The EU Carbon Border Adjustment Mechanism (CBAM)

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Why Are We Discussing BCAs Now?

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- Paris Agreement →
  - Continued asymmetry of climate efforts - NDC nationally determined
  - Paris Agreement objectives
    - Carbon neutrality
    - 1.5/2 ^{0}C
- European Green Deal
    - EU Climate Law and carbon neutrality
    - Increase 2030 level of ambition from -40% to -55%
    - EUA prices --- from EUR 5 to > EUR 50

2030 Climate Targets: European Union ahead of the curve compared to the rest of the world

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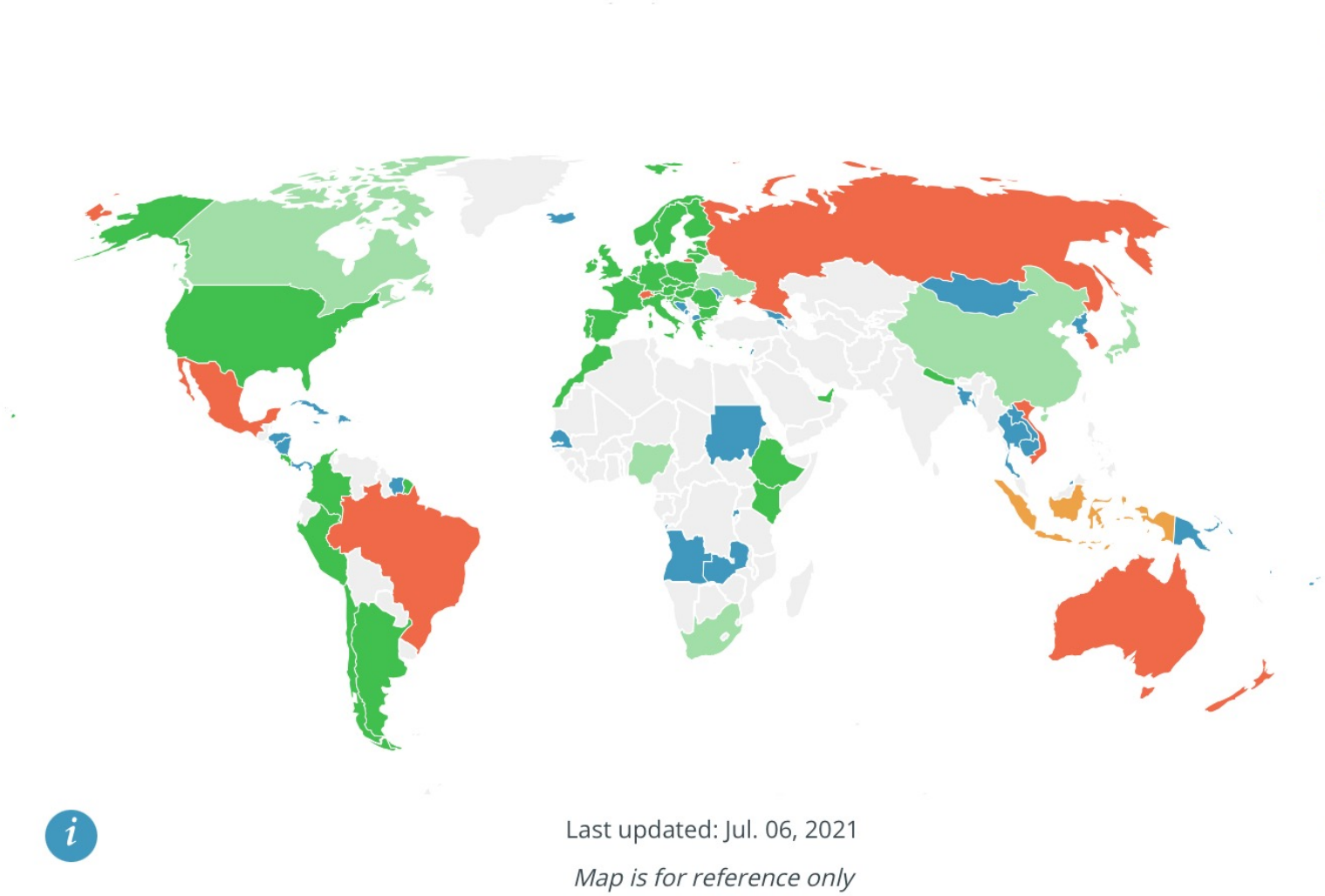

Source: Climate Action Tracker, 2021

EU Carbon Border Adjustment Mechanism (CBAM) What Do We Know So Far?

