

# A “Sandwich Solution” to Hybrid Governance Challenges?

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**Detlef F. Sprinz**

*Scientific Committee - European Environment Agency*

*PIK - Potsdam Institute for Climate Impact Research*

# Overview

- Long-Term Policy Challenges
- Political Economy of Carbon Trajectories
- Conclusions & Implications
- Governing the Sandwich?

# Long-Term Policy Challenges

- = Public Policy Issues That
  - last at least one human generation (25 years)
  - exhibit deep uncertainty exacerbated by the depth of time, and
  - engender public goods aspects both at the stage of problem generation as well as at the response stage
- Several Challenges Addressed At This Conference Fulfill All Three Criteria



# Global Environmental Politics

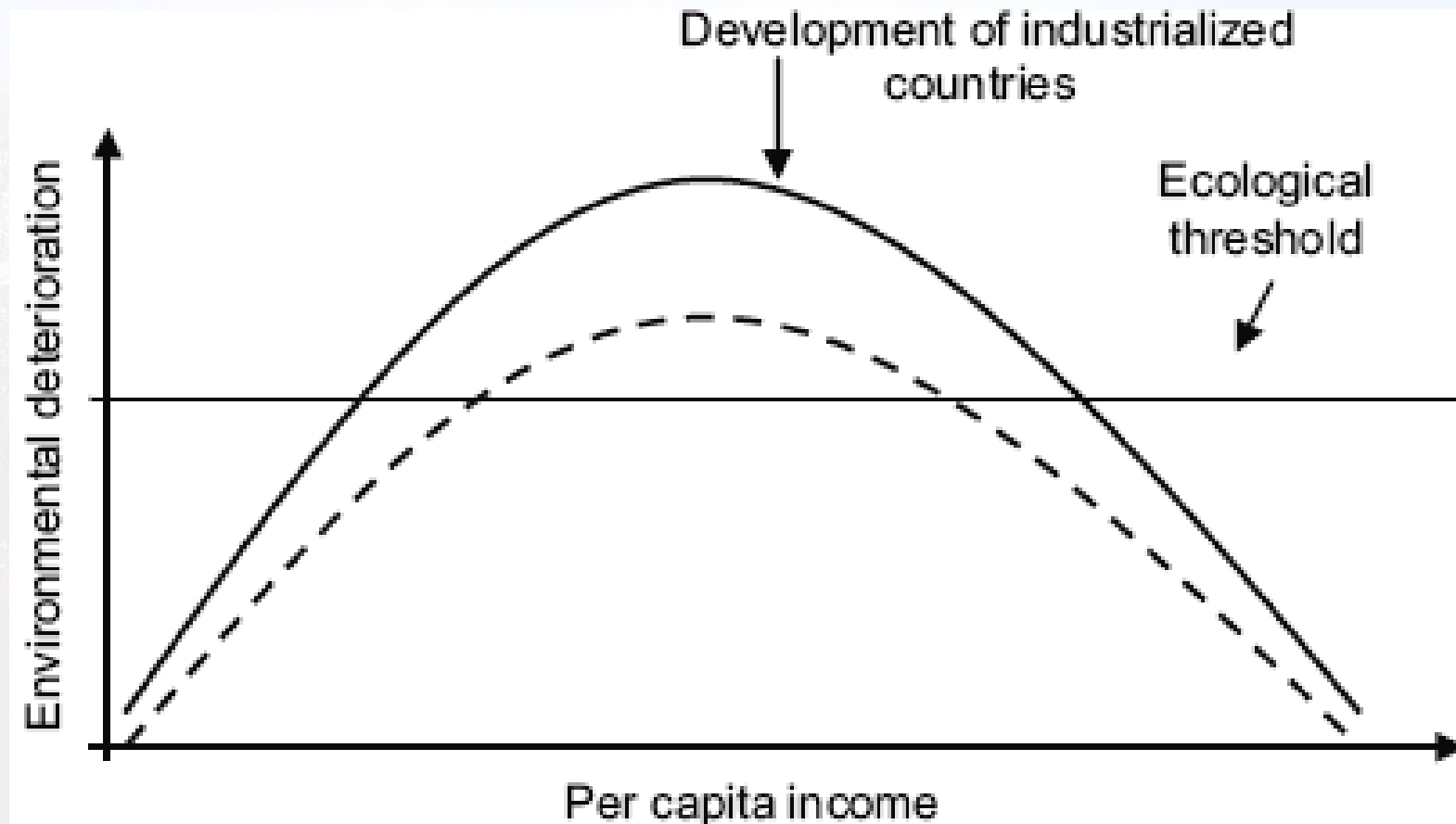
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SPECIAL ISSUE

