

# Proposal for a Global Climate Agreement

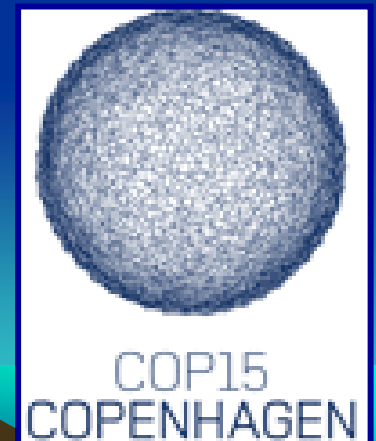


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## Copenhagen, December 2009



The target formulas are designed pragmatically, based on what emissions paths are possible politically:

- unlike other approaches based purely on:

- Science

- (concentration goals),



- Ethics

- (equal emission rights per capita),



- or Economics

- (cost-benefit optimization).



- Why the political approach?

- Countries will not accept burdens that they view as unfair.
  - Above certain thresholds for economic costs, they will drop out.



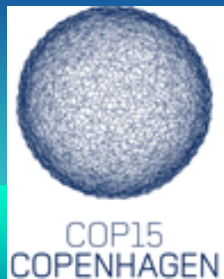
# Proposal

- **Stage 1:**
  - Annex I countries commit to the post-2012 targets that their leaders have already announced.
  - Others commit immediately *not to exceed BAU*.

- **Stage 2:**

When the time comes for developing country cuts, targets are determined by a formula incorporating 3 elements, designed so each is asked only to take actions analogous to those already taken by others:

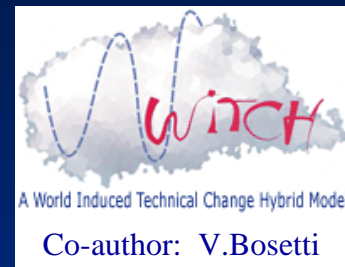
- a Progressive Reduction Factor,
- a Latecomer Catch-up Factor, and
- a Gradual Equalization Factor.



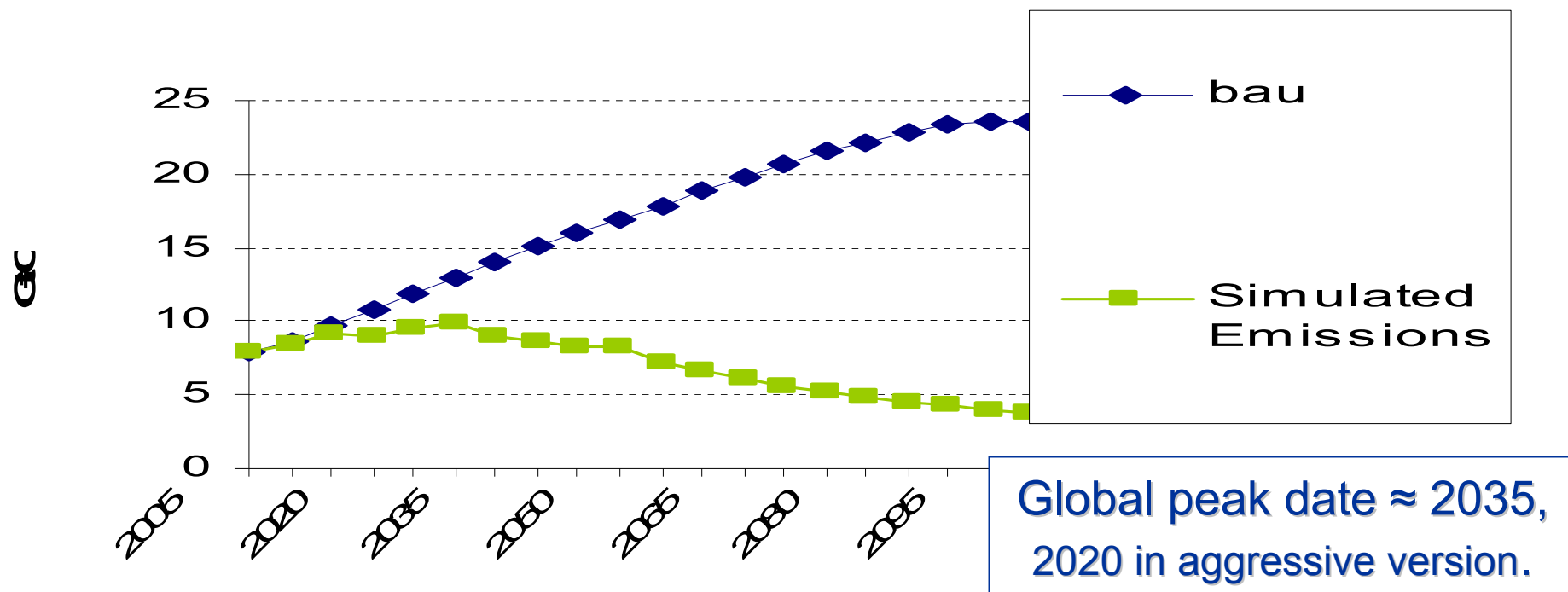
□ In one version, concentrations level off at 500 ppm in the latter part of the century.

