

FRIEND-SHORING: A MAJOR TURNING POINT TOWARDS MORE SUSTAINABLE VALUE CHAINS?

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ABSTRACT

The concept of friend-shoring, which appeared in April 2022, could contribute to a profound transformation of international trade and, more surprisingly, prevent the environmental crisis from continuing. Friend-shoring, a contraction of “friends” and “offshoring”, suggests developing partnerships with close friend countries, stopping the relocation of industrial activities to the other side of the planet based solely on the criterion of low labour costs. The key idea is to build regional value chains, which could ultimately be much more sustainable. The objective of this short communication is to highlight the conditions of appearance of the friend-shoring concept and its main economic and environmental issues in a value chain perspective, and then to insist on the limits of its implementation. Given the current absence of friend-shoring experiments, the chosen methodology relies on a speculative approach based on the exploration of scientific knowledge about regional supply chains.

KEYWORDS

Friend-shoring, Geopolitics, Offshoring, Regional value chains, Speculative approach, Sustainability

1. GENERAL FRAMEWORK

Every year, in the middle of summer, but earlier and earlier each year (except for exceptional periods such as the Covid-19 pandemic), the media announces the occurrence of the Earth Overshoot Day (EOD), which is the date on which humanity has exhausted all the resources that the Earth can renew in one year. It is on July 28 that the EOD was announced in 2022, whereas fifty years ago, as shown in Figure 1, the Earth's resources were sufficient to meet our needs for the year (the EOD was December 29 in 1970). Of course, the indicator created by Global Footprint Network varies considerably from country to country. The worst performer for 2022 is Qatar, the famous host of the 2022 World Cup, which reached its EOD on February 10, followed closely by Luxembourg on February 14. Conversely, many African countries are so low in meeting their needs that they have never reached the EOD, and probably never will. The interest of the indicator is to assess an “ecological debt” to the planet that compromises the well-being of future generations.

Based on data from UN reports, Global Footprint Network cross-references the ecological footprint per person (the amount of surface area required for food, transportation, housing, etc.) with the global biocapacity per person (the capacity of ecosystems to renew themselves). As such, the EOD represents a wake-up call for the world's political systems by indicating that the environmental crisis linked to the Western way of life, with its consumption of products coming massively from China, is getting closer and closer. For the moment, very few countries are using the EOD to develop a real strategy for sustainable development, like Montenegro. However, as the Global Footprint Network points out, it would be enough to postpone the EOD by six days each year to reach the date of December 31 by 2050. Reducing global meat consumption by half

would already move the date back 17 days and reducing all food waste would save another 13 days. However, it is a reduction in over-consumption of convenience goods that would have the most radical (positive) impact.