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- **Political Guidelines of 16 July 2019:**

  *'To complement this work, and to ensure our companies can compete on a level playing field, I will introduce a **Carbon Border Tax** to avoid carbon leakage. This should be **fully compliant** with World Trade Organization rules. It will start with a number of **selected sectors** and be **gradually extended**.'*

Europe‘s Border Carbon Adjustment: State of Play

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- December 2019: **European Council** endorses work, states that ‘facilities in third countries need to adhere to the highest environmental … standards’
- March 2020: **Inception Impact Assessment Roadmap** and public consultation on the elements of the CBAM feedback IA; 219 submissions
- May 2020: European Commission mentions CBAM revenue (‘€5 to €14 billion per year’) as potential source for EU Recovery Plan **(‘Next Generation EU’)**
- Confirmed by the historical **EUCO** in July (EU budget 2021-2027, Recovery Package) – BCA introduction by 2023
- **Public consultation completed** October 2020
- **European Parliament** own initiative March 2021
- Next steps: Impact assessment and **EC proposal** expected July 2021

European Commission main policy mechanism options

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- A **tax applied on imports at the EU border**
  - On products whose production is in sectors that are at risk of carbon leakage
  - This could be a border tax or customs duty
- **An extension of EU Emission Trading Scheme to imports**
  - Requiring the purchasing of emission allowances under the EU ETS by either foreign producers or importers
- **Carbon tax (e.g. excise or VAT type) at consumption level**
  - On products whose production is in sectors that are at risk of carbon leakage
  - The tax would apply to EU production, as well as to imports
- **The obligation to purchase allowances from a specific pool outside the ETS**
  - Dedicated to imports, which would mirror the ETS price

EU CBAM design elements

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- CBAM decomposed into **9 key design elements** as identified in the ERCST report '*Border Carbon Adjustments in the EU Issues and Options*'* for which the EU may have to make choices ERCST (2020):

Nine design elements:

- Coverage of trade flows
- Policy mechanism
- Effect on free allocation
- Geographic scope
- Sector/product scope
- Emissions scope
- Determination of embedded emissions
- Calculation of adjustment
- Use of revenue

Five evaluative criteria

- Environmental benefit
- Competitiveness benefit
- Technical and administrative feasibility
- Legal feasibility
- Political and diplomatic feasibility

* ERCST (2020), Border Carbon Adjustments in the EU: Issues and Options, September 2020, https://ercst.org/border-carbon-adjustments-in-the-eu-issues-and-options/

Coverage of Trade Flows: options

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Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Imports	Relatively greatest benefit due to maximum emissions coverage	Levels the playing field in the domestic market	Strongest case under Article XX GATT	Complex to implement due to data gaps and limited jurisdiction	Controversial as a unilateral, extraterritorial measure
Imports & Exports	Environmental benefit uncertain: export coverage lowers carbon constraint for EU producers, but if they are already more low-carbon than international competitors then promoting exports results in net global benefits	Levels the playing field in both domestic & foreign markets	Coverage of exports weakens environmental case under Art. XX GATT, plus even greater risk under SCM Agreement	Complex to implement for imports due to data gaps and limited jurisdiction	Likely most controversial abroad because of extraterritorial nature and greater likelihood that it is perceived as protectionism; but likely more popular domestically

Coverage of Trade Flows: Takeaways from Consultations

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- **Exports need protection:** If a BCA only covers imports, some other form of relief may be needed for exported products. A BCA that does not make provision for exports will encounter strong opposition from industry and other stakeholders
- **Options** to support exports other than including them in a BCA include continued free allocation or compensation payments
- **Continued role of free allocation raises important questions:** will it remain in place or see gradual or immediate phase-out? What happens in sectors not covered by the BCA?

Policy Mechanism

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Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Carbon Tax	Neutral (depends on level of carbon price)	Neutral	Requires unanimous vote in the Council	Relatively easier to implement due to absence of trading component	Neutral
Customs Duty	Neutral (depends on level of carbon price)	Neutral	Can be adopted with qualified majority vote	May be easiest to implement due to ability to build on existing customs infrastructure	Neutral
Extension of the EU ETS	Neutral (depends on level of carbon price, and to lesser extent on price volatility/ predictability in the market)	Neutral	Can be adopted with qualified majority vote, but potentially riskier under trade law (esp. re. exports)	Relatively more difficult to implement due to integration in/link to EU ETS market	Neutral

