

Too little too late? The political (in)feasibility of supranational climate policy

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We study the desirability and feasibility of international climate policy arrangements in a dynamic framework of emissions and technology choice where national policymakers are present-biased and lack commitment. The stock of accumulated greenhouse gases (GHG) constitutes a global externality, which renders the uncoordinated business as usual policy inefficient. But also international coordination through contracts that are negotiated by national policymakers yields inefficient outcomes: Long-term contracts suffer from a time-inconsistency problem, whereas short-term contracts (similar to the 2015 Paris Agreement) are subject to present bias and hence result in a recurring emissions gap.

In principle, international coordination can also be achieved through delegating climate policies to a supranational environmental authority (SEA), which takes account of global GHG dynamics. This delegation arrangement is possible because, by giving up decision power over certain policy instruments, incumbent national policymakers can mitigate the adverse effects of their own future selves' present bias, which reduces their free-riding incentive.

We characterize the optimal dynamic climate policy implemented by the SEA when it is constrained by a participation requirement ensuring the sustained support by national policymakers. We contrast two delegation scenarios. In the first scenario, national policymakers delegate emission decisions to the SEA; in the second scenario, they instead delegate the decision of clean technology investments. The emissions mandate delivers an outcome, which is better from an environmentalist perspective as compared to the investment mandate. However, the emissions mandate is less likely to be politically feasible, as it generates higher free-riding incentives for participants. Similar to climate coalitions, there hence exists a critical trade-off between ambition and feasibility of climate policy delegation to an SEA.

This ambition-feasibility trade-off gives rise to another fundamental problem. The SEA's participation requirement implies that more ambitious climate policy today comes at the cost of promises that persistently constrain future policies. Since the free-riding incentives faced by national policymakers are increasing in the global level of GHG, the delegation arrangement thus becomes less attractive the higher the initial stock of GHG. For the SEA to dominate the contracting approaches, it is therefore vital that the accumulated stock of greenhouse gases is not yet too large.