Linkage: A Promising Approach to Achieving the Goals of the Durban Platform

Hosted by

The Harvard Project on Climate Agreements
The Enel Foundation
The International Emissions Trading Association

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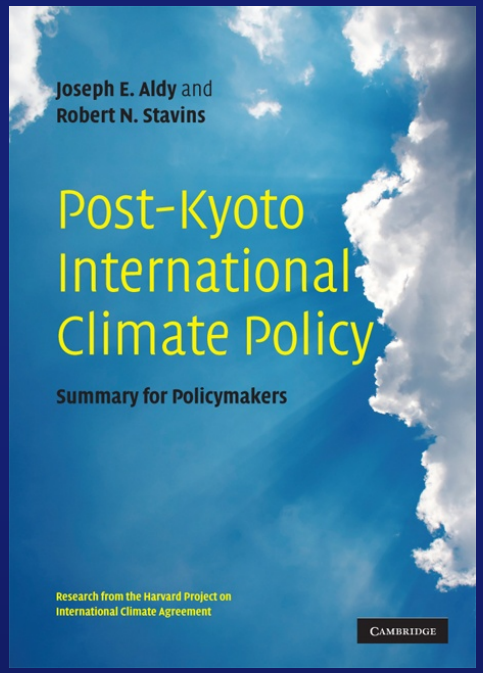
Developing and Advancing Ideas for Climate Policy

- The Harvard Project on Climate Agreements
  - Mission: To help identify and advance scientifically sound, economically rational, and politically pragmatic public policy options for addressing global climate change
- Drawing upon research & ideas from leading thinkers around the world from:
  - Academia
  - Private industry
  - NGOs
  - Governments
- 50 research initiatives in Argentina, Australia, China, Europe, India, Japan, and the United States



Linkage of Greenhouse Gas Emissions Trading Systems: Learning from Experience (Matthew Ranson and Robert Stavins)

- **Cap-and-trade systems are preferred approach in many jurisdictions**
  - European Union, Australia, New Zealand, California, Quebec, China, etc.
  - *Linking* – unilateral or bilateral recognition of allowances – across 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* can be necessary
- **An Alternative**
  - If cap-and-trade systems link with a *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*
- **In principle, either could form a *de facto* international policy architecture**
  - So, we surveyed existing and planned linkages of both kinds ….

Linkages Between Cap-and-Trade Systems

System 1	System 2	Type of Linkage	Enact. Date	Effect. Date	Prices at Enactment		Caps ($mtCO_2$)		Notes and References	
					#1	#2	#1	#2		
27 EU nations	(EU ETS)	Multilateral	2003	2005	none	na	varied	2,299		1, 12
Norway	EU ETS	One-way		2005						10
Norway	EU ETS	Multilateral	2007	2008	€0	€20	15	2,080		2
Iceland	EU ETS	Multilateral	2007	2008	none	€20	0	2,080		2
Liechtenstein	EU ETS	Multilateral	2007	2008	none	€20	18	2,080		2
Switzerland	EU ETS	Two-way	*							3
Australia	EU ETS	One-way	2013*	2014	AUD$25	€7-€8	TBD		C	4, 11
Australia	EU ETS	Two-way	*	2018	AUD$25	€7-€8	TBD	1,852		4
Australia	New Zealand	Two-way	*				TBD			5
Australia	EU ETS, NZ	Delinking	2013*							24
California	Quebec	Two-way	2012/13*	2014	$14	none	160	25		6, 14,15
10 U.S. states	(RGGI)	Multilateral	2005	2009	none	na	varied	168	A	7
RGGI	Any CAT system	One-way	2005	2009	none	€9/EUA	168	2,299	B	8
RGGI	Any CAT system	Delinking	2013*		$3	€5/EUA			B	9
New Jersey	RGGI	Delinking	2011	2012	$2	$2	21	150		13

Linkages from Cap-and-Trade Systems to Credit Systems

System 1	System 2	Type of Linkage	Enact. Date	Effect. Date	Prices at Enactment		Caps ($mtCO_2$)		Notes and References	
					#1	#2	#1	#2		
EU ETS	CDM	One-way	2004	2005	€9	$5	2,299	na	D	1, 16, 17
EU ETS	CDM	One-way	2004	2008	€9	$5	2,299	na	D	1, 16, 17
EU ETS	CDM	One-way	2004	2013	€9	$5	2,299	na	D,E	1, 16, 22
EU ETS	JI	One-way	2004	2008	€9	$6	2,299	na	D	1, 16, 18
Switzerland	CDM	One-way	1999	2008	none	$4-$7	na	na		17, 19
New Zealand	CDM, JI, RMU	One-way	2008	2008	none	€11	na	na		17,20,21
Australia	CDM, JI	One-way	2011	2012/15	none	€6	TBD	na		4
RGGI	Any credit system	One-way	2005	2009	none	$5-8	110	na	B	8
RGGI	Any credit system	Delinking	2013*		none	$5	165	na	B	9
California	Acre and Chiapas	One-way	*					na		25
Quebec	Acre and Chiapas	One-way	*					na		25
Tokyo ETS	CDM	One-way	2008	2010	$142	$18	13	na	F	23

Limits on the Use of Offset Credits

System	Period	Limit as % of Cap	Notes
EU ETS	2013-2020	varies	(a)
EU ETS	2008-2012	0-20	
Swiss ETS	2008-	8	
New Zealand ETS	2008-	unlimited	
Australia's Clean Energy Act	2012-	12.5	(b)
RGGI	2009-	3.3	(c)
California's CAT system	2013-	8 or 0	(d)
Quebec's CAT system	2013-	8 or 0	(d)

Learning from Experience

- **Significant increase in links among GHG cap-and-trade systems,**
  - … both directly, and indirectly through credit systems (CDM), although role of CDM may be greatly diminished (by various constraints).
- **There is clearly a strong political revealed preference for linking**
  - Linkage is a multi-faceted *policy* decision used by *political* jurisdictions to achieve a variety of objectives.
  - Many economic, political, and strategic factors influence decision to link,
    - … including geographic proximity and emissions-reduction integrity.
  - Some theoretically important effects of linking, such as loss of control of domestic carbon policies and prices, ….
    - … do not appear to have deterred real-world decisions to link.

Implications for Role of Decentralized Linkages in Future International Climate Policy Architecture

- **Kyoto Protocol may be in its final commitment period, …**
  - … covering only a small fraction of global GHG emissions.
- **Under the Durban Platform for Enhanced Action, …**
  - ... negotiators may gravitate toward a *hybrid system*,
    - Top-down elements for establishing targets
    - Bottom-up elements of pledge-and-review tied to national policies and actions.
- **Incentives to link national policies are likely to produce *more links* among regional, national, & sub-national cap-and-trade systems.**
  - This growing network of decentralized, direct linkages may turn out to be a key part of a future hybrid climate policy architecture.

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For More Information

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www.belfercenter.org/climate

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