

**XXXIst MIT Global Change Forum**

**Confronting Domestic and Global Climate Strategies**

**Climate Change and Trade: Taxing  
carbon at the Border?  
- A Different Perspective -**

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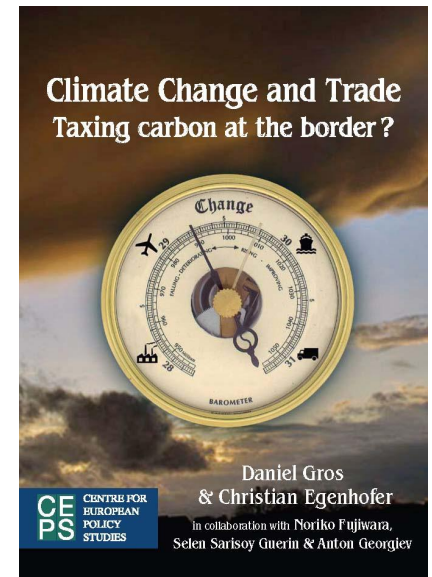
**Brussels, 20-22 October 2010**

# This presentation is about **pricing carbon**

**“A carbon border tax can curb global emissions”**

**It is not about:**

- **Carbon leakage**
- **Protectionism**
- **Protecting EU energy-intensive industries**



# Context

- 1. UN negotiations continue but stagnate**
- 2. G-20/MEF etc. fall short in ambition: "coal is not addressed"**
- 3. Emissions in developing countries rise: Copenhagen Accord will not stop it**
- 4. Yet Copenhagen Accord may unravel**
- 5. Political systems in "coal" countries are unable to deliver**
- 6. Poor compliance regime**
- 7. EU (as leader) is marginalised**
- 8. A move to an EU unilateral target of -30% is ineffectual, therefore politically difficult, depriving the EU of a low-carbon strategy**
- 9. EU outsources GHG emissions**
- 10. Extremely high level of carbon intensity differentials are not sustainable ...**

*Table 3.1 Carbon intensity of exports and GDP in selected key economies*

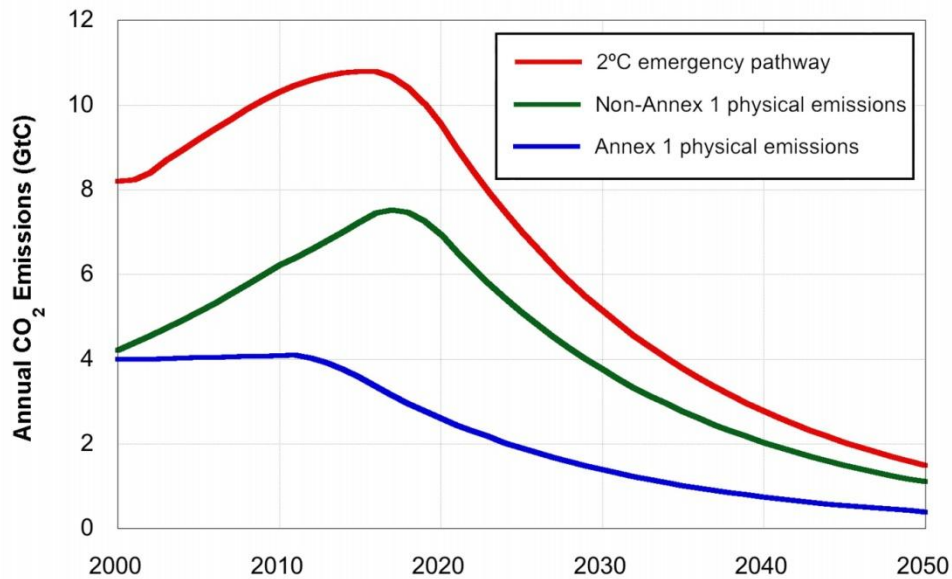
	<b>CO<sub>2</sub> intensity of exports</b>	<b>CO<sub>2</sub> intensity GDP 2005</b>
EU27	0.47	<b>0.43</b>
US	0.72	0.53
China	<b>2.46</b>	2.43
India	<b>2.67</b>	1.78
Brazil	1.05	0.5
Russia	<b>3.85</b>	4.4

*Source:* Own calculations based on IFM data and Weber et al. (2008). The carbon intensity of exports is based on 2002 data. Both intensities are measured as tonnes of carbon per \$1,000 of exports. (Cited from Daniel Gros and Christian Egenhofer, *Climate Change and Trade: Taxing carbon at the border?* CEPS Paperback, p. 36).

