

**Direct payments/state aid:
Incentives for investment and operation
without leakage**

Workshop

“Unilateral Climate Policies and Carbon Leakage”

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Starting points (which shall not proved or challenged here)

- **There is enough evidence for significant leakage (?)**
 - **Something shall be done to avoid leakage (?)**
- **The sectors / products which face serious leakage problems can be identified**
- **The leakage problems result from direct and from indirect costs generated by the EU ETS**
- **The structure of the industries is important**
 - **ETS/nonETS competition via markets**
 - **ETS/nonETS competition within a company**
- **Especially the indirect costs could differ significantly among the EU Member States**
- **As less distortion of the CO2 price signal as possible**
 - **from the measures to deal with leakage**
- **International climate regime emerges**

- **Operational leakage**
 - **The additional costs from the EU ETS lead to**
 - **reduced capacity usage / plant closure under the EU ETS**
 - **higher capacity usage of installations outside the EU ETS**
 - **new investments in capacities outside the EU ETS (compared to BAU)**
 - **higher emissions in total**
 - **Relevant for**
 - **production processes with low capital intensity (compared to CO2 costs)**
 - **sectors with high surplus capacities outside the EU**
 - **short-term horizon**
 - **(More or less) easy to identify**

- **Investment leakage**
 - **The additional costs from the EU ETS lead to**
 - **less new investments in capacities outside the EU ETS (compared to BAU)**
 - **additional new investments in capacities outside the EU ETS (compared to BAU)**
 - **higher emissions in total**
 - **Relevant for**
 - **production processes with high capital intensity (compared to CO2 costs)**
 - **medium-/ long-term horizon**
 - **Less easy to identify**

- **Free allocation**
 - for direct CO2 costs only
 - effective only in combination with updating provisions (direct updating, plant closure provisions, new entrant allocation)
 - difficult to adjust
- **Border adjustments**
 - first best option from the text book-perspective
 - difficult in the real world
 - easy to adjust
- **International sectoral agreements**
 - might be work within the international regime to bring emissions below BAU
 - a closer look: no solution for leakage in the real world

- **What about direct compensation?**
 - **Payments for production**
 - to address operational leakage
 - to address leakage effects from direct and indirect CO2 costs
 - **Payments for investments**
 - to address investment leakage
 - to address leakage effects from direct and indirect CO2 costs
 - **Several options exist**
 - **Easy to adjust**

Direct compensation

A closer look (1)

- **Compensation payments for production**
 - **Output-based compensation**
 - **factual opt-out (no/partial incentives)**
 - **for total production (not only trade-relevant)**
 - **Lump sum compensation**
 - **full incentive mechanism (if no multi-period payments)**
 - **no elimination of leakage incentives**
 - **Target: operational and investment leakage**
 - **State aid perspective**
 - **proof of leakage problem necessary**
 - **legally complicated**
 - **Absence of EU-wide harmonization could create distortion of incentives**

Direct compensation

A closer look (2)

- **Compensation payments for investments**
 - **Lump sum compensation**
 - **full incentive mechanism**
 - **only eliminates incentives for investment leakage**
 - **State aid perspective**
 - **(initial) proof of leakage problem necessary**
 - **how valid for the lifetime of the investment?**
 - **legally less complicated**
 - **framework for state aid necessary if compensations are to be issued by the Member States**
 - **Absence of EU-wide harmonization could create distortion of incentives**

Direct compensation

Some preliminary conclusions

- **Compensation for operations**
 - difficult to implement
 - serious cons
- **Compensation for investments**
 - addressing investment leakage only
 - more easy to implement (investment subsidies are “BAU” in the EU ...)
 - pending issues
 - leakage assessment over lifetime?
 - EU-wide harmonization
 - compensation benchmarks for investments
 - a part of the ‘leakage management’ portfolio?

Thank you very much

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