



Border Carbon Adjustments 101

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About RFF

- Resources for the Future (RFF) is an independent, nonprofit research institution in Washington, DC. Its mission is to improve environmental, energy, and natural resource decisions through impartial economic research and policy engagement.



The BCA Story

- As countries implement climate policy at differing levels of ambition, two “unintended consequences” emerge:
 - Global greenhouse gas emissions may not go down due to shifting manufacturing to less ambitious jurisdictions.
 - Trade advantages and disadvantages emerge resulting from the implementation of policy and subsequent behavior changes.
- **Border carbon adjustments (BCAs) are an environmental trade policy intended to tackle these challenges.**



Why BCAs?



- BCAs emerged in the absence of an international harmonized carbon pricing scheme, or other harmonized policies that achieve similar emission reductions
- In some ways, it is a “second-best” attempt to level the playing field the way that a harmonized policy would.
- The big focus of BCAs is to reduce **leakage** induced by trading partners having different carbon prices or levels of climate policy ambition.



What Is Leakage and How Do BCAs Thwart It?

- Leakage is an unintended consequence of ambitious climate policy and can increase overall global emissions.
- Leakage refers to the potential for increasing emissions in countries without (or with less ambitious) carbon mitigation policy.
- In literature, leakage can refer to emissions leakage from competitiveness effects and **from shifts in energy use due to overall changes in prices of fossil fuels.**



Leakage vs. Climate Policy Ambition: A Quick Example

Country A

Institutes \$50/Ton Carbon Tax on manufacturing industries

Home to a well-established steel economy



Country A's steel industry, including its jobs and emissions, may move to country B to escape country A's \$50/ton tax

Country B

Has established \$30/Ton Carbon Tax on manufacturing industries

Similar manufacturing economy to country A



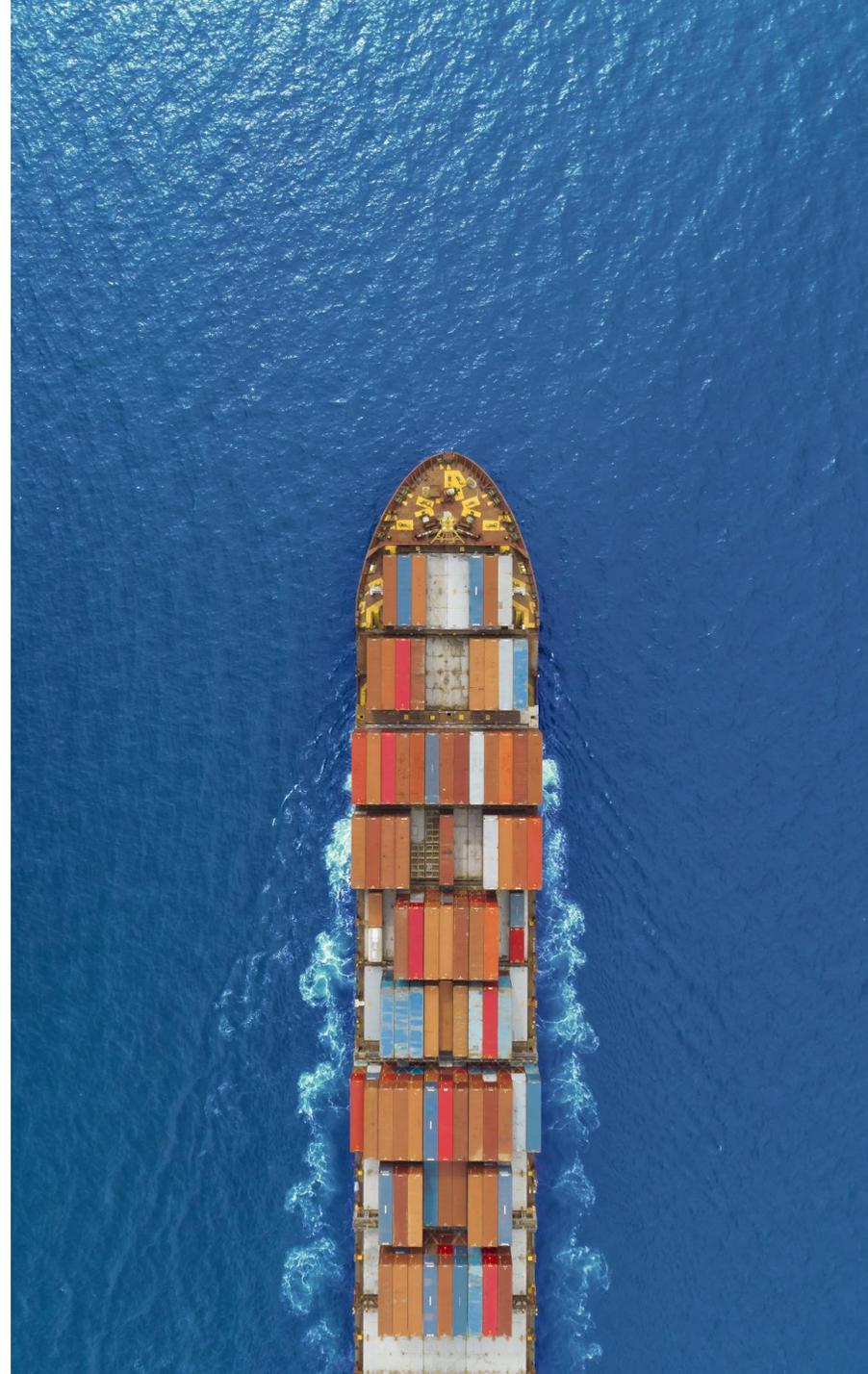
Building a BCA to Combat Leakage

- BCAs typically impose **a fee on the carbon content of imports** and sometimes a rebate on exports as well.
- In designing a BCA, many policy decisions must be made, including:
 - Establishing what emissions are included in the calculation of “carbon content,”
 - What the cost imposed on importers will be,
 - And if there will be export rebates.



