

Getting Serious About Global Climate Change: What's Coming in the Post-Kyoto Era

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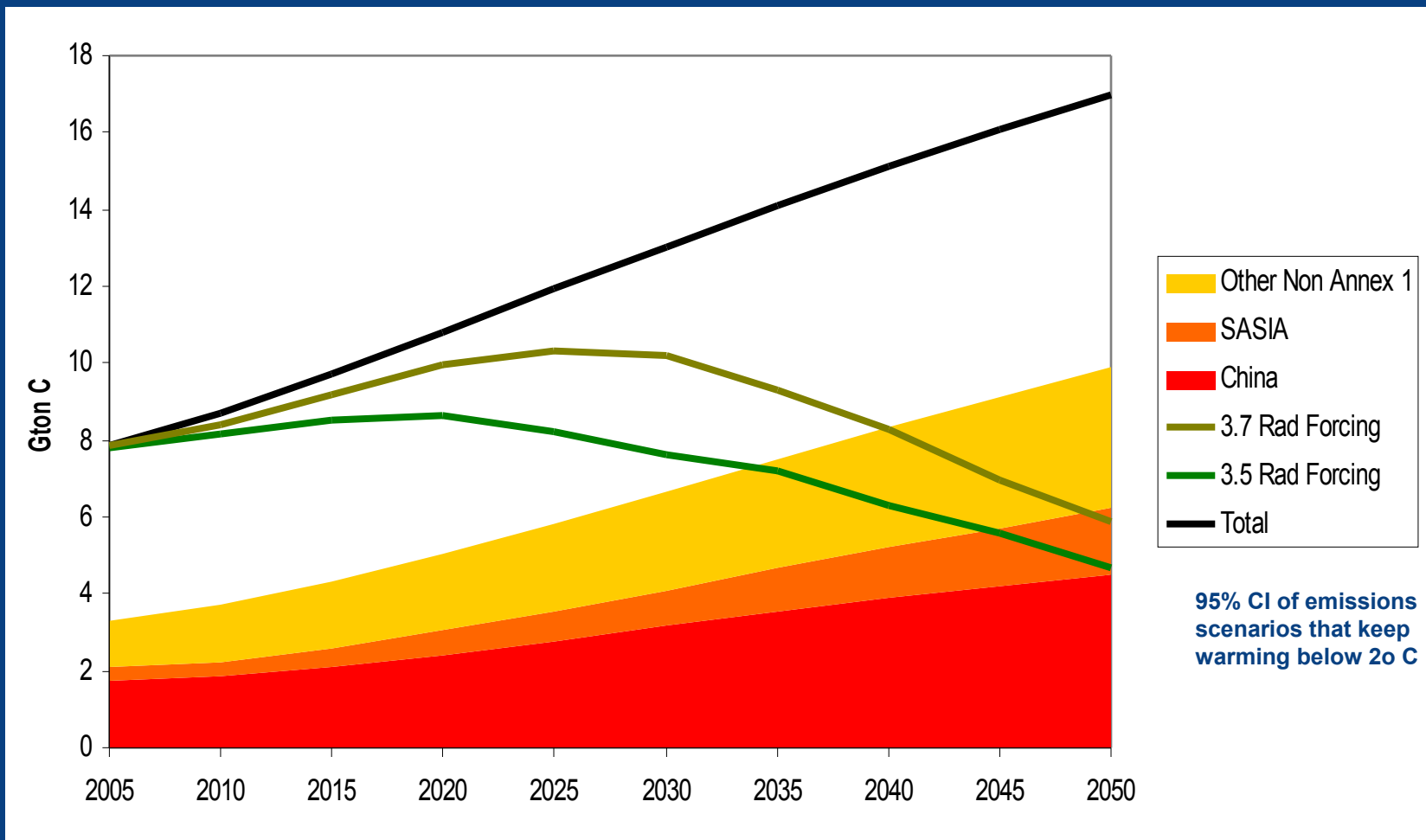
Agenda

- Introduction: Looking Back, Moving Forward
- Principles for a New International Agreement
- Potential Global Climate Policy Architectures
- The Path Ahead

The Global Climate Policy Challenge

- Kyoto Protocol came into force in February 2005, and the first commitment period began in 2008 (& ends in 2012)
- Even if the United States had participated, the Protocol's direct effects on climate change would be very small to non-existent
- Science and economics point to the need for a credible international approach
- Climate change is a classic global commons problem — so it calls for a global solution

Even if industrialized country (Annex I) emissions are completely eliminated, a 450 ppm (2° C) stabilization target is physically impossible to achieve unless China and India reduce their emissions!



