

## 54 – Internet of Things and the Design of CO<sub>2</sub> Taxes for Non-ETS Sectors

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The road transport sector is the largest emitter of CO<sub>2</sub> in the transport sector. Therefore, if the objective of the EU European Green Deal is to radically reduced the EU's climate impact, it is imperative to incorporated transport sector and households emissions into carbon pricing tools, including the Energy Tax Directive (ETD).

The ETD has not been reviewed since 2003, and needs updating if the European Commission is serious about deploying its Green Deal. A new restructured ETD should send the right pricing signals to influence behaviour and investment towards low emissions energy sources for sectors, such as, transport. However, taking into account the economic situation caused by Covid-19, fundamentally, in households, new barriers could arise that block the approval of the revision of this Directive.

If this Directive is not finally amended, Member States will have to continue rely on unilateral instruments to reduce emissions in non-ETS sectors. However, the emergence of new disruptive technologies, such as the Internet of Things, can be of great help in the design of these taxes.

In this regard, it should be noted how the aforementioned technology allows the measurement of different parameters related to environmental protection (CO<sub>2</sub> emission, energy consumption, etc.), making possible the subsequent transmission, even in real time, of the data collected by the cited sensors to the corresponding Administrations. Consequently, we could have an important instrument to design environmental taxes that are easily administrable. At the same time, these technologies could allow the automatic crossing of data with the personal and economic situation of the user and with the utilization patterns (distances travelled, existing alternatives for collective transport on itineraries, number of occupants, etc. . .). Therefore, all these parameters could be used to adapt the tax burden to the personal circumstances of the taxpayer.

### Biographical note

PhD Prof. Álvaro Antón. Associate Professor and Academic Secretary at CEU Cardenal Herrera University (CEU-UCH). Director of the CEU-UCH Master on Law (official Master and Doctorate program)

International PhD (cum laude) in Tax Law and graduated in Law and Journalism. During 2015, researcher associate of the International Fiscal Association. From 2016 until 2018 postdoctoral research fellow at the International Bureau of Fiscal Documentation.

Since 2018 sole principal researcher of the Research Project “The tax system before the collaborative economy: from clarification to new forms of public-private cooperation” funded by the Spanish Government. Previously, sole principal researcher of several research contracts with the Institute of Fiscal Studies, such as, “Taxation energy and the fight against climate change: a more efficient and effective integration”. In addition, member of several national and international research teams, such as, the Jean Monnet Projects: “Energy taxation and State aid control: looking for a better coordination and efficiency” and “Digitalization of tax administrations in the EU.”