains EU countries (681 billion dollars), but the EU's share of global trade in agricultural products has been constantly decreasing to around 10% of its share of external exports in world trade. After the crisis, EU crops exports grew annually by 3%, the US by 2%, Argentina by 0%, China by 6%, India by 7% and Mexico by 8%. On the one hand, in the years after crisis the role of Brazil's agricultural exports increased (93 billion dollars), China (83 billion dollars), Indonesia (46 billion dollars), on the other, Canada's share of global exports decreased from 6.3% in 2000, to 3.8% in 2017, Australia from 3% to 2.1% (World Trade 2018). As regards imports of agricultural products, the EU and US share of the global agricultural goods imports fell between 2000 and 2017, respectively from 42.8% to 37.2% and 11.6% to 9.3%, but the position of NIC in global food imports appears to be increasing. After the crisis, China's role in global imports of agricultural crops has grown from 7.8% to 10.5%. It is also worth adding that, thanks to the "green revolution", the exports of India outweigh the value of imports.

The economic crisis has struck the global exchange of fuels and mining products due price fluctuations, so in the years 2010–2015 the export dynamics of fuels by Saudi Arabia and Russia decreased by 7% per annum. A decline in exports has obviously dwindled the markets of the largest importers: the USA recorded an annual decline in imports of raw materials and fuels by 10%, Japan by 8%, the EU by 0.5%. Although in 2018 world exports of fuels and mining products stood at 91% of their value in 2008, exports of four of the top exporters of these goods (USA, Australia, Iraq, and China) surpassed their 2008 level. If we omit the reciprocal exchange of EU countries, the largest exporter of raw materials and fuels in 2018 was Russia, amounting to 263 billion dollars (8.1%), USA 235 billion dollars (7.2%), Saudi Arabia 220 billion dollars (6.8%), then Australia 171 billion dollars (5.3%), Canada 130 billion Dollars (4%), United Arab Emirates 87 billion dollars (2.7%), and Iraq 86 billion dollars (2.6%). As far as the largest importers of raw materials and fuels remain developed countries (the EU, USA, Japan, Korea), after the crisis, the importance of the Chinese market in imports of raw materials grew from 3.7% to 16.7%, and India from 2.4% to 5.9% (World Trade Statistics Review 2016, 2019). However, it should be noted that high energy prices contributed to a growth in merchandise trade in 2018–2019. In nominal terms, world merchandise exports of fuels and mining products grew on average by 23% in 2018, and in 2019 oil prices rose

rapidly. Consequently, the oil-rich regions of Africa, the Middle East, and Russia saw their export revenues surge in 2018 with increases of 13%, 21% and 24% respectively (World Trade Statistical Review, 2019, 21).

Global iron and steel exports were most affected by the world recession 2008–2009. In view of the declining demand and prices, the export of iron and steel was lower in all 10 of the world's top exporters in 2016 than in 2007. The biggest declines in exports hit Ukraine and NIC economies like Brazil, India (-14%) and USA (-5%) experienced still a decline in their exports of iron and steel in 2018. However, since 2017–2018, we have seen recurrent growth in the exports of iron and steel in other countries: Russia by 38% and 20%, Turkey by 32% and 39%, Korea by 12% and 6%, China by 1% and 12%. In 2018 the largest exporters of iron and steel were China (63 billion dollars), the extra EU 28 (41 billion dollars), Japan (31 billion dollars). The USA is in 6th place with less export value (15 billion dollars) than South Korea (26 billion dollars) and the Russian Federation (25 billion dollars). The largest outlets remain the EU with external imports of iron and steel at the amount of 47 billion dollars, USA at 39 billion dollars, and China 24 billion dollars of imports (World Trade Statistical Review, 2016; 2017; 2019).

Textiles belong to the basic goods characterized by low flexibility in demand, but these goods are not homogeneous, and differing in performance, such as suppliers and consumers. In 2018, the dominant exporter of textiles became China, whose share in global exports increased to 37.6% (119 billion dollars) from 10.4% in 2000. The crisis did not prevent the development of China's exports when their value rose by 47% between 2010 and 2015. While the importance of textiles exports has decreased in the EU successively from 9.8% in 2000 to 8.1% in 2010 and to 7.2 % (external exports) in 2018, in the USA from 7% in 2000 to 4.8% in 2010 and 4.4% in 2018, the importance of India increased in its global exports from 3.6% in 2000 to 5.1% in 2010 and 5.8% in 2018, Turkey from 2.4% in 2000 to 3.5% in 2010 and to 3.8% in 2018, Vietnam from 0.2% in 2000 to 1.2% in 2010 and 2.6% in 2018. Between 2010 and 2018 annual exports of textiles from Vietnam to the world market grew by 13% and from Turkey and India by 4% annually. The EU and US remain, of course, the biggest markets for textile exports from NIC partners, although the importance of the single market has decreased from around one-third to one-fifth, and the US to 9.7% of global imports (World Trade Statistical Review, 2016; 2019).

