

EU has gone to Bali with objectives but without strategies

December 11th, 2007 by Juan Delgado, Brussels European and Global Economic Laboratory

Competitiveness concerns are high on the Bali negotiations. The European Union has put on the table an ambitious agenda committing to reduce emissions by 20 percent (with respect to 1990 levels), increase energy efficiency by 20 percent and increase the share of renewables in energy consumption to 20 percent by 2020. This agenda may however be in conflict with the low carbon competitiveness of EU exports.

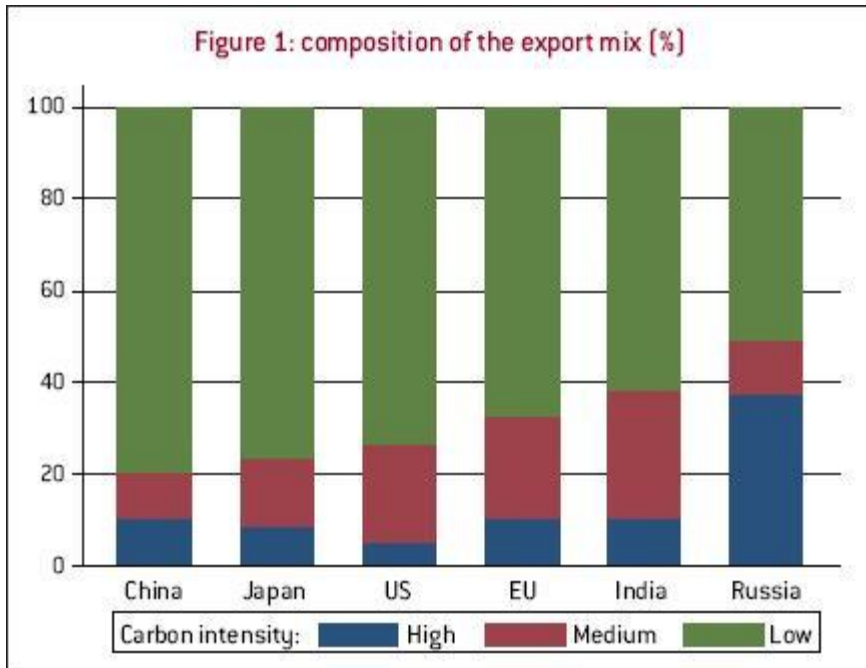
The EU climate change agenda is not free of problems and uncertainties. First, the architecture of the agenda is still pending. Europe has gone to Bali with objectives but without strategies. Second, European governments seem not to agree on their individual commitments. Accounts within the EU are not yet balanced. Finally, European businesses are calling for a relaxation of climate change policies especially in the (likely) case that other trade partners do not commit to similar targets.

The project of a green Europe leading the battle against climate change is under threat and some are even considering the use of defensive tools to protect Europe's competitiveness. The possibility of a border carbon tax is constantly being mentioned but is not yet widely accepted.

