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INTERNATIONAL STRATEGIES TO ADDRESS COMPETITIVENESS CONCERNS

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Background and Objective:

If countries and regions implement climate policy with significantly different CO_2 price signals, then this might result in leakage and competitiveness distortions. The workshop discussed methodologies and empirical data to assess which sub-sectors could be affected and what strategies would be available post 2012 to address concerns in these sub-sectors.
The workshop build on the results of previous round tables on investment security, and on sectoral agreements and output based allocation to address competitiveness concerns. The role of export taxes and border adjustment as means to address leakage concerns was also discussed.

1 Panel 1: Quantifying the impact on industrial competitiveness

How are trade-exposed industries affected in regions where government implements a higher CO_2 price signal? This session presented and discussed approaches using quantitative analytical tools qualitative strategic approaches and quantitative estimations based on estimations of historic trade elasticities. An additional dimension that received increasing attention during the discussion relates to the demand-side substitution effect - to what extent CO_2 prices drive a substitution away from CO_2 intensive (intermediary) products and thus contribute to emission reductions?

1.1 The quantitative analytic approach has three dimensions:

The cost increase industry faces due to CO_2 prices can be compared to the value added, a metric referred to as “Value at Stake”.

At an aggregate level – looking at the EU economy – costs for CO_2 allowances (at 15 Euro/t CO_2) correspond to 0.4% of GDP. At this level they do however not increase cost for European industry by 0.4%, because where allowances are sold government can use the revenue to reduce other taxes.

The analysis focuses on sectors and sub-sectors using 3 and 4 digit resolutions of Standard Industry Classification (SIC 92). It identifies specific sectors that have (i) high process emissions of CO_2, (ii) high energy consumption resulting in CO_2 emissions (iii) high electricity consumption and cost increases if electricity prices reflect CO_2 costs. The analysis using the 4-digit level highlights that CO_2 emissions tend to be found in specific sub-sectors within each industrial sector. As the CO_2 insensitive sub-sectors do not correspond with the GVA (gross value added) intensive, the cost increase relative to value added increases as the sectoral resolution is higher.

The analysis based on German and UK data identified similar sub-sectors that exhibit high cost increases relative to value added, and a more detailed comparison of the data is envisaged. It suggests that the cost increase relative to value-added (“Value at Stake”) is a robust quantitative indicator.

The second dimension of competitiveness relates to the **international trade exposure.** Sectors with significant volumes of imports from and exports to countries outside of the area with high CO_2 price signal are likely to pass not all the CO_2 costs to product prices. However, trade-intensity is an imperfect indicator for the ability of sectors to pass on CO_2 costs to product prices, because international trade exposure is a dynamic parameter that depends on and can change with the

industry structure of a country. For instance, while the level of steel traded outside of the EU is insignificant for Germany, it represents a large component of the UK market.

The third dimension of competitiveness was introduced with the value chain. Figure 1 illustrates the consecutive steps involved in steel production. First, in the basic oxygen furnace (BOF) iron ore is reduced to semi finished steel, which is then hot rolled and subsequently further refined to specific iron and steel products. Most CO_2 emissions result from the first stage, therefore cost increase relative to value added is highest at this stage. The wider these costs are spread across subsequent production steps, the lower will be the relative cost impact.