After the crisis, the clothing trade on global space was on average moderately dynamic products among manufactured with an increase of 3.3% in 2018. As with textiles, the largest supplier of clothing was China, with an export volume of 158 billion dollars, it is 31.3% of global export, followed by such countries as Bangladesh 34 billion dollars (6.4%), Vietnam 32 billion dollars. After 2010 there was a significant rise in exports from developing countries, where the annual increase in Bangladesh was 12%, Vietnam 16%, India 10%, Cambodia 10%, far outweighed by the dynamics of exporting EU countries at 2% or the USA at 5%

over a comparable period. Consequently, Bangladesh was promoted to the 3rd biggest supplier, and NIC economies like Vietnam (4th place), India, Turkey and Indonesia were among the top 10 in the list of leading global exporters. When it comes to imports, the largest markets for garments produced in developing countries are the developed countries: the EU (106 billion dollars of extra imports), the USA (106 billion dollars), Japan (30 billion dollars), although their share decreases in global imports. In 2010–2018 garment imports to South Korea increased by 12% to a 2% share of global imports and to China by 16% to a 1.6% share of global imports (World Trade Statistical Review, 2016; 2019).

High-tech products represent 70% of world trade in the processing industry, with telecommunications and electronic equipment being the most important commodity in this group (about 30% of turnover). At present, Asian countries provide a total of about 50% of technologically advanced products, which is related not only to the transfer of their production from highly developed countries, but also to the ability to imitate innovation and dispose relevant knowledge capital (Wydymus, Głodowska, 2013, 64–67).

However, individual NIC are involved to varying degrees in the exchange of technologically advanced goods. China accounts for almost one-third of world exports of office and telecommunications equipment — 650 billion dollars and the share of China in world trade increased gradually from 4.5% in 2000 to 27.8% in 2010 and to 32.3% in 2018. It is worth mentioning that Chinese exports of information and communications technology (ICT) products accounts for about half of the total export value; when two-thirds of all intermediate imports of ICT come from other Asian countries (Global Value Chain Development Report 2019, 2). While global exports of telecommunications equipment are decreasing, the relevance of EU external exports (8.7% to 4.8%), the USA (from 15.9% to 7.2%), Japan (11.2% to 3.5%), the competitiveness of the NIC's is increasing: Hong Kong exports amount to 303 billion dollars, Singapore — 123 billion dollars (6.1%), Malaysia — 80 billion dollars (4%), Vietnam 176 billion dollars (3.8%), Mexico — 70 billion dollars (3.5%) (World trade 2019).

The global exports of chemicals is another group of technologically advanced products, the exports of which amounted to more than 1,928 billion USA dollars in 2018. The top ten exporters of chemicals account for 87% of world exports. The largest exporters remained the EU (1,090 billion dollars — 49.1% in total) and the USA (222 billion dollars — 11.2%). The steady progress of exports of chemicals has been reported by China (166 billion — 5.2% in global exports), Singapore — 58 billion dollars and India — 50 billion dollars (World Trade, 2018). Unless among the largest exporters, annual exports grew between 2010 and 2018 by 4% in the EU (external exports), by 2% in the USA, but by 10% in India, and 8% in China. In 2018 all ten exporters recorded a steady growth in exports from 7% (USA and Switzerland) to 20% (India). In the years 2010–2018 the annual imports of chemicals grew faster in China by 5%, in India by 7%, Mexico by 5% than in

the EU, by 3%. Although the EU and US maintain a high position on the import of chemicals (39.5% and 11%, respectively) there was the growing share of China, Brazil, and India in global imports of chemicals to 9.5%, 2.6% and 1.8% (World Trade Statistical Review, 2016; 2019).

Regarding the global exports of pharmaceuticals, the dominance of European countries is maintained. External exports of EU countries increased between 2010–2015 from 26.7% to 29.8%, while Switzerland's contribution increased from 10.6% to 12.2%, due to its strong competitive position. The importance of NIC economies: India (2.6% of global exports), China (2.5%), Singapore (1.4%), Panama (0.7%), was also growing. For example, Israel became the world's eighth largest exporter with an export volume of more than 7 billion dollars in 2016. It is worth noting that the pharmaceuticals exchange was not actually affected by the crisis (excluding Russia), where both exports and imports in the EU grew (5% and 2%), Switzerland (6% and 2%), China (5% and 9%) in India, export growth by 14%, (World Trade Statistical Review, 2016).

The situation of world trade in the car industry is very instructive for the evolution of division of labor after 2007. During the crisis the decreasing share of global car exports of Japan, the USA, and Canada were accompanied by an increase in exports from NIC' suppliers such as Mexico, China, Thailand, Turkey, and India. Between 2010 and 2015 exports of cars fell in Japan by 2% per annum, while other major exporters have developed selling vehicles such as Mexico by 12% per annum, China by 12%, India by 8%, and Thailand by 7%. In 2018 eight of the ten top exporters of cars increased their exports with annual growth rates ranging from 0.2% in the USA to 13% in Mexico. EU countries are still the largest car exporters in the global economy — 782 billion dollars, which represents 50.6% of world exports. The next biggest car exporters are Japan with 158 billion dollars (10.3% of global exports), followed by the USA 135 billion dollars (8.8%), South Korea 63 billion dollars (4.1%), and Canada 61 billion dollars (3.9%). Recently, the rising ranks of car supplies from NIC are Mexico 123 billion dollars (8%), China 61 billion dollars (3.9%), Thailand 31 billion dollars (2%), Turkey 26 billion dollars (1.7%), and India 15 billion dollars (1.0%). After the crisis there were also evolutions in global car imports, where the importance of developed countries was decreasing, but the market was growing in China, Saudi Arabia, Mexico, and Russia (World Trade Statistical Review, 2016; 2017; 2019).