□ Constraints are satisfied:

- No country in any one period suffers a loss as large as 5% of GDP by participating.
- Present Discounted Value of loss < 1% GDP.



### World Industrial Carbon Emissions



# What form should border measures take?



1. Best choice: multilateral sanctions under a new Copenhagen Protocol
2. Next-best choice: national import penalties adopted under multilateral guidelines
  1. Measures can only be applied by participants in good standing
  2. Judgments to be made by technical experts, not politicians
  3. Interventions in only a ½ dozen of the most relevant sectors.
3. Third-best choice: no border measures.
4. Each country chooses trade barriers as it sees fit.
5. Worst choice: national measures are subsidies (bribes) to adversely affected firms.

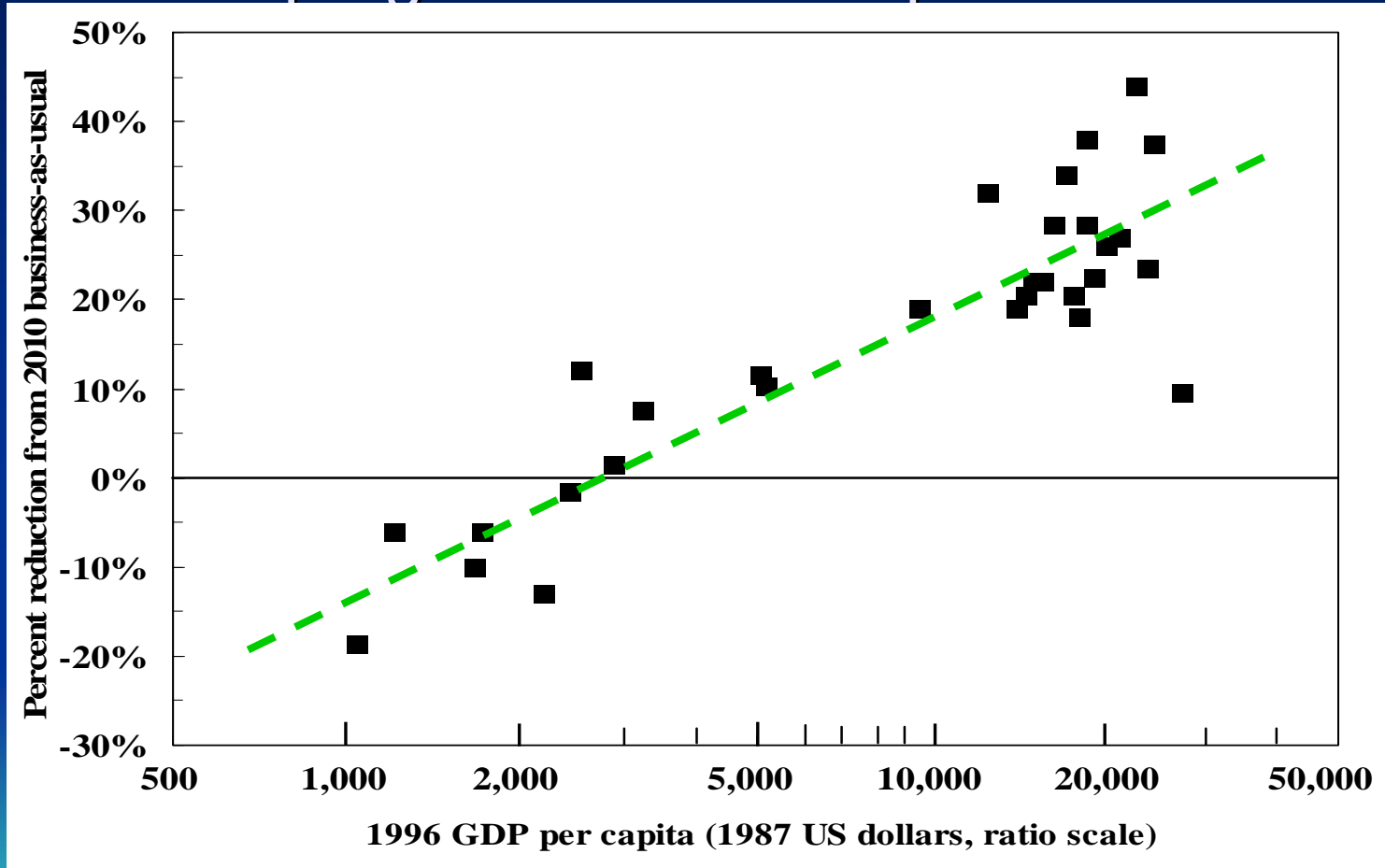


HPICA directed by Rob Stavins.

Paper: <http://ksghome.harvard.edu/~jfrankel/SpecificTargetsHPICA2009.doc>  
Available at: <http://ksghome.harvard.edu/~jfrankel/currentpubsspeeches.htm#On%20Climate%20Change>

Appendices:  
The targeted reductions from BAU agreed to at Kyoto  
in 1997 were progressive with respect to income.