What Emissions Are Counted in a BCA?

- In most designs, emissions assigned to facilities must then be assigned to products.
- BCAs typically apply to a subset of those products, targeting those with high emission intensity.



Import Fees

- The fee is invoked if the country receiving foreign goods:
 - Has a higher domestic carbon price than its trading partner
 - Has a higher domestic cost of compliance due to emission regulations and other emissions policies
- The idea behind the import fee is to ensure that **foreign producers face the same incentives and costs to reduce emissions as domestic producers.**



A Quick Example of Import Fees

Country A

Institutes \$50/Ton Carbon Tax on manufacturing industries and a BCA to apply to imports.



Country B intends to export steel to Country A, but must pay a \$20/ton BCA to face the same incentives as industry in country A.

Country B

Has established \$30/Ton Carbon Tax on manufacturing industries



Import Fees and the Cost of Carbon Emissions

- BCAs are very often discussed in terms of a comprehensive carbon tax or carbon price, despite the much broader range of policies in practice.
- A carbon tax or emissions trading scheme gives policy makers a discrete number to compare across countries when looking to how emissions are priced.
- The proposed Fair, Affordable, Innovative, and Resilient Transition and Competition Act in the US Senate uses an estimate of costs incurred by US companies to produce cleaner products due to emissions-related laws and regulation as a proxy for a carbon price.



Import Fees When Carbon Is Not Explicitly Priced

- Anchoring a BCA to the notion of equal incentives, rather than a carbon price.
- Considering that not all ambitious climate mitigation policy is tied to a comprehensive carbon price, the opportunity to widen BCAs scopes could continue to help with concerns of leakage and competitiveness.
- An RFF working paper explores this idea and proposes taking the difference between the importer and exporter's effective charges.
 - This could be challenging from an accounting perspective, but translates non-carbon-price-policies into a carbon-price-equivalent to levy an appropriate fee.



BCA Outcomes: Benefits

- The most important benefit is the idea that a **BCA “levels the playing field”** when it comes to international trade and climate policy.
- **BCAs allow nations to move forward with ambitious climate policy without threat of competitiveness losses.**
- There is speculation that BCAs could create incentives for less ambitious nations to set their sights on more complete climate policy in order to avoid fees in trade.



BCA Outcomes: Benefits to Emissions and Trade

- Most conclusions come from modelling literature since BCAs have yet to be fully implemented anywhere.
- Studies find that BCAs reduce carbon emission leakage roughly in half.
- Similarly, BCAs seem to be largely protective of competition and free trade.
- BCAs can also increase revenue for nations.



BCA Outcomes: Costs and Challenges

- The BCA's biggest hurdle lies in its technical design, implementation, and compatibility with trade rules
 - The more detailed the policy becomes, the greater the data and administrative demands.
 - Designing a BCA to be compatible with WTO rules is a challenge.
- Questions persist regarding how effective a BCA will be at reducing leakage and competitiveness concerns.
- It is unknown how BCAs would impact different countries.
 - Notably, there are equity concern when it comes to low-income nations.



BCAs in Today's Policy Landscape: The EU/EC

- In July 2021, the European Commission adopted a BCA which will put a carbon price on imports of a select group of products to avoid leakage and support domestic industry.
- The EU policy will be gradually phased in and will start by applying only to a select few carbon-intensive goods.
- The program is set to be fully operational by 2026, but comments from EU member states may lead to further developments.



BCAs in Today's Policy Landscape: The US



- I previously mentioned the bicameral bill introduced by Senator Chris Coons (D-DE) and Representative Scott Peters (D-CA) to establish a BCA in the United States.
- Proposes a fee on the carbon content of imports based on domestic environmental costs—what they call “levying a fee on imported pollution.”





Thank you. Questions?

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BCAs and the World Trade Organization

- There are three pathways that have been suggested regarding the challenges of WTO regulation:
 1. Attempting to fully comply
 2. Proposing an exemption
 3. Arguing that lack of foreign climate regulation is an actionable subsidy



Pathway 1: WTO Compliance

- Among the criteria to comply with the WTO, a BCA must have objective methodology, the import charge cannot exceed charges on a similar domestic product, and an export rebate cannot exceed the domestic tax paid on the product.
- The WTO requires that countries not unjustifiably discriminate against goods from other countries in favor of domestic producers, or favor imports from certain member countries over others.
- RFF Scholars propose a WTO-compliant framework that utilizes a greenhouse gas tax and value added tax (VAT) framework



Pathway 2: Proposing an Exemption

- For an exemption to be possible, WTO's Article XX affirms that a BCA would have to focus on environmental effects like emissions leakage and not be seen as a trade barrier.
- RFF Senior Fellow Carolyn Fischer and colleague Susan Droege suggest exemption of countries from a BCA that:
 - Implement a national emissions cap
 - Take adequate action other than a cap
 - Implement a sectoral cap
 - Are considered low-income or least-developed
 - Require administrative flexibility due to risk of double charging



Pathway 3: Countervailing Duty Approach

- Joseph Aldy proposes a “countervailing duty” on targeted groups that imposes a tax based on the notion that the absence of adequate foreign climate regulation amounts to a foreign production subsidy.
- It is unclear if this approach would survive a WTO challenge.