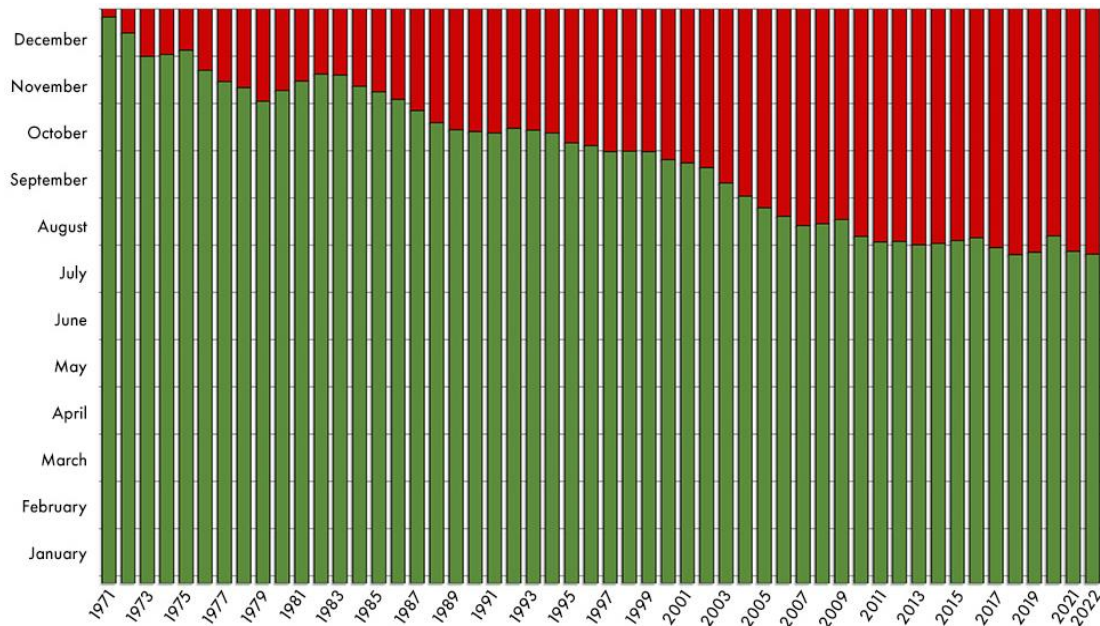


Figure 1. Evolution of the EOD between 1971 and 2022
 Source: National Footprint and Biocapacity Accounts (2022).

If one had to summarise the situation, one could certainly speak of a kind of almost *generalised political apathy*, despite the –more or less sincere– statements to avoid a major environmental crisis expressed during the various COPs. In brief, the economic stakes are so high in a context of great turbulence due to the Covid-19 pandemic and the war in Ukraine that reflections on the sustainable emergency seem to take minor place. Yet, paradoxically, this turbulence could offer a unique opportunity to reduce the unbridled consumption of resources... and to postpone the EOD by relying on a profound geopolitical reorganisation of value chains. Indeed, the over-consumption that is at the origin of the advance of the EOD in the calendar, year after year, is based on the implementation of global value chains over the last four decades, allowing many manufacturing and retailing companies to capture the material and human resources of low-cost countries in order to flood the Western markets with products sold at ever lower prices. With the concept of friend-shoring, evoked in the spring of 2022 by the Biden administration, a big step could have been taken towards a new structuring of supply chains whose perimeter would no longer be global but regional, more sustainable value chains refocused on limited geographical areas.

The concept of friend-shoring is based on a will to limit trade with countries that are close, both geographically and culturally. It is in line with reflections on the structuring of value chains based on greater proximity between the senders and recipients of intermediate components or finished goods. For example, within the European Union, many observers believe that it would be interesting to consolidate regional value chains because there are no trade barriers, and most countries share the same currency and even the same cultural values; as Theodore Tsekeris points out, the existence of groups of highly interconnected regions within Europe is already notable [19], which is favourable to regional value chains development. Moreover, transport routes are shorter, reducing the risk of disruption, delivery times and the stocks needed to satisfy customers quickly.

Of course, the massive regionalisation of value chains would mean supporting the construction of industrial facilities before being able to source on a large scale from the European continent, with a very positive impact on the economy: value creation and new jobs brought about by reindustrialisation. The same reasoning can be found in other parts of the world, notably in the United States, where companies are choosing to relocate their activities to Canada, Mexico, and several Latin American countries.

Although the recent emergence of friend-shoring could appear to be a “fashionable phenomenon”, this is not really the case. Indeed, the regionalisation of value chains has been discussed for decades through the concept of nearshoring, the objective of which is certainly to relocate an industrial or commercial activity, but by choosing a nearby country, and no longer one located several thousand kilometres away, within the framework of regional cooperation on investment and trade [15]. For example, the Benetton Group plans to halve its production in Asia and move its manufacturing activities to the Balkans and Eastern Europe to be closer to its consumer markets, while the IKEA Group has announced that it will similarly relocate part of its manufacturing activities to Turkey. Nearshoring is therefore opposed to offshoring, the objective of which is precisely to diversify supplies by voluntarily turning to countries with recognised know-how, but which above all benefit from low labour costs. By reorganising their value chains on a regional basis, company strategies ultimately converge with the reshoring policies desired by many governments, including Japan’s [5], i.e., the repatriation of activities deemed strategic, for example in the production of medicines, semi-conductors, or electric vehicle batteries. From this point of view, friend-shoring must be examined as a variant of a large-scale movement that questions the relevance of the global value chains that have emerged from the triumph of neo-liberalism over the past forty years.

This short communication aims to examine the foundations of friend-shoring and its potential environmental issues. The speculative dimension is necessary insofar as it is currently impossible to assess the effects of a generalised friend-shoring policy. From a methodological point of view, the speculative dimension refers to the formulation of conjectures based on contemporary scientific knowledge, but which the current state of experimentation does not yet allow to be tested [20]. Unlike pseudo-sciences, such as ufology, speculation is an integral part of the “normal” sciences as it allows scientific approach to be fed with new theories. Given the absence of friend-shoring experiments, this contribution draws on recent analyses of regional value chains from a geopolitical perspective. Indeed, the central hypothesis of the short communication is to consider that the institutional environment linked to growing international tensions directly impacts the structuring of tomorrow’s value chains. The main question is to know if friend-shoring could then constitute an unexpected accelerator of the emergence of more sustainable value chains.

