The interview

Interviewing
Juan Pablo Montero

Professor at PUC (Chile) and EnergyEcoLab Collaborator

What are your recent projects?

My research agenda has always been split between questions dealing with competition policy (for instance, the role of rebates in exclusionary practices) and others dealing with energy, environmental and transportation policy. Sometimes the two areas overlap. This is the case of an ongoing project where we look at how competition affects the quality of smog-check certificates of passenger vehicles. Not surprisingly perhaps, we are finding that more competition (e.g., entry of a new inspection plant) increases the probability of extending fake certifica-

> Should the regulator run technology-neutral or technology-specific auctions, that is, auctions that separate wind from solar?

tes, sometimes by all plants in the relevant market, in a sort of race to the bottom, and sometimes by only some plants, reminiscent of an specialization equilibrium. Either way, this poses a challenge on how to design policy aimed at reducing local pollution, particularly from older vehicles.

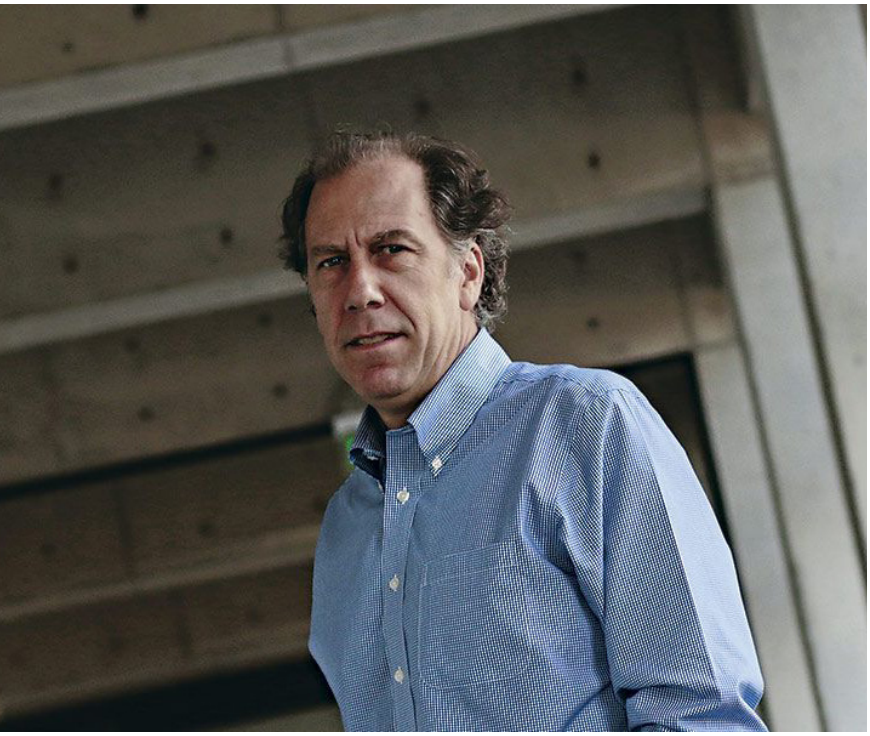
In another project, joint with Natalia (Fabra), we look at the problem of a regulator who needs to procure multiple units of a good (e.g., green energy) that can be produced with heterogenous technologies (e.g., solar and wind). We ask: should the regulator procure these units by running technology-neutral or technology-specific auctions, that is, auctions that separate wind from solar? Since the regulator is imperfectly informed about the costs of these technologies, the answer solves a trade-off between efficiency and rent extraction. In particular, while we find that technology neutrality is good for productive efficiency, it can lead to high payments by consumers. This trade-off is more favorable to the technology-specific approach the more asymmetric the technologies are and the more correlated their costs are. We have to take this issue seriously. Regulators often have binding budgets, which implies that higher procurement costs would translate into fewer investments in low carbon activities, or a heavier burden on consumers.

I am also working on other projects that look at linking permit pollution markets and the design of green subsidy schemes subject to adverse selection and competition among intermediaries that are better informed about final consumers.

Due to COVID19, many pricing policies aimed at reducing carbon emissions have been delayed or simply abandoned. It will take us many years to undo this irreversible trend

What are in your opinion the biggest challenges for a more ambitious climate policy?

To me, the biggest challenge is solving the free-riding problem. When a country engages in mitigation efforts, other countries have fewer incentives to follow, so in the end we end up with too little mitigation. Bill Nordhaus, Nobel laureate in economics in 2019, has emphasized that free-riding lies at the heart of the failure to deal with climate change. He has proposed a scheme to go around the problem, the creation of a climate club of nations acting together



to reduce emissions. To induce broad participation, non-members of the club are penalized with tariff increases on any product they want to export to the club region. Interestingly, he shows that tariff increases do not need be that large to induce broad (voluntary) participation.

When a country engages in climate change mitigation efforts, other countries have fewer incentives to follow, so in the end we end up with too little mitigation

Another big challenge is to make sure governments stick to price-based instruments such as taxes and emissions trading. They are not only non discriminatory (i.e, more cost effective) but also raise revenues. Unfortunately, more often we see governments replacing them with command-and-control policies, such as technology-based standards and directed subsidies. In my home country, for example, the Chilean government has established, by decree, a timeline with the mandatory retirement of coal-fired plants from the grid. Why not use carbon taxes for that? Plus, they generate revenues.

Do you think that COVID has changed the landscape regarding climate policy?

We do not know yet whether it will be for good or bad. Governments tend to be short sighted. Certainly, they will rearrange resources towards seemingly more urgent problems that may not be perfectly aligned with climate needs. I suspect that many pricing policies aimed at reducing carbon emissions have been delayed or simply abandoned. A year ago, New York City was expected to have congestion pricing in place by January 2021. All that has been delayed now, at least for a year, if not more. Relatedly, covid-19 has moved people away from public transit towards private vehicles. In some places this have been huge. Based on my previous work on a similar problem (on the poorly implemented public transit reform in my home city of Santiago back in 2007), I see this as an irreversible trend that will take many years to undo, particularly so in the less developed world where cars last much longer and electric vehicles are still too expensive.

What would be your advice to junior researchers in this area?

As we collect more data, I think the covid-19 shock presents a unique opportunity to evaluate certain things that would have been impossible to estimate otherwise. I'm not an empirical researcher, but I can imagine that we should now be better prepared to estimate the cost to firms and individuals of imposing tough constraints on them in order to reduce their carbon footprint. On a more theoretical dimension, I think there is still much to learn in the design of second-best regulations (such as subsidy schemes) that pay close attention to distributional considerations. We are used to handle distributional considerations separately of the regulatory design, through lump sum transfers. There are instances that require them to be an integral part of the regulatory design ·