Beyond Kyoto:
Getting Serious About Global Climate Change

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A Productive Partnership

The Enel Endowment for Environmental Economics

supports research and outreach at

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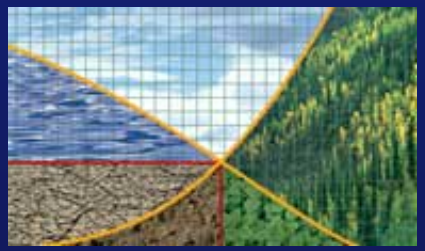
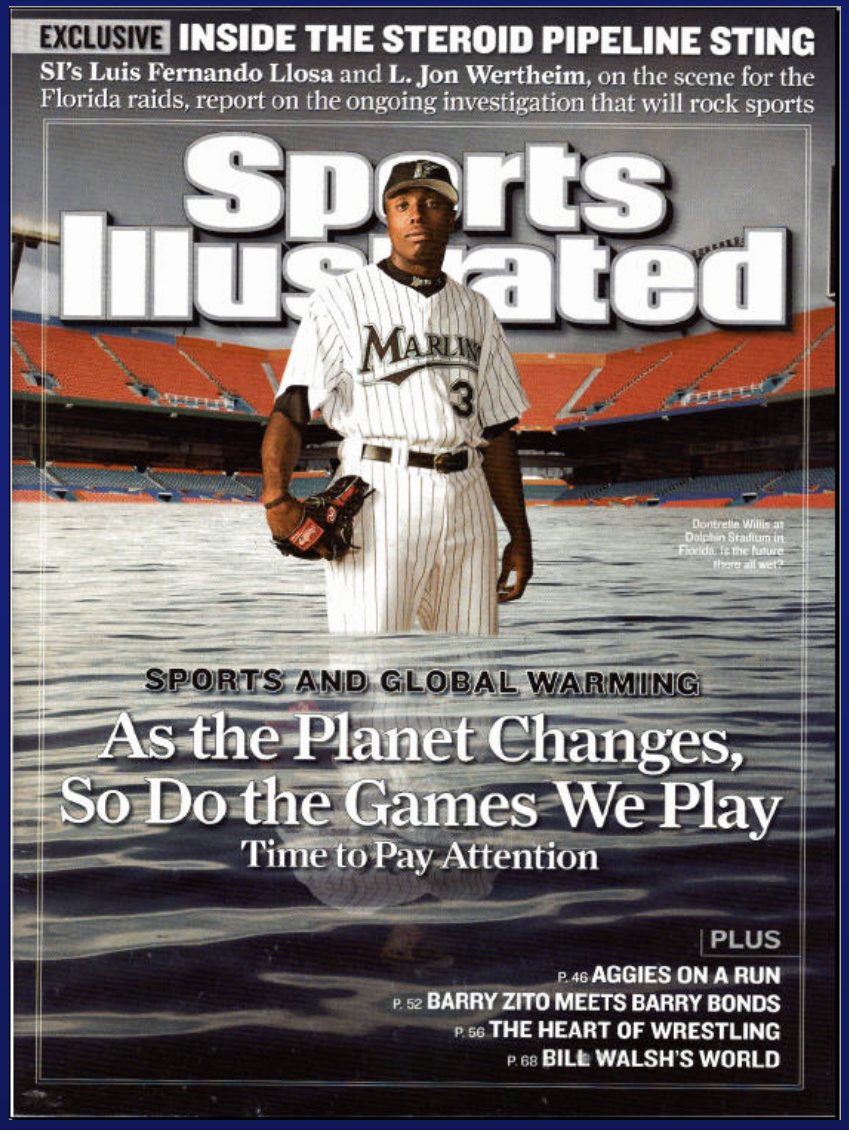


