

Beijing Forum  
The Harmony of Civilizations and Prosperity for All  
Beijing November 4th, 2023

**Global public goods and industrial policy**

Giovanni Tria

The theme of my speech will be the potential contradiction between the need to produce global public goods, such as combating climate change and preventing pandemics, and the drive towards the fragmentation of global markets for geo-economic reasons and even more for geopolitical reasons.

Example of this potential contradiction are the American program launched by the Biden administration with the approval of the Inflation Reduction Act and the CHIPS and Science Act and the following debate that has arisen in Europe on the response to be given in terms of European industrial policy. The contradiction emerges if this revival of attention to industrial policies is framed in the debate related to the so-called re-shoring or friend-shoring or still de-risking policies, which are discussed in the West.

Globalization, in addition to the benefits it has brought both in terms of global growth - including many decades of growth without inflation even in advanced countries - and in terms of poverty reduction in the world, has also fostered international cooperation in the supply of so-called global public goods.

Mitigating the effects of climate change or preventing global pandemics are examples of global public goods that require action across national borders and economic cooperation.

Basic scientific progress, the affirmation of universal rules, the dissemination of knowledge, international security and peace are all examples of global public goods, because they have the characteristic of non-excludability and non-rivalry in consumption. In other words, the enjoyment of such goods by some does not diminish the possibility of the enjoyment of the same goods by others. These are "global" public goods in the sense that their effectiveness depends on being shared globally.

However, the supply or production of public goods, and therefore also of "global" public goods, generally requires the production of goods and services that are not public. Clean air is a public good, but clean air is achieved through a technological revolution, a change in production processes and the consumption of less polluting goods which in turn are not public goods at all, such as are not public goods electric cars less polluting.

The same example is given by the production of new drugs or diagnostic systems that are not public goods at all, in the sense that they are goods characterized by excludability and rivalry in consumption, although necessary for the progress of public health which is a public good and is also a “global” public good because it increasingly affects the whole world due the increasing mobility of people and things.

Likewise, while basic research and scientific progress can be considered public goods, their supply passes through the production of a series of goods and services that do not have this characteristic.

For example, research results, that are subject to patents or susceptible to patents, are not public goods but are, at the same time, essential for the public good that we defined before as "public health".

The possibility of producing a global public good therefore depends on the production at sustainable costs of these non-public goods and services, and on their availability through free international trade.

This point is clarified by the example of the production of semiconductors, solar panels to produce renewable energy or batteries to produce electric vehicles. These are complex productions that are fundamental for the global supply chains and that today are concentrated

in some countries. Supply limits represent an obstacle to the development of a global green industry and the achievement of greater production autonomy is considered a strategic goal in various parts of the world. It is now considered a strategic objective by Europe, United States, and may be China.

Similarly, in the field of the pharmaceutical industry, the over-dependence on the production concentrated in Asia of components of the pharmaceutical supply chains is now denounced in western countries.

We are talking about productions of intermediate inputs, goods and new technologies, not classifiable as public goods because they do not have the characteristic of non-excludability and non-rivalry, even if their availability represents the new frontier of international competitiveness because they are necessary to produce what we call global public goods.

The question, therefore, is how to globally develop technologies and production of these goods and services to an adequate extent to achieve objectives that concern a humanity that in the last 40 years has increased from 4 billion to 8 billion and whose well-being depends increasingly on the supply of those which we have defined as global public goods.

**This raises the big question: how the governments should support the production of these goods? This implies addressing complex issues for economic and industrial national policies.**

The first issue is the localization of these productions and therefore the theme of the relationship between the national development of these productions and globalization.

The localization of these productions is not a matter neutral with respect to the general objective of their contribution to the supply of the global public good. There are at least three factors to consider related to the intervention of the governments in support of national industries.

First factor. National governments do not generally aim to overcome global market failures, to this end should be dedicated multilateral international organizations. The national governments want to support growth in their own country, making domestic industry more competitive, attracting foreign investment, and improving the welfare of the national community. Public national interventions as subsidies and public investments often have the implicit purpose of international competition rather than international cooperation and is often a way of pursuing protectionist policies. In other words, when competition prevail on cooperation, the governments become more concerned with the division of the cake, rather than with the global expansion of the cake.