Overall, countries which are open to imports of parts and components and which have more imported service content in their exports tend to be more persistent and successful exporters of manufactures. The calculations carried out for the year 2011 show that foreign added value weighs high in the exports of NIC such as: Israel (43.6%), Taiwan (43.6%), Singapore (41.8%), South Korea (41.7%), Malaysia (40%), Thailand (39%), China (32.2%), and Mexico (31.7%). However, in countries with large internal markets and a small trade share, this indicator does not achieve high values: USA (15%), Japan (14.7%), Australia (14.1%). The low-

est value of this indicator is in countries specializing in the export of raw materials like Saudi Arabia (3.3%), and Russia (13.7%).

Before the crisis GVC were expanding at a faster rate than other components of GDP, but their share in GDP fell from 2011 to 2016. During the crisis there was a reduction in the share of foreign values in exports: in Taiwan by 6.5%, in Thailand, the Philippines, and South Korea, from 4% to 5%, which means decreased participation of their firms in the supply chain and growth of homemade production. (Dąbrowski, Wojtyna, 2017, 160–161). This tendency stopped for the first time in six years in 2017, when there were signs of a recovery of GVC activities by a 10% increase and complex global value chains grew faster than GDP. (Global Value Chain Development Report 2019, 1–3). Such countries as China, India, and the Philippines were playing an increasing role in global value chains exceeding 6.5% annually growth. In Vietnam, with the highest annually growth of 16.5% — industry supply chains were a key driver of poverty reduction, because it was concentrated in unskilled, labor-intensive sectors like textiles, clothing, and the agro-industry. A few Latin American countries such as Colombia, Mexico, Brazil, and Peru, also showed a growing participation in GVCs after the crisis (World Trade Statistical Review 2019, 42) which was particularly beneficial to the wages of unskilled workers.

Overall, between 2000 and 2017, the weight of intra-regional GVC activities in Asia, where China was increasingly playing an important role as both a supply and demand hub in simple GVC networks, exceeded that of Europe and North America, although the U.S. and Germany were still the most important hubs. No wonder that the return of NIC to the path of growth of trade following the crisis has also occurred through international fragmentation production and the data show that the first selection of indirect goods exported by Asian countries is China: Taiwan and South Korea send more than 40% of the indirect goods produced there, Japan and the Philippines more than 30% of the exports of indirect goods, Thailand, Singapore, Malaysia, Vietnam from 19% to 30% (Dąbrowski, Wojtyna, 2017, 154–155). Thus, in Asia a specific network regional division of work was developed, where the final products are assembled in China from parts and components manufactured in other Asian countries, which are then exported to the USA, Europe, and Africa. However, rising trade tensions between the USA and its major trading partners, especially China, has introduced again tremendous uncertainty in the global economy recovery of GVC.

4. The trade war between China and the USA as a barrier to international trade

The USA has changed, as far as far as its liberal external trade policy is concerned, by using tariffs as a means of pressure to obtain concessions from China, the EU, Mexico, and the other NIC partners. After the election of Donald Trump as US

President, Mexico was threatened with withdrawal from NAFTA and the restoration of American tariffs if it did not seal the borders against immigrants from Central America wishing to gain entry to the USA. A real trade war has broken out between the USA and China, which aims to reduce the US trade deficit, which amounted to 375 billion dollars in 2017. The US is also demanding trade concessions from the EU to obtain greater access to the single market. The WTO has authorized the U.S. To go ahead with its tariffs on \$7.5 billion on EU goods as compensation for state aid to Airbus competing with Boeing. Moreover, India's trade preferences were withdrawn by the USA, hence India also imposed duties on 28 products imported from the USA.

First, the USA introduced customs tariffs on imports from China on solar panels and washing machines in January 2018, where Imports of residential washing machines from China totaled about 1.1 billion dollars, about 8% of American solar panel imports came from China. In March 2018 Trump announced steel and aluminum tariffs on imports from all countries, including about 3% of its steel imports from China. In March 2018 Trump asked the USA Trade Representative to apply import restrictions on 1,300 categories of Chinese imports (aircraft parts, batteries, flat-panel televisions, medical devices, satellites, and various weapons) stating that the proposed tariffs were “a response to the unfair trade practices of China”, including theft of U.S. intellectual property. (Office of the United States Trade Representative, 2018). In effect, American tariffs on 34 billion dollars of Chinese goods came into force. Later in July 2018, the USA released a list of \$200 billion of Chinese goods to be subject to a 10% tariff (Wei, Wang, Che, 2018). From August 23, 2018 USA imports worth 16 billion dollars on 279 Chinese goods were subject to 25% tariffs. In September 2019 the USA announced a 10% tariff on \$200 billion worth of Chinese goods increasing to 25% by the end of the year. Furthermore from 1 September 2019, the US introduced an additional 15% of customs tariffs on imports from China with a value of 112 billion dollars with the possibility of increasing them to 25%. Finally, President Trump is threatening to impose tariffs on the entire Chinese exports if China does not change its trade policy, but in December 2019 he halted new tariffs.