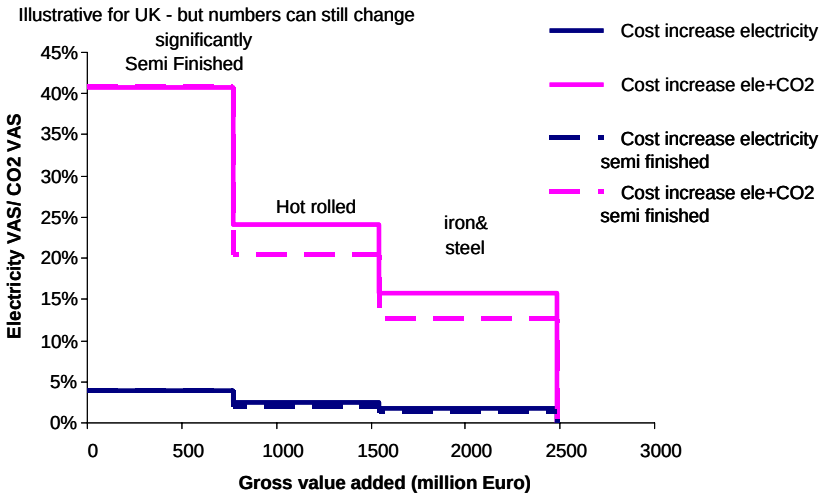

Figure 1 Value chain of steel production

First, this raises the question as to whether parts of the value chain can be relocated individually. If semi-finished steel is produced in a region with lower CO_2 prices, then most of the cost increase due to CO_2 emissions is avoided. The effort required for this relocation is lower than for the relocation of the wider value chain, so is the impact for the overall economy. However, as most CO_2 emissions are related to this production stage, the leakage effect remains of a similar size.

Second, integrated steel works historically combine BOF with hot rolling. The current trend is to strengthen the link by directly using the melted steel from BOF for hot rolling, so as to avoid energy consumption in repeated heating cycles. The stronger link reduces the incentive for re-location. However, this also implies that once a relocation incentive from high energy costs exists, there might be a relocation not only of the BOF but also of the hot rolling plant.

Third, in the figure the cost increase due to CO_2 in later production steps can be identified by comparing the total cost increase (solid lines) to the cost increase induced from the BOF (dashed line). This later cost increase is relatively low, suggesting that the dominant concern for competitiveness relates to emissions associated with the first production stage producing the rather homogeneous product ‘semi-finished steel’. This product can be easily measured by its weight even in its contribution to subsequent production stages.

Combining the assessments from the sub-sectoral analysis with a preliminary judgment as to the role within the value chain, one might draw the following conclusions.

Semi finished steel, clinker (input for cement), lime, basic glass and perhaps basic chemicals from steam cracker (ethylene, propylene, butene and aromatics) and ammonia as well as pulp have the characteristics of high CO_2 intensity, relatively low value added and tend to be rather

homogeneous products that are already or can be internationally transported.

Chlorine, aluminium and copper also have high costs increases, in their case due to electricity price increases. Chlorine is a very hazardous substance and therefore transport might be restricted, leaving aluminium and copper as the two dominant substances exposed to electricity price increases.

1.2 Qualitative Strategic Assessment

The preceding discussion focused on the impacts of CO_2 prices on cost structures. For several commodities production has been maintained and even additional investment has been observed in regions that exhibit significantly higher cost structures. This can be explained by **product attributes** defined in a wider sense (transport, trust, quality, trade barriers, etc.). Production close to (industrial) consumers allows better timing and quicker responses to customer demand and creates a higher level of trust. Uncertainties about transport cost, potential trade barriers and other bottlenecks translate into additional risk discounts or costs with international production. While the rapid globalisation of players in the steel, cement and chemical industry might reduce some of these barriers, additional uncertainties are emerging, e.g. relating to transport costs and other policy responses to climate change. While surveying industry participants might reveal the relative importance of different product attributes, it is more difficult to quantify their absolute impact.

A second dimension relates to strategic considerations of companies. CO_2-intensive production processes of semi-finished steel, cement production, or steam crackers for chemicals exhibit high capital costs. Most of these costs are recovered in years when scarce production capacity results in scarcity premia. Hence producers are used to taking long-term perspectives on investment and operational decisions. But this does not imply that structural changes cannot transform the industry. For example, integrated steel mills used to buy iron ore and coal on global markets. High scarcity prices for iron ore cut into the margins of steel companies that did not own iron ore mines and induced vertical integration.

The discussion confirmed that the impact of CO_2 price differentials on corporate decisions is strongly influenced by product attributes and the strategic perspectives taken by management. Further research to understand and quantify the impacts focusing on the specific characteristics of individual sectors would be very valuable. The challenge is that multiple story lines can be used to justify behaviour *ex post* and even more so to describe future strategies. This complicates the use of robust evidence as input for political processes.

1.3 Quantitative Estimations

Some quantification of how trade flows are affected by price differentials is in principle possible and can be calibrated using historic responses of trade flows to price differentials. As historic trade flows were observed in the presence of above described product attributes, the estimations should reflect these attributes. Combining these estimations with estimations about the price pass through of CO_2 costs to product prices, Demailly and Quirion (2007) estimated the impact of CO_2 price differentials.

