Alternatives to Border Carbon Adjustments – Conceptual Stakeholders Meeting

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ERCST activities

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- **Project** "Border Carbon Adjustments in the EU – Issues and Options"
  - Full **Report** by Summer/Fall 2020
- **Feedback** to Inception Impact Assessment
  - Discussion & Synthesis Paper on Feedback to IIA (May 28)
- International outreach (**townhalls**)
- Organized discussions:
  - March 5th Stakeholders Meeting
  - March 25th High Level Meeting
  - April 15th Update Webinar

https://ercst.org/border-carbon-adjustments-in-the-eu/

Consumption charge features (1/3):

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- **Multi-stage tax (like VAT):** Tax liability arises at point of material production, carried through successive stages of production.
  - Tax liability acquitted in the case of export
  - Tax liability acquired at point of import.
- **Limited scope:** Practicality imposes for only a few highly carbon-intensive materials
- **Integrated with ETS:** Uses EU product benchmarks (or some assumed default value) to determine carbon intensity of materials, uses ETS price for carbon price.

Consumption charge features (2/3):

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- **Uses life-cycle accounting:** Producers track embodied materials through the various stages of the value chain. Imports either submit accounts or are charged default values (need such values for all products with significant amounts of covered materials).
- **Protects downstream producers:** Preserves the carbon price throughout the value chain, including for imports.

Consumption charge features (3/3):

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- **Relationship with ETS:**
  - ETS ensures a cap
  - Allows price signal downstream (muffled in the ETS by free allocation)
  - ETS provides free allocation at EU benchmark
  - Could be
    - Complementary while enough free allocation available with ETS. But will run out of free allocation.
    - Could be replacement for ETS (benchmark plays a role)

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Consumption charges assessed:

- **Key strengths:**
  - Internalizes carbon pricing in basic materials and downstream
  - Does so in a way that doesn't increase leakage/competitiveness risks
  - Can be constructed to be WTO legal
  - Politically may be less controversial than BCA
- **Key weaknesses:**
  - Only prevents leakage/competitiveness impacts arising from charge itself – not from increasingly ambitious ETS.
  - Hard to get actual values for materials in imported processed goods
  - Administratively difficult to set/maintain default values for materials in range of processed goods.
  - Low incentives to lower GHG-intensity – may lead instead to material substitution

Consumption charges

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	Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Consumption charges	*Package of ETS/free allocation and consumption charges * Uses EU ETS product benchmarks to calculate assumed carbon content in materials (as proposed by Neuhoff et al, 2016)	*Protects against leakage due to consumption charges (but not due to ETS carbon pricing if there is an ETS) *Internalizes carbon costs throughout the value chain *Double-taxes, if imports already subject to carbon tax in home jurisdiction *Assuming EU product benchmark performance means low carbon price, no incentives to improve.	*Relies on free allocation to protect against competitiveness impacts of ETS in home market. *Unlike narrowly scoped BCA, covers downstream producers *Acquittal of tax liability for exports alleviates impacts of the charge in foreign markets	*Very likely WTO-compliant, since it is a non-discriminatory tax *Accompanying free allocation may be an issue, especially if covered material sectors are accorded higher allocations	*Narrow scope makes regime more manageable *Difficult for importers to declare amount of embodied materials – data may not exist *Very challenging for EU to determine, maintain, default values for embodied materials in a range of imports	Less controversial than BCA, since it is structured as an internal tax, and since EU product benchmark is a favourable assumption *requires keeping high levels of free allocation to covered materials sectors
	*Package of ETS/free allocation and consumption charges * Require actual data on carbon intensity of production in covered materials (assign high default values for imports unable to comply, e.g. EU worst practice)	*Protects against leakage due to consumption charges (but not due to ETS carbon pricing if there is an ETS) *Internalizes carbon costs throughout the value chain *Double-taxes, if imports already subject to carbon tax in home jurisdiction *Provides strong incentives to lower GHG-intensity.	*Relies on free allocation to protect against competitiveness impacts of ETS in home market. *Unlike narrowly scoped BCA, covers downstream producers *Acquittal of tax liability for exports alleviates impacts of the charge in foreign markets	*Likely violates WTO provisions on non-discrimination *Accompanying free allocation may be an issue, especially if covered material sectors are accorded higher allocations	*Narrow scope makes regime more manageable *Difficult for importers to declare amount of embodied materials, and very challenging for them to declare carbon intensity of those materials. *Very challenging for EU to determine, maintain, default values for embodied materials in a range of imports	*Probably received no differently than a BCA by trading partners – difficulty of providing actual data, and punitive assumed defaults, makes this controversial. *Requires keeping high levels of free allocation to covered materials sectors.

