Is there a reason to prefer a global carbon price to an international cap and trade system for regulating carbon emissions? Yes, according to Harvard economist Martin Weitzman, who argued in the HKS energy policy seminar series that a uniform global price on carbon would be far simpler to negotiate and would also tend to align the incentives of those negotiating to choose an optimal carbon price.

Just by existing, Weitzman acknowledged, the Paris Agreement is a “positive achievement.” However, he questioned whether the Paris approach of different emissions-reductions targets for each country is the best way to achieve worldwide emissions reductions. At first glance, one might think these two approaches are interchangeable. Within a single country, Weitzman acknowledged, a quantity limit (or “cap and trade”) approach to carbon emissions and a price on carbon are essentially equivalent mechanisms—a quantity can translate into a price, and vice-versa. However, Weitzman explained, that symmetry breaks down once you move into the international arena.

One advantage of a single global carbon price is simplicity. For many countries negotiating together, negotiating one universal price is significantly simpler than negotiating multiple individual quantity caps.

In addition, Weitzman argued, negotiating a single price creates a disincentive to free-riding. All things being equal, an individual’s preference will be for the cost of carbon he or she pays to be low, and the cost of carbon everybody else pays to be high. Countries setting their own carbon caps have an incentive to allow themselves plenty of carbon emissions headroom, while hoping other countries will set stringent caps. This free-riding incentive is disrupted, however, by a negotiation which adopts a single price for everyone. In such a negotiation, my interest in a low price for myself is balanced by my interest in a high price for everyone else, and my preferred price will reflect the costs of carbon emissions to me.

In a world in which every individual faced the same climate impacts from carbon emissions, in theory, this approach could lead to universal agreement on a single, optimum carbon price. Of course, Weitzman said, agreement on a price is not automatic, since individuals experience different amounts of damage from carbon emissions and resulting climate change. Even so, a hypothetical World Climate Assembly, in which each individual in the world got to vote for his or her preferred price, could establish the median price voted for as the global price of carbon—with equal numbers of voters preferring higher and lower prices. A real World Climate Assembly, with nations’ votes weighted by population, could reach an approximation of this solution.

Weitzman acknowledged that any implementation of this idea would require much more widespread grassroots support for meaningful climate action than may currently exist. However, “opportunities for meaningful solutions will likely arise,” he said, “and we should be ready beforehand by thinking through the consequences now.”

Weitzman spoke as part of the Kennedy School’s Energy Policy Seminar Series, which is sponsored by the Consortium for Energy Policy Research of the Mossavar-Rahmani Center on Business and Government.