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Structural Change and the Environment

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Free-riding and free driving are relevant problems undermining structural transformation in environmental matters. These two different trends of the markets give incentive to opportunistic and individualistic behavior that hinders the abilities of international markets to create positive environmental externalities. To the contrary, they might lead to monopolistic concentration and negative environmental externalities.

Law, instead of allowing them (through carbon markets compensations only, for example) should look for alternatives of structural transformation of markets. Both well know concepts as the common goods and newer ideas as the possibility of positive screening of transformative market alternatives (or transformed enterprises) might be really useful for such a goal and consequently for the production of positive environmental externalities.

La tendance au parasitisme ("free-riding") ou, à l'inverse, à faire cavalier seul ("free driver"), représente un véritable danger sur le plan environnemental en ce qu'elle sape les efforts entrepris dans le cadre du processus de transformation structurelle. Ces deux tendances opposées incitent à un comportement opportuniste et individualiste qui entrave la capacité des marchés internationaux à créer des externalités environnementales positives et peut conduire à une concentration monopolistique et, au contraire, être source d'externalités environnementales négatives.

Le droit, au lieu de les autoriser (via des compensations sur les marchés du carbone, par exemple), doit s'attacher à trouver de nouvelles voies porteuses de transformation structurelle concernant ces marchés. Des concepts bien connus, comme celui de biens communs, et des idées plus récentes, telles que l'inclusion d'alternatives contribuant à leur transformation (ou entreprises transformées), pourraient être très utiles pour atteindre cet objectif et, par conséquent, pour générer des externalités environnementales positives.

El parasitismo (“free-riding”) y la acción individualista (“free driver”) son problemas pertinentes que impiden una transformación estructural en asuntos medioambientales. Estas dos tendencias diferentes de los mercados incentivan un comportamiento oportunista e individualista que dificulta la capacidad de los mercados internacionales para crear externalidades ambientales positivas. Por el contrario, podrían provocar una concentración monopolista y externalidades ambientales negativas.

La ley, en lugar de permitir las (por ejemplo, a través de compensaciones a los mercados del carbono únicamente), debería buscar alternativas que propicien una transformación estructural de los mercados. Ambos conceptos bien conocidos —como bienes comunes— y unas ideas renovadas, como la posibilidad de hacer una selección positiva de las alternativas transformadoras del mercado (o empresas transformadas), podrían ser realmente útiles para lograr ese objetivo y, en consecuencia, producir externalidades ambientales positivas.

The question is: how is it possible for the decarbonization to work if the offsetting market created by carbon credits gives incentives for the opposite, i.e., a situation in which one expects the others to take positive environmental initiatives? Thus, offsettings, in addition to not changing the structures, influence environmental “free-riding” between polluter companies and environmentally correct companies, leading to insufficient results. Just as in real life, compensations do not alter, but only maintain the course of life and economic activity.

Other technologically promising initiatives are also limited by structural problems in the functioning of the economic system. It is the case of solar geoengineering, a type of protective cover for the earth against heat. Technologically and economically viable, it creates the serious risk of being overused by some countries (that might have better economic and technological conditions to do it) and not being used by others.

The results of these actions would then be potentially more catastrophic than no action at all, considering that such technology is able to trigger terrible draughts if not carefully and globally used.

Here, the individualistic behavior called “free driving” (a concept introduced by the famous environmental economist Martin Weitzman[1]), unlike the previous one (free-riding), leads not to inaction, but to the increase of

individual production or individual actions without consideration to the interest of the collectivity (here the totality of countries considered).

Both free-driving and free-riding, done in an uncoordinated and uncooperative manner, can lead to catastrophic consequences to humanity (intense and catastrophic negative externalities).

Both stem from a legal-economic system dominated by large economic structures supported by the respective States of origin that are willing, at most, to do compensations, but not to implement structural transformation.

Structural solutions may seem bitter, but they are necessary to save the planet. It is possible to mention a few of them.

The first one would consist in better developing and applying the regulation of common-pool resources to environmentally sensitive goods and resources dominated by large economic structures.

This would imply that the community (including indigenous communities) affected and interested in the conservation of such goods participate in their management and in their use. As demonstrated by E. Ostrom in her awarded work (Nobel Prize in Economics), this solution is not only theoretically feasible but also leads to good economic results.[2]

This can represent an important step towards structural transformation, however, it is not sufficient to match the magnitude of the change that will be required to hinder excessive global warming. Hence it is necessary to set aside the idea that the markets are catalysts of (at most) compensations and understand that they can and should, if well regulated, contribute to structural transformation.

One example (just an example, and not a panacea) within the multiple initiatives that must be imagined, to which I have already referred in previous works[3] is the creation of markets that are catalysts of “positive screening” of companies and products.

Creating, within stock exchanges, special segments that list only companies that really protect the

environment (i.e. that have no impact or a positive impact on the environment) can entail a “race for the positive”, with investment funds and investors in general starting to increasingly invest only in those companies.

Ultimately, if well regulated and self-regulated, it can lead to the disappearance of the environmental free riders, which would be exposed in these “new markets of positive impact”.

The same can be said regarding the creation of “new prices” for products in terms of environmental and social costs. Alongside the economic value or “utility value” of products indicated in traditional prices, an “environmental price” can be created, as well as a “social price”, as measurement of the environmental destruction or social hardship caused by each product.

In this scenario, consumers would also be exposed to the choice to pay an attractive economic price knowing that, by doing it, they would be generating a high environmental or social price. In addition to influencing the choice of the consumers, this alternative could also justify regulatory or tax interventions, generating penalties or restrictions on the commercialization of products that recurrently implicate prices in different directions (a low economic price, but a high environmental price, for example).

In conclusion, technological solutions will not be enough to move us away from the “march to the precipice” mentioned by the United Nations Secretary-General at the opening of the 26th United Nations Climate Change Conference (COP 26). Schumpeter’s “creative destruction” of monopolies threatens us with more destruction than creation in environmental matters.

It is necessary that the law and social sciences in general participate and are listened to in the debate, suggesting and offering collaborative way-outs, so that new or old technologies can be implemented and shared, without individualism, “free-riding” or “free driving”.

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[1] See: Martin Weitzman, “A Voting Architecture for the Governance of Free-Driver Externalities, with Application to Geoengineering”, *Scand. J. of Economics*, vol. 117, No. 4 (2015), pp. 1049-1068. Available from: https://scholar.harvard.edu/files/weitzman/files/weitzman-2015-the_scandinavian_journal_of_economics.pdf.

[2] Elinor Ostrom, “Beyond Markets and States: Polycentric Governance of Complex Economic Systems”, Nobel Prize Lecture 2009. Available from https://www.nobelprize.org/uploads/2018/06/ostrom_lecture.pdf.

[3] See: Calixto Salomão Filho, *Inclusion Gains in Markets for Scarce Products* (2019). Available from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3386817#:~:text=The%20inclusion%20gains%20concept%20defined,both%20theoretically%20and%20in%20practice.

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