While the qualitative results are plausible, the absolute numbers might underestimate the competitive distortions from asymmetric CO_2 prices for the following reasons: First, trade elasticities are typically estimated using annual price changes, and might therefore not reflect investment or other strategic decisions discussed in the previous section. Second, in order to reflect the different product attributes, the model has to assume separate demand channels for domestic and foreign products. This might underestimate the level of product homogeneity. Third, the level of sectoral aggregation does not reflect the opportunity of separate imports of intermediary products like clinker or semi-finished steel.

The approach thus offers a promising avenue that allows qualitative comparison of different effects, but requires further research to provide robust quantitative results.

1.4 Demand impact

An additional dimension of competitiveness impacts that is often overlooked in the debate is the impact of product price increase on demand substitution. Starting with the hypothesis that higher product prices can shift demand away from CO_2 intensive products, this study examined the level of price change required to induce demand response. As indicated in Figure 2 the estimates from econometric regressions using dynamic panel models were found to be significant.

These results underline the importance of effective pricing incentives to drive consumption away from CO_2 intensive products. Measures designed to level the playing field between domestic products (produced subject to a positive CO_2 price) and imported products (from countries without a CO_2 price) should avoid distorting efficient pricing signals. This analysis also paves way for further research on reducing estimation uncertainties and estimating cross-elasticities between commodities.

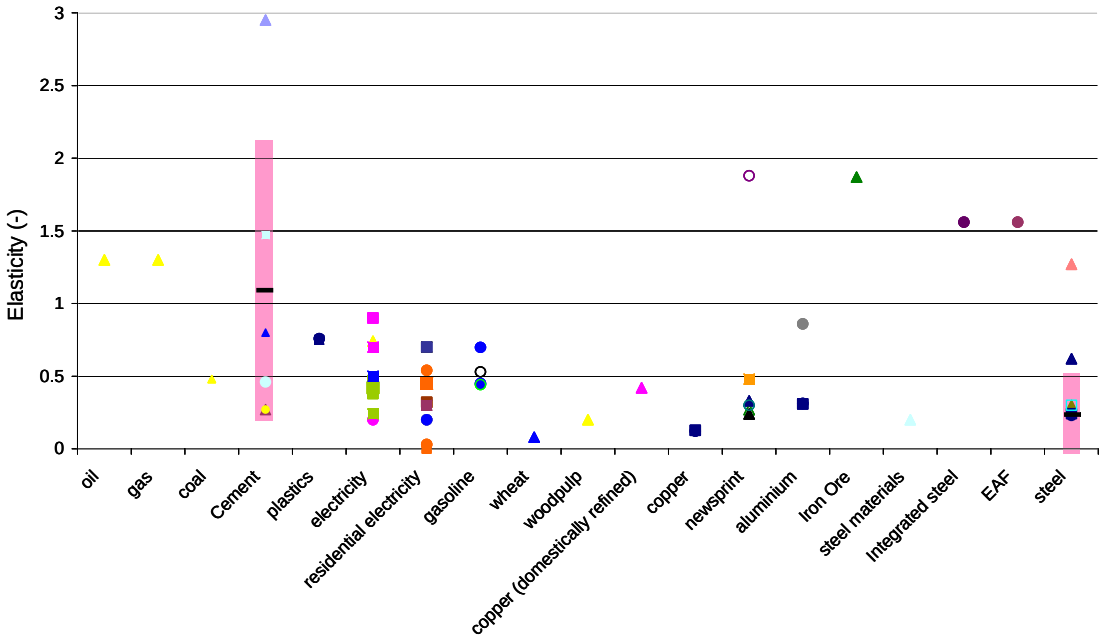

Figure 2 Price elasticities of demand for several commodities – from literature and own estimations
Source: Sato and Neuhoff

1.5 Should we be concerned?

Drawing all the different aspects together, the final discussion focused on whether we should be concerned about competitiveness distortions from CO_2 price differentials . After all, most other taxes, regulations and infrastructure provisions are internationally heterogeneous.

Arguments for addressing leakage in specific sub-sectors are formed around the following reasoning.