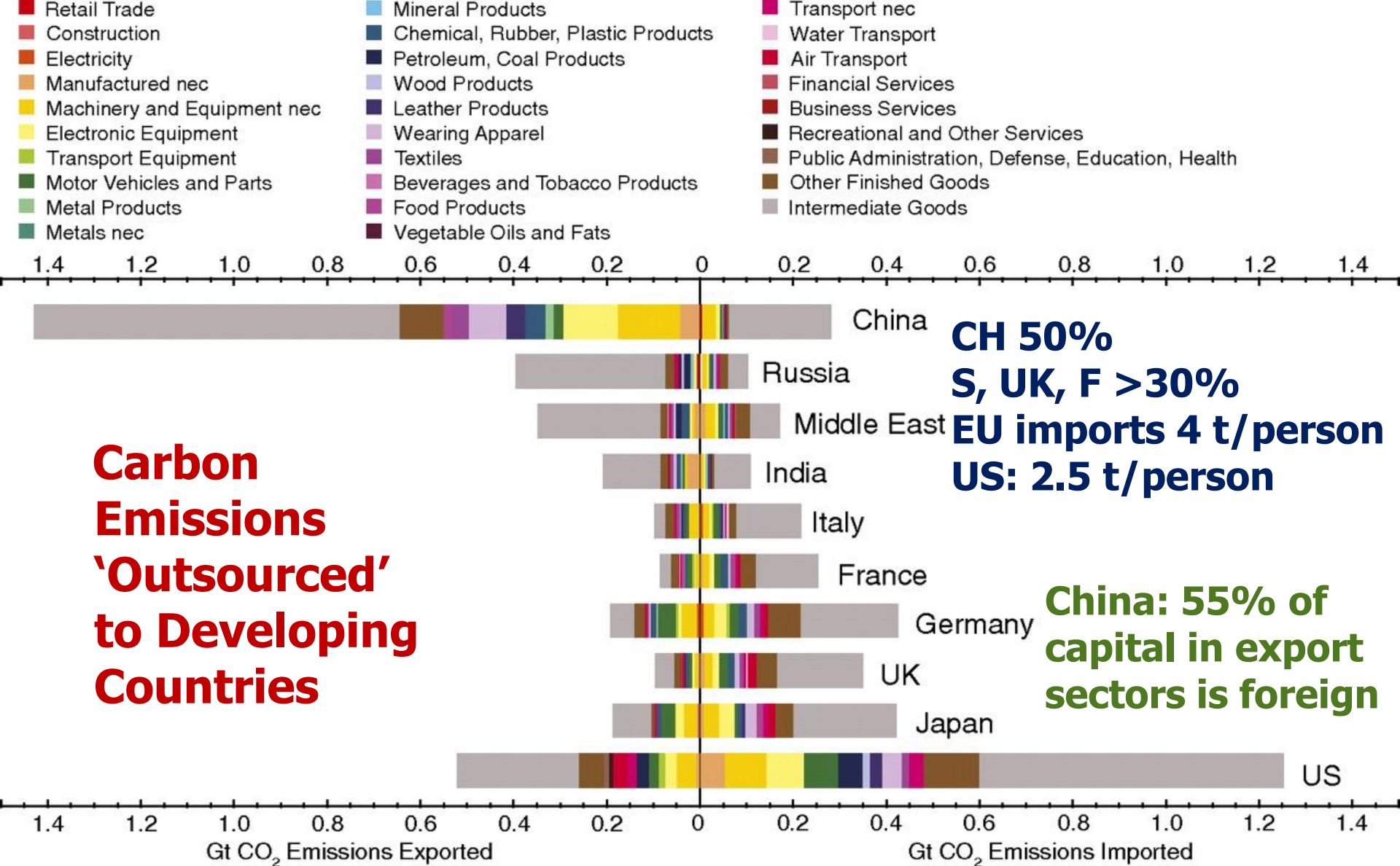
## Two good reasons

1. Overcome differences in carbon-intensity
2. Stop outsourcing of carbon consumption in Annex 1

## The global emissions budget



Source: Sivan Kartha, Bo Kjellen, Paul Baer and Tom Athanasiou, in Egenhofer, Kjellén, Kartha & Kumar (2008), *Positive Incentives for Climate Change Action: Some Reflections*. ECP Report No. 5, p. 19; [www.ceps.eu/books](http://www.ceps.eu/books) (free download)



