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Let's separate the wheat from the chaff

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Abstract

This paper argues that integrated assessment models (IAMs) are useful tools to build corridors of social costs of carbon (SCC) reflecting divergent worldviews. Instead of pursuing the elusive quest for the right SCC, IAMs could indeed be useful tools to rationalize the different beliefs on climate related parameters (or worldviews) in the climate debate and help build politically coherent corridors of SCCs. We first take the example of the Stern-Nordhaus controversy as an illustration of the impossible quest for the right SCC. Disentangling the drivers of this controversy, we show that the main differences in results come from a mix of ethical choices of the representative agent (pure time preference), long-term assumptions on technical parameters (abatement cost dynamics) and climate related unknowns (climate sensitivity). We then argue that these sources of disagreement can be best understood as differing worldviews rather than pure scientific uncertainties. This implies that IAMs are of limited help in determining the right SCC, in line with [Pindyck \(2017\)](#). But contrary to him, we consider it necessary to separate the wheat from the chaff, and argue for a middle way between the blind confidence in IAMs' outputs and their full rejection with respect to the SCC debate. Instead, we show how they could help rationalize the climate debates around a corridor of SCCs. We thus analyze the drivers of such corridors of values, or how the sources of divergent worldviews differently impact the SCC-abatement space with time. All in all, the climate policy debate around carbon pricing can benefit from a renewed understanding of the role of IAMs, less divinatory and more institutionally centered.

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