- Leakage. In production processes where asymmetric CO_2 prices lead to re-location of

investment or production, the policy will not drive domestic emission reductions and therefore reduce the domestic level of effort, i.e. relocation leads to carbon leakage.

- Pollution havens. Recent international comparison of CO_2 or energy efficiency of new production sites across the world give little evidence that re-located production would be more CO_2 intensive than domestic production. However, this picture might change if stringent CO_2 policies would result in different investment choices. Transport emissions must also be taken into account.
- Pass through. If strong international competition reduces pass through of CO_2 costs then it also reduces the substitution effect away from CO_2 intensive (intermediary) products.
- Dynamic incentives. Where competitiveness distortions prevent new investment into a specific production process in regions with high CO_2 price signals, it also reduces the incentive for innovation towards reducing the CO_2 intensiveness of this production process.
- Political support. The overall impact on the economy resulting from leakage might be very small (<1% of GDP). However it could be difficult to win international support for climate policy instruments, if they induce relocation, and thus job losses, rather than real emission reductions.
- Eastern Enlargement. Industrial production of basic materials like steel or basic chemicals might be more important for some new Member States of the EU. Thus, competitiveness distortions for existing or new investment choices might likewise affect these countries more. This should however not result in relaxation of the environmental regulation as it might reduce the use of best available technology and thus longer-term viability of the investment.
- Fairness. The argument of fairness emerges across various political debates. Investment choices are implied to be unfair where closure of a facility in one country can be directly linked to a new investment in regions where CO_2 prices are lower.

2 Panel 2: Economic instruments to tackle competitiveness

The previous section illustrated that in most industrial sectors competitiveness will not be significantly affected from emission trading. Direct and indirect exposure to CO_2 costs are low and governments can reduce overall tax burden using revenue from CO_2 allowance auctions.

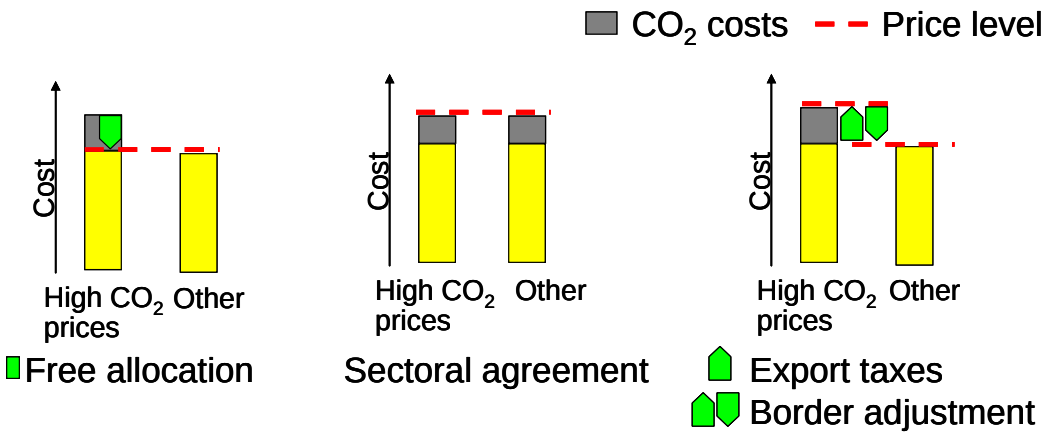

Figure 3 Three types of policies were discussed to create a level playing field for exposed products

Figure 3 illustrates three types of approaches that were discussed to address concerns for the remaining sectors. (2.1) Free allowance allocation using benchmarks to reduce the CO_2 costs and product prices in the region exposed to higher CO_2 costs. (2.2) A variant discussed was to provide

direct subsidies as state aid. (2.3) Sectoral agreements to address competitiveness concerns by engaging other countries to implement similar CO_2 prices for industries in the specific sector. (2.4) Export taxes implemented by countries with lower CO_2 prices or some form of border adjustment implemented by countries with higher CO_2 prices.

2.1 Free CO_2 allowance allocation

Installations that receive allowances for free do not face net-costs from emission trading. Does free allowance allocation therefore address leakage effects?

If allowances are allocated as a **lump sum** for the period 2013-2020, then this might not address leakage concerns. Installations might still decide to relocate and sell their allowances. Free allowance allocation therefore has to be made in some way conditional on continued operation if it is to address leakage concerns.

