

# **Beyond Kyoto:** **An Economic Perspective on Climate Change Policy**

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**“What business are you in?”**



**“I’m an environmental economist.”**

# “Environmental economics” is *not* oxymoronic.

1. The *causes* of environmental problems (in a market economy) are economic.
  2. The *consequences* of environmental problems have important economic dimensions.
- Therefore, an economic perspective is *essential* for
    - *Understanding* environmental problems
    - And therefore can be *exceptionally helpful* for the design of *solutions* that will be *effective, economically sensible, and politically pragmatic*.

# Basic Economics and Geopolitics of Climate Change

- **Climate change is a global commons problem**
  - Any jurisdiction taking action – a country, province, or city – incurs the costs of its actions
  - But the benefits (averted climate change) are distributed globally
  - Hence, for virtually any jurisdiction, the benefits it reaps from its actions will be *less* than the costs it incurs ....
    - despite the fact that the global benefits may be *greater* – possibly much greater – than the global costs
- **This presents a classic free-rider problem, ....**
  - which is why *international*, if not global, cooperation is essential,
  - and this is why the *highest levels* of effective government should be involved, i.e., sovereign states (nations) ....

# The National Context

- **Most economists & other policy analysts favor *carbon-pricing*. Why?**
  - No other feasible approach can provide truly meaningful emissions reductions (such as U.S. target of 80% cut in national CO<sub>2</sub> emissions by 2050)
  - It's the least costly approach in short term (heterogeneous abatement costs)
  - It's the least costly approach in the long term (incentive for carbon-friendly technological change)
  - So, it's a necessary (but not sufficient) component of sensible climate policy
- **But, carbon-pricing is a hot-button political issue, particularly in U.S.**
  - It makes the costs transparent (unlike conventional policy instruments); and cap-and-trade is easily associated with the T-word; indeed, in Washington, cap-and-trade was *demonized* as “cap-and-tax”
  - A meaningful, national, economy-wide carbon-pricing policy is unlikely to be enacted in U.S. before 2013 (at the very earliest)
- **Does that mean there will be no U.S. climate policy? *No.***

# Other Important Climate Policy Developments

- **Carbon Tax** – will fiscal realities lead to look at Federal “consumption taxes?”
- **Stimulus Package** – \$80 billion previously committed for renewables and energy-efficiency (but delays and Federal budget have intervened)
- **Automobile and Appliance Energy Efficiency Standards**
- **Energy Policies** (variety of standards & subsidies, not targeted at CO<sub>2</sub>)
  - National renewable electricity standard
  - Clean Energy Standard
- **Technology Policies**
  - Carbon-pricing necessary, but not sufficient – information is a public good
  - Technology innovation subsidies necessary, but not sufficient

# Other Federal Regulations in Place or On the Way

- **U.S. Supreme Court decision, EPA endangerment finding, & CAA**
  - Mobile source standards
  - Stationary sources (January 2, 2011, with or without “tailoring rule”)
- **Air pollution policies for correlated pollutants under CAA**
  - Rules in the regulatory pipeline – SO<sub>x</sub>, NO<sub>x</sub>, Hg, PM, coal ash, & cooling water
  - Could shut some coal plants (w/o any CO<sub>2</sub> requirements)

# Other Legal Mechanisms

- **Public Nuisance Litigation**
  - Lawsuits pursuing injunctive relief and/or damages
  - In flux – recent court decisions, and Supreme Court
- **Other Interventions**
  - Intended to block permits for new fossil energy investments
    - Power plants
    - Transmission lines
  - Some NIMBY, some strategic
- **But the international dimensions of climate change policy are key to action ...**



# The International Domain: Placing Climate Negotiations in Perspective

- Cliché about American baseball season applies to international climate change policy: it's a marathon, not a sprint
  - Scientifically: stock, not flow environmental problem
  - Economically: cost-effective path is gradual ramp-up in target severity (to avoid unnecessary capital-stock obsolescence)
  - Economically: technological change is key, hence long-term price signals
  - Administratively: creation of durable international institutions is essential
- International climate negotiations will be an ongoing process – much like trade talks – not a single task with a clear end-point
  - So, sensible goal for climate negotiations is progress on sound foundation for meaningful long-term action, not necessarily an immediate “solution”

# What happened at COP-16 in Cancún (December 2010)?

- Organizational success, and consensus achieved (both contrast w/Copenhagen)
- Five key elements of the (32-page) *Cancún Agreements*
  1. Includes emission targets/actions for 80+ countries – most as submitted for Copenhagen Accord – including *all major economies – blurring of Annex I/non-Annex I distinction*
  2. Establishes mechanisms for monitoring & verification (analysis of *developing-country* mitigation actions; all report to *independent panel* of experts)
  3. Establishes “Green Climate Fund” to finance adaptation & mitigation, *with World Bank as interim trustee*, and creates *oversight board* (\$100 billion/year by 2020 will depend upon decisions by wealthy countries)
  4. Advances initiatives on tropical forest protection (REDD+), including through market mechanisms
  5. Establishes structure to assess needs & policies for technology transfer
- Was this a success?

# How I defined success for COP-16 *prior* to Cancún

1. *Embrace* parallel processes – MEF, G20, C30 – as input to UNFCCC process
  2. *Consolidate* 3 tracks – KP, LCA, & Copenhagen Accord – to 2 tracks
    - Make the Copenhagen Accord the core of long-term climate agreement (LCA) talks
  3. *Focus* on productive steps within *specific narrow* agreements, such as REDD
  4. *Develop* sensible *expectations* and effective *plans*
- All of this happened in *Cancún*
    - COP-16 was a success: a modest, but meaningful step forward

# Why did Cancún succeed?

1. *Mexican government* – through careful and methodical planning – was well *prepared*, and was very *skillful* in presiding over talks
  - In Copenhagen, Danish Prime Minister Lars Løkke Rasmussen *allowed* objections of five unimportant countries (Bolivia, Cuba, Nicaragua, Sudan, and Venezuela) to *derail* the talks
  - In Cancún, Mexican Minister of Foreign Affairs Patricia Espinosa took note of *same objections*, ruled that “consensus does not mean unanimity,” and the Cancun Agreements were *adopted*
2. China and U.S. set a *tone of civility* for conference
3. *Pressure*: many countries worried that a failure in Cancún would cause demise of the UN process itself
4. Under *pragmatic* leadership of UNFCCC Executive Secretary Christiana Figueres, *realism eclipsed idealism* in international negotiations:
  - Incremental steps in right direction are *better* than acrimonious debates over unachievable targets

# The Path Ahead: COP-17, Durban, South Africa (December 2011)

- Define institutions and rules in Cancún Agreements (back-tracking in Bangkok)
- But, in addition to LCA (Cancún) track, Kyoto Protocol (KP) track remains
  - Decision on a second commitment period (post-2012) for KP punted to Durban
- Keeping Kyoto Protocol going is *very* important to developing countries
- *But* can there be a second commitment period for Kyoto Protocol?
  - U.S. not a participant; Japan, Russia, and Canada will not take up targets
  - Australia also unlikely to participate
  - Is Europe-on-its-own credible or feasible?
- Durban may well be dominated by debates on this highly contentious issue
- So, despite the weather, Durban may resemble Copenhagen more than Cancún

# For More Information

Harvard Project on Climate Agreements

[www.belfercenter.org/climate](http://www.belfercenter.org/climate)

Harvard Environmental Economics Program

[www.hks.harvard.edu/m-rcbg/heap/](http://www.hks.harvard.edu/m-rcbg/heap/)

[www.stavins.com](http://www.stavins.com)