Contracts for Difference (CfD) Features (1/2)

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- **Loosely based on the idea of a feed-in premium:** Offers price certainty, but for the price of carbon, not the price of a product like energy
  - Would cover the difference between the variable EU ETS carbon price and the fixed (contracted and guaranteed) strike price
  - If the EU ETS price is below the strike price, the CfD kicks in; if the EU ETS price rises above the strike price, there is no payment (or even a repayment duty)
- **Would complement the EU ETS:** but guarantee a substantially higher carbon price to make investments in low-carbon materials/technologies profitable; could be financed with e.g. consumption charges

Contracts for Difference (CfD) Features (2/2)

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- **Limited scope:** Proposed for ultra-low carbon materials to make these competitive in the near term and provide a pathway to market
- **Tendering process:** Awarded for a fixed duration (e.g. 20 years) on the basis of competitive tenders for projects that involve production of ultra low-carbon materials
- **Implementation:** producer identifies quantity of product and emissions avoided. EU ETS benchmarks can provide counterfactual information. Process can be further finetuned by requiring independent verification of production, avoided emissions & incremental costs

Contracts for Difference (CfD) Assessed

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- **Key strengths:**
  - Proponents describe it as “economically efficient, affordable, compatible with EU state aid law, and [fits] easily onto existing policy instruments, such as EU ETS and the EU innovation funds.”
  - Can be integrated with current EU ETS benchmarks and reporting
  - Politically and legally less controversial than a BCA
- **Key weaknesses:**
  - Limited by availability of public funds (but can ringfence new revenue)
  - Information asymmetries can make it hard for governments to gauge the true cost of bidding technologies and the required carbon strike price
  - CfD on its own may need to be very high for some first-of-a-kind projects

Contracts for Difference (CfD)

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	Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Contracts for Difference (CfD)	"Carbon Contracts for Difference" as proposed by Sartor & Bataille (2019)	Strong environmental benefit. Can help overcome investor risk aversion for first-of-a-kind low-carbon projects to overcome the technology valley of death; helps reflect the social cost of carbon, which the EU ETS currently does not	Improves competitiveness of low-carbon products relative to all carbon-intensive goods with lower CapEx/OpEx; also hedges against leakage vis-à-vis foreign products, but only for selected projects in the near term (and for domestic low-carbon products more generally in the long term)	Low risks under EU state aid rule and WTO law. Competitive bidding process is a must for compliance with EU state aid rules, openness to foreign bidders important under WTO rules	Relatively straightforward, since limited data requirements: production level, product benchmark and substitution rate. Can piggyback on EU ETS	Less controversial than BCA, since it does not apply specifically to imports or exports. Political economy of CfDs generally favorable

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A Comparison of Approaches

Policy Option	Proposal/ Variant	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Border Carbon Adjustment	"Most Likely"	Extends carbon price to imports & replaces free allocation; but use of averages limits benefits	Effectively levels the playing field in the domestic market, but not in foreign markets, nor downstream	Should pass muster under WTO law due to Article XX GATT; requires qualified majority vote in the EU Council	Intermediate complexity due to data needs and administrative/regula tory framework	High degree of controversy as a unilateral, extra-territorial measure
Consumption Charge	"Inclusion of Consumption"	Internalizes cost of carbon across value chain, but no or limited differentiation	Without free allocation: only protects against its own competitive-ness impacts	Does not impinge on WTO/state aid rules; but may require a unanimous vote in the EU Council	High complexity due to data needs and administrative/regula tory framework	Likely minimally con-troversial as purely internal measure, but increases prices → material substitution
Contracts for Difference	"Carbon Contract for Difference"	Strong incentive to scale up early-stage clean technology; but scope limited to selected projects (and by available resources)	Levels the playing field between clean and dirty products, but only affects competition w. foreign producers for selected projects	Does not impinge on WTO rules if open to foreign bidders; should pass muster under state aid rules if competitive tender	Relatively easier to implement due to limited scope and provision of data	Relatively least controversial as a support measure

Different tools, different objectives

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- **Border carbon adjustments** (imports and/or exports)**:**
  - Addresses leakage & competitiveness in the context of increased ambition
  - Assumes some degree of differentiation based on carbon content
  - Allows reducing or phasing out free allocation
  - Allows for stronger carbon price
  - Creates incentive for trade partners to up their game
- **Consumption charge**
  - Transmits carbon price throughout the value chain
  - Lack of differentiation based on carbon content limits substitution incentives within product class
  - Does not add to leakage and competitiveness risk
  - Works well in WTO context
- **Contracts for difference**
  - Provides support on the supply side for market for low carbon products
  - Only hedges against carbon leakage and competitiveness impacts for selected projects

Thank you!

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