If allowances are allocated proportional to historic emissions, this creates a strong early action problem – industry has little incentives to invest in emission reductions if the result are lower future allocation levels. It is generally accepted that any free allocation should be based on some **benchmark** to at least retain the incentive to improve efficiency within the production step.

After the Commission's State Aid decisions on the Austrian NAP, the benchmark level can not exceed the CO_2 emissions of the best available technology. However, if industry participants fear that innovation will reduce the future benchmark level, then this creates a disincentive for innovation. Any firm that applies a new technology with lower emissions will reduce the free allocation it receives on all existing facilities. Hence the benchmark has to be set below the emission level that can be expected from any innovation so as to retain the incentive for efficiency improvement. To reflect the efficiency improvements over time, a declining benchmark rate can be announced.

The benchmark can be **applied to** (i) installed production capacity, (ii) production volumes pre 2007 (iii) to production volumes pre 2012, or to (iv) production volumes post 2012, e.g. proportional to current or very recent output.

Where industry expects production volumes are the basis for future allocation decisions, this creates an incentive to increase production (cases iii and iv). In simple economic modelling this effect reduces international leakage of production. While explicit output based allocation – as implied by option (iv) – has been deemed not acceptable by the commission, it might implicitly result from restrictive closure conditions. If allocation is conditional on exceeding threshold level of operation, this can have similar economic incentives as allocation proportional to production volumes.

However, the subsidy provided to producers prevents the product price to reflect the CO_2 externality costs and results in higher consumption of CO_2 intensive products than efficient. We suggest labelling this effect 'domestic leakage'.

Allowances can be allocated at different stages of the value chain of a production process. This can be illustrated at the example of cement production. Allowances can be allocated for the clinker production (upstream) or for the cement production (downstream).

If allocation is downstream – e.g. conditional on cement production – then this does in principle not address emission leakage as cement producers might import the CO_2 intensive intermediate product clinker. If however allocation is upstream to avoid cost increases of clinker, then the incentive to reduce the clinker use in the cement production is eliminated. In both cases, the conditional allocation aims to prevent the increase of cement prices, and thus undermines the

substitution away from cement to less CO_2 intensive construction materials or more efficient use of cement (domestic leakage).

The profitability of any innovations that compete with cement is also reduced if cement prices do not reflect CO_2 externality costs.

Finally, the conditional free allowance allocation will likely require a precise definition of the involved production process and exact specification of the benefiting products. This will create artificial constraints for the innovation of process and products.

2.1.1 Summarising

Free allowance allocation is frequently discussed as a means to address international leakage in sectors where products are competing in international markets. To the extent that free allowance allocation succeeds in preventing prices to reflect CO_2 externality costs, it contributes to domestic leakage. Where product prices do not reflect CO_2 externality costs, consumers and industry do not substitute these products at an efficient level with lower Carbon alternatives, and thus increase CO_2 emissions.

In addition the implementation of free allowance allocation to address leakage will require restrictive definitions of the products that are basis for free allocation, the production volume, timing, process, and perhaps even the choice of input factors. This administrative overhead can severely restrict the flexibility of operation, investment and innovation decisions of industry, and thus increase the costs of emission reductions. It will also imply that companies' financial success hinges on close government links rather than innovative and competitive market performance. This creates perverse incentives for selection of successful managers, successful companies and development of corporate strategy - damaging international competitiveness of the industry.

2.2 Granting direct State Aid to firms

If state subsidies are to be allocated in order to address competitiveness concerns, the question was raised why governments would not use direct state aid for affected firms rather than using an indirect allocation of free allowances.

Thus any firm would have to demonstrate the specific circumstances that necessitate the aid, potentially resulting in evidence based allocation of subsidies.

However, if this would require a change of state aid legislation then implementation seems rather unlikely as long as unanimity is needed to change primary EU law. However, the environmental guidelines are currently under revision and might offer some opportunity to take ideas forward.

2.3 Sectoral agreements

We have explored several options of government based and voluntary industry led sectoral agreements. Addressing competitiveness is often a secondary goal underlying sectoral agreements to encouraging developing country participation.