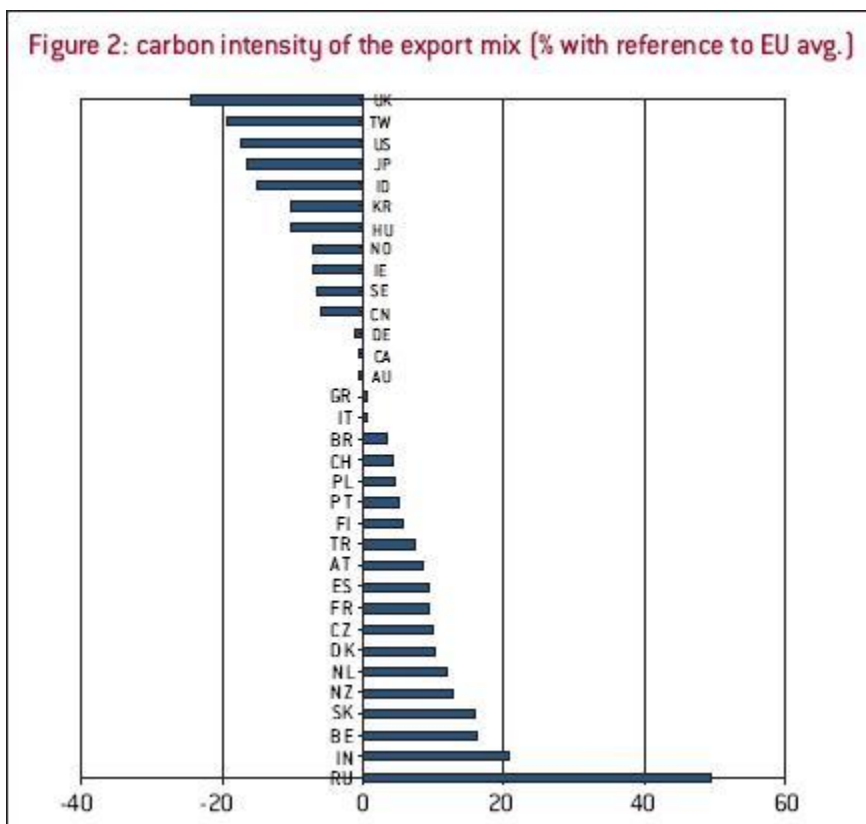
Europe's exports are relatively clean. On average, Europe exports 330 tonnes of carbon dioxide per million euros of exports while the US exports 448 tonnes (see the [Bruegel Policy Brief](#) this blog is based on). The picture is not so encouraging, though, when we look at the composition of these exports. What does the EU export? Europe's exports are more diversified than those of other trade partners (see [Baumann and Mauro](#), 2007): Europe exports capital, research and labour-intensive goods. This contrasts with the US and Japan, which are more specialised in research-intensive exports. China and other emerging economies specialise in labour-intensive products. In addition, China's exports are becoming increasingly research-intensive. Russia has an export specialisation in capital and raw materials-intensive goods.

This situation can be conveyed in terms of carbon intensities. Capital-intensive goods such as mineral products and energy are generally highly carbon intensive. Services and research-intensive goods such as machinery and equipment are low carbon intensive. Labour-intensive goods are low (textiles) to medium (pulp and paper) carbon intensive. Finally, raw materials (agriculture, food, and refinery) have a diverse carbon profile, from low to high.

Putting together the export mix and the sectoral carbon intensity we observe that the EU's exports contain on average more carbon-intensive products than US and East Asian exports (see Figure below). This is due to Europe's higher specialisation in capital-intensive goods and lower specialisation in services and research-intensive goods. 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 with low carbon intensity in their export mix than the EU. In addition, China also exports low-carbon labour intensive products such as textiles.



The carbon intensity of the US export mix proves to be particularly low: more than 15 percent lower than that of the EU (see Figure below). The export mix of East Asian countries is between six (for China) and 20 percent (for Taiwan) less carbon intensive than the EU. Emerging economies such as Brazil and India have a more carbon intensive export mix than the EU average due to their specialisation in raw materials.



What does this mean for Europe? The fact that Europe is more specialized in carbon intensive products than other trade partners means that the possibilities to reduce carbon emissions for Europe are more limited. Europe exports carbon intensive products but they are currently produced in a more carbon-efficient way. Reducing carbon emissions is more costly for Europe. In the long term, if other trade partners adopt carbon-efficient technologies, Europe will be more exposed to the burden of a carbon price than other countries.

Europe should therefore devote special attention to the design of efficient carbon mitigation policies. The way to reduce the competitive impact of climate change policies without undermining their effectiveness is not to reduce their scope or to adopt protectionist measures, but to develop efficient carbon markets with wide sectoral coverage that allow for reducing the cost of cutting emissions.

In practical terms, this means, first, implementing efficient carbon abatement mechanisms that allow emissions to be cut at the lowest cost. This requires not only a functioning carbon market but also removal of obstacles that hold up investment in cutting emissions in developing countries (where it is least costly), and active promotion of the development of technologies that reduce the cost of cutting carbon emissions. Second, increasing the coverage of carbon pricing schemes in order to maximise effectiveness and cost efficiency. This also allows more flexibility for cutting emissions across sectors, and reducing the competitive distortions across sectors. Finally, consistent coverage across countries and an efficient allocation of emission permits reduces trade distortions produced by asymmetric schemes or by arbitrary allocation of emission permits by national governments.

Europe is in a difficult position in Bali. It came with a suitcase full of good wishes but without specific measures to make those wishes real (nor even realistic). It risks leaving with an empty suitcase. Europe has yet to do its homework. And it is in Europe's own interest to do it, right, not only in order to secure the participation of other countries in any carbon scheme but also to make sure that the impact on Europe's competitiveness is alleviated.

Juan Delgado, Research Fellow at Bruegel