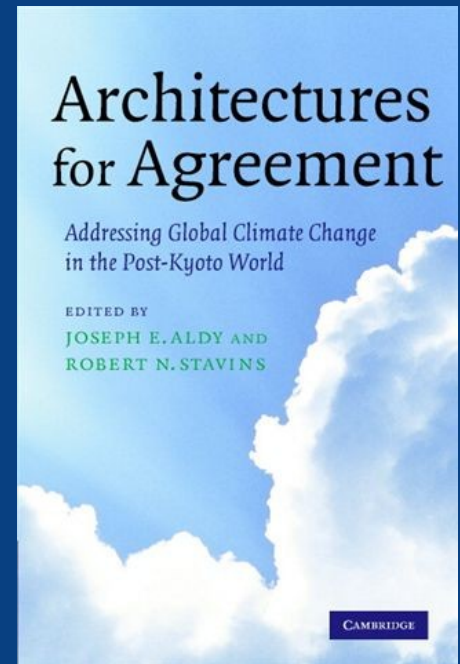
Can the Kyoto Protocol Provide the Way Forward?

- The Kyoto Protocol has been criticized because:
 - The costs are much greater than need be, due to exclusion of developing countries (conservative estimate: costs are four times cost-effective level)
 - The Protocol will generate *trivial* climate benefits, and *fails* to provide any long-term solution
 - Short-term targets are excessively ambitious for some countries
 - So, the Kyoto Protocol is “*too little, too fast*”

- Nevertheless, can structure of the Kyoto Protocol provide the way forward?

Searching for the Path Forward for Post-2012

- The Harvard Project on International Climate Agreements
- Mission: To help identify key design elements of a scientifically sound, economically rational, and politically pragmatic post-2012 international policy architecture for global climate change
- Drawing upon research & ideas from leading thinkers around the world from:
 - Academia (economics, political science, law, international relations)
 - Private industry
 - NGOs
 - Governments



Developing Insights for Post-2012 Climate Regime

- 26 research initiatives in Europe, United States, China, India, Japan, & Australia
- Outreach with governments, NGOs, and business leaders throughout the world (working with heads of governments & ministers in many countries)
- **Interim Report** builds upon lessons emerging from 28 research initiatives
 - Key principles for a new international agreement
 - Promising global climate policy architectures
 - Key design issues and elements
 - Negotiating countries can and should create their own hybrids from the architectures and design elements



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Key Principles for a New International Agreement

- **Climate change is a global commons problem**
 - Cooperation of countries is essential, whether through UNFCCC, G20, or bilateral negotiations
 - Since sovereign nations cannot be compelled to act, treaties must create incentives for participation and compliance
- **A credible climate change agreement must be equitable**
 - Industrialized nations should accept responsibility for historic emissions
 - Key rapidly growing, developing countries will need to take on increasingly meaningful roles
 - In both cases, the scope of attention and action should include all greenhouse gases, not only fossil CO₂

Key Principles for a New International Agreement (continued)

- **A credible agreement must be cost-effective**
 - Needs to bring about technological change & transfer
 - Must be consistent with international trade regime

- **A credible agreement must be practical and realistic**
 - Build on existing institutions and practices, where possible
 - Negotiations must attend to short-term achievements and long-term goals
 - No single approach guarantees a sure path to ultimate success, so best to pursue multiple approaches simultaneously

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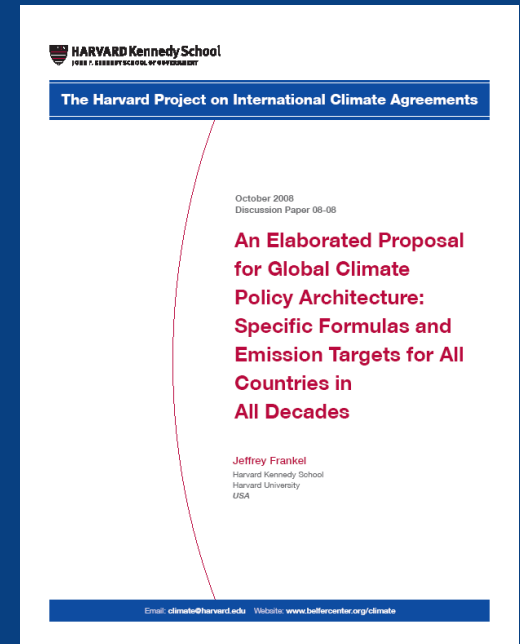
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Potential Global Climate Policy Architectures