Voluntary agreements that aim to address competitiveness concerns have to expose firms to similar levels of CO_2 costs. It is difficult to envisage how a firm would voluntarily join such an agreement as they are not in line with the traditional three driving forces for such agreements (i) creating a competitive advantage for participating firms (ii) adoption of minimum standards of good practice (iii) responding to a threat of a potential national government intervention.

One idea sometimes proposed is to exempt sectors from EU ETS and therefore avoid direct

exposure to CO_2 prices. Sector participants instead commit to deliver global emission reductions. Definitions of base lines to measure and responsibility for delivery of such agreements are complex. They also tend to focus on the application of best available technology, which tends to be more widely applied in new installations in developing countries than in some old installations of developed countries. Finally, they tend to represent a step backwards from CO_2 cost internalisation.

Government-led sectoral agreements could in principle deliver the desired price signal. By focusing on CO_2 pricing in specific sectors it might be easier to gain international support for such policies than by expanding the outreach to the entire economy of participating countries, perhaps supported by programmatic CDM projects.

It seems that in the short to mid-term, voluntary sectoral agreements are unlikely to directly address leakage of exposed sectors. In addition to the aspects discussed above, sectoral approaches face the additional challenge of commitment. Cost differences are likely to receive most attention at times when low global demand drives prices down to variable costs and induces closure of installations with highest costs. Sectoral agreements might break, or could be expected to break, at these times.

Sectoral agreements can play a more important role in engaging a wider set of countries in pursuing climate policy. Focusing on this primary objective and alleviating any negotiations from 'impossible' secondary objectives like addressing leakage might benefit and accelerate the process. This could indirectly reduce leakage – an accelerated implementation of climate policy across regions is likely to reduce the leakage.

2.4 Export taxes and border adjustment – economic dimension

2.4.1 Export taxes

Export taxes are already implemented by China on some energy intensive commodities as the country wants to sell higher value products that have (i) lower local environmental impacts (ii) do not increase the energy import dependency of China (iii) allow for higher margins. Egypt recently implemented export taxes for cement and clinker, apparently to reduce export driven domestic price increases that negatively affected domestic construction.

It seems that currently few countries want their industry to export basic CO_2 intensive commodities. Thus they could be prepared to implement export taxes on the commodities identified as particularly strongly affected by competitiveness concerns.

2.4.2 Border Adjustment

A more comprehensive measure than an export tax would be border adjustment. The idea might be easiest explained using the example of existing scheme of Value added taxes: If a car is bought in Germany, then the sales price includes the value added tax that was accrued over the various production steps. A trader exporting the car to Switzerland will ask the customs office to reimburse the German value added tax. The Swiss customs office will levy on the import of the car the Swiss Value added tax.

Border adjustments at the level of CO_2 costs create a level playing field with regard to CO_2 prices among producers operating in countries or regions with different CO_2 prices. The following dimensions can be discussed for the implementation of border adjustments:

First, how is the level of the border adjustment is related to the CO2 emissions per unit of the commodity? One proposal is to identify the best available technology and to set the adjustment level at the CO2 emission rate of that technology. This approach will not discriminate against

producers in regions covered by lower CO2 prices, as the border adjustment will not impose a higher cost on them than on producers in regions with high CO2 prices who can either produce with best available technology or older technologies and thus higher emission costs.

It has been proposed to scale the level of adjustment by an effort rate that reflects the share of allowances a sector has to buy in auctions and the level of abatement achieved. While this scaling might not necessarily reflect the costs the producer faces in this country, it would improve the incentives for countries to pursue stringent climate policy.

Second, should the adjustment be in allowances or in money terms? Adjustments using allowances require importers to buy allowances to cover the CO_2 embedded in the imports and to compensate exporters with allowances that were required for the production of the commodity. This ensures real emission reductions rather than emission reductions from leakage. Alternatively the adjustment rate can be multiplied with the market price for CO_2 allowances at the time when the commodity is physically exported/imported to allow for adjustment in money terms.

Third, how far down the value chain is the adjustment applicable? In the cement example (Figure 1), the CO_2 intensive commodity is the clinker. Adjustment could be applied to clinker at the level of CO_2 intensity of producing clinker with the best available technology. In this case clinker costs and prices would increase in regions with higher CO_2 prices. This would significantly increase the costs of producing cement in these regions providing incentives for the relocation of cement production. This suggests that border adjustment is also applied to cement for the clinker content of the cement. Moving down the further the value chain, the cost increases for concrete products due to higher clinker prices are small relative to the value added and concrete products are difficult to transport internationally, suggesting that no border adjustment would be required.