China of course has retaliated quickly: in April 2018 the Ministry of Commerce imposed tariffs on 128 products imported from the USA, including aluminum, airplanes, cars, pork, and soya beans (which have a 25% tariff), as well as fruit, nuts, and steel piping (15%) (Rauhala, 2018). When in July 2018 American tariffs on 34 billion dollars of Chinese goods came into effect, China imposed retaliatory tariffs on American goods of a similar value and when the USA released an initial list of the additional \$200 billion of Chinese goods, China raised tariffs on 60 billion dollars worth of USA goods. China states that the USA has initiated a trade war, so retaliates in parallel with US tariffs, and imposed 25% tariffs on \$16 billion of imports from America and a 15% duty on 545 goods imports, worth 75 billion dol-

lars. In effect China is drastically limiting the purchases of agricultural and raw materials goods from the USA: soya beans, and oil and gas. In 2019 China imposed 5% to 10% tariffs on one-third of the 5,078 goods it imports from the USA and on August 23, 2019 the Chinese Ministry of Finance announced new rounds of tariffs on 75 billion dollars worth of USA goods, effective beginning September 1, 2019.

In sum, customs imposed by the USA only in trade with China include nearly the total of Chinese imports worth about 300 billion dollars and due to these tariffs, the USA budget has an additional revenue of 100 billion dollars. So far, China has either imposed or proposed tariffs on \$110 billion of USA goods, representing most of its imports from America. This means that the quantity of goods loaded with duty and imported from the USA was considerably smaller, with China bringing mainly high-tech goods from America, hardly the subject of trade restrictions. While China exports toy games, sports accessories; telecommunications equipment; computers; mobile phones and textiles to the USA, China imports from the USA mainly the following: industrial machines, semiconductors, cars; soya, civilian aircraft. The source of China's export success and obtaining such a large trade surplus was not only low production costs, but also an efficient subsidized export sector and rates of exchange of the Chinese currency, the Yuan, ensuring its international competitiveness.

Moreover, China has developed a strategic project: "Made in China 2025", which aims to bring them to self-sufficiency in the branches of high technology and become a leader in ten advanced manufacturing sectors. Made in China 2025 is supposed to be a technological jump, among others in the semiconductor sector, where China currently imports 90% of usage, but plans to produce 70% of parts by 2025. China wants to control almost 90% of technologically advanced production, which is also one of the reasons for the commercial war with the USA. The limitations imposed by the USA on imports from China were also a penalty for alleged "technology theft" by Chinese companies from the USA through espionage, forced technology transfers due to mandatory joint ventures, whose estimated cost to the USA is assessed as between 225 billion dollars and \$600 billion annually (Lu, Hufbauer, 2017). Restoring a trade balance between the USA and China requires a greater opening of the Chinese economy, partial dismantling of the production subsidy system, forced technology transfers under mandatory joint ventures, privatization of the financial sector and increased Chinese domestic consumption. In addition, there is also a need to bring about a more realistic exchange rate against the USA dollar because undercutting the rate of exchange of the Yuan to the dollar does not solve the problems of the American balance of payments. It seems that the restoration of a mutual trade balance will be a lengthy and complex process including new investments, low interest rates for business, but above all to increase the competitiveness of U.S. exports and its diversifications.

The return to the policy of protection against NIC partners had obviously its cost of increasing prices, slowing down trade and economic growth. According to

WTO figures, the USA had 3.5% average tariffs rates before the trade war, the EU 5.2%, China 10%, Brazil and India had more than 13%. Significant increases in these tariffs reduced consumption and the pace of structural change in the division of labor. If more than two-thirds of consumer goods imported from China were then subject to tariffs, it should not be forgotten the high cost of USA consumers. Prices of clothing and shoes fell in the USA by 30% in the last decade due to cheap imports from China that increased consumption (Jacques, 2012, 232). Because cheap imports from China cover consumption goods like I-phones, toys, laptops etc. it means for the average American household a saving of about 850 dollars a year. According to the World Bank, even 30 million people around the world are at risk of poverty if the USA — China trade war worsens.

