

Carbon pricing is in the news right now—and not in a good way. Whether it is [French protests over gas taxes](#), [political challenges to Canada’s new federal carbon price system](#), [voter rejection of a carbon price in Washington state](#), or (yet another) [Australian government falling because of disputes over carbon pricing](#), [the political challenges of enacting a carbon price right now are all the more apparent](#). Yet we are increasingly facing an imminent climate crisis for which most economists and scientists believe a carbon price is the only practical solution. What is the way forward?

I think this is the key research question for climate policy right now, and I think that answering this question requires acknowledging two key points about carbon pricing. First, at the present moment it is politically unrealistic to expect any major economy to adopt a carbon price that would significantly affect major investment decisions. Second, in the long (or perhaps even medium-run) we will need to adopt carbon pricing because of the increasing economic costs of the other policy tools that are feasible to adopt right now. Balancing between these two concerns - and navigating the transition between them - is **the** challenge we face in designing climate policy going forward. I’ll take each of these points in order.

First, when it comes to carbon pricing, the political reality is that a high carbon price—anything on the order of magnitude necessary to prompt rapid and deep shifts in investment and carbon utilization—is improbable in any major economy at an economy-wide scale. The reason is—as [I and others have pointed out before](#)—that such a carbon price imposes burdens on large swaths of society, with payoffs that are only distant in the future. Political opposition will therefore force any such carbon price to be relatively low (see the EU pricing system) or to exempt the most important carbon-emitting sectors of the economy (see British Columbia’s carbon tax, which exempts oil and gas exported from the province). Indeed, it is no surprise that a [recent OECD report](#) found that carbon prices in global developed countries were far too low to produce the kind of decarbonization we need.

So what to do in the near future? The answer—[again as I and my collaborators have explored in earlier work](#)—is to use other policy tools to lay the political groundwork for an ambitious carbon tax in the future. These are policy tools such as regulations (like renewable portfolio standards in the US or China’s efforts to ban the internal combustion engine in the coming years), subsidies (such as feed-in-tariffs for renewable energy production or tax credits for electric vehicles), and other support for research and deployment around new technologies. These tools are politically feasible because the costs are more politically palatable than a carbon tax or price, because they do not directly threaten incumbent industries, and because they provide concentrated benefits to particular industries (often new emerging ones that are based around a carbon-free technology). And

these tools can drive changes in the political landscape to produce greater support for carbon policy in the future because these tools—precisely because they are targeted on particular sectors or technologies—can drive investments and produce revenue streams that build new interest groups that might support climate policy and/or change existing interest groups to become more supportive of climate policy.

Thus, it is no surprise that research from our group showed [that it was rare for a country to start out with a carbon pricing system as their initial climate policy](#), and that instead most countries had begun with what we called “green industrial policy” that laid the political foundation for carbon pricing later on.

However, these non-pricing tools come with costs—specifically, they tend to cost much more (i.e., are less economically efficient) than carbon pricing systems. As these policies scale up, they become expensive, perhaps too expensive to politically sustain (aside from the economic costs they impose). An example is the feed-in-tariff for renewable electricity in Germany, which has had dramatic success in building a renewable energy generation infrastructure in Germany (and political support for renewable energy), but whose cost is now a major political issue.

At some point then, we may well have to transition from the policy tools we use to set up the political context that allows for carbon pricing, towards enacting carbon pricing itself. This is a transition that we are just starting to see occur in places such as California (which extended its cap-and-trade system last year, and has expanded it to include transportation fuels). It is a delicate process and one that requires more understanding of how to make it work. Moreover, this is not necessarily a transition that will occur for an entire economy at once - it may occur sectorally. For instance, the politics and economics may align for a transition to carbon pricing in the electricity sector, but not yet in the transportation sector. Indeed, I think that is likely where we are at for many industrial countries right now.

Given the analysis I’ve just laid out, it can be a serious political mistake to move too quickly towards a weak carbon pricing system that does too little to create incentives for moving to a carbon-free economy, does too little to advance a transition to a political system that can support more stringent carbon pricing, and might instead inspire a political backlash that sets back climate policy. I fear that some countries (such as Canada and France) may be making this mistake - out of good intentions, seeing the urgency with which we need to address climate change. I also think that [simply changing the distributional outcomes from carbon pricing](#) (such as cap-and-dividend approaches) may not be all that effective either, simply because again the initial price will not be enough to drive the investments we need to

shape interest group dynamics, though I think that question is more open to debate. In the end, it may well turn out that the best and quickest way to achieve the ultimate goal of stringent carbon pricing may be starting with other tools first.