

A PROPOSAL FOR THE DESIGN OF THE SUCCESSOR TO THE KYOTO PROTOCOL

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OVERVIEW

This paper proposes a design for a post-2012 international climate agreement (Kyoto II) to follow the Kyoto Protocol. The proposed design would impose national limits on rich countries' greenhouse gas emissions and promote voluntary abatement by developing countries. It includes two new features aimed at promoting participation and compliance and addressing concerns about carbon leakage: (1) an escape clause that would give signatories the option to reduce their abatement requirements in exchange for a penalty and (2) the use of trade restrictions.

DISCUSSION

The primary objective in designing a successor agreement to the Kyoto Protocol is to promote participation and compliance. Other design details are irrelevant if nations do not sign the treaty, or if they sign it but do not honor their commitments. Given limited ability to compel the behavior of sovereign nations, an agreement must be designed so that it is in individual countries' interest to participate and comply. A new agreement should also set the stage for increased commitment and greater developing-country participation in the future.

Overall, the proposed design for Kyoto II shares many features of the current Kyoto Protocol: it would impose mandatory emissions ceilings on rich countries and preserve existing mechanisms for promoting voluntary abatement efforts in developing countries, including Joint Implementation (JI) and the Clean Development Mechanism (CDM). Nations would be free to choose whatever combination of domestic policies (cap-and-trade, carbon taxes, JI, and CDM, etc.) they prefer to achieve compliance. Developing countries would not face mandatory abatement commitments for the relatively short (at most ten-year) period covered by Kyoto II. But to avail themselves of the benefits of participation, they would need to accept the concept of future obligations in principle. Other key elements of the proposed design—including new mechanisms to address cost and leakage concerns—are summarized below.

KEY FINDINGS & RECOMMENDATIONS

- *Mandatory emission ceilings:* As already noted, rich countries would accept mandatory ceilings under the new agreement. Developing countries would not be subject to abatement requirements, but would be put on notice that they will face obligations in the next round of negotiations. The treaty would encourage voluntary steps and agreements among parties outside Kyoto II while recognizing that these are not substitutes for a multi-national agreement with mandatory reduction commitments.
- *Short duration:* A Kyoto II agreement should cover eight to ten years and no more. A relatively short-lived agreement helps account for uncertainty and new information and makes it easier to incorporate changing responsibilities between developed and developing countries.
- *Escape clause:* Nations with mandatory emissions ceilings would have the option to reduce their abatement commitment in exchange for either paying a monetary fine or accepting trade sanctions imposed by other signatory nations. By providing protection against unexpectedly high abatement costs, this mechanism reduces barriers to participation while simultaneously creating incentives for compliance. The severity of the penalty (whether in the form of a fine or trade sanctions) would increase as more nations join, thereby further leveraging incentives for membership and compliance.

➤ **Trade measures:** In addition to the potential use of trade sanctions in the context of an escape clause, Kyoto II should recognize the use of trade reform in achieving climate-related objectives. Specifically, the authors support the use of carefully circumscribed border tax adjustments to protect against leakage (leakage is a shorthand term for the possibility that firms will simply re-locate to nations without mandatory commitments to escape carbon costs, thereby undermining the environmental objective and raising competitiveness concerns in signatory nations). Thoughtfully applied, such a policy can create effective incentives for countries to participate rather than staying outside the agreement.

➤ **Tradable emissions:** Kyoto II should allow international trade in emissions permits. While acknowledging that such trade could marginally reduce incentives to join or levels of abatement undertaken, the authors conclude that the potential for perverse effects is outweighed by the efficiency gains achievable through trade in the context of varying abatement costs. Permit trading or allocation should not, however, play an important role in creating inducements for participation. Instead, JI and CDM should be the primary mechanisms used to encourage membership and capture low-cost abatement opportunities.

CONCLUSION

This proposal builds on the existing Kyoto Protocol but introduces two major new features to address problems of participation and compliance. The inclusion of an escape clause will make it easier for nations to join, helps solve the enforcement problem, and serves to cap costs. The use of trade policy to address leakage concerns and strengthen incentives for participation is likely to be viewed with consternation by trade economists, but is necessary to overcome critical objections to the adoption of an effective regime. Negotiating a Kyoto successor with these features would represent an important next step toward the larger objective of bringing all nations under the discipline of a meaningful international climate agreement.

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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.

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