The policy of trade protection would serve of course to reduce consumption and competition, petrification of existing structures of production. The Oxford Economics think tank shares the opinion that the trade war at the current scale may take around 0.5% of USA GDP growth (Rosik, 2018). Nevertheless, due to the different importance of trade in partner economies, there is an asymmetry in negative effects between both countries. USA exports to China before the trade war amounted to only 0.67% of its GDP, so even if China imposed tariffs on all American imports, it may be of marginal importance for the USA economy. According to W. Ross, Chinese tariffs on American exports only reflected 0.3% of USA GDP, then the tariff protection would have “short-term pain”, but bring “long-term success” (Berkeley, April 4, 2018). However, Chinese tariffs policy may strike significantly some sectors of the American economy, especially agricultural production. In February 2018 China’s exports to the USA amounted to 135 billion dollars, about 20.7% less, and losses incurred in agricultural trade amounted to 3 billion dollars. In 2018 the value of exports from the USA to China fell by 42% (about 11% of accounted for soya beans — 14 billion dollars), so when China reduced more American soya bean purchases, it was blunted by American farmers.

On the other hand, China’s exports that reached a value of over 580 billion dollars in 2017 accounted for 4.1% of Chinese GDP, so the reduction of this export could be felt in China’s economy. For China, the USA is the largest export market and the sixth in terms of imports. The cost of USA tariff protection for the Chinese economy is rated at 1% of GDP, three times more than in the American economy. However, the cost of a trade war may be greater over the longer term, as China plans to increase the production of components of its own production to 75% in 2025, thereby reducing the participation in domestic production of such producers as General Motors, Intel, Lennox, and other American corporations. Therefore, a trade war between the USA and China could disrupt Global Value Chains and “ripple around the globe”. The costs of protection policy will be incurred also by NIC partners, whose growth depends on participation in GVC. This is especially true for countries exporting parts to China, when China exports final goods to the American market. The long term result of China’s customs war with

the USA may be then moving the production of international corporations from China to other countries, for example, the Japanese Panasonic company has already decided to move parts of electronics production, including car radios, from Suzhou and Shenzhen in China to Thailand, Malaysia, and Mexico. Other firms like Electric Industries, Daikin Industries, Taiwanese Pegatron, Dutch Phillips, Swiss Logitech and Acme United, as well as Chinese companies, are also joining this exodus to move supply chains outside China.

5. The New Industrial Countries in Global Turnover of services in 2007–2018

The value of service turnover is lower than the exchange of goods, but their rank is steadily increasing in the world economy. Tourism and transport services and high-tech services (telecommunications, computer services, education, healthcare, advertising, accountancy and accounting, etc.) are growing rapidly. The share of technologically advanced services in global export and import services is around 5% of the turnover of all types of services. In 2018, world trade in services recorded growth by 7.7% for the second consecutive year. Goods related services registered the strongest growth of 10.6%, but weaker growth was noted in transport by 7.1%. Thus far, most services circulations are unaffected by trade measures targeting mainly imports of goods, however an uncertainty generated by the USA and its restrictive trade policy can also have a negative impact on services trade in future.

The largest exporters of services in 2007 were EU countries — 667 billion dollars (27.7% of world trade), USA 456.4 billion dollars (18.9%), Japan 127.1 billion dollars (5.3%), China 127.1 billion dollars (5.1%), India 89.7 billion dollars (3.7%). Similarly, on the import side the largest importers of services in 2007 were the EU — 544.9 billion dollars (24% of world imports), the USA — 335.9 billion dollars (14.8%), Japan — 148.7 billion dollars (6.6%), China — 129.3 billion dollars (5.7%) and Korea — 82.5 billion dollars (3.6%). In the 30 largest exporters were still Hong Kong and Macau — territories joined to China, as well as Thailand, Turkey, Malaysia, Brazil, Israel, Mexico, South Africa, and Indonesia (table 4).

Table 4. The largest exporters and importers of services in the world economy in 2007 according to the turnover value in US dollars and percentage share

Countries	Exports	%	Countries	Imports	%
1. EU (27)	667.2	27.7	1. EU (27)	544.9	24.0
2. USA	456.4	18.9	2. USA	335.9	14.8
3. Japan	127.1	5.3	3. Japan	148.7	6.6
4. China	121.7	5.1	4. China	129.3	5.7

5. India	89.7	3.7	5. South Korea	82.5	3.6
6. Hong Kong	82.7	3.4	6. Canada	80.3	3.5
7. Singapore	67.3	2.8	7. India	77.2	3.4
8. South Korea	61.5	2.6	8. Singapore	70.1	3.1
9. Switzerland	61.5	2.6	9. Russia	57.8	2.5
10. Canada	61.4	2.6	10. Hong Kong	41.0	1.8
11. Norway	40.7	1.7	11. Norway	38.6	1.7
12. Australia	39.7	1.6	12. Australia	38.2	1.7
13. Russia	39.1	1.6	13. Thailand	38.0	1.7
14. Taiwan	30.9	1.3	14. Taiwan	35.3	1.6
15. Thailand	28.8	1.2	15. Brazil	34.8	1.5
16. Turkey	28.2	1.2	16. Switzerland	33.9	1.5
17. Malaysia	28.2	1.2	17. Saudi Arabia	30.6	1.3
18. Brazil	22.6	0.9	18. Emirates	28.1	1.2
19. Israel	21.1	0.9	19. Malaysia	27.8	1.2
20. Egypt	19.7	0.8	20. Mexico	24.0	1.1
21. Mexico	17.8	0.7	21. Indonesia	23.3	1.0
22. Macau	14.5	0.6	22. Israel	17.8	0.8
23. Ukraine	13.6	0.6	23. South Africa	16.3	0.7
24. South Africa	13.2	0.5	24. Turkey	14.1	0.6
25. Croatia	12.6	0.5	25. Nigeria	13.9	0.6
26. Lebanon	12.5	0.5	26. Egypt	13.1	0.6
27. Indonesia	12.0	0.5	27. Kazakhstan	11.3	0.5
28. Morocco	11.7	0.5	28. Ukraine	10.8	0.5
29. Argentina	9.8	0.4	29. Argentina	10.5	0.5
30. New Zealand	9.0	0.4	30. Kuwait	10.4	0.5

Source: World Trade Statistical Review (2016). World Trade Organization.