LONG-TERM ENVIRONMENTAL POLICY: ORIGINS,  
INSTITUTIONAL DESIGN, PROSPECTS

Guest Editor: Detlef F. Sprinz

# Stylized Environmental Kuznets Curve

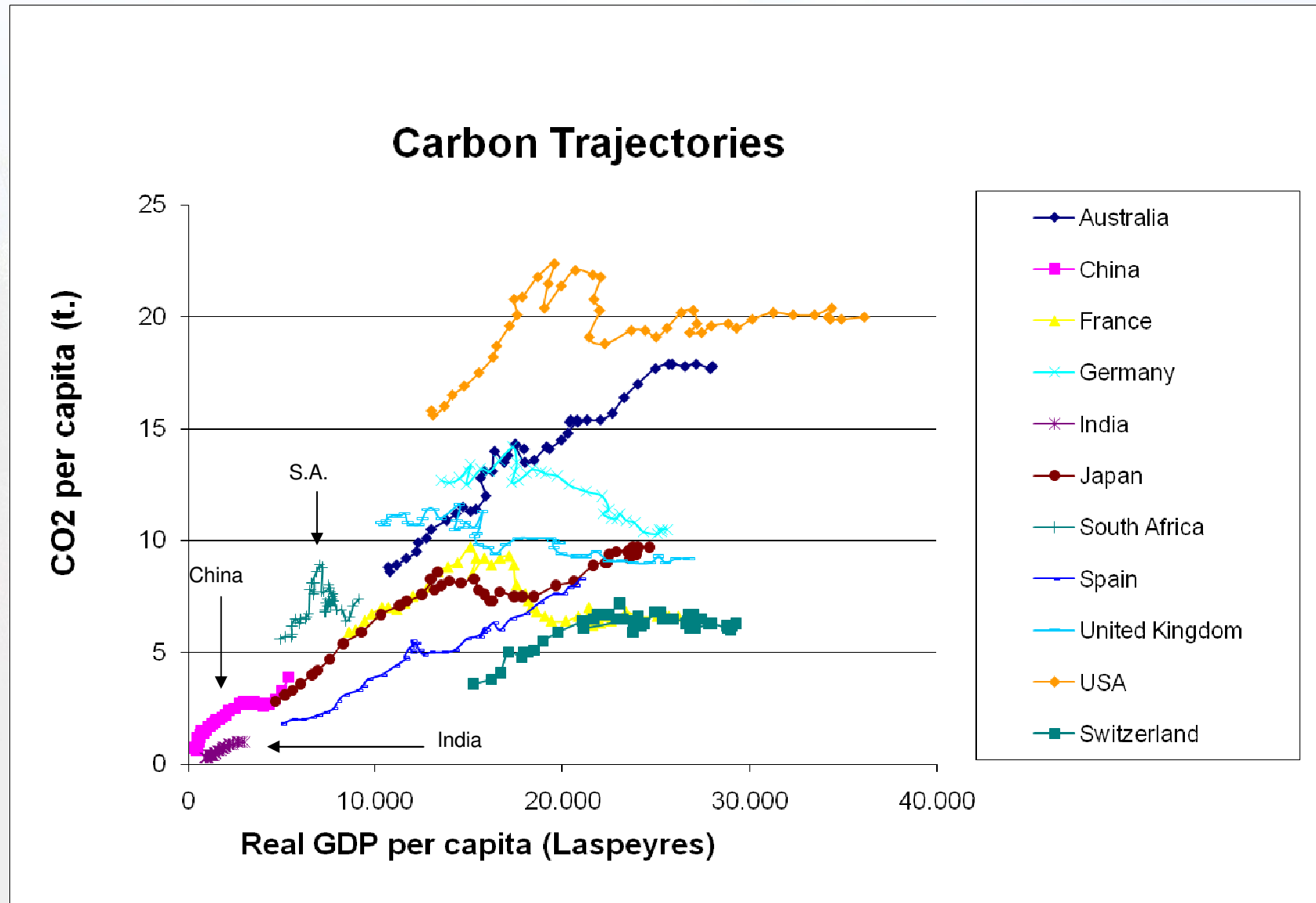


Source: Huang, Lee, and Wu (2008, 240)