Source: Steven J. Davis and Ken Caldeira, Consumption-based accounting of CO<sub>2</sub> emissions. Carnegie Institutions for Science (March 2010)

## **How does it work?**

- 1. Carbon import tariff is useful complement to domestic policy:  
Simple modelling: → a tariff always reduces global emissions**
- 2. Stand-alone domestic policies are ineffectual: lead to higher emissions globally because of significantly higher emission in imports**
- 3. Other ways to transfer the price signal on carbon to the rest of the world exist such as 'flexible mechanisms' but not be able to develop sufficient scale**

## How does it work? (2)

4. **WTO: exemptions for border measures exist a) if related to “conservation of exhaustible natural resource” AND b) if in conjunction with “restrictions on domestic production”**

**[= 30-35% EU reduction target by 2020, full auctioning ETS sector, carbon taxes for non-ETS sector]**

- Tax must reflect real price difference**
- Tax must be revenue-neutral**

## **How does it work? (3)**

- 5. 'External' accounting and measurement systems to identify carbon content of products exist or can be put into place (precondition)**
- 6. Equity concerns enshrined in "common but differentiated responsibilities and respective capabilities" can be addressed by rebating the proceeds of the import tariff according to 'responsibility and capability' (concepts to operationalise exist)**
- 7. Tax rates at \$40/tonne CO<sub>2</sub>: 4% (Brazil) to 16% (Russia); China/India: 8-9%; OECD: 2%**

## **Summary:**

# **Pricing carbon at the border addresses 'outsourcing' and huge 'carbon intensity differentials'**

- 1. A CO<sub>2</sub> border tax (in EU and elsewhere) *always* reduces emissions (and increases global welfare)**
- 2. Such a tariff can be made compatible with WTO rules**
- 3. There are no insurmountable practical obstacles to introducing such a tariff**
- 4. The equity concerns of the UNFCCC can be taken into account by rebating the proceeds of the tariff to those countries unable to shoulder burden themselves**

## **How realistic are EU border taxes? Some reflections**

- 1. With US de facto defection on new climate policy less realistic**
- 2. EU is divided but political momentum is growing: no decision soon**
- 3. Could trigger carbon export taxes**
- 4. The only tool the EU has**
  - No signs for a global agreement leading to significant reductions any time before 2025...**
  - Even Copenhagen Accord, a voluntary bottom-up commitment for a 3-3.5° C trajectory might not hold ...**
  - How realistic are alternatives, e.g. global cap and auctioning of emissions?**



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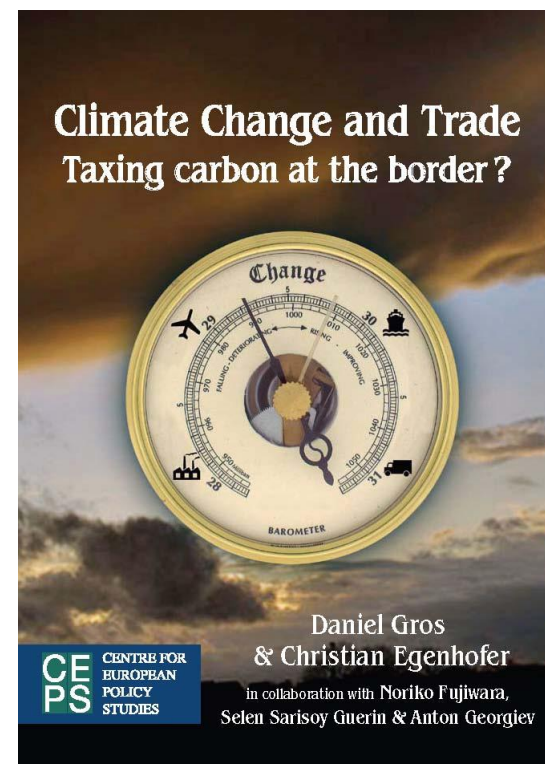
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