



The E in ESG

2024 KPMG Africa Tax Summit

Johannesburg

—
16 April 2024



Today's presenter



Christopher Morgan

Head of Global Responsible
Tax Program
KPMG International

01

The Impact of Carbon Border Adjustments on Developing Countries

Introduction

1. Increasing carbon prices in (mainly) developed countries and proposals for border carbon adjustments (BCAs)
2. UN Tax Committee paper produced by the Environmental Tax Sub-Committee on Border Carbon Adjustments: Impact and Relevance for Developing Countries
3. What is the theory of carbon leakage?
4. What ways are there to address carbon leakage?
5. The EU Carbon Border Adjustment Mechanism as an example of a BCA
6. Potential impact on developing countries
7. How could developing countries respond to BCAs?
8. Dealing with compliance

The UN Tax Committee paper is not intended to support or deny the theory of carbon leakage or promote or criticise any ways of dealing with carbon leakage including BCAs. Its purpose is to provide information on development in this area

Polling question

Q1: What do you know about the EUs CBAM



I have not
heard of it



Nothing