# Political Economy of Carbon Trajectories

- Political and Academic Challenge
  - Is a low-carbon economy future (e.g. European Environment Agency 2005 & forthcoming 2010 report) realistic?
  - Do political factors impact *past* emission trajectories?
- Empirical Results Based on Joint Research with Michaël Aklin

# Per Capita Carbon Emissions (1960-2004)



# Political Economy of Carbon Trajectories

- Analysis
  - 1970-2004
  - minimum of 20 observations *per* country
  - 109 countries
  - dependent variable: per capita carbon emissions
  - error correction model
    - short-term *and* long-term effects estimated



# Political Economy of Carbon Trajectories

- Political System Variables
  - political capacity decreases emissions in the short-term and long-term
    - 1 unit of political capacity (levels): range of -10 t (Annex-B) to -1 t (all)
    - short-term effects only in non-Annex B countries
  - political constraints decrease per-capita emissions (all & non-Annex B countries)
    - 2/10 of unit (levels): range from ca. -1.1 t (all) to -.46 t CO<sub>2</sub>/capita (non-Annex B countries)
    - no discernible effect in Annex B countries

# Political Economy of Carbon Trajectories

- democracy (Polity IV) decreases emissions in all, non-Annex-B, and OPEC countries
  - 3 units of change (levels): range from -.6 t (all) to -.27 t (non-Annex B), and -.65 t CO<sub>2</sub>/capita (OPEC)
- *all political system variables reduce long-term emissions*

# Political Economy of Carbon Trajectories

- International Environmental Agreements
  - UNFCCC decreases emissions for all, Annex-B, and non-Annex B countries
    - but: results are statistically not significant
  - Kyoto Protocol
    - same pattern as before
    - *except* for statistically significant emissions-reducing level effects for *all* countries: ca. -2.5 t CO<sub>2</sub>/capita
  - no clear signal from international treaties yet