- **Harvard Project does not endorse a single approach**
 - Decision to adopt particular architecture is ultimately political, and must be reached by nations of the world, taking into account complex factors
- **Two architectures among a much larger set considered**
 - Targets & Timetables (as in Kyoto Protocol)
 - *1. Formulas for Evolving Emission Targets for All Countries (Frankel)*
 - Harmonized National Policies
 - Independent National Policies
 - *2. Linkage of National & Regional Tradable Permit Systems (Jaffe & Stavins)*

1. Formulas for Emission Targets for All Countries

- **Core: Key principles lead to design of targets**
 - Formula used to set national emission caps to 2100 using three key elements
 - *Progressivity factor*: richer countries make more severe cuts
 - *Latecomer factor*: nations that did not achieve targets under Kyoto make gradual emission cuts to account for post-1990 emissions
 - *Equalization factor*: moves targets of all countries in direction of global average per capita emissions
- **Formulas assign quantitative emission caps to countries to 2100**
 - Developing countries are not asked to bear any cost in early years
 - Developing countries are not asked to make any sacrifice different from sacrifices of developed countries, accounting for differences in income
 - No countries have targets costing more than 1% of GDP
- **International trading links national & regional systems**
- **Every country contributes no more than its fair share**



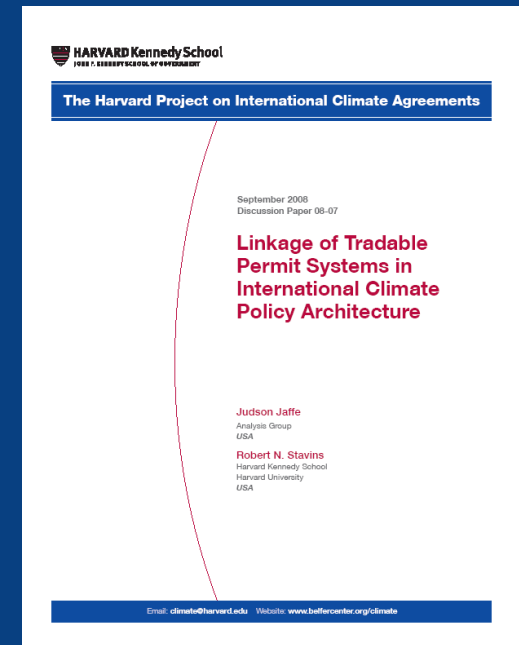
2. Linkage of National & Regional Tradable Permit Systems

- **Cap-and-trade systems are preferred domestic approach in many countries and regions**

- Linking these cap-and-trade systems reduces overall costs, market power, and price volatility
- But linking causes automatic propagation of cost-containment design elements: banking, borrowing, and safety valve
- Therefore, advance harmonization required

- **The Emerging International Regime**

- If cap-and-trade systems link with common emission-reduction-credit system, such as CDM, the cap-and-trade systems are indirectly linked
- All the benefits of linking are achieved – cost savings, etc.
- But propagation of design elements across systems greatly diminished
- May be evolving as part of *de facto* post-Kyoto architecture



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Future U.S. Participation in an International Agreement?

▪ **Bush Administration**

- Plan of “slow, stop, & reverse” emissions made sense, *but* needed dates & targets for “stop & reverse”
- Plan’s embrace (in principle) of market-based instruments was good, but need real cap-and-trade in U.S., not just voluntary programs
- Bush criticized KP as a highly flawed international approach, but what was the Administration’s proposed alternative?

▪ **Does Everything Change with President Obama in the White House? *No.***

- Keep in Mind: Senate vote on Byrd-Hagel Res. against KP approach was 95-0
- President Clinton did not submit KP to Senate, nor would Vice President Gore had he been elected President, nor would Senator Kerry had he been elected, *nor will President Obama.*
- No matter who occupies the White House, a KP-type treaty will *not* be submitted to the U.S. Senate for ratification

▪ **Do Some Things Change with President Obama in the White House? *Yes.***

- State-level and regional initiatives *will* advance in the U.S., and there will quite possibly be a comprehensive *national cap-and-trade system in place by end of 2010*, and
- *In 2009*, U.S. beginning to work with other nations on a *better international agreement*

For More Information

Harvard Project on International Climate Agreements

www.belfercenter.org/climate

Proposal for a U.S. Cap-and-Trade System

www.brookings.edu/papers/2007/10climate_stavins.aspx

The Harvard Environmental Economics Program

www.hks.harvard.edu/m-rcbg/heap/

www.stavins.com