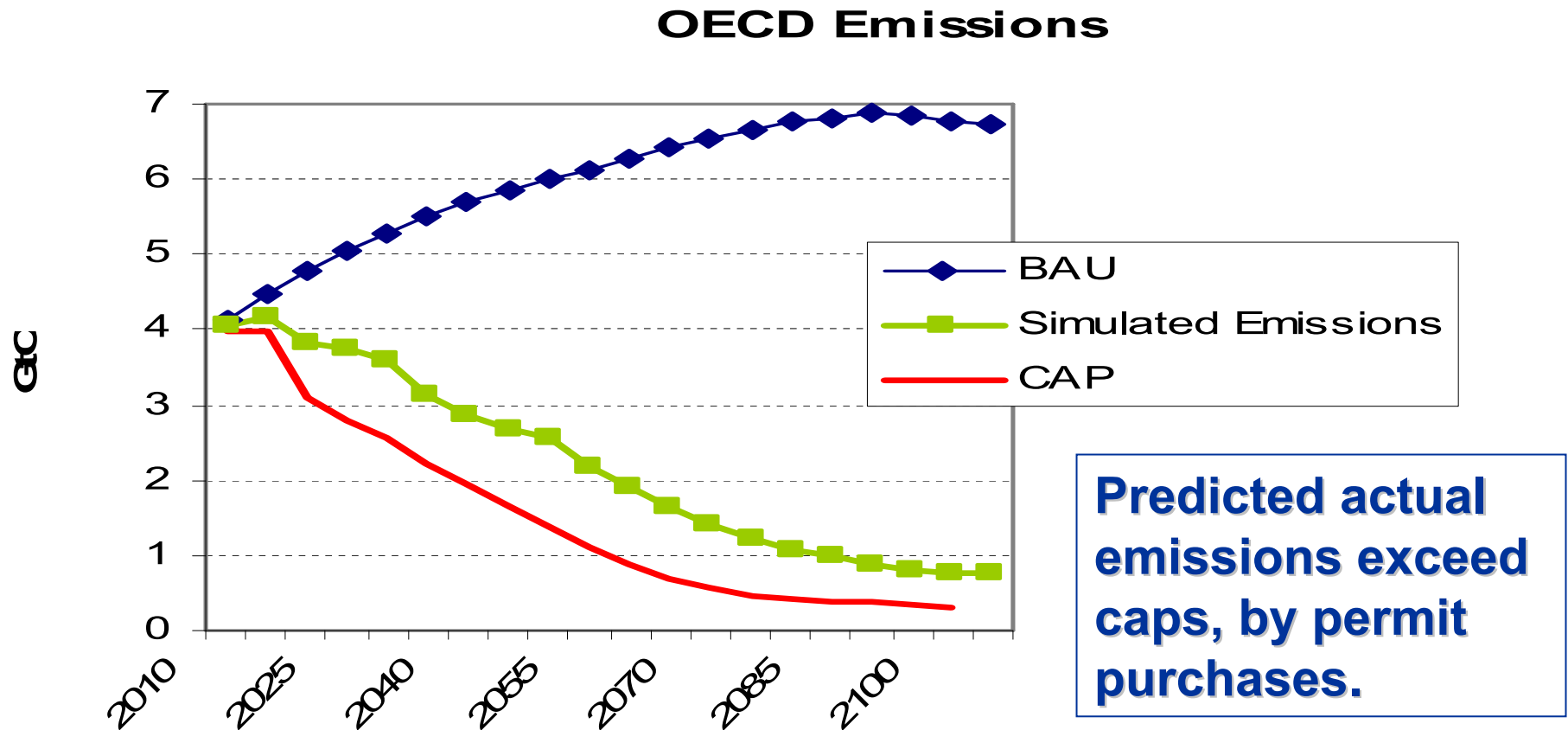
Cuts ↑



Incomes →

# Emissions path for rich countries

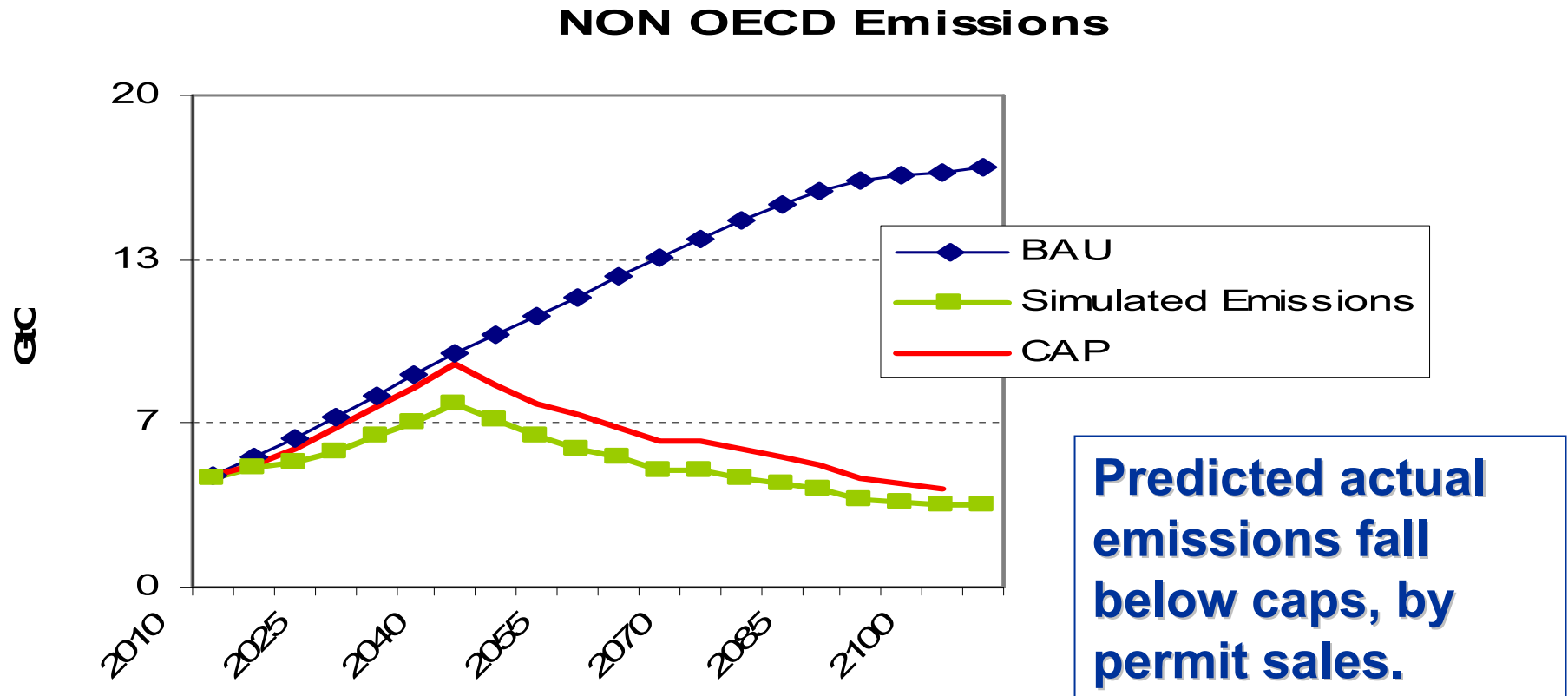
Fig. 2b





