The Inflation Reduction Act would be, if enacted, the biggest piece of climate legislation that the U.S. Congress has ever passed. As such, it's gotten a fair amount of coverage attempting to put it into context for the broader scope of climate policy in the U.S. and globally – in particular, this article in Slate and this article in the New York Times both talk about how the IRA embraces the approach of using subsidies and industrial policy to advance climate goals, and the implications of that choice for future climate policy. The New York Times frames the choice by the IRA as a regrettable nod towards political constraints, stating that "experts" believe that carbon pricing is an essential component to addressing climate change. The Slate article instead positively assesses the choice of the IRA to focus on subsidies rather than on carbon pricing or on the reduction of fossil fuel consumption – implying that neither will be an important component of climate policy going forward, because of political constraints.

Both pieces I think are correct in identifying politics as a major constraint on the choices we make in climate policy. As both articles make clear, efforts to enact carbon taxes in the United States have failed miserably. But this is not a constraint that is unique to the United States – as research led by my collaborators Jonas Meckling and Nina Kelsey has indicated, it is generally true in countries around the world that subsidies and industrial policy have preceded the enactment of a carbon pricing system (if any such system is enacted).

That sequence (of subsidies preceding carbon pricing) is why I do not share the negative assessment of the New York Times about the failure to include carbon pricing in the IRA – the evidence appears to indicate that subsidies are a necessary precondition for the enactment of carbon pricing as a political matter. Carbon pricing imposes pain on a wide range of interest groups and can increase costs for the greater public. Imposing an effective carbon price – one that would actually drive innovation and change investment – is a very steep ask, especially if it is economy-wide. It's politically infeasible without interest groups who might gain from carbon pricing to push for it. But that poses a chicken-and-egg problem: Who will push for carbon pricing to begin with if there hasn't yet been significant climate policy to create interest group support for decarbonization.

That's what subsidies can do. They don't threaten existing incumbents. They can build up political support for future action by building interest groups with a stake in future action. That's why subsidies generally precede carbon pricing. And that's why I'm not that concerned about the reliance of the IRA on subsidies.

Indeed, <u>as recent work has made clear</u>, premature adoption of carbon pricing might even be counterproductive – carbon prices that are enacted in the face of stiff opposition often end up as token prices, with abundant loopholes, that may do little to advance the kinds of

investment and change we need to decarbonize our economies.

The same sequencing logic applies to supply-side policy approaches – such as restrictions on fossil fuel extraction. Those approaches may face real political challenges as initial steps in climate policy, both because of the power of the political opposition but also because of the risk of public backlash if energy prices spike – but once investment has driven down the cost of clean energy substitutes and increased political support for further climate action, supply-side restrictions might be an important component of climate policy.

That's why I'm not as certain as the Slate author that the IRA is the end of supply-side restrictions on fossil fuel production – it may not be a question of if, but more a question of when.

In the meantime, the subsidies of the IRA will drive both technological change (reducing the costs of decarbonization) and political change (building interest group support for future action).