

## **Bruegel Policy Brief 2007:05**

### **'Why Europe is not carbon competitive'**

#### MEDIA MEMO

*'even where action is taken on a more uniform collective basis, concern remains that different countries will be affected differently'*

Stern Review Report on the Economics of Climate Change, 2006

#### **What question does this policy brief deal with?**

'Why Europe is not carbon competitive' deals with the costs of tackling climate change. When the world's leaders gather in Bali to discuss climate change at the beginning of December, the EU will push for a comprehensive global climate change regime to cut carbon emissions. Contrary to what is generally pictured, this policy brief shows that when considering the export mix, Europe is more vulnerable to such carbon pricing schemes than other countries and regions.

#### **What does 'carbon competitive' mean?**

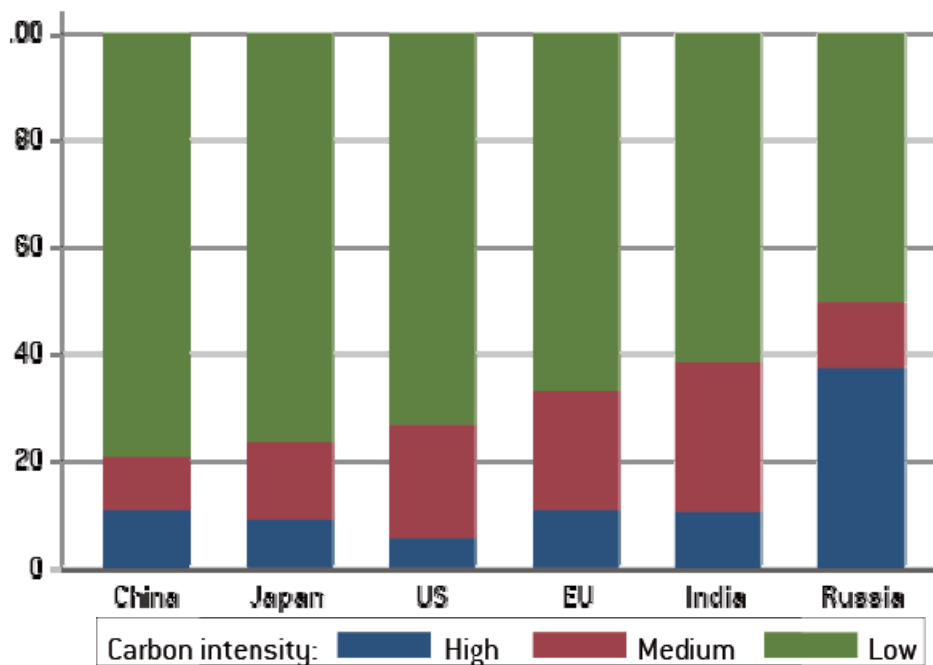
Climate change policies, in particular carbon pricing schemes, imply additional costs for firms. Some sectors will be more affected than others, therefore countries specialised in carbon intensive products will be more exposed to carbon pricing schemes. The carbon intensity of a country's export sector depends on three factors: the composition of the export basket; how the goods and services are produced; and how the energy used for the production is generated. The cost of carbon pricing schemes will make the export sector in different countries more or less competitive in line with these three factors.

#### **Why is Europe not carbon competitive?**

The EU's export mix contains more carbon-intensive products on average than US or East Asian exports. Highly carbon-intensive products, such as metallic and non-metallic mineral

products or refinery products, play a smaller role in US exports than in EU exports, while low-carbon products such as services and technology products constitute a larger share of US exports than of EU exports. China and Japan (and other East Asian economies) also have a larger share of technology products in their export mix than the EU does. In addition, China also exports low-carbon labour intensive products such as textiles.