# Emissions path for poor countries

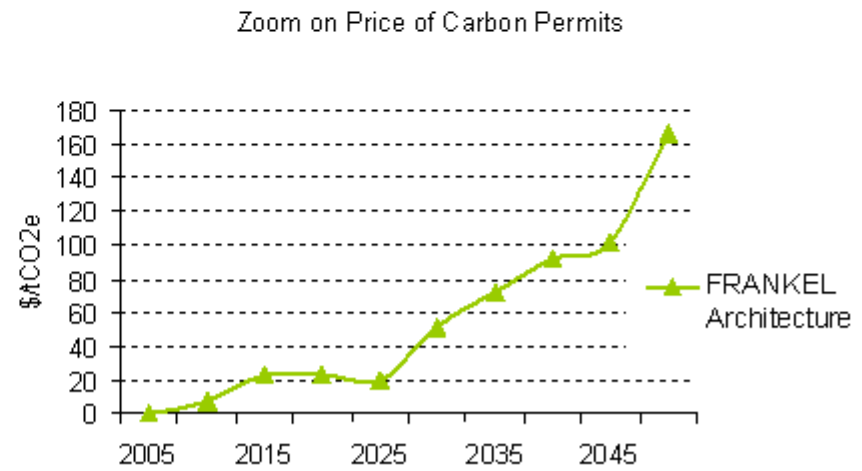
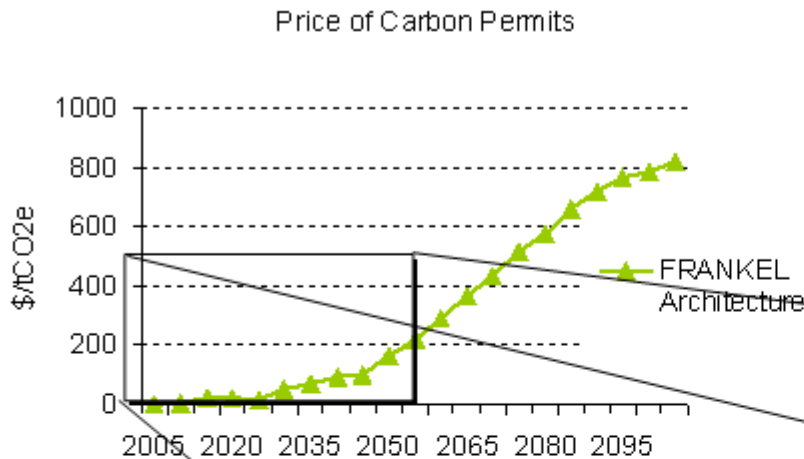
Fig. 4b



# Price of Carbon Dioxide

Fig. 6b

**rises slowly over 50 years, then rapidly.**



# Concentrations stay below 500 ppm goal

Fig. 7b

## Carbon Concentrations (CO<sub>2</sub> only)

