Can we price carbon? by Barry G. Rabe (The MIT Press, 2018). 376 pages. ISBN: 9780262535366

I must start this book review by confessing that I am a member of the "active and affirming army of economists", mentioned in the preface, that has been backing the use of environmental taxes for decades. Prices to pollute are actually an invention of economists and one of the few ideas that receive very wide support across the profession. Indeed, only a couple of months ago an impressive group of US economists signed a manifesto calling for the immediate introduction of carbon taxes to fight climate change.

Although carbon prices are not a rarity (the Carbon Pricing Leadership Coalition reports around 60 applications as of today, roughly half of them taxes, in almost 30 countries), the truth is that in the 1990s most of us had expected a much better progression, not only in the number of applications/scope but also in their stringency. The absence of this concept within the text of the Paris Agreement (despite the ad-hoc manifesto of another impressive group of academic economists), which instead explicitly mentions "non-market approaches", is yet another indication of the difficulties to advance.

Why has this appealing and powerful idea not prospered more in practice? Economists have no clear answer to explain the distance between our high expectations and the actual developments. My experience as an academic working in this field in Spain is somewhat frustrating: the country had a lot of reasons for an intense use of energy/carbon taxes since the late 1990s (sizeable emissions and climate vulnerabilities, large fiscal deficits, dependence on foreign energy stocks) but instead is now amongst the European countries with lowest energy-related taxes. And not only this: these were virtually the only taxes not raised by the government during the great recession. A recent modest attempt to raise diesel taxes was met with general contempt. Strikingly, this behaviour contrasts with the positive academic evidence on the environmental and socio-economic effects of these instruments, at low distributional costs, in Spain.

This setting explains why I approached this book with a lot of interest. The author is clear about his objectives: to study, from a political-science perspective, the reasons why some carbon prices have been introduced by a number of governments, and why only some of them have succeeded in enduring the different challenges associated with real-world policy-making. In this sense, the book employs a "policy life-cycle analysis" based on case studies that largely focus on North American experiences. Some non-American applications are also mentioned, particularly Nordic carbon taxes and the EU ETS, but with a less detailed analysis (even less so with experiences of emerging countries). The author intends, in any

case, to go beyond the enumeration and description of the experiences, attempting to draw lessons on the success/failure of proposals and implemented instruments.

As stated by another commentator of the book, this is an ongoing project and quite timely: a quick review of directly-related developments in the three first weeks of April 2019 (when this review was written) include the likely repeal of Alberta's carbon tax after the landslide conservative victory, the likely incorporation of Virginia to RGGI in 2020, the beginning of operation of the Canadian (federal) carbon price backstop, EU ETS allowances approaching 30 Euros/ton and detailed plans for the upcoming start of China's national ETS.

Yet I would like to raise a number of questions that emerged from reading the different parts of the book. In my view the first chapter, "why carbon pricing is appealing", fails to acknowledge the relevance of carbon pricing for a successful transition to low-carbon societies. The importance of prices not only in achieving cost-effective outcomes (i.e. with cost minimisation), but also in mobilising the vast amounts of private investments and technological developments required for such an endeavour. Also, the crucial issue of distributional effects is not fully covered: not only across taxpayers but also in terms of qualitative changes in the economic fabric. Moreover, I found the comparison between tobacco and carbon taxes somewhat misleading. Greenhouse gas emissions related to energy consumption are a kind of blood in our economies. Thus, it is extremely difficult to act intensely against them. Recall also that many oil and gas companies, in clear contrast with the attitude of tobacco producers, have been advocating the use of carbon taxes for many years (perhaps to avoid more costly regulatory activities?)

I also missed more attention on policy packages around carbon pricing, particularly the so-called green tax reforms. I feel that the theoretical backing of such reforms (double dividend ideas) has played a very important role in the introduction of some European (particularly Nordic) carbon taxes, and the evolving use of tax revenues may also explain the endurance or failure of some initiatives. Indeed, recent green tax reforms have stressed the return of most revenues to taxpayers to mitigate adverse distributional effects. Policy interactions are also a very relevant issue, and they are only indirectly considered in the book: can carbon prices be negatively affected by other existing (or new) instruments such as renewable/energy efficiency promotion devices? Is it possible that the introduction and/or endurance of carbon pricing might be related to the broader policy landscape?

I was quite surprised by the inclusion of the EU ETS in the chapter devoted to "failures of carbon prices". In my view, both the scope and relevance of this instrument in one of the most ambitious climate policies implemented to date do not justify it (especially when compared with minor applications that are included

in the chapters devoted to successful experiences). The EU ETS is by far the most relevant carbon price in the world; it has endured very complex economic and political contexts, showing a large adaptive capacity, and it is starting to provide larger incentives for mitigation (including innovation). The European system has also had a clear role in the diffusion of pricing approaches elsewhere, and it is likely to play a significant global role if there are advances in linking across systems (such as the forthcoming Chinese national market).

In any case, I found the book very informative and useful and, above all, quite complementary to economic approaches to the matter. Indeed, by considering the political factors and by learning from real-world failures and successes of these instruments, we economists might be able to understand more about the aforementioned gap between our expectations and reality.

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