After 2007, there were no major changes to the leading exporters and importers of services (table 5). The largest service exporters in 2018 were further EU countries — 1089 billion dollars (25.1%), USA 808 billion dollars (18.7%), China 265 billion dollars (6.1%), Japan 187 billion dollars (4.3%), India 204 billion dollars (4.7%) and the biggest importers were the EU — 865 billion dollars (20.6%),

USA 536 billion dollars (12.8%), China 521 billion dollars (12.4%), Japan 198 billion dollars (4.7%), Singapore 187 billion dollars (4.4%), and India 175 billion dollars (4.2%). It is worth adding that some EU countries exported more services than China in 2018 as did the UK — 373 billion dollars Germany 326 billion dollars, France 291 billion dollars. Among the largest of the thirty exporters are many of the NIC, such as Thailand — 84 billion dollars (1.9% of world exports), Taiwan 50 billion dollars (1.2%), Philippines 37 billion dollars (0.9%), Israel 50 billion dollars (1.2%), Turkey 48 billion dollars (1.1%), Malaysia 40 billion dollars (0.9%), Philippines 37 billion dollars (0.9%), Brazil 33 billion dollars (0.8%), Mexico 28 billion dollars (0.7%), Indonesia 27 billion dollars (0.6%), and South Africa 16 billion dollars (0.4%). After a period of crisis, there was also a rise in new industrial and petroleum countries in terms of service imports, which has increased the position of Singapore, India, the United Arab Emirates, Kuwait, and Qatar. Among the thirty largest exporters and importers of services, there is no country in the Central and Eastern Europe region, except Poland (exports 69 billion — 1.2%).

Table 5. The largest exporters and importers of services in billions of US dollars and in % of their global turnover in 2018

Countries	Exports	%	Countries	Imports	%
1. EU (28) extra	1089	25.1	1. EU (28) extra	865	20.6
2. USA	808	18.7	2. USA	536	12.8
3. China	265	6.1	3. China	521	12.4
4. India	204	4.7	4. Japan	198	4.7
5. Japan	187	4.3	5. Singapore	187	4.4
6. Singapore	184	4.2	6. India	175	4.2
7. Switzerland	123	2.8	7. South Korea	123	2.9
8. Hong Kong	114	2.6	8. Canada	112	2.7
9. South Korea	95	2.2	9. Switzerland	103	2.5
10. Canada	92	2.1	10. Russia	93	2.2
11. Thailand	84	1.9	11. Hong Kong	81	1.7
12. United Arab Emirates	71	1.6	12. United Arab Emirates	71	1.7
13. Australia	68	1.6	13. Australia	71	1.7
14. Russia	64	1.5	14. Brazil	66	1.6
15. Taiwan	50	1.2	15. Taiwan	56	1.3
16. Israel	50	1.2	16. Saudi Arabia	55	1.3

17. Turkey	48	1.1	17. Thailand	55	1.3
18. Macao	44	1.0	18. Norway	52	1.2
19. Norway	43	1.0	19. Malaysia	44	1.1
20. Malaysia	40	0.9	20. Mexico	37	0.9
21. Philippines	37	0.9	21. Indonesia	35	0.8
22. Brazil	33	0.8	22. Kuwait	34	0.8
23. Mexico	28	0.7	23. Qatar	31	0.7
24. Indonesia	27	0.6	24. Nigeria	31	0.7
25. Egypt	23	0.5	25. Israel	30	0.7
26. Morocco	18	0.4	26. Philippines	26	0,6
27. Qatar	18	0.4	27. Argentina	24	0.6
28. S.Arabia	17	0.4	28. Turkey	22	0.5
29. N.Zealand	17	0.4	29. Iran	19	0.4
30. S.Africa	16	0.4	30. Vietnam	18	0.4

Source: World Trade Statistical Review (2019). WTO, 102.

