

# TOWARD A POST-KYOTO CLIMATE CHANGE ARCHITECTURE: A POLITICAL ANALYSIS

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## OVERVIEW

A successful climate change regime must secure sufficient participation, achieve agreement on meaningful rules, and establish mechanisms for compliance. Moreover, it must do so in a political environment of sovereign states with differing preferences and capabilities. Section I addresses the trade-off between participation and strictness of rules by proposing an “economy of esteem for climate change,” in which participation is encouraged by a system of prizes for politicians who take leadership on this issue. The bulk of the paper focuses on compliance, arguing that contrary to current provisions in the Kyoto Protocol, only a system of buyer liability (rather than seller or hybrid liability) is consistent with existing political realities. Drawing analogies to international bond markets, we propose a system of buyer liability that would endogenously generate market arrangements, such as rating agencies and fluctuations in the price of emissions permits according to perceived risk. These features would in turn create incentives for compliance without resorting to ineffective inter-state punishments.

## DISCUSSION

In world politics, states must prefer participation to non-participation in any international regime. At the margin, targeted strategies that leverage politicians’ desire for esteem can enhance incentives for political leadership. However, the strongest basis for commitment to an effective climate regime is likely to come from democratic publics willing to pay the necessary costs to prevent serious change to the climate.

In this context, a cap-and-trade approach offers many advantages beyond efficiency, since it creates opportunities to offer disguised subsidies to developing countries in the form of excess emissions permits that can be sold internationally. These potential sellers of permits, however, are also the states normatively least committed to a climate regime (hence the need for subsidies). Since external enforcement is generally ineffective in international relations, over-selling of permits is difficult to deter. Anticipating this result, states likely to be net buyers will tend to refuse to join the regime. The problem of compliance must therefore be solved, or at least alleviated, before participation can be assured.

Entities in democratic states are likely to be the primary buyers of permits in any cap-and-trade system. As in international bond markets, in which buyers bear the cost of fluctuations in the value of bonds, we propose a system in which annual permit prices would depend on market expectations of their validity, which would in turn depend both on the reputation of the sellers and on information about their validity gained from assessments in previous years. Buyers, who generally will face well-functioning national regulatory systems, will be incentivized to seek information about the quality of permits, and ratings agencies will likely emerge to perform this function. Making buyers liable for the validity of the permits they purchase thus puts the onus for compliance on those residing in the states generally most committed to the regime, rather than those generally least committed.

Penalties for exceeding national emissions caps would in turn be imposed on sellers in the form of lower permit prices, rather than through an (ineffective) external enforcement mechanism. Permit validity would be assessed on a “jurisdiction-equal” basis: that is, all permits from a given jurisdiction in a given year would be discounted by the same factor in the event that emissions in the selling jurisdiction rose beyond the mandated cap. This system incentivizes seller governments to ensure overall permit quality in order to achieve the highest price, and it incentivizes buyers to evaluate and assess permit validity and to price them accordingly.

## KEY FINDINGS & RECOMMENDATIONS

- *An international cap-and-trade regime must encompass developing as well as developed states.* A regime that awards developing states excess emissions permits is most likely to reconcile the need for meaningful reductions and adequate participation.
- *At the margin, a useful strategy for building political commitment would leverage politicians' desire for esteem through a system of prizes, awards, or rating systems designed to recognize leadership in tackling climate change.*
- *Making buyers liable for the validity of emissions permits has compelling advantages.* Permit buyers are likely, at least initially, to be concentrated in developed countries that have the institutional capacity and political accountability to enforce program requirements and make up for permit shortfalls. This approach also gives sellers strong incentives to maintain permit quality so as to maximize the monetary value of these tradable assets.
- *Any discounting of permits to reflect quality problems should be assessed on a national basis such that all permits from a given country would be equally affected, creating strong internal pressures for governments to provide necessary monitoring and enforcement.*
- *A prompt and credible system for assessing permit quality is critically important.* Such a system must be technically feasible and minimize opportunities for strategic manipulation.

## CONCLUSION

A cap-and-trade system with buyer liability has important political and pragmatic advantages. By building on the preferences of domestic publics in democratic states to induce participation by less motivated countries and by giving buyers and sellers compatible incentives for maintaining permit quality, such a system provides the most promising basis for a workable system that successfully delivers the market signals needed to stimulate climate-friendly technology innovation.

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## ABOUT THE HARVARD PROJECT ON INTERNATIONAL CLIMATE AGREEMENTS

The goal of the Harvard Project on International Climate Agreements is to help identify key design elements of a scientifically sound, economically rational, and politically pragmatic post-2012 international policy architecture for global climate change. It draws upon leading thinkers from academia, private industry, government, and non-governmental organizations from around the world to construct a small set of promising policy frameworks and then disseminate and discuss the design elements and frameworks with decision-makers. The Project is co-directed by Robert N. Stavins, Albert Pratt Professor of Business and Government, John F. Kennedy School of Government, Harvard University, and Joseph E. Aldy, Fellow, Resources for the Future. Major funding for the Harvard Project on International Climate Agreements is provided by a generous grant from the Climate Change Initiative of the Doris Duke Charitable Foundation.

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