The example illustrates that border adjustment might only be required for the CO_2 emissions of the CO_2 intensive commodity and not for subsequent (smaller) CO_2 emission levels. The number of adjustment levels that would be required to a very small number of specific commodities (clinker, semi-finished steel, some basic chemicals). The adjustment is likely to be only required at the early stages of the refinement of the product, where quantities are homogeneous hence straightforward to measure and apply adjustments (i.e. clinker, cement, not concrete, or semi-finished steel, refined steel, not cars[2]).

Given the long list of negative experiences developing countries had with import taxes levied by developed countries, credible measures are required to address the concerns. One idea emerging from the discussion was to channel any net revenue into an adaptation fund for projects in developing countries.

3 Panel 3 Institutional and legal aspects to address competitiveness and provide investment certainty

The discussion of the institutional and legal aspects of instruments to address competitiveness concerns started with a short review of the objectives that are pursued with the implementation of the instruments.

[2] The question emerged, whether border adjustment for semi-finished steel should be implemented at the emission level of Basic Oxygen Furnaces or the significantly lower emission levels that can be achieved when scrap metal is recycled in electric arc furnaces. As border adjustment will cover also scarp metal it will also increase scrap prices (and increase incentives for recycling) while not offering a competitive advantage for electric arc furnaces as the input price increases. As most CO_2 emissions are related to the primary production of semi-finished steel, the border adjustment would be applied at that level.

As most leakage will result from investment choices, the objective for any of the instruments is to provide long-term confidence for market participants that a specific locational choice will not expose them to strong competitiveness distortion. The presentation and discussion indicated that sectors differ in how they assess related uncertainties and what political signals, legal and institutional framework, they require to develop that confidence.

Two generic results are (i) that instruments have to offer some long-term confidence, and (ii) that levels of uncertainty across different aspects of climate policy add up and increase the complexity of decision making. Where this uncertainty is not reduced, it might undermine the Carbon signal such that organisational inertia results in business as usual decisions. (iii) That policy instruments have to be sustainable at times of downturns for sectors or economies. These are the times when producers are most sensitive to cost differences and thus the times when these instruments are most needed. But they are also the times when political pressure on governments or firms to relax export taxes or seize participation in sectoral agreements could be strongest.

Regarding the free allowances allocation it was noted that it might face increasing challenges under European state aid law and be perceived as subsidy by the WTO. The frequently raised question emerged, how important the independence of institutions is to decide on free allowance allocation, in order to achieve a more technical and less distorting approach..

Regarding sectoral agreements, it was discussed to what extent these agreements, where signed between private sector participants, raise anti-trust concerns and how they could link up to international frameworks like the UNFCCC process. We refer to forthcoming documents of the IEA for a more detailed analysis as to how sectoral agreements can achieve other objectives.

Export taxes seem to raise no concerns under WTO rules. We did not discuss processes and possible means of coordination that could result in a wider set of countries to implement such taxes. In response to the concern that export taxes might be scrapped by the national government when the specific sector faces a slump (and the export taxes would be most required to contribute to a level playing field), one proposal was to link export taxes to border adjustment. The export taxes could be imputed against import taxes. Where both are at the same level, the import tax is ineffective as long as the export tax stays in place and at the same time creates incentives to retain the tax in place.

The legal dimensions relating to border adjustment were discussed in some detail. The two main aspects are illegal subsidies/discrimination (under the most favoured nation as well as under the national treatment clauses) and admissibility of any discrimination based on international environmental agreements and/or the justification provisions of the GATT. The implementation of border tax adjustment at the level of best available technology where allowances are auctioned for sectors does not seem to create discrimination against foreign producers relative to a situation where the sector could, in the absence of BTA, not be exposed to the full CO_2 price signal. This reduces the reliance on the alternative approach for justification. While the alternative approach would in principle grant more freedom to adopt a more stringent solution, it might be more difficult to overcome the legal obstacles. Setting border tax adjustments at best available technology would avoid problems both with regard to the most favoured nation and the national treatment clauses of GATT.
It was noted that there exists no ex-ante clearance process for the instrument. Instead, countries and regions can implement border adjustment and might subsequently be challenged.