The role of transport services is growing moderately in world trade with the development of goods' exchange. After 2010 exports of transport services increased in 6 of the top 10 exporters, excluding Japan (5%), Korea (4%). EU countries remain the largest exporters of transport services with total exports of 441 billion dollars (203 billion dollars extra trade — 20% of world exports), ahead of the USA — 92.3 billion dollars (9.1%). Among the 15 largest exporters of transport services are both New Industrial Countries: Singapore (5.1% of world exports in 2018), China (4.2%), Turkey (1.9%), India (1.9%), highly developed countries: Japan (2.8%), Norway (2.2%), Canada (1.3%), Switzerland (1.3%) and United Arab Emirates (2.8%), Russia (2.2%). Equally diverse as exports are the recipients of transport services, there are both economically developed countries (EU — 31.7% of world imports), the USA (8.9%), South Korea (2.6%), Australia (1.2%) and New Industrial Countries: China (8.9% of world imports), India (5.5%), Singapore (4.4%), Thailand (1.9%), Mexico (1.3%) as Saudi Arabia (1.3%) and United Arab Emirates (1.3%) (World Trade Statistical Review, 2019, 125).

After 2010 the tourism sector came out of the downturn: exports of tourist services grew among all major exporters (with the exclusion of Malaysia — 1%) and increased the imports of all major importers (excluding Australia — 1% and Japan — 11%). In statistical terms, “export a tourist trip” in a country like China means the index of the purchased funds by the traveler during his stay in China, which includes, among other things: the price of accommodation, acquired food

and drinks, entertainment, local transport, gifts, and other goods. EU countries — 477.1 billion dollars, were the largest exporter of travel services in 2018 and the USA second, at 214.5 billion dollars. Although the EU's contribution is decreasing in world tourist turnover after 2007, this fall did not apply to their southern member countries. Behind Europe and North America, the leading exporter of travel became NIC in Asia: Thailand — 63.1 billion dollars (4.4% of world exports and 15% annually growth in 2010–2018), India 28.6 billion dollars (2.6% of world exports, 9% annually growth), China 39.5 billion dollars (2.7%), Turkey 25.2 billion dollars (1.8%), Singapore 20.5 billion dollars (1.5%), Malaysia 19.1 billion dollars (1.3%) and in South America: Mexico 22.5 billion dollars (1.6%). China is now the world leader in terms of number of tourists leaving the country. As far as 'imports' of travel are concerned, the biggest importers were in 2018: EU 417.5 billion dollars (29.7% of world imports), China 276 billion dollars (19.7%), USA 144 billion dollars (10%), Australia 36.4 billion dollars (2.6%), Russia 34.3 billion dollars (2.4%), Canada 33.3 billion dollars (2.4%), and South Korea 30.9 billion dollars (2.2%). (World Trade Statistics Review 2019, 126–127).

Telecommunications, computer, and information services (ICT) was the most dynamic sector, growing by 15% after the crisis, followed by insurance and pension services at 8%. In 2018, major exporters of ICT were the EU — 159 billion dollars (29.8% of world exports), India 58 billion dollars (11.6%), USA 43 billion dollars (9%), China 47 billion dollars (5.9%), and Israel 14.4 billion dollars (2.6%). Especially computer services receipts (including database development, data processing, and software design) has benefitted from technological changes and increased their share of ICT trade from 65% in 2008 to 78% in 2018. NIC in Asia recorded the most rapid export growth of ICT since 2010, led by an increase in Singapore's exports by 20% annually, China by 15% annually, and Israel by 16% annually. India became the second, after the EU, as the biggest exporter of computer services. with an export value of 55.5 billion dollars — a 14.2% share of world exports in 2018. In insurance and pension services the biggest exporters were the EU — 27.5 billion dollars (21.8% share of world exports), USA 19 billion dollars (15.1%), Switzerland 7.4 billion dollars (6.9%), Singapore 7 billion dollars (5.3%), and Bahrain 5.2 billion dollars (4.4%). (World Trade Statistical Review 2019, 36–41, 131, 134, 136). On the other hand, imports of commercial services expanded fastest in Africa (lead by Nigeria, Ethiopia, Mozambique, and Kenya), in insurance services the most important importers were the USA (31.1% share of world exports), United Arab Emirates (18.8%), EU countries (external imports at 9.5%).

In the period 2010–2018, financial services grew annually by 9% in Asia from a 12.4% to 17.5% share in world exports, North America by 6% from 23% to 24.9%, but the dominant position of the EU is undisputed, with 243 billion dollars of exports, equal to 49.6% of world exports. Nearly every region of the world saw growth in financial services, business services, and charges for the use of intellectual property. Major exporters and importers of charges for the use of intellectual prop-

erty were the EU: exports 162 billion dollars and 223 billion dollars imports, and the USA: 130 billion dollars exports and 53 billion dollars imports. China was the leading exporter of construction services — 26 billion dollars, 26.4% of world exports in 2018, ahead of the EU at 13.9 billion euro (16.4%), South Korea Republic 11 billion dollars (10.4%) and Russia 5.6 billion dollars (5.3). But trade of intellectual property rights was of marginal importance for China's economy: exports 5.5 billion dollars and imports 35.5 billion dollars (World Trade Statistical Review 2019, 36–41, 130, 131, 133). Although the largest exporters of services remain well-developed countries, the EU and the USA are seeing the steady progress of NIC partners, especially when it comes to exchanging computer services, construction, their participation in transport, and travel services. However, NIC and developing countries are still of marginal importance when it comes to charges for intellectual property rights.