Implications for Free Allocation

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Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Free Allocation Unaffected	Least beneficial because of muted price signal	Most beneficial: playing field levelled inside and outside the EU	Could be considered a forbidden subsidy under SCM Agreement; weak Art. XX GATT case	Relatively difficult to implement due to continued need to define EITE alongside BCA	Relatively most controversial due to perceived unfairness
Free Allocation Gradually Substituted	Moderately beneficial because price signal strengthened	Moderately beneficial: playing field inside/outside EU levelled during transition period	Somewhat less risk of violating SCM Agreement; relative-ly stronger case under Art. XX GATT	Relatively most difficult to imple-ment due to added need to decide on transition process	Relatively less controversial due to perceived fairness
Free Allocation Rescinded Immediately	Most beneficial because price signal strongest	Least beneficial: risk that playing field not levelled inside/outside EU, depending on BCA	Strongest case under SCM Agreement and Article XX GATT, but may result in compensation claims	May be easiest to implement if need for EITE benchmark definition falls away	Relatively least controversial due to perceived fairness

Geographic Scope

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Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
All Countries	Greatest coverage of emissions	Levels the playing field vis-à-vis all countries	Least risky under Article I GATT	Relatively more complex due to inclusion of largest number of countries	Somewhat contro-versial because perceived as unfair & protectionist
Exemption of Least-Developed Countries	Modest loss of emissions coverage; could change over time	Levels the playing field for the most important competitors	Risks violating Art. I GATT, but aligns with est. principles & practice (eg CBDR)	Relatively the least complex due to flat exclusion of large number of countries	Least controversial because perceived to be fairer and less protectionist
Exemption on Environmental Grounds (e.g. Carbon Price, Party to Paris Agreement)	Loss of emissions coverage may be offset by incentive to strengthen climate policies	Levels the playing field vis-à-vis countries with weaker constraints (may only be partial)	Risks violation of Art. I GATT, will likely need recourse to Art. XX GATT	Relatively most complex due to large number of countries and need to determine/compare environmental effort	Most controversial because of differen-tiation & rating other countries' behavior

Sectoral Scope

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Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Basic Materials only (EITEs)	Relatively the least beneficial because of reduced emissions coverage	Levels the playing field for a limited number of products	Art. XX GATT: less complex, but also less environmentally beneficial	Least complex because of limited scope and relative availability of data	Least controversial due to limited scope (esp. with narrowly traded goods)
Basic Materials (EITEs) & Electricity	Relatively greater environmental benefit due to expanded emissions coverage	Levels the playing field for a larger number of products	Art. XX GATT: more complex, but also greater environmental benefit	Relatively more complex due to expanded scope and additional data need	Relatively more controversial due to expanded scope (but: electricity narrowly traded)
Basic Materials, Electricity & More Complex Products	Relatively greatest benefit due to maximum emissions coverage	Levels the playing field for the greatest number of products, including domestic manufacturers that use covered inputs	Art. XX GATT: most complex, but also greatest environmental benefit; still: necessity unclear	Most complex to implement due to significant data gaps and technical challenges	Relatively most controversial due to expansive scope, data & technical challenges and trade intensity of goods

Emissions Scope

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Option	Environmental Benefit	Competitive-ness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Direct (Scope 1) Emissions	Relatively lowest environmental benefit due to lower emissions coverage	Levels the playing field with regard to cost of direct emissions only	Art. XX GATT: least complex, but also least env'tally. beneficial	Relatively least complex due to limited data needs	Relatively least controversial due to most limited scope
Indirect (Scope 2) Emissions from Energy	Relatively greater environmental benefit due to expanded emissions coverage	Levels the playing field with regard to cost of direct emissions & indirect energy emissions	Art. XX GATT: more complex, but also greater envt'l benefit	Relatively more complex due to additional data needs	Relatively more controversial due to expanded scope
Other Indirect (Scope 3) Emissions	Relatively greatest environmental benefit due to highest emissions coverage	Levels the playing field with regard to cost of all direct & indirect emissions	Art. XX GATT: most complex, but also greatest envt'l benefit; still: necessity unclear	Relatively most complex due to greatest data needs	Relatively most controversial due to most expansive scope

Determination of Embedded Emissions (1/2)

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Option	Environmental Benefit	Competitiveness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Calculation at product level (each shipment)	Most accurate measurement, so highest environmental benefit	Levels the playing field facility by facility - strong	Strong case under Art. XX: non-arbitrary	Highly complex data needs, esp. if scope 3 covered	Relatively controversial - burdensome
Benchmark: best practice domestic/global	Relatively weak benchmark, allows most leakage	Assumption benefits foreign producers ==> uneven playing field	Strong case under Art. XX: less discriminatory	Least complex: data mostly available	Relatively less controversial - low burden, beneficial assumptions
Benchmark: worst practice domestic/global	Relatively strong benchmark, allows least leakage	Assumption penalizes foreign producers ==> benefits domestic	Weaker case under Art. XX: punitive	Least complex: data mostly available	Highly controversial - punitive assumptions