There are historic examples of countries implementing trade related measures to provide their domestic industry with a competitive advantage for the period until these measures have been successfully challenged in WTO litigation. However, this does not seem to be a viable approach given (i) the objective to provide overall positive attitude toward climate change (ii) the need to

provide security for investors regarding competitiveness concerns over a duration relevant for their investment decisions (iii) the perspective that border adjustment could support global climate policy for some time until CO_2 prices are harmonised. Using a safe approach that minimises risk of legal failure and signs up support of multiple countries early on was seen as an important objective.

This also relates to the question, which institution would determine the level of best available technology used for the border adjustment. Producers in regions with low CO_2 prices have an interest to demonstrate that a very efficient technology exists so as to minimise the level of border adjustment. In contrast, producers in regions with high CO_2 prices might be interested to provide information that demonstrates that production processes are more CO_2 intensive. Thus, the institution determining the level of border adjustment is in the favourable situation of receiving information from both perspectives so as to make a well informed technical judgement. Institutional independence and international participation will increase the credibility of the decision and is likely to reduce the international opposition.

4 Panel 4 – International politics of competitiveness

The ongoing debates and emerging concepts for CO2 allowance trading at state and federal level in the US and Australia illustrate that allocation and competitiveness are not only at the core of the European debate, but also are important dimensions that seem to prompt somewhat different responses in other regions.

The Regional Green House Gas Initiative (RGGI) among states in the North East of the US will implement emission trading for the power sector when launched in 2009. Most of the states that have decided on the allocation methodology envisage 100% auctioning of allowances. Leakage and competitiveness distortions, mainly relative to neighbouring states, will be monitored. At this stage no explicit measures to address potential distortions are envisaged.

In the discussions on emissions trading in California, leakage relative to neighbouring states is again an important topic. Both free allowance allocation and border adjustment are discussed as measures to address concerns.

In the Australian debate the proposals for emission trading, initially brought forward by the states' initiative, have been adopted with small alterations by the federal government. Competitiveness concerns, mainly towards third countries, have a strong impact on the discussion and proposed design choices. State level initiatives could not implement international border adjustments towards third countries and resorted to free allowance allocation options. These were transferred to the federal government proposal and remain the main mechanism currently in the discussion.

As the debate across the world evolves in parallel, one big concern is that all schemes might lock into a second best solution. As some countries start to use free allowance allocation to address competitiveness and leakage concerns, others will follow. It seems rather difficult to subsequently find a way to move away from that pathway. Such future improvements would be particularly difficult where time frames for which allocation decisions are fixed differ between countries. Sunset provisions that condition free allocation to ongoing competitiveness/leakage concern might improve the situation but do not address the coordination problem.

Given their ambition to take leadership in climate policy, European countries might want to carefully consider the signals they send and the pathways onto which they move the debate, when using free allowance allocation post 2012.

Non of the solutions to address leakage are easy. Agreement is strong that solutions are complex. For example, the political implications of border adjustments received attention during the

discussion. Developing countries have a long experience with import taxes being used to their disadvantage, and are likely to react with suspicion towards any new tax measures. This may, however, be reduced by introducing clear definition, credible restraints on application, use of net-tax revenues for adaptation funds, complementing measures using sectoral agreements, bilateral agreements or CDM credit flows. Early engagement to develop a shared understanding of each others' challenges and concerns can build a basis and trust to take such ideas carefully forward. Not least, the capacity building for dealing with climate-related trade instruments needs to be integrated into this process.

Perhaps the effort is worth while. Negotiations to define national emission targets will continue to be challenging over the coming decades. Retaining the flexibility for countries to use a different mix of policy instruments to achieve their targets is likely to facilitate the negotiations. But it can imply that countries will continue to put different emphasis on the CO_2 price signal, and implement trading and tax schemes with significantly differing price levels. If we manage to develop some border adjustment mechanism that provides the economic, institutional and legal basis for countries to implement stronger CO_2 price signals where the political, economical and social circumstances allow for it, then this could accelerate global decarbonisation.