

# METRICS FOR EVALUATING POLICY COMMITMENTS IN A FRAGMENTED WORLD: THE CHALLENGES OF EQUITY AND INTEGRITY

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## OVERVIEW

Development of effective strategies to address climate change will require collective effort on the part of many countries over an extended period and across a range of activities. The challenge for the international community will be to judge the equity and integrity of the various national commitments.

## DISCUSSION

Since diverse actions by different nations seem an unavoidable part of future climate policy, a useful input to international negotiations would be some means of talking in a coherent and widely accepted fashion about what individual nations are doing to help reduce climate risk. This paper explores various metrics for evaluating the equity and integrity of individual nations' policy commitments.

Equity is a major concern because international climate negotiations are fundamentally about sharing a burden. There is a strong desire to compare efforts and assess whether countries are contributing their fair shares. Yet, comparing efforts involves two kinds of exercises, neither of which lends itself to clear and fair metrics. The first exercise is to take a portfolio of disparate national policies and compare them according to some consistent measure that reflects effort, cost burden or emissions reductions. The second exercise is to place that measure of effort for each country into an appropriate context reflecting its socio-economic and other circumstances, in order to assess fairness. The basic problem is that clear metrics are not always fair, and fair metrics are not always clear. This paper considers a number of alternative approaches to measuring climate policy contributions, including measures of emissions performance, reductions and costs. Each can provide some valuable information, but none is terribly satisfying as a reliable measure of effort or equity.

Evaluating the integrity of a collection of country commitments also requires two levels of analysis. First, the credibility of the commitments must be assessed; that is, will the countries actually undertake the measures, and can they be monitored and verified? This question requires the ability to conduct ex post analysis to support enforcing the agreement and engaging in commitments. The second level of analysis related to integrity involves assessing whether the proposed effects of the commitments are themselves credible; that is, do we reasonably expect the set of policies being undertaken to lead to the stated emissions goals?

## KEY FINDINGS & RECOMMENDATIONS

► *There is a clear need to improve the current reporting system in order to provide greater confidence to negotiators about the credibility of countries' activities.* Most importantly, reported activities need to be presented in a more uniform, consistent fashion. The breadth of the different reporting practices currently used can mask genuine differences among countries. A first order of business should be the development of a much tighter, narrowly-defined set of reporting guidelines designed to reflect genuine differences in activities among nations.

► *Consensus on a particular metric for indicating equitable burden sharing is likely to be elusive.* Each country has its own incentive to choose measures of effort by which it is likely to perform relatively well. Some metrics are straightforward to calculate, and they are somewhat informative, although imperfect indicators of burden. Other metrics are unlikely to be reported reliably. One metric has the advantage of indicating the cost-effectiveness of the international distribution of effort, and that is marginal abatement costs. It is also an important indicator of the controversial competitiveness impacts of climate policies vis-à-vis trading partners.

- *For ex post verification, the simplicity of an aggregate, economy-wide emissions target, or even one expressed as emissions intensity, is appealing.* Existing data and reporting systems are certainly compatible with an aggregate approach. When subnational or specific regulatory or voluntary programs are used, descriptive, institutionally-oriented information must be supplemented with detailed data on the actual implementation and performance of these measures. Expressing the commitment goal in a way that focuses on subsector aggregates (such as total auto sector emissions) rather than reductions attributed to policies will allow for more direct comparison and verification of effectiveness.
- *Assessment of the integrity of ex ante commitments is the most important but also the most challenging area, because it requires modeling of counterfactuals.* The main focus should be on greater transparency in models and data, and greater standardization in methodologies to improve the consistency of analysis across sectors, policies, and countries. Another priority is the strengthening of UNFCCC peer reviews, which currently are not sufficiently rigorous to provide credibility to the negotiations.
- *While the multilateral trading system offers some lessons in negotiating and supporting international agreements, the circumstances are quite different for a climate framework.* In trade, countries negotiate the removal of barriers to foreign goods in exchange for the benefits of greater access to foreign markets. In climate change there is no such exchange; the negotiations are to share a global burden, from which the benefits are far removed in time and not excluded from non-members. Perceptions of fairness and effort thus play a greater role. National governments may not provide the objective evaluation that is essential to the serious comparison of national mitigation proposals. A greater role may need to be played by independent institutions, international organizations, academic researchers, and other third-party groups in strengthening the evaluation efforts that support the negotiations, and in integrating the evaluations into the full negotiation process.

## CONCLUSION

No single metric can adequately address the complex issues of equity and integrity central to international agreement on climate change mitigation. Development of a common, consistent, and credible set of indicators should be prioritized to build the foundation of trust and transparency needed to underpin multifaceted commitments.

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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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