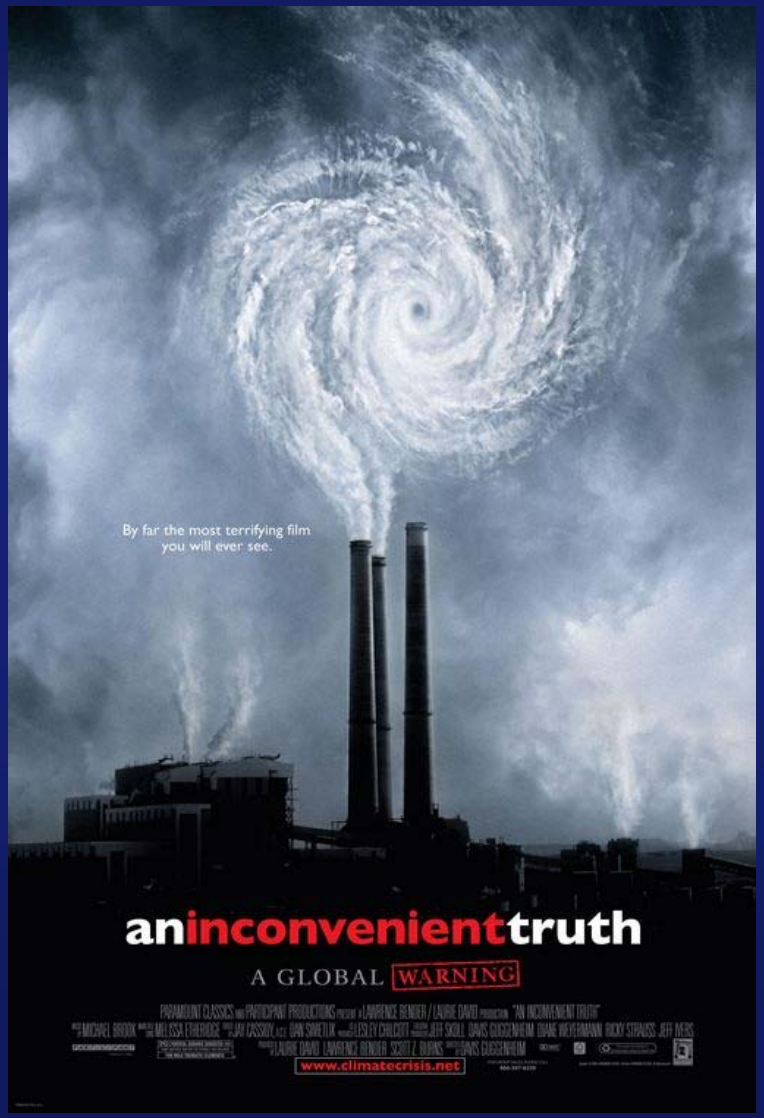
Climate Concerns Have Gone Mainstream

Last Year

This Year



Very Mainstream ....



Recent Developments in Information About Climate Change, Climate Policy, and Business Response

European GHG Emissions Trading Scheme begins

Northeast states announce regional GHG initiative

NOAA: 2006 warmest year on record for continental US

California enacts AB 32

NOAA: Rate of Arctic warming unprecedented

5 mandatory climate policy bills introduced in Congress

IPCC: "Unequivocal" evidence of warming, 90% certainty that humans are main driver

5 western states agree to joint climate initiative

U.S. House select committee on global warming established

Supreme Court: EPA must consider regulating vehicle GHG emissions

Senator Bingaman introduces bill for national cap-and-trade system

Senators Lieberman & Warner introduce draft climate bill

NYT: Summer saw record-breaking loss of Arctic sea ice

Pres. Bush hosts session on international climate policy

Sept. - Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.

2005 2006 2007

ConocoPhillips, Shell, PepsiCo, Alcan, AIG, General Motors, Chrysler, Ford, Xerox, NRG Energy, Exelon and Rio Tinto join USCAP

Auto executives give support for cap-and-trade policy

Alcoa, BP, Duke, GE, NGOs, and other members of U.S. Climate Action Partnership (USCAP) jointly call for economy-wide climate regulations

Merchant electricity generators' trade association supports mandatory GHG caps

TXU buyout partners and AEP separately announce plans to invest in carbon capture and sequestration