Determination of Embedded Emissions (2/2)

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Option	Environmental Benefit	Competitiveness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Benchmark: average carbon intensity of EU producers	Somewhat weak benchmark, allows more leakage	Assumption benefits foreign producers that perform worse than EU average ==> uneven playing field	Strong case under Art. XX: less discriminatory	Least complex: data mostly available	Relatively less controversial - low burden, somewhat beneficial assumptions
Benchmark: best foreign practice	Relatively weak benchmark, allows more leakage	Assumption benefits foreign producers ==> uneven playing field	Strong case under Art. XX: less discriminatory	Relatively complex due to limited data availability	Relatively less controversial - low burden, beneficial assumptions
Benchmark: worst foreign practice	Relatively strong benchmark, allows least leakage	Assumption penalizes foreign producers ==> benefits domestic	Weaker case under Art. XX: punitive	Relatively complex due to limited data availability	Most controversial - punitiv assumptions
Hybrid benchmark: scope 2 actual foreign	Accurate measurement, may allow little leakage	Depends on the assumptions for non-scope 2	Balance: strong Art. XX case on scope 2; non-scope 2 depends on assumptions	Relatively complex due to additional data needs	Relatively controversial - depends on non-scope 2 assumptions

Calculation of Adjustment

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Option	Environmental Benefit	Competitiveness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
No consideration of foreign policies	No leakage, but also no incentive for good foreign environmental practice	Offers more than full protection	Vulnerable under Art. XX: arbitrary	Most feasible option	Relatively controversial - seen as unfair
Consideration of price-based policies	No leakage, but also limited incentive for good foreign environmental practice	Offers slightly more than full protection	Strong case under Art. XX: less discriminatory	Feasible, but more complex	Relatively less controversial
Consideration of price-based and regulatory policies	No leakage; full incentive for good foreign environmental practice	Offers full protection	Strongest case under Art. XX	Very complex: hard to equate regulatory policies to prices	Potentially least controversial, depending on details of adjustment methodology

Use of Revenue (1/2)

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Option	Environmental Benefit	Competitiveness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Refund to covered domestic firms	No leakage impacts; may enable environmental improvements	Offers more than full protection; domestic subsidy	Likely illegal under SCM Agreement; weakens case under Art. XX	Complex but feasible	Relatively controversial - seen as unfair
Refund to covered foreign firms	No leakage impacts; may enable foreign environmental improvements	Offers more than full protection; foreign subsidy	Strong case under Art. XX	Very complex, but feasible	Controversial domestically
Put into general revenue	No leakage impacts; no environmental impacts	Neutral impacts	Neutral legal implications	Straightforward, feasible option	Not particularly controversial

Use of Revenue (2/2)

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Option	Environmental Benefit	Competitiveness Benefit	Legal Feasibility	Technical & Administrative Feasibility	Political & Diplomatic Feasibility
Domestic fund for climate innovation	no leakage impacts; likely to create environmental improvement	May increase domestic competitiveness	May weaken case under Art. XX	Complex but feasible	Not particularly controversial
Domestic fund for competitiveness	No leakage impacts; may enable environmental improvement	Likely to increase domestic competitiveness	Likely weakens case under Art. XX	Complex, but feasible	Would be seen as controversial by trading partners
International fund for climate	No leakage impacts; likely to have positive climate impacts	Neutral impacts	Strengthens case under Art. XX	Straightforward, feasible option	Would be seen positively by international partners

Issue	Leaked EC proposal
Sectoral scope	• Cement, Steel, Electricity, Aluminium + fertilizers (incl. semi-manufactured / more complex goods) • EC can add to list through delegated acts
Emissions scope	• Simple goods: Scope 1 & 2 emissions • Complex goods: Scope 1 & 2 emissions and part of Scope 3 emissions embedded in input materials consumed in production process
Revenues	• EU budget
Adjustment to EU Carbon Leakage System	• Confusing: CBAM = alternative BUT Free allocation is maintained through a 'transitional provision' • CBAM only applies for those emissions above the free allocation that domestic producers receive • no language on length of 'transitional provision' or whether free allocation is eventually phased out or not – only makes reference to the EU ETS directive
Export rebates	• no export rebates, but Free allocation maintained

