

Will Transport Affect Globalization? Are We Heading Back to Locally Based Economic Activities?

Ignacy H. Chrzanowski

The University of Dąbrowa Górnicza, Poland

The paper discusses some aspects of the transport industry's impact on the process of globalization in the world economy. Emphasis is put on the emerging new trends in that area, and in particular on the reverse globalization frequently referred to as "de-globalization".

While the latter concept provides ground for controversy, it seems that it has become visible in the number of trades and in particular in food trades which engage a considerable portion of the world transport system's carrying capacity. Moving back to local production of food, one of many areas where the process of de-globalization appears to have started, might liberate vast reserves of transport capacity worldwide while, simultaneously, it will contribute to the reduction of transport-generated pollution. Arguments for such a solution are raised in the paper as is the necessity for more in-depth analysis in this field.

Keywords: transport, globalization, de-globalization, transport cost, green gas emission.

1. INTRODUCTION

The political and economic turmoil of the present decade prompts us to reconsider a good deal of our wisdom as regards the future of the world we are living in, and in particular the sustainability of our way of life. Consumerism, cheap travel, over exploitation of natural resources, uncontrolled population growth, and many similar abuses that characterize the contemporary societies, will all cast serious doubt on the very survival of this model. That it increasingly becomes unsustainable is obvious. But hardly do we know what needs to be done to alleviate the tremors that seem unavoidable.

With a "joyful creativity" approach that characterised the turn of the millennia, and the obvious road to a quasi-total globalization that few dared to question, it is now time for reflection. Is it the right thing to do to depend on others in satisfying our basic needs, letting down our own industries fall simply because they are not competitive on a global scale or should we be more self-sufficient? And on what premises do we base our assessment of this competitiveness? Perhaps it is too subjective? Or simply unrealistic?

Globalization in general has been the effect of two main factors: reduction of transportation costs and availability of cheap labour.

However, these two pro-globalization factors are increasingly in short supply. Even in Asia the unit cost of labour is not likely to fall; it will rather be rising, as it will cost more to sustain a worker¹. The XIX century system of abuse of workers will not return and skilled labour will continue to rise in value, which translates into higher labour cost for businesses.

The room for cutting transportation cost is continually shrinking, due mainly to the rising cost of energy. Let us not be fooled by the current fall in the price of oil or gas; it is short-lived. In the long run energy that is used to power vehicles will

¹ It is estimated that by 2030 some 300 million Chinese will be 65 years of age and older. That will dramatically change the situation on the Chinese labour market, as fewer and fewer workers will have to support the huge army of retirees. For more details see: E. Laurent: *How are turbulences encountered by the United States and Chinese increasingly having global repercussions?* "Globalist Paper". September 11. 2007

be more costly, and the rising operating costs will affect efficiency of the entire transport sector. No serious analysis can assume a reduction of transportation costs in the long run, and that will directly affect globalization². The prospects of its slowing-down, or even a reversal cannot be simply ruled out.

2. HOW FALLING TRANSPORTATION COSTS HAVE CONTRIBUTED TO GLOBALIZATION

Although the beginnings of globalization can be traced back to Antiquity, its most spectacular expansion took place in the second half of the 19th century and lasted almost uninterruptedly to WWI. Mechanical propulsion, first steam and then internal combustion engines, dramatically cut the cost of transport. Between 1855 and 2006, i.e. over a period of 150 years, the cost of fuel consumption per 1 ton-mile had decreased almost twentyfold. That was a tremendous decline of fuel costs per unit that made carrying of cheaper goods possible, including raw materials, over longer and longer distances. The globe started to shrink³.

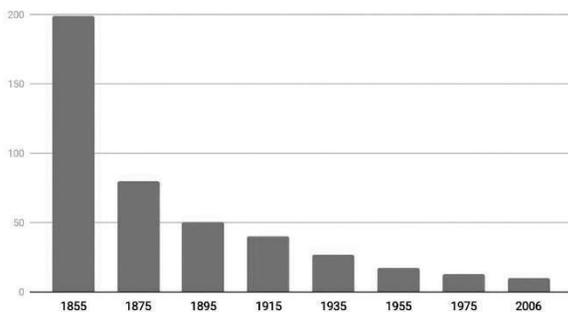


Fig. 1. Fuel consumption in pounds per one ton-mile. Source: M. Stopford, MD Clarkson Research Services Ltd.: *How Shipping Has Changed the World & Social Impact of Shipping*. Global Maritime Environment Congress SMM Hamburg. 7th September 2010, p. 4.

² Some authors try to prove that there has been no notable increase of shipping costs in recent years (see some references quoted in this paper) but that may be due to overcapacity in particular freight markets that drive rates down.

³ See also paragraph 3

Other modes of transport recorded similar cost reductions, albeit to a different degree, depending on the mode of transport.

But the 20th century also saw the emergence of two new modes of transport: automobile and airplane. Both have their strong and weak sides. Automobile has seriously undermined the position of rail transport in both goods and passenger traffic, while air transport has effectively eliminated sea transport in transcontinental passenger traffic⁴.

Neither, however, has undermined the position of sea transport in *transoceanic movements of goods*. This mode of transport still dominates the world trade. In freight traffic air transports accounts for roughly 1 per cent of the world trade⁵ and is limited chiefly to high value goods or those that require quick delivery, such as fresh food or electronics.

The evolution of the transport industry, all modes combined, has been well researched and documented elsewhere⁶ and it would be pointless to start the analysis over again. The general conclusion is the following: lower transport costs substantially contributed to the continuous growth of world trade, with the exception of the period of WWI and WWII. This process has never stopped.

During a 45-year period, between 1970 to 2015, the world seaborne trade, which is reflective of the progress of globalization, has increased almost fourfold. It is noteworthy that the growth of world seaborne trade is fuelled in recent decades principally by dry cargoes, both the main bulk commodities, as well as industrial goods. This trade grew in the years 2000-2015 by 58%, whereas the trade of oil and gas, two main sources of energy for the world, grew only by 36.2% over the corresponding period of time. In the last 10 years (2005 -2015) the world seaborne trade in oil and gas grew by a mere 27.7%, compared to 67.9% for dry cargoes, i.e. 2.5 times slower.

⁴ We mean here liner passenger shipping. Other forms of sea travel, e.g. cruise shipping, or ferry lines, are booming in the majority of markets. However, in air freight traffic cost reduction was substantial. Between 1955 and 2004, the average price per ton-kilometer declined almost 13 times, from US dollars 3.87 to less than 0.30 dollars (in 2000 US dollars). See: D. Hummels: *Transportation Costs and International Trade in the Second Era of Globalization*. "Journal of Economic Perspective". Vo.;21, Nr 3 2007, p.138

⁵ In terms of tonnage

⁶ See literature quoted in this paper in its subsequent sections.

Table 1: Evolution of the world seaborne trade 1970-2015 (millions of tons loaded).

Year	Oil and gas	Main bulk commodities (iron ore, grain, bauxite and alumina and phosphate rock)	Dry cargo other than main bulk commodities	TOTAL (all cargoes)
1970	1,440	448	717	2,605
1980	1,871	608	1,225	3,704
1990	1,755	988	1,265	4,008
2000	2,163	1,295	2,526	5,984
2005	2,422	1,709	2,978	7,109
2006	2,693	1,814	3,188	7,700
2007	2,747	1,853	3,334	8,034
2008	2,742	2,065	3,442	8,229
2009	2,642	2,085	3,131	7,858
2010	2,722	2,335	3,302	8,409
2011	2,794	2,488	3,506	8,785
2012	2,841	2,742	3,614	9,197
2013	2,829	2,923	3,762	9,514
2014	2,825	2,985	4,033	9,843
2015	2,947	2,951	4,150	10,047

Source: UNCTAD: Review of Maritime Transport 2016. Geneva/New York 2016; p. 6.

It might be premature to conclude from these trends that the world seaborne trade of liquid cargoes, and principally oil and gas is losing momentum on behalf of dry cargoes, but in 1970 it represented more than a half of all cargoes carried by sea (55.2%). Neither can these figures mean that the energy needs of the world are fully satisfied. Nonetheless, liquid cargoes nowadays represent only 29.3% of the world seaborne trade, or less than a third. The figures quoted above mean, however, that dry cargoes, and principally industrial goods, now constitute the backbone of the world trade. And that can only mean that globalization is holding fast.

But can the cheaper and more efficient transport industry alone be credited with the phenomenal progress of globalization since the mid-1800s? Yes, to a great extent, but other economic forces had also played a significant role in this respect. One of them was, of course, cheaper labour in many regions of the world that could not be properly exploited locally and required adequate

mechanisms provided by the industrialized world. Free trade agreements were of great importance since they provided a basis for unrestricted exchange of goods across the borders.

Thus transport was one of the most crucial but not the sole condition for the progress of globalization. Its significance consisted in shortening the distances between trading partners in *economic terms*. Cheaper transport services, especially in maritime transport, made the otherwise unviable exports and imports possible. These services brought the trade markets “closer” to each other.

The availability of cheap and reliable transport services continues to be a major factor that sets the pace of growth in particular geographical areas of the world. Take, for instance, the case of Africa’s foreign trade, plagued by acute directional imbalances of the flow of goods that prevent many African nations from achieving a greater degree of economic self-sufficiency.

The problem of transport and its role in economic expansion looks quite differently in Asia compared to Africa. According to A. Behar and A.J. Venables⁷ of Oxford, transport costs vary considerably between regions. There is a wide dispersion of transport costs across countries. Table 2 gives the regional averages of the costs for shipping a standard 20' container. It shows that clearing goods is twice as expensive in sub-Saharan Africa as it is in East Asia and the Pacific. Examples from particular countries make the point more vividly; average freight costs for a 20' container are about \$450 in Singapore and Malaysia, yet more than \$5,500 in Chad and the Central African Republic. Table 2 presents transport costs in terms of the time it takes to comply with all the procedures necessary to comply with import/export regulations, inland transportation and handling but excluding port-to-port shipping. Within the regional averages there exists a wide dispersion of various countries' performance. Singapore takes on average 3 days to clear imports; Brazil takes 12 days, while neighbouring Venezuela takes 49 days. Chad takes 100 and Iraq takes 101 days. When shipping is included, it takes about five weeks to transport goods from Europe to Asia⁸.

Table 2: Average costs and handling time for a 20' container.

Region	Cost (\$)	Time (days)
East Asia & Pacific	931	23.7
Eastern Europe & Central Asia	1,678	27.6
Latin America & Caribbean	1,362	19.75
Middle East & North Africa	1,128	24.2
OECD	1,118	10.75
South Asia	1,437	32.3
Sub-Saharan Africa	2,154	36.5

Source: A. Behard, A.J. Venables: op.cit, p.6

Note: data are readily available at:

[http://www.doingbusiness.org/Explore topics/Trading Acrossborders](http://www.doingbusiness.org/Explore%20topics/Trading%20Acrossborders)

Data in Table 2 are provided by the World Bank, which uses the methodology in developed in Djankov, Freund & Pham (2006). It covers about 180 countries and is based on surveys carried out by freight forwarders in each country. The figures are updated annually. The data for the cost of importing and exporting a standard 20' container of goods includes fees associated with completing the procedures to export or import the goods, such as costs for documents, administrative fees for customs clearance and technical control, customs broker fees, terminal handling charges and inland transport⁹.

It takes 116 days to move an export container from the factory in Bangui (Central African Republic) to the nearest port and fulfill all the customs, administrative, and port requirements to load the cargo onto a ship. It takes 71 days to do so from Ouagadougou (Burkina Faso), 87 days from N'djamena (Chad), 93 from Almaty (Kazakhstan), and 105 from Baghdad. In contrast, it takes only 5 days from Copenhagen, 6 from Berlin, 16 from Port Louis (Mauritius), 20 days from Shanghai, Kuala Lumpur or Santiago de Chile¹⁰

Trade is hampered by a number of obstacles, such as national borders, administrative procedures, and many countries remain isolated despite the unquestionable progress of globalization. But transport costs, which strongly depend on distance, are definitely one of the principle obstacles to further growth of trade. The forthcoming decades may enhance this dependence. Transport services for the world trade will not become cheaper. Quite the opposite. Due to a number of factors, within and without the transport industry worldwide, the prices of transport services may start an upward trend. What will then happen to globalization?

One of the most illustrative examples of the close links between transportation and globalization is *food*. The slogan of "eat seasonally and locally" seems not to apply, especially in the industrialized world. We eat fresh produce in winter in Europe and North America, and tropical fruit is available all year round there. This of course requires a lot of

⁷ See: A .Behard, A. J. Venables: *Transport Costs and International Trade*. * Paper written for Handbook of Transport Economics, eds André de Palma, Robin Lindsey, Emile Quinet & Roger Vickerman, p.6

⁸ Figures quoted from: D. Hummels: *Transportation Costs and International Trade in the Second Era of Globalization*.

"Journal of Economic Perspectives". Vol.21, Nr 3, 2007; pp.131-154

⁹ S. Djankov, C. Freund, C .S. Pham: *Trading on time*. World Bank. Policy research working papers 3909. Washington D.C. 2006. The authors have also published a newer version of their research results in: S.Djankov, C. Freund and C.S.Pharm: *Trading on time*, Review of economics and statistics 2010, vol. 92, no. 1, pp. 166-173.

¹⁰ Idem, p.

transport capacity over huge distances. The economic and environmental impact of such transports is obvious but the so called *food miles* or *carbon footprint* have only recently become the object of serious research. The results of this research are sometimes shocking and do not necessarily fall in line with popular wisdom that distance always produces more negative environmental impact than growing the same food locally.

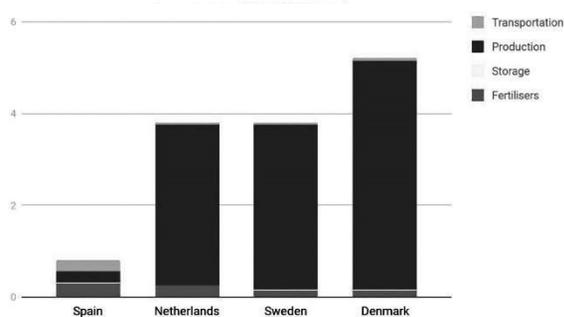


Fig. 2. Swedish Tomato Footprints (kg CO₂/kg).

Source: A. Carlsson-Kanyama: *Climate change and dietary choices-how can emissions of greenhouse gases from food consumption be reduced?* "Food Policy".

Vol.23, No.3/4 1998;

As shown in Fig.2, the tomatoes carbon footprint is nearly 5 times higher in Sweden than in Spain, if all the components are accounted for, i.e. transportation, storage, production and fertilisers. They are almost 7 times higher in Denmark. Similar conclusions come from a study for the UK¹¹.

Although the transport component is responsible for only 11% of the carbon footprints for food consumed in the U.S., it nevertheless constitutes a crucial element of the supply chain. Its significance is strictly related to distance that food travels. It is estimated that in the U.S. food travels on average 1,640 km before it is delivered to consumers. It increases to 6,760 km when the whole life-cycle supply is considered¹². The increased distance traveled by food in developed

countries was caused by the globalization of food trade, which increased 4 times since the 1960s¹³.

Not surprisingly *road transport* is the main culprit for the world's carbon emissions from food trade. Its share is estimated at 60% of the total emissions. Air transport comes second with a 20% share, followed by rail and sea transport with a 10% share each.

The impact of food production and distribution on gas emissions varies with the type of food. As shown in Fig. 3 *red meat and dairy products* are responsible for nearly *half* of all food greenhouse gas emissions in the U.S. This proportion clearly implies that reduction of these emissions would require a shift in dietary habits of people in the developed world and moving away from meat products.

Combined with shifting towards locally produced food, such a dietary diversification will not only reduce greenhouse gas emissions but will also have a direct impact on globalization and reducing food imports. Bearing in mind that half of the U.S. fruit is imported¹⁴ any shift towards consumption of domestically grown fruit will be beneficial from the transportation point of view.

However, not all food can be produced locally (bananas do not grow in northern regions). Neither can all the countries produce similar items at a similar cost. Thus food trade is inevitable. The question is how to find a right balance between local production and imports which are inevitably transport-intensive and encourage globalization. To find such a balance one needs to have a holistic approach to the problem. Imports ensure diversity of food but at the same time they can kill the local production of the same goods, especially when imports are heavily subsidized in their country of origin¹⁵.

Transport plays a pivotal role in this whole game of opposing interests of the countries heavily dependent on globalization. Were the transport industry worldwide not able to provide cheap services, the very reason for globalization would go. Only cheap, readily available transport services make globalization possible and economically

¹¹ See: E. Millstone & T. Lang: *The Atlas of Food. Earthscan*. London 1963., p.60

¹² Ch. L. Weber, H. Scott Mathews: *Food-Miles and the Relative Climate Impacts of Food Choices in the United States*. Department of Civil and Environmental Engineering and Department of Engineering and Public Policy. Carnegie Mellon University. Pittsburgh. Pennsylvania 15213. Retrieved 25th October 2017.

¹³ Idem

¹⁴ W. Wakeland et al., op. cit p. 212

¹⁵ A good deal of President Trump's rhetoric against the NAFTA Agreement comes from his conviction that the other two partners of the Agreement, i.e. Canada and Mexico, heavily subsidize their production of certain goods which they subsequently dump on the U.S., market killing local industries unable to compete with cheaper imports.

viable. *The mutual relationship between transportation and globalization cannot be more evident.*

But such a picture of the mutual relationship between transport and globalization may be oversimplified. Globalization may continue despite transport services becoming more expensive and, conversely, lowering of the cost of transport may not necessarily translate into more trade. Other factors may prevail. Amongst various studies and research devoted to the issue of the impact of transport cost on trade an opinion prevails that the factors that count most are:

- I. Distance.
- II. Fuel prices.
- III. Port infrastructures.
- IV. Transport connections to/from ports.
- V. Formalities at border crossings¹⁶.
- VI. Competition among carriers, and others.

Terminal Market vs. Ferry Plaza Farmers Market
Apples: 1,555 miles vs. 105 miles
Tomatoes: 1,369 miles vs. 117 miles
Grapes: 2,143 miles vs. 151 miles
Beans: 766 miles vs. 101 miles
Peaches: 1,674 miles vs. 184 miles
Winter Squash: 781 miles vs. 98 miles
Greens: 889 miles vs. 99 miles
Lettuce: 2,055 miles vs. 102 miles

Source: CUESA: How Far Does Your Food Travel to Get to Your Plate? Retrieved on 27th October 2017

Interesting conclusions can be found in an article by A. Behar and A.J.Venables¹⁷ whereby the authors state that there is no evidence that throughout time transport costs have fallen as much as one would expect. On the contrary, much proves that they have actually risen, albeit unevenly on particular trade routes.

¹⁶ Studies for trades of land-locked countries in West Africa (Burkina Faso, Niger and Mali) indicate that shipments by road from the ports of Tema (Ghana) or Abidjan (Cote d’Ivoire) have to clear numerous formal and informal controls which considerably delay the time of delivery. According to World Development Report 2009: *Reshaping Economic Geography*. Published on December 30, 2009, retrieved November 20, 2017; there were some 40 controls for lorries carrying goods from the port of Tema for Bamako in Mali.

¹⁷ A. Behar, A.J. Venables: Transport Costs and International Trade....op.cit

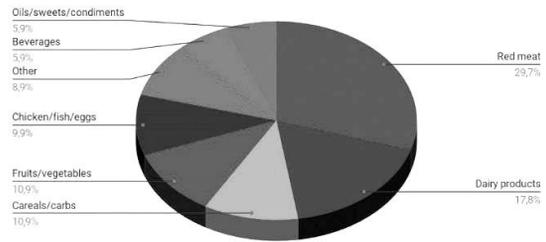


Fig. 3. Types of food that impact green gas emissions. Source: The Guardian. March 21, 2016

Clearly, there is a need for more advanced research into how close the link between globalization and transport is in particular segments of the world trade markets. It would be difficult to express this link in strictly numerical terms, although various attempts have been made¹⁸. None-the-less it seems reasonable to assume that the higher the cost of transportation the greater its impact on the exchange of goods throughout the world, and subsequently the stronger its effect on globalization in general. The case study of food trades described above is the best example of this relationship. Unless it cost near to nothing to transport apples from the South Hemisphere to Europe or North America in winter there would be no economic justification for such trades. And in fact such transportation *is* costly. Thus the slogan “eat seasonally and locally” is not bad after all.

3. CAN THE PROCESS OF GLOBALIZATION BE REVERSED?

Some scholars and a good deal of economists contend that globalization has already peaked and the world has effectively become flat (Thomas Friedman). Yet others reject this view and claim

¹⁸ See for instance: J.Anderson.,E. van Wincoop: *Trade Costs*. “Journal Of Economic Literature”. Nr 42(3) 2004; pp.691-751; J. Korinek, P. Sourdin: *Clarifying Trade Costs; Maritime Transport and Its Effect on Agricultural Trade*. “Research Gate”, January 2009; D. Hummels: *Transportation Costs and International Trade Over Time*; J.F. Arvis, G. Raballand; J.F.Marteau: *The Cost of Being Landlocked: Logistics Costs and Supply Chain Reliability*. “World Bank Policy Research Working Paper”. April 2010; S. Baier;J. Bergrstrand: *The growth of world trade: tariffs, transport costs and income similarity*. “Journal of International Economics”. No 53 2001, pp.1-27, and numerous other contributions.

that the world is still “hilly”, if not “mountainous” and billions of people are falling behind economically¹⁹.

Such a discrepancy of opinions which are supported by all kinds of evidence is the result of the complexity of the process of globalization. Globalization is not a single process, although it usually perceived as such. Globalization is seen by most as an economic phenomenon. In reality it virtually includes everything: economy, politics, culture, religion, science, health, etc.²⁰

In the context of the present paper we are compelled to narrow down the discussion to economic aspects of globalization with emphasis put on transportation, lest it becomes incomprehensible. This does not mean, of course, that globalization is limited to economy. But it would be impractical to treat all the components of globalization with the same degree of detail.

Whether positive or negative the relationship between the transport sector and globalization is obvious. Progress in transportation enabled globalization. Its further evolution will affect globalization in a direct way.

While predicting future economic developments is similar to weather forecasting, it is not unreasonable to claim that the future of the transport sector regarded globally will depend first and foremost on technology. Building larger and speedier vehicles, fully automated and moved by efficient engines seems feasible; it does not mean, however, that they will necessarily be more efficient in strictly operational and economic terms. It might be technically possible to launch a vessel of 1,000,000 deadweight tons but such a ship will not be operational outside a very restricted number of hubs from which it would be inevitable to operate a dense network of feeder services of a considerably reduced economies of scale. The gains from operating such a mammoth ship will therefore be offset by the diseconomies of the latter services. Likewise, how many airports in the world will be capable of serving aircraft even large than A 380? *There exist limits to size.*

Operational and managerial improvements also have their limitations. There must be crews, regardless of how reduced in size they might be to man even the most automated and computerized ships. It would be wrong to assume that we can

create a system of transport that will be operated without human intervention.

Everything comes to the question of *cost*. Cost efficiency may prevail over technology. In the long run only those innovations that will be cost-efficient will remain. Others will come and go.

It may seem that the critical mass in terms of a further technological change has already been attained. Unless we disregard the cost factor, increase in size of vehicles may not be feasible. Organization and management can also hit some barriers, both these which are already identified and those which are not as yet. Green technologies are a nice thing but not necessarily cost effective. How many wind mills must be erected to replace one classical power plant, even of an average size, run by fossil fuels? And how many electric cars or buses will be needed to replace the existing ones?

To avoid misunderstanding, we are not claiming that green technologies are not necessary. They are indispensable if we do not want to destroy the planet. But they must come in stages, and we have to bear in mind that their initial cost may be prohibitive.

Thus for some time to come the world will have to rely on those technologies which have proven to be cost-effective. And their cost-effectiveness is not limitless. Transport costs delineate these limits.

As the cost of transport to the user of transport services is likely to keep increasing instead of falling, the incentives to use foreign economic agents may lose much of their attractiveness. Consumers of goods and services will be looking for cheaper alternatives. Some of the products swept out from industrialized world by cheap goods from China or other newly industrialized countries may return, even if they cost more. It is symptomatic to watch a typical food market in Poland, for instance. While just one generation ago consumers would invariably turn to foreign-made items let alone for the attractiveness of their packaging, today merchants proudly exhibit the local origins of their produce (“Polish product”), and that is not without reason. No arguments are raised for the sake of reducing the carbon footprints in this case but experience has taught the consumers that despite their external attractiveness, foreign goods are often of a lower quality compared to local items despite their usually higher prices compared to imports.²¹

¹⁹ See for instance G. Ritzer: *The world is mountainous. Why globalization can't be reversed?* “The European”. 10 December 2014.

²⁰ idem

²¹ The question of safety is also of key importance in this respect. Many foreign-made goods are of dubious

All that will impact globalization. If transport costs are accounted for, the competitiveness of foreign products will decline. Transport may “kill” globalization in the long run.

4. IS THE WORLD READY FOR A LOCALLY-BASED ECONOMY?

Since the time of D. Ricardo up to P. Krugman and other classics of international trade, students all over the world have been learning that trade occurs wherever there is comparative advantage for the trading partners. This way important economic links are established between countries, regions and continents. The model fitted perfectly into the classical and then neoclassical economy. The North became the provider of industrial goods and the South (much of which was composed of the former colonies) was the supplier of raw materials and food. This pattern of international trade had its strong support of the efficient transport system that also favoured the industrialized world.

But this model is now seriously challenged. Not only because of the emergence of such economic powerhouses as China and other quickly growing economies, but also because the developed world is slowly losing its grip on the technology and its transfer to the rest of the world. The classical division into developed and developing world is slowly losing ground after two or three centuries of uninterrupted dominance.

In fact this process could have started much earlier, actually after the WWI and the Bolshevik revolution in Russia that has just recently celebrated its hundredth anniversary. What would have happened if this revolution failed or took a different turn? In other words what would have happened if the Soviet models was capable of putting to its advantage the largest reserves of arable land in the world and gave its peasantry a chance to prosper? What would Russia look like today? And, for that matter, the rest of the world, too?

Some would say such a situation was not to be. Russia had for centuries been a backward feudal nation with an unbelievable exploitation of her *narod*, or people, where a tiny fraction of the privileged controlled the bulk of the national wealth. A revolution was inevitable, in a much similar way the French revolution was some 130

years earlier. But it was perhaps a wrong revolution, at the wrong time, carried out by the wrong people. The rest is too well known to be analysed anew.

However, the world today looks the way it has been evolving ever since and globalization is entrenched for good. Some scholars and politicians claim it is there to stay for ever²², let alone for the fact that the process is far from finished. For these authors speaking of anything else but globalization is tantamount to ignoring the reality.

Yet there are strong arguments for *de-globalization* or *reverse globalization* as it is sometimes referred to. We are in favour of such argumentation, although we perceive the process of de-globalization from a single point of view, viz. transportation. Needless to say there are other reasons for de-globalization as well, but they are strictly not within the scope of this article.

Walden Bello provides a very strong argument in favour of de-globalization in his feature article on the issue²³. We quote it in its entirety for the sake of clarity and comprehensiveness. Bello list 11 key elements of a de-globalization paradigm which are:

- Production for the domestic market must again become the center of gravity of the economy rather than production for export markets;
- The principle of subsidiarity should be enshrined in economic life by encouraging production of goods at the level of the community and at the national level if this can be done at reasonable cost in order to preserve community;
- Trade policy — that is, quotas and tariffs — should be used to protect the local economy from destruction by corporate-subsidized commodities with artificially low prices;
- Industrial policy — including subsidies, tariffs, and trade — should be used to revitalize and strengthen the manufacturing sector;
- Long-postponed measures of equitable income redistribution and land redistribution (including urban land reform) can create a vibrant internal market that would serve as the anchor of the economy and produce local financial resources for investment;

²² See: Ritzer: op.cit

²³ Bello: *The Virtues of Deglobalization*. The WorldPost. Published by Berggruen Institute. Los Angeles. Retrieved 31st October 2017

quality and constitute risk to consumers who are turning back to domestic items.

- Deemphasizing growth, emphasizing upgrading the quality of life, and maximizing equity will reduce environmental disequilibrium;
- The development and diffusion of environmentally congenial technology in both agriculture and industry should be encouraged;
- Strategic economic decisions cannot be left to the market or to technocrats. Instead, the scope of democratic decision-making in the economy should be expanded so that all vital questions — such as which industries to develop or phase out, what proportion of the government budget to devote to agriculture, etc. — become subject to democratic discussion and choice;
- Civil society must constantly monitor and supervise the private sector and the state, a process that should be institutionalized;
- The property complex should be transformed into a “mixed economy” that includes community cooperatives, private enterprises, and state enterprises, and excludes transnational corporations;
- Centralized global institutions like the IMF and the World Bank should be replaced with regional institutions built not on free trade and capital mobility but on principles of cooperation that, to use the words of Hugo Chavez in describing the Bolivarian Alternative for the Americas (ALBA), “transcend the logic of capitalism.”

For the reasons already explained it is not our purpose to discuss all the arguments pro and con de-globalization in its wide context. But several points in Bello’s contribution deserve emphasizing, despite a strongly politicized nature of the argument. One of such issues is the shift from export-oriented economy to domestically-oriented one. This change is of course tantamount to de-globalization and is focusing on an economy based on local (national) resources, economic and social needs.

Example of such a shift of emphasis can be already observed, for instance in China and other newly industrialized nations²⁴. After years of expansion into the foreign markets, Chinese

leaders are now increasingly aware of domestic needs, lest not be confronted with social unrest and disruptions.

De-globalization is seen by some as an attempt to return to an autarchy. This is a wrong conviction because autarchy is today simply ruled out as nations are strongly dependent on each other, even the most powerful ones. But globalization has probably peaked and its advantages are not as strong as it is believed. And transportation is an important element of this change.

5. CONCLUSIONS

Conclusions from the above analysis which is rather general can only be tentative. It is difficult, if not outright impossible, to assess the developments that are just taking place.

Yet it is beyond doubt that both processes, viz. globalization and its opposite – de-globalization, or reversed globalization are interwoven. Both have positive and negative consequences that will for the foreseeable future shape the world economy, and consequently our way of life.

Globalization has benefited many. Some groups more than others. It has integrated the world, made it smaller and more accessible. Yet, the majority of people, particularly in the less developed parts of the planet have benefited little, if at all, from globalization. Opposition to globalization, so well defined in the French term of *mondialisation*, is a fact that no honest writer or researcher can disregard. To many people in the developed world globalization has simply meant the destruction of their life-style and made their future uncertain.

Yet globalization is so strongly entrenched in the international economy that it seems to be with us for a long time to come. But is not rock-solid. It is already hitting some serious obstacles, one of which is the threat that rising transport costs, can make it unviable in the long run.

Voices to limit transport-intensive imports, in particular certain types of food, are becoming louder²⁵.

No wonder, such imports contribute to the climate change that many believe are already irreversible. One of the ways to counter the consequences of climatic change is to reduce those transport activities which are not indispensable.

²⁴ The author’s recent article sheds some light on these issues. See: Ignacy H. Chrzanowski: *Globalization, growth and the transport industry: the case of Asia*. “Kwartalnik Nauk o Przedsiębiorstwie”. Nr 2(43) 2017, pp. 21-31

²⁵ See for instance: A. Shroten: Decoupling transport from GDP growth: a route to less transport. Diamant Conference Center. Brussels. November 2011

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Ignacy H. Chrzanowski
The University of Dąbrowa Górnicza
hranow54@yahoo.com