2. CONTROVERSIES ABOUT GLOBALISATION

Since 2020, Western countries have experienced two external shocks of high intensity, whereas they had become accustomed to dealing with economic or geopolitical disruptions. With the Covid-19 pandemic, followed by the war in Ukraine, the issue of the vulnerability of global value chains has come to the fore, leading to questions about the risks of dependence on supplies from low-cost countries. It is in this context that Europe and the United States are seeking to set in motion a regulated process of “de-globalisation” to reduce the risks of disruption in the supply of sensitive goods. The form taken by de-globalisation is a policy of re-shoring and the development of regional value chains, according to a model that is widely disseminated in Africa [16]. Figure 2, taken from the research by Roman Stöllinger, Doris Hanzl-Weiss, Sandra Leitner, and Robert Stehrer, provides a picture of the different stages of a regional value chain in the European space [17]. Building regional value chains should help diversify risks, reduce the vulnerability of economies, increase resilience, and foster territorial development. In other words, it is a full-scale attack on global value chains that seems to be unfolding before our eyes since the early 2020s.

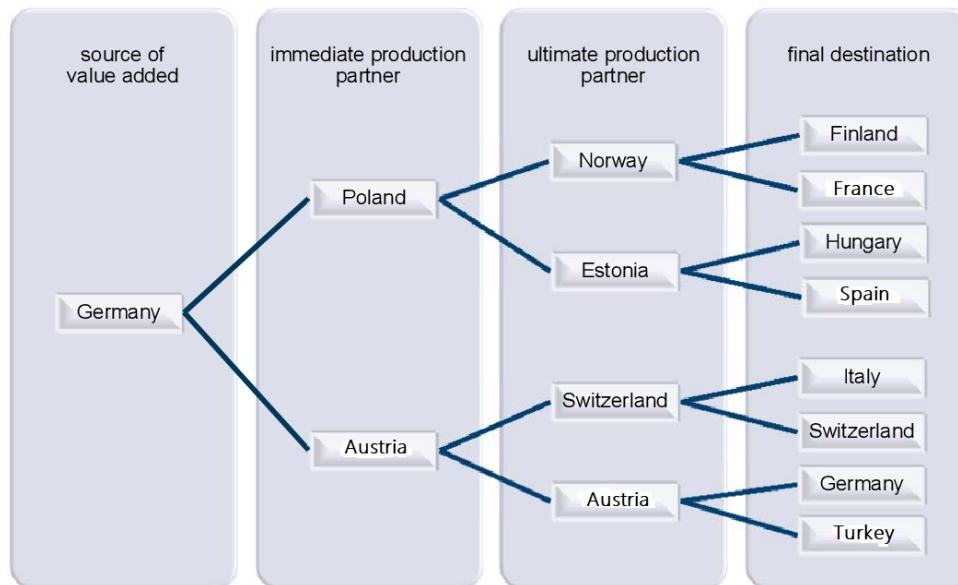


Figure 2. An example of regional value chain
 Source: Adapted from [17].

In an extremely well-argued article, Richard Baldwin and Javier Lopez-Gonzalez question the fact that value chains are systematically global in scope [2]. For the authors, this is a preconceived idea that is very present in the literature and based on a meticulous study of world production for final and intermediate use, they emphasise, on the contrary, that the organisation of industrial activities is largely structured on regional factors. While the production of goods is fragmented between countries, procurement networks are mainly clustered in proximity. A report by the McKinsey Global Institute, published just before the Covid-19 pandemic, similarly concludes that there is a strong intra-regional component in international trade; regionalisation is most significant in value chains where the need to closely associate numerous suppliers with just-in-time logistics is important, for example in high technology [9]. This does not prevent the fact that many convenience goods, which have invaded Western markets, and China's role as a world factory, are attracting a growing number of critics, including those referring to a "global fragmented despotism" [8].