# Political Economy of Carbon Trajectories

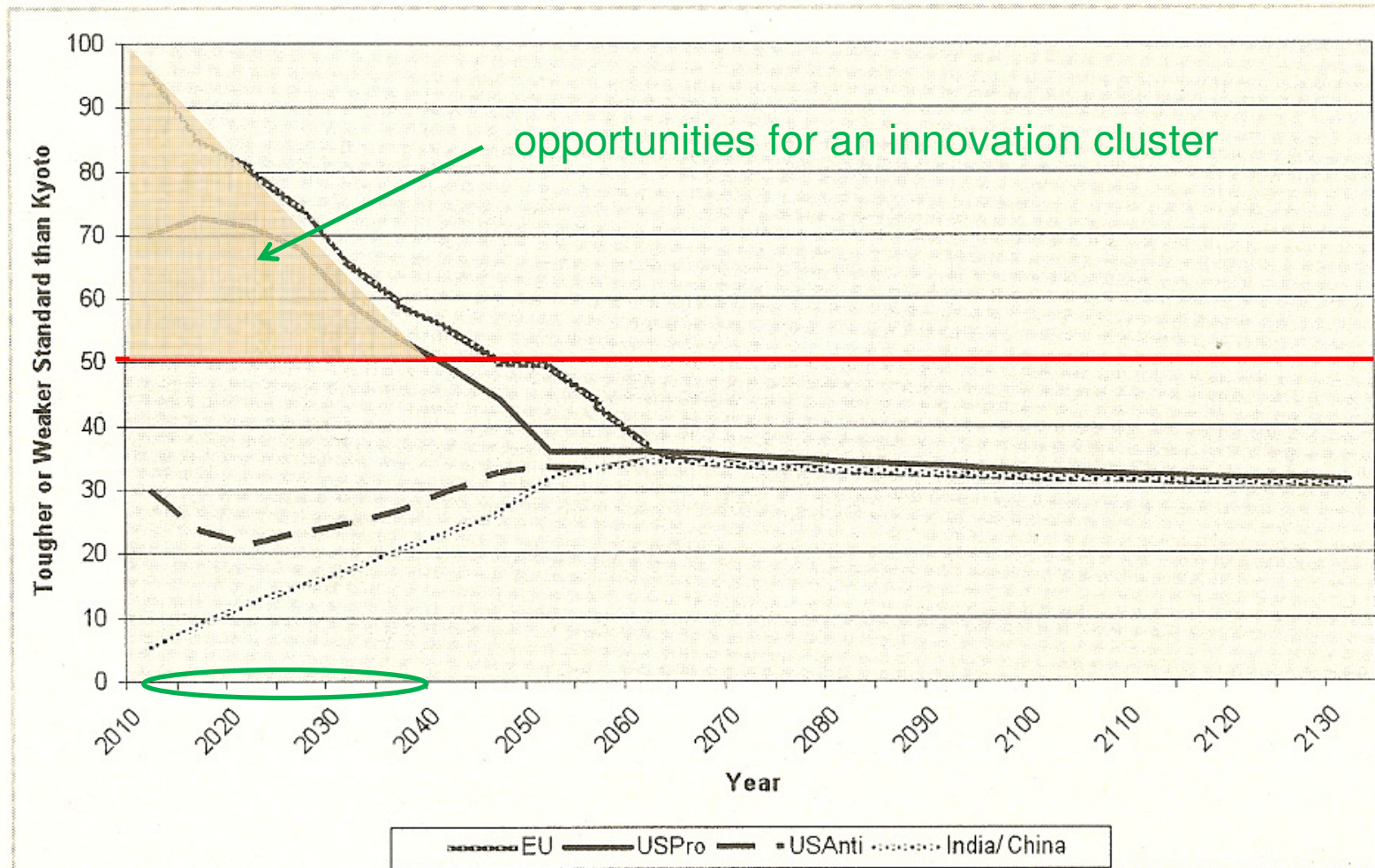
- Select Economic Factors

- increase in income leads to short-term and long-term increase in emissions in most countries
  - exception: Annex-B (largely OECD countries) negative long-term effect of income (► EKC)
- trade openness & service sector have emissions-increasing short-term effects
- oil prices generally do not matter for carbon emissions

# Political Economy of Carbon Trajectories

- Political *System* Variables Reduce Long-Term Carbon Emissions
- *International* Climate Treaties Do Not (Yet) Show Clear Emission-Reducing Signal

FIG. 11.3. What Will the Biggest Polluters Do About Greenhouse Gas Emissions?



Source: Bueno de Mesquita (2009)

# Conclusions & Implications

- Copenhagen Accord (2009):
  - endorsement of 2°C change goal
  - promise of funding
  - unclear whether to pursue “global deal” or fragmented structure – or both
  - voluntarism of obligations for all countries

# Conclusions & Implications

- Post-Copenhagen World of Diplomacy
  - (near) global agreements have a limited, but important function
    - Kyoto Protocol: positive price of carbon henceforth
  - China, USA, other BASIC countries and EU27 as crucial actors



# Governing the Sandwich?

- “Sandwich Solution,” i.e. combine
  - (minimum standard) international agreements
    - signaling effect for governments, social actors & markets!
  - regional and major industry diffusion
    - market creation forces
  - (relatively) top-down to be combined with bottom-up

# Governing the Sandwich?

- Hybrid Forces – Dual Engines of Governance
  - much is known about “muddling through”
  - top-down and bottom-up hybrid: How do we
    - mix them?
    - when? [time]
    - where? [location]
    - which weight?
    - which institutional design options?
    - who is responsible?

# Additional Information

- Contact

Detlef F. Sprinz

+49 (331) 288-2555

[dsp@pik-potsdam.de](mailto:dsp@pik-potsdam.de)

- Documents & Publications

<http://www.sprinz.org>