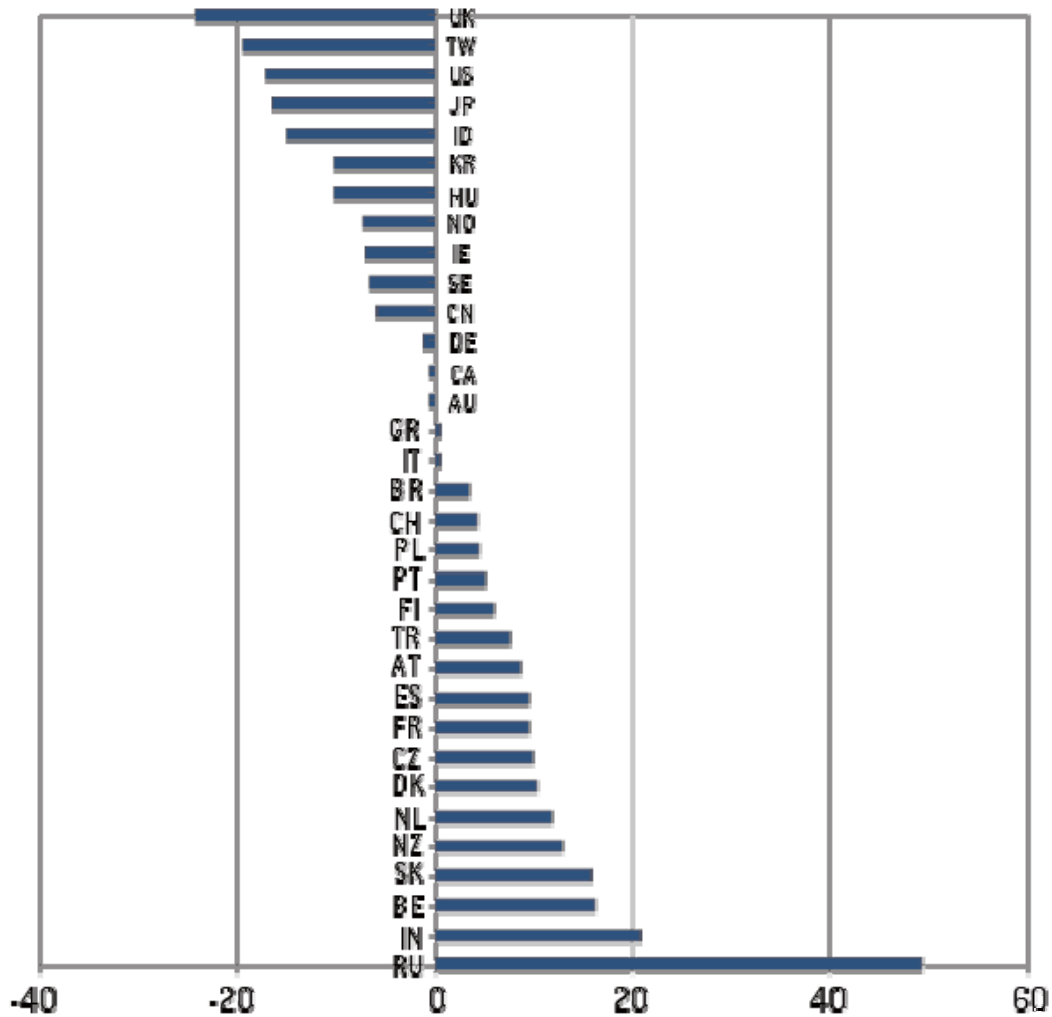
**Figure 1: Composition of the exportmix [%]**



**How does the design of a carbon pricing scheme matter?**

Putting a price on carbon is a way of creating incentives to reduce emissions. There are several schemes in place to price carbon, including carbon tax schemes or the setting of carbon emission quotas together with cap-and-trade schemes. Since pricing schemes do not usually cover all sectors, countries with the same carbon emissions profile can be very differently affected depending on which sectors causing the emissions, and whether they are covered by the pricing scheme or not. For example, the scope of the current EU Emission Trading Scheme would only cover between 45 and 55 percent of the carbon dioxide embodied in Irish, Danish and US exports, whilst covering nearly 65 percent in the cases of Sweden, Finland and Austria.

Figure 2: carbon intensity of the export mix [% with reference to EU avg.]



**What policy recommendations are given in the policy brief?**

The policy brief gives three recommendations that need to be considered for policy development in the area of cutting carbon emissions.

1. Ensure that policies allow emissions to be cut at the lowest cost
2. Reduce competitive distortions by pushing for widespread use of carbon pricing schemes
3. Avoid trade-skewing sectoral 'carve-outs' from such schemes at national level.