Compliance mechanism	• Notional ETS – importers have to surrender units each year equal to embedded emissions in their imports • Unit price = average EU auction price of previous week
Carbon content assessment of imports	For products: • actual emissions: formula for direct and indirect emissions at installation level + formula for embedded emissions in semi-manufactured goods (‘more complex goods’) • ‘default values in case actual emissions cannot be determined’ : 2023-2025 average carbon intensity of comparable EU producers, starting 2026: 10% worst-performing installations in EU For electricity: • average CO_2 intensity of electricity produced by fossil fuels in the EU • option to declare actual emissions
Exclusion	• only countries part of or linked to EU ETS are exempted
Crediting foreign climate policies	• Only carbon pricing policies (carbon tax, ETS) are recognized – to be verified by authority – prices paid are deducted from CBAM

EU CBAM key issues

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Key issues/challenges:

- **Trade flow coverage:** Consider role of European exports and their competitiveness in foreign markets
- **Free allocation:** Replacing free allocation will face considerable pushback in the EU, making a phased approach more likely
- **Sectoral scope:** Basic goods with relatively low trade-intensity – such as cement – may offer a good piloting opportunity; also possible: electricity
- Avoiding **resource shuffling** and **evasion tactics** will be challenging
- **Revenue use:** International revenue transfers face political obstacles
- **Crediting for foreign policies**: complex but likely necessary

Thank you

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Appendix

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Emerging design elements from Eur. Parliament own initiative

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1.Policy mechanism: ‘notional’ EU ETS, or evolving tax that mirrors dynamic evolution of EUA price

2.Coverage of trade flows: imports + possible export rebates limited to EU better performers under certain caveats (WTO compatibility, environmental performance)

3.Geographic scope: possible exemptions for LDCs and SIDSs (or/and use of revenues for climate finance in LDCs and SIDSs)

4.Sectoral scope: pilot CBAM for power, and energy-intensive industrial sectors like cement, steel, aluminium, oil refinery, paper, glass, chemicals and fertilisers as of 2023; eventual roll-out to all products/commodities covered by ETS sectors; coverage of intermediate and final products in the value chain

5.Emissions scope: Scope 1 emissions, Scope 2 emissions, and Scope 3 emissions embodied in input goods (e.g. emissions embodied in the crude steel used as a raw material for steel pipes)

6.Approach to determining embedded emissions: use of installation-level carbon intensity data in exporting countries; in absence of such data, global average carbon intensities of individual products taking into account specific production methods

7.Crediting for foreign climate policies: ensure crediting; open to interpretation whether crediting refers to carbon pricing policies only

8.Use of revenue: EU own resources supporting domestic climate and EGD objectives (EU just transition/decarbonisation) and contributing to international climate finance in favour of LDCs and SIDSs

9.Treatment of existing carbon leakage measures: principle of ‘avoiding double protection’ keeps continued free allocation as an option

Coverage of Trade Flows	During the pilot phase, the proposed CBAM covers imports, with leakage related to exports addressed separately through continued, but declining free allocation to European producers for both domestically consumed and exported products
Policy Mechanism	It could extend the ETS to imports, but have imports dealing in a virtual pool of allowances
Geographic Scope	The only national exemptions from the coverage of the proposed CBAM are for least developed countries, small island developing states, and states with whom the EU has linked emissions trading systems.
Sectoral Scope	Cover any sectors, sub-sectors identified at risk of leakage under ETS As well: Any sectors at risk of leakage due to carbon costs in input goods (Scope 3)
Emissions Scope	During the pilot phase, the proposed CBAM covers direct (Scope 1) emissions and indirect (Scope 3) emissions embedded in raw material inputs that are themselves covered products.
Determination of Embedded Emissions	Default emissions intensity for importers: global sectoral average Possibility for more than one sectoral benchmark, based on production method Importers can challenge the default with third-party verified data
Calculation of the Charge	Product of: • Global average intensity • Difference between the price of EUAs and an explicit carbon price in the exporting jurisdiction • Factor that reflects the amount of free allocation received by EU producers • Where no explicit price of carbon in exporting jurisdiction: cost of carbon based on a negotiated agreement between the EU and the country of origin
Use of Revenue	Revenue directed to: • Administrative cost • Defraying certification costs for importers • Funding mitigation actions in trade partner countries affected by the CBAM; • Contributing to the EU budget (“Own Resources”)

“Red line” issues

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- **Indirect emissions and costs:** inclusion of scope 2 & 3 emissions, value chain coverage threshold
- **Exports** & **Free allocation** (coexistence issue, exports application)
- **Accommodating foreign climate action:** allowing challenges of the default, and including national exemptions