This justifies the arguments advanced by those who warn that setting ambitious targets for ecological transition means, at least in the short term, favoring the industries of the countries that already produce the

goods and technologies necessary for this transition and not the national industry.

This reasoning, only apparently rational, clashes with a second factor that should guide the localization of production, that is efficiency in the sense of minimizing production costs. This means localizing the productions where it is more convenient also considering the costs of the logistics, the transport , the supply markets of raw materials and intermediate inputs and the destination markets of products.

There is immense economic literature on the advantages of free international trade and the exploitation of comparative advantages to increase the well-being of all countries that accept it. The private sector moves, or should move, according to this logic and the more it can enjoy free international trade the more it can achieve the objective of efficiency.

Therefore, globalization has gone ahead mainly thanks to the interests of private companies that have built global supply chains taking advantage of trade liberalization. Of course, some mistakes can emerge when the attempt to make the most of economies of scale pushes to concentrate excessively some productions and therefore to increase the various market risks.

The third factor affecting localization choices is security. The theme of security concerns the production of goods and services, with the related technologies, considered strategic both for their destination (defense, health, strategic communications, etc.) and their importance in the production chains and consequently for the risk that the supply of these goods can be interrupted.

In other words, we have two security orders. The first is what we can consider "private" or "market" security and that concerns the stability of the supply chain in medium-long term. This problem can be tackled based on risk analyses and the continuous adjustment of the production chains by the companies.

The second type of security is often referred to as "national security". This argument justifies protectionist measures on the part of the national governments and subsidies to national industries. These measures distort the decisions of private companies away from the search for efficiency and generate trade wars and barriers to the exchange of specific goods, technologies, and scientific knowledge.

The interaction of the three factors related to the localization choices of the productions of goods, services and technologies leads to the discussion on the advantages or disadvantages of the so-called re-shoring, friend-shoring or de-risking policies that currently are discussed in western countries.

Following these policies we are faced with the prevalence of factors that are pushing towards a "geo-economic fragmentation".

The US programs launched by the Biden administration, with the approval of the Inflation Reduction Act, the CHIPS and Science Acts, are an example of the potential contradictions that manifest themselves in a push to geo-fragmentation of global economy, paradoxically accelerated by the goal of ecological transition, which should be a global public good requiring cooperation.

These are programs supported by many hundreds of billions of dollars subsidies, concentrated in a few years, and with the stated aim of rapidly developing an industry based on green technologies and the production of renewable energies.

This renewed focus on industrial policy aimed to support towards the green revolution should be welcomed. These programs, however, have been judged by European countries as openly protectionist and discriminatory because many of the subsidies provided are restricted to goods, as is the case with electric cars, produced in the United States or with components mainly produced in the same country. The risk is that of determining a protectionist response in the same direction by Europe where the discussion is how to relax European rules against anti-competitive national state-aids. At the same time, we see an increase in



restrictions on trade in technologies justified by national security in USA and in Europe and, as a consequence in China.

The risk is that a period of trade wars will open in which the main interest of the various countries will focus more on how to carve out global market shares or win the race for technological hegemony than on how to cooperate for increasing the global production of what is necessary for sustainable development and to carry on the ecological transition necessary to combat climate change.

If this is the context of the debate, it seems to me that under the umbrella of industrial policy and the end of the ecological transition many different things are mixed up. We are faced with a fundamental global theme that is to increase the rate of investment in all countries because the overall investment rate in the world has so far been insufficient to meet the objectives of increasing the supply of clean energy, accelerating the ecological transition in production systems, to ensure an adequate supply of food and medicine, to adapt transport systems, to support, in short, the life of a world population that doubled in the last forty years.

The growth of China has driven the growth of the whole world and if today it has the almost monopoly of some essential raw materials, productions and technologies for the green revolution, the aim of other countries should be to support their own productions to expand the

global offer. But for the time being there is no point in trying to restrict free trade of technologies and intermediate goods with the result of damaging world production in terms of efficiency, production costs and slowing growth.

To conclude, the paradox is that we are moving in the direction of a more confrontational world starting from the need to develop what we have called global public goods, among which the main should be cooperation for a peaceful world.