

Guest Commentary

Free allocation is no solution for carbon leakage

By Sander de Bruyn, senior economist, CE Delft

One of the main problems of international climate policies is the uneven distribution of responsibilities around the globe.

Due to concerns about fairness, historical obligations, or affordability, we all accept the preposition that wealthier countries, like the EU, should apply more stringent GHG reduction targets than developing countries like India or China.

However, at the same time we do not accept that our energy intensive industries face a competitive disadvantage against industries located in countries those countries. These two principles contradict each other to a large extent which means that international climate policies can be sketched as a very difficult path to climb.

The risk of carbon leakage is the main weakness of unilateral climate policies. Industries in countries under unilateral climate policies may lose market shares to industries in countries where carbon has no cost. This results in a loss of jobs and prosperity in countries that implement unilateral climate policies. In addition global emissions will rise, undermining the effectiveness of such climate policies.

The EU has always been aware of this problem. In the revised EU ETS directive it was stated that auctioning would be the prime mechanism of allocation under the third phase from 2013-2020. However, sectors facing a risk of carbon leakage are being offered continued free allocation of emission allowances. In the view of the European commission, free allocation of allowances can thus be regarded as the prime policy instrument through which carbon leakage is to be tackled. The idea is intuitively simple: as free allocation entails lower total costs for companies, the competitive impacts are less severe than under auctioning.

Economic theory, however, would tell us that competitive impacts of auctioning and free allocation are largely similar. EU ETS is a system that impacts on the marginal decision of firms: the decision to produce an additional unit given the fact that for this unit emission permits have to be bought or abatement technologies need to be installed. This marginal decision is similar under auctioning or free allocation. The company will only produce this unit if it can pass through the costs of allowances into the product prices. As the price on product markets are by definition equal to the marginal production costs of the marginal firm, it is clear that

this firm must pass through the costs of CO₂ emission allowances into its product prices, otherwise it will not produce anymore. There is thus a strong impetus in the market to pass through the costs of CO₂ emission allowances into product prices.

Empirical evidence is growing that various industries indeed have passed through the opportunity costs of freely obtained allowances. This seems to be valid at least for some of the energy-intensive sectors in the EU ETS, like refineries, steel and chemicals, according to two recent studies by CE Delft. Price changes in the carbon markets are, with some delay, reflected in the product prices in EU markets relative to the prices in US markets.

Higher prices in EU product markets due to the EU ETS implies four things. First, it is likely that imports from industries in non-capped countries have been growing, resulting in carbon leakage. Second, the higher prices at EU markets have created windfall profits for energy intensive industries. Income of EU consumers, paying higher prices for their energy-intensive products, is being transferred to the shareholders of energy-intensive companies. If EU consumers demand compensation through their wages, the ETS ultimately implies that labour-intensive industries are subsidising energy-intensive industries through the EU ETS. Third, the windfall profits imply that marginal companies, that would not be profitable without an ETS, can stay in the market implying that the demand for emission allowances is higher and prices on the ETS markets rise. While this may seem good news for some environmentalists, the drawback is that high ETS prices create political obstacles to move to higher targets. Fourth, the current ETS that creates windfall profits for not doing anything does not steer innovation towards more clean technologies and does in itself not much for industry facing competition with China and India either.

Auctioning and installing protective measures, like border tax adjustments or carbon-zero innovation policies, seem to take away most of these drawbacks and should therefore be reconsidered as a way for the EU to install unilateral climate policies without affecting the competitive position of its industry too much.

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