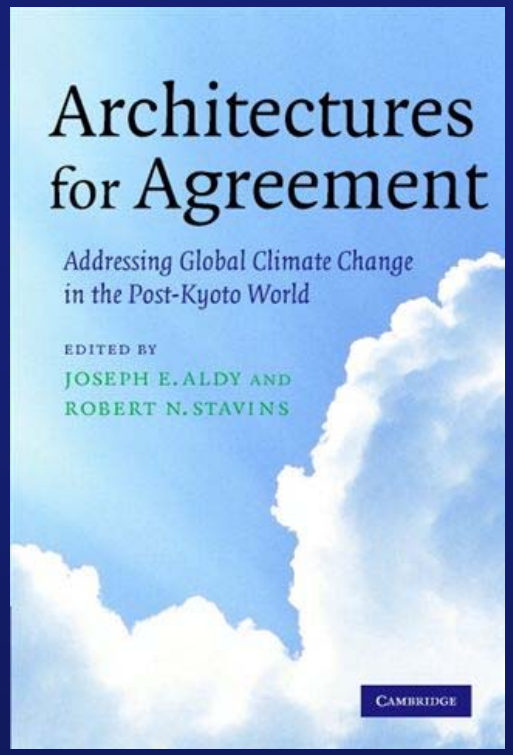
The Global Climate Policy Challenge

- **Kyoto Protocol came into force in February 2005, and the first commitment period begins in 2008**
- **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**

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 the United States**
- **So, the Kyoto Protocol is "*too little, too fast*"**
- **Nevertheless, can the structure of the Kyoto Protocol provide the way forward?**

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 leading thinkers from academia, private industry, government, and non-governmental organizations.



A Three-Part Global Climate Policy Architecture

1. **All Key Nations Involved**

2. **Long-Term Time Path of Targets**

3. **Market-Based Policy Instruments**

Part One: All Nations Involved

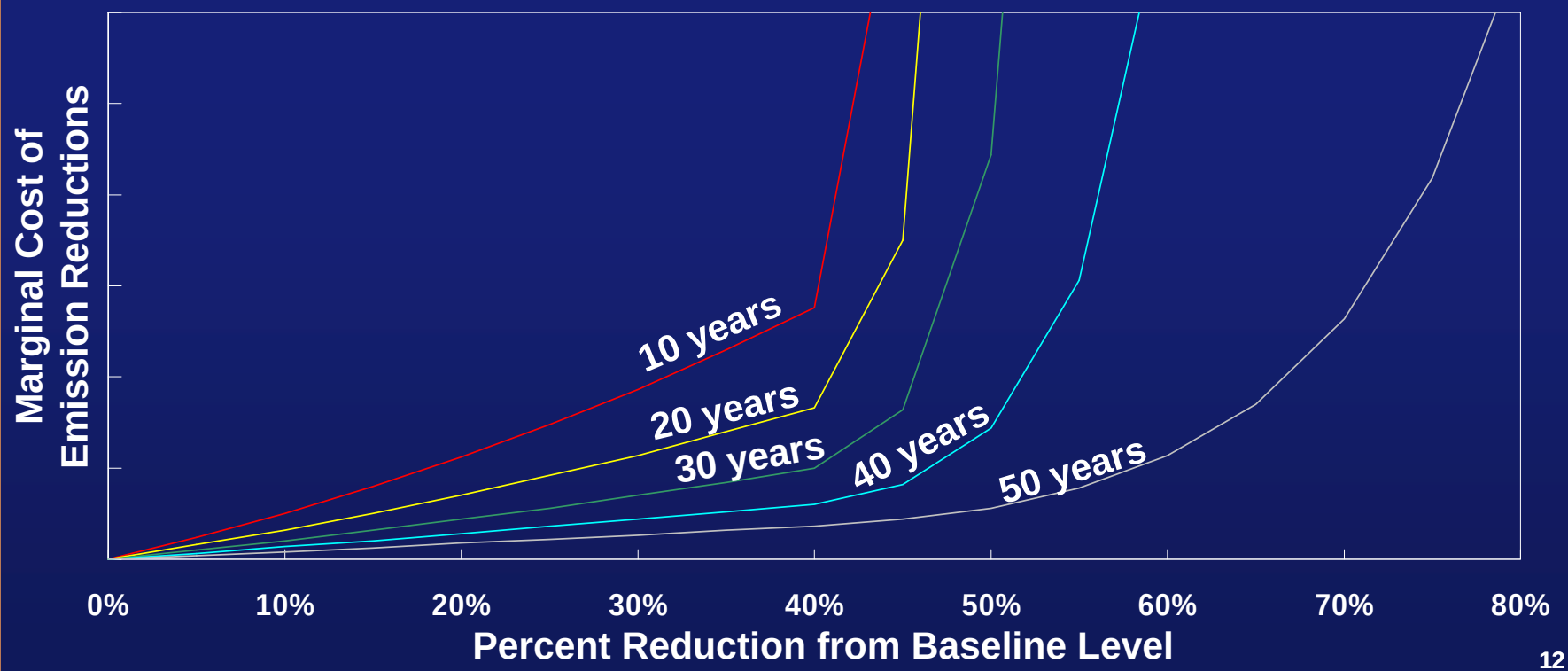
- **Global commons nature of the problem calls for a multi-national, if not fully global, approach**
- **Developing countries must be fully involved because of:**
  - **Rapid growth**
  - **Low-cost emission reduction opportunities**
  - **Emissions leakage**
- **But developing countries can't be expected to pay in the short term**
- ***One solution:* "Growth targets" that become more stringent as countries become more wealthy (combined with international tradable permits)**