Summary

The crisis 2008–2009 heralded not only a financial breakdown, but also structural changes in the world division of labor. Although the NIC were affected by the crisis against the declining demand for labor-intensive goods (clothes), capital intensive (iron and steel), they have gained increasing importance in exchanges goods with higher value added. While the growth rate of international trade has returned to a dynamic path since 2011, it brought about increasing demand, especially in computers, telecommunications equipment, chemicals, pharmaceuticals, cars, as well as in business and tourism services. The 50% participation of NIC partners in the export of technologically advanced products, was a testament to the growth of their international competitiveness, and diffusion of knowledge in the global economy. Although during the crisis there was decreased participation of NIC in the supply chain and growth of homemade production, this tendency stopped in 2017 when complex global value chains grew faster than GDP.

As after the crisis NIC move from primary products to the export of manufactured goods, computer and construction services, they have decreased in the position of developed countries. Given the complex nature of today's international trade, it seems that the theories describing the position of NIC must consist of several theoretical concepts, none of which can be attributed to the most important role. The place of the NIC in the world division of labor after 2007 is specified both by the exchange of labor-intensive goods (textiles, clothing) standardized products (cars, chemicals, steel) and high-tech products (telecommunications equipment, computers). Although in 2007 the largest exporter in the world economy was the EU (the value of Chinese exports was lower than Germany), after 2007 China was promoted to the largest exporter in the global economy, and other NIC partners such as India, Mexico, Turkey and Vietnam have also improved their position in global exports. As for the evolution of imports after crisis, the

USA has remained the largest market in the world economy, ahead of the EU and China, and the position of such countries as Mexico, India, Thailand, Vietnam, and Indonesia has also increased. However, the trade war between the USA and China could disrupt global division of labor developed within the GVC, bringing damage for China as other NIC partners, who export parts for Chinese production.

References

- Baldwin, R., Venables, A. (2010). Spiders and Snakes: off-shoring and agglomeration in the global economy. *NBER Working Paper*, 16611.
- Berkeley, L. Jr (April 4, 2018). Commerce Secretary Wilbur Ross: China tariffs amount to only 0.3% of US GDP. *CNBC*. Retrieved, May 28, 2018.
- Bueber, M., Sudt, T. (16.12.2012). Global R+D Funding Forecast. *R&D Magazine*.
- Dąbrowski, M.A., Wojtyna, A. (2017). *Otwartość gospodarki a podatność na kryzysy w krajach na średnim poziomie rozwoju*. Warszawa: PWN.
- Global Competitiveness Report 2008–2009 (2009). World Economic Forum, Committed to Improving the State of the World, New York.
- Global Competitiveness Report 2015–2016 (2017). World Economic Forum, Committed to Improving the State of the World, New York.
- Global Value Chain Development Report (2019). *Technological innovation, Supply chain trade and workers in a globalized world*. Geneva: WTO.
- Hindle, T. (2016). *The Economist Guide to Management Ideas and Gurus*. London: Economist Books.
- International Trade Statistics (2008). World Trade Organization.
- International Trade Statistics (2016). World Trade Organization.
- Jacques, M. (2012). *When China rules the World*. London: Penguin Books.
- Krugman, P., Obstfeld, M., Melitz, M. (2018). *Ekonomia międzynarodowa*. Warszawa: PWN.
- Kundera, J. (red.) (2018). *Gospodarka światowa po kryzysie 2008*. Wrocław: E-Wydawnictwo. Prawnicza i Ekonomiczna Biblioteka Cyfrowa.
- Lu, Z.(L.), Hufbauer, G.C. (October 3, 2017). Section 301: US investigates allegations of forced technology transfers to China. *East Asia Forum*.
- Miroudot, S., Lanz, R., Ragoussis, A. (2009). Trade in Intermediate Goods and Services. *OECD Trade Policy Working Papers*, 93.
- Office of the United States Trade Representative (April 4, 2018), Under Section 301 Action, USTR Releases Proposed Tariff List on Chinese Products.
- Rauhala, E. (April 4, 2018). China fires back at Trump with the threat of tariffs on 106 U.S. products, including soybeans. *The Washington Post*.
- Rosik, P. (9 lipca 2018). *Gospodarka. Właśnie wybuchła wojna handlowa USA–Chiny. Jak wygląda i co może oznaczać dla rynku*. Data dostępu: ?, <https://strefainwestorow.pl/artykuly/20180709/wojna-handlowa-usa-chiny>.
- Rymarczyk, J. (2010). *Międzynarodowe stosunki gospodarcze*. Warszawa: PWN.
- Trade Statistics and Outlook (12 April 2017). World Trade Organization.
- World Trade Statistical Review (2016). World Trade Organization. Geneva.
- World Trade Statistical Review (2017). World Trade Organization. Geneva.
- World Trade Statistical Review (2019). World Trade Organization. Geneva.
- Wei, H., Wang F., Che L. (July 11, 2018). *U.S. Names Products Targeted by \$200 Billion in New Tariffs*.
- Wydymus, S. Głodowska, A. (2013). *Handel międzynarodowy w dobie gospodarki opartej na wiedzy*. Warszawa: Difin.