Even the World Bank, in its *World Development Report 2020*, entitled "Trading for development in the age of global value chains", implicitly recognises the negative impacts of global value chains, particularly in terms of the capture of profits by a handful of multinational companies and the consequent decline in labour incomes in the developed world. At the same time, the report is an ardent defender of global value chains as a key element in the creation of wealth for the world's population, while remaining silent on their effects on climate change. One can therefore speak of a measured adherence of the World Bank to neoliberal orthodoxy, but without the latter being really questioned as to its foundations. This is the conclusion reached by Jennifer Bair, Mathew Mahutga, Marion Werner, and Liam Campling by cross-referencing the *World Development Report 2020* with other documents, including the *Trade and Development Report 2018* of the United Nations Conference on Trade and Development Secretariat [1]. Globalisation is therefore the object of contradictory analyses and multiple controversies between different schools of thought. On one side of the spectrum, participants in the World Economic Forums at Davos see globalisation as an opportunity for humanity to advance towards generalized well-being, while on the other side of the spectrum, the alter-globalisation movements see it as a widening of inequalities between rich and poor.

It is in this contested context that a debate has emerged in the community of management researchers and practitioners around friend-shoring. The concept first appeared in a speech by Janet L. Yellen, US Secretary of the Treasury, to the Atlantic Council in April 2022 [7]. Friend-shoring corresponds to a new geopolitical vision of the world at the end of the Ukrainian crisis: the implementation of partnerships between countries with the same vision of the functioning of markets, the application of labour rules and the respect of environmental standards. Unlike traditional re-shoring to the country of origin of an industrial company, friend-shoring implies the concentration of trade between trusted commercial partners who are culturally close, which should reinforce the robustness of value chains by integrating the criterion of geopolitical convergence in addition to the already existing –and well-known– criteria of efficiency and resilience. At the operational level, rather than considering the planet as a single market, which is the perspective of global value chains, it is a matter of creating smaller exchange spaces, based on powerful solidarity between countries.

3. ENVIRONMENTAL DEBATES

It must be admitted that the environmental dimension is not present in the formalisation of friend-shoring, unlike many global value chains in the agroindustry [6]. The issue is treated only from an economic and geopolitical point of view, with the stated objective of protecting access to vital raw materials and components, based on the lessons learned during the Covid-19 pandemic and the war in Ukraine, which saw shortages of semiconductors and other components threaten vital industries [13]. Already, many advocates of globalisation, including the World Trade Organization, are countering that a partition of the world into antagonistic blocs could lead to a 5% decline in global economic output over a 10-20-year period, accompanied by higher prices and lower corporate profits in Western countries [21]. In contrast, there is no indication of the positive environmental effects of trading over much shorter distances, but the relationship between reshoring and environmental sustainability remains largely unexplored, as underlined by Guido Orzes and Joseph Sarkis [12].

Clearly, shortening value chains, especially when they are configured regionally, will be costly in financial terms and will probably require considerable time to adapt, especially for value chains with a high level of operational complexity. In particular, it will be imperative to define the specific conditions for achieving friend-shoring for each link in a value chain, and this can only be done if there is a political will in the coming years. For now, the world remains dependent on raw materials from distant countries, which complicates the implementation of sustainable value chains. For example, 64% of the world's cobalt supply comes from the Democratic Republic of Congo, a large part of which is owned by Chinese companies. China itself produces 61% of silicon metal, 84% of tungsten, and 87% of magnesium and antimony, as indicated in Figure 3. In the foreseeable future, the United States and its allies will also have to rely on Chinese companies to meet their green energy needs. As a result, China is likely to remain the world factory from which millions of containers feed Western markets (the country handles a quarter of the world's shipping).

According to a purely geopolitical way of thinking, it would thus be misleading to imagine that friend-shoring constitutes the basis of a more intelligent international cooperation. On the contrary, from the Biden administration's point of view, it is clearly about distancing itself from China, albeit in a more subtle way than the Trump administration, but with the same objective of escaping its economic power. China is the second largest foreign holder of US debt, with holdings of Treasury Bonds reaching 967.8 billion US dollars at the end of June 2022. China's power also extends to the world: in terms of the value of a country's output crossing at least two borders, China's contribution to global value chains is the highest in the world [18]. The One Belt, One Road initiative, launched in 2013 by president Xi Jinping in Astana (Kazakhstan), is

not expected to reverse this trend, with investment in huge logistical infrastructures, by land and by sea, expected to significantly increase the penetration of Chinese convenience goods in Europe and North Africa.

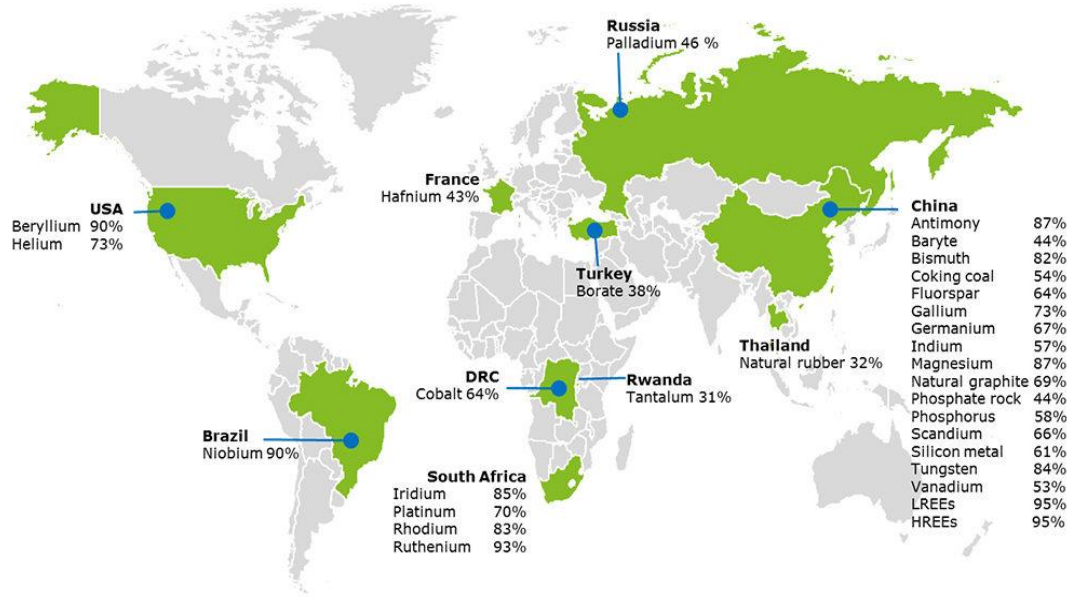


Figure 3. Rare and strategic metals: the world's main producers in 2020
 Source: European Commission (2021).

Although friend-shoring underlines interesting perspectives for reflection on the economic and environmental excesses of excessive globalisation, it will be difficult to implement. Indeed, it clashes head-on with a model of economic development that stems from a neoliberal order which, for forty years, has considered that the wealth of nations, but also the fight against poverty, is based on the elimination of all obstacles to world trade. This model has not succeeded in building a real sustainable agenda, as shown by the successive failures of the different COPs, despite the hopes raised for a time by the COP21 in Paris (2015). The two violent crises experienced since 2020 could, however, allow for a gradual paradigm shift, with countries and companies forced to thoroughly review the way they view the international division of labour. A more sustainable world could thus emerge in a surprising way from disruptions that no one could have imagined ten years ago.

4. SPACESHIP EARTH PERSPECTIVE

This short communication started with a pessimistic observation: year after year, the EOD is advancing in time, and unless there is a major crisis, as was the case with the Covid-19 pandemic, the movement is not ready to stop. Certainly, since the beginning of the decade 2010, a shuddering seems perceptible with the creation of a “plateau effect”, but it confirms above all that we have collectively become accustomed to a consumption of resources that greatly exceeds what the Earth can offer us. For enthusiastic scientists (or totally disconnected from reality?), the new frontier is at hand through an exploration of mineral resources contained in the Moon's subsoil. Researchers in international law are following their lead by being fascinated for several years in the legal regime to be applied to lunar mining resources, as Andrew Brearley noted in the mid-2000s [4]. However, it is too early to speak of a way out of the crisis because the cost of exploitation and transport of these mining resources could be astronomical.

The most realistic option is to stick for the next thirty years to the moderate use of the planet's available resources, as Kenneth Boulding invited us to do in 1966, with reference to spaceship earth [3]. For this author, we are irremediably isolated in space, and the reservoirs of our spaceship earth are limited for all the non-renewable resources we use. The "journey" made by the human species obliges therefore to take care of the stocks and to manage the waste as well as possible to remain autonomous. For millennia, the human species has lived in a virtually infinite world, with almost always the possibility of moving to a place beyond the horizon. For Kenneth Boulding, this "frontier", in the American sense of the word, is now closing and it is therefore necessary to move from a "cowboy economy" to an "astronaut economy", from an economy based on production, consumption and growth to one based on resource conservation and recycling. Six years later, the Club of Rome took up and enriched the message in its famous report *The limits to growth* [10].

This is a complete change of mindset that impacts on economic organisations, including the global value chains implemented since WWII. The earth has become a spaceship, not only in our imagination, but also in the concrete reality of the social, biological and physical system in which the human species is involved. We thought we were living in a world of infinite resources; now we have to develop technologies and economic organisations that allow us to live in a closed ecosystem based on symbiotic relationships. The only possible way out is a sober and efficient management of resources, and it is this message that must be accepted today by the intransigent defenders of globalisation. If friend-shoring was first evoked in the United States from a geopolitical perspective, notably in an arm wrestling with China, it could finally accelerate an awareness favourable to the emergence of more sustainable value chains, preventing a fatal environmental crisis. After all, as the French novelist Paul Claudel wrote: "The worst is not the surest".

5. DISCUSSION AND CONCLUSION

The neologism friend-shoring is undoubtedly inspired by two older terms: re-shoring and on-shoring. It does not call into question the relocation of certain stages of the value chain to other countries, but the characteristic of these countries is that they share the same value system –or the same interests– in reference to a geopolitical alignment with the country which is relocating. For example, US companies such as Apple have reorganised their value chains by involving countries such as Taiwan or Vietnam, which are considered closer to US interests. The United States and 17 of their allies have agreed to work together to improve and diversify global value chains in order to avoid the shortages that hit the US economy during the Covid-19 pandemic, and that are still affecting several countries due to the war in Ukraine [13]. The aim is explicitly to formalise friend-shoring by organising the transfer of supplies of sensitive components from China to friendly countries as quickly as possible.

At a time when the principles of globalisation are being questioned and geopolitical tensions are likely to increase, the search for alternative solutions is essential, but it would be foolish to ignore the risks and undesirable effects on international trade. According to Raghuram Rajan, massive friend-shoring could have devastating effects because it would mean trading with countries that have similar values and, in practice, only trading with countries at similar levels of development, thus eliminating the comparative advantage of production in countries at different levels of development [14]. Even more seriously, friend-shoring would tend to exclude the poor countries that most need world trade to become richer and more democratic. The environmental issue is therefore in danger of fading away in the face of economic considerations, as has very often been the case in human history, and there is nothing to suggest that the value chains of tomorrow will not end up looking very much like those of yesterday.

Another important point is the danger of the world becoming partitioned by building new walls between countries (and between people). For decades, companies have sought to move their sourcing and production to friendly countries, and friend-shoring does not present a major disruption. It does, however, force one to choose sides by attracting the wrath of the other side, which increases the risk of shortages if a link is broken with “unfriendly” countries. This explains why many companies maintain trading relationships with long-standing partner countries, such as China, especially since friend-shoring poses many problems:

- On the one hand, friend-shoring generates a lot of work and reinterpretation of business reality for logistics and procurement professionals, insofar as they have to completely rethink supply networks, which are the result of in-depth strategic analyses conducted over several years.
- On the other hand, the regionalisation of value chains could paradoxically lead to the use of less sustainable means of transport per tonne transported, e.g., road transport rather than maritime transport, and thus come up against many pro-environmental stakeholders (including activists).
- Finally, friend-shoring introduces geopolitical dimensions, and not just technical ones, into decision-making processes, and it is particularly difficult to move from a “machine vision” to a “political system vision”, to use the famous Gareth Morgan’s images of the organisation [11].

By accelerating inflation, disrupting procurement systems, and threatening the food security of many countries, the war in Ukraine and the sanctions imposed on each other by Western countries and Russia have been an unprecedented shock to the global economy. After the Covid-19 pandemic, this war ended four decades of accelerating globalisation. There are widely divergent views among political and economic decision-makers as to what the future face of supply chains will be. Some observers speak of “de-globalisation”, and other observers of “fragmentation” of economic areas, with blocks of countries based on political considerations and trading little or not at all with each other. Friend-shoring thus appears to be one of the possible options, one of the positive effects of which could be to better respect the spaceship Earth by drastically reducing CO₂ emissions. More than ever, the changes underway must be monitored and analysed to identify a radical change in trajectory, or a return to “business as usual”.

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