Part Two: Long-Term Time Path of Targets

- **Short-term *moderate* … but firm**
- **Long-term *much more stringent* … but flexible**
- **Targets can be quantity or price-based**
- **Why this particular time-path of targets?**

Part Two: Long-Term Time Path of Targets

- **Technological changes *can* bring down costs in the long run**
- **So, large reductions *can* be achieved at lower costs in the long run**
- **Policies are needed *now* to motivate long-term technological change**



Part Two: Long-Term Time Path of Targets

- **Time path of targets that is *moderate but firm* in the short-term, and *stringent but flexible* in the long-term is:**
  - **Consistent with the science: the stock of GHGs is what matters**
  - **Consistent with the economics: cost-effective time path**
  - **Consistent with pragmatic politics (?)**

Part Three: Market-Based Policy Instruments

- **Emissions trading**
- **Carbon taxes**
- **Hybrids — “safety valve”**
- **Both domestically and internationally**

Summary on Kyoto and Post-Kyoto Architecture

- **Kyoto Protocol has come into force without U.S. participation**
  - **Its effect on climate change will be trivial to non-existent**
- **Scientific and economic consensus points to the pressing need for a credible international agreement that is:**
  - **Scientifically sound**
  - **Economically rational**
  - **Politically pragmatic**
- **Promising policy architectures exist -- I've outlined one that meets these three criteria**
- **Great challenges for adoption and implementation; but no greater than for other approaches**

What Will the Future Hold for U.S. Participation in an International Agreement?

- **Bush Administration**
  - **Plan of "slow, stop, & reverse" emissions makes sense, *but* need dates & targets *now* for "stop & reverse"**
  - **Plan's embrace (in principle) of market-based instruments is good, but need real cap-and-trade, not just voluntary programs**
  - **What's really missing: Bush criticized KP as a highly flawed international approach, but what's the Administration's proposed alternative?**
- **A Future Democratic Administration?**
  - **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**
- **Prediction: No matter who occupies the White House, a KP-type treaty will *not* be submitted to the U.S. Senate for ratification**
  - **State-level and regional initiatives *will* advance in the U.S., and there will quite possibly be a unilateral national program by 2009, but ….**
  - ***The Key Question* is whether the U.S. will begin to *work with* Europeans and others on a *better international agreement***

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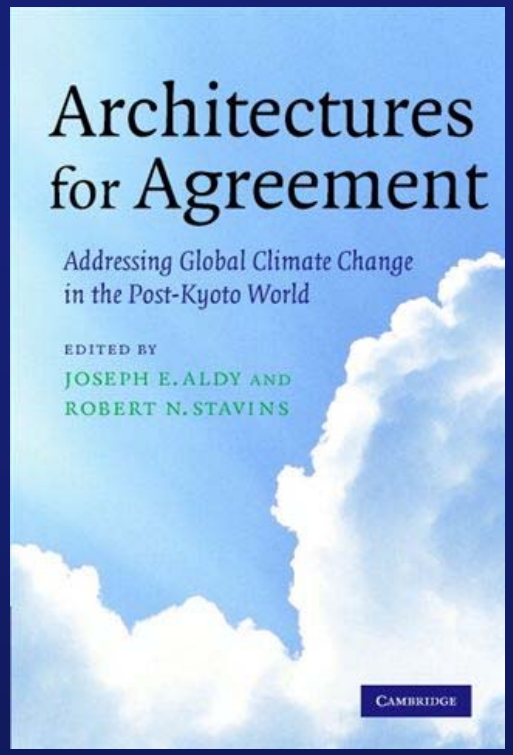

For more information

The Harvard Project on International Climate Agreements
www.belfercenter.org/climate

The Harvard Environmental Economics Program
www.ksg.harvard.edu/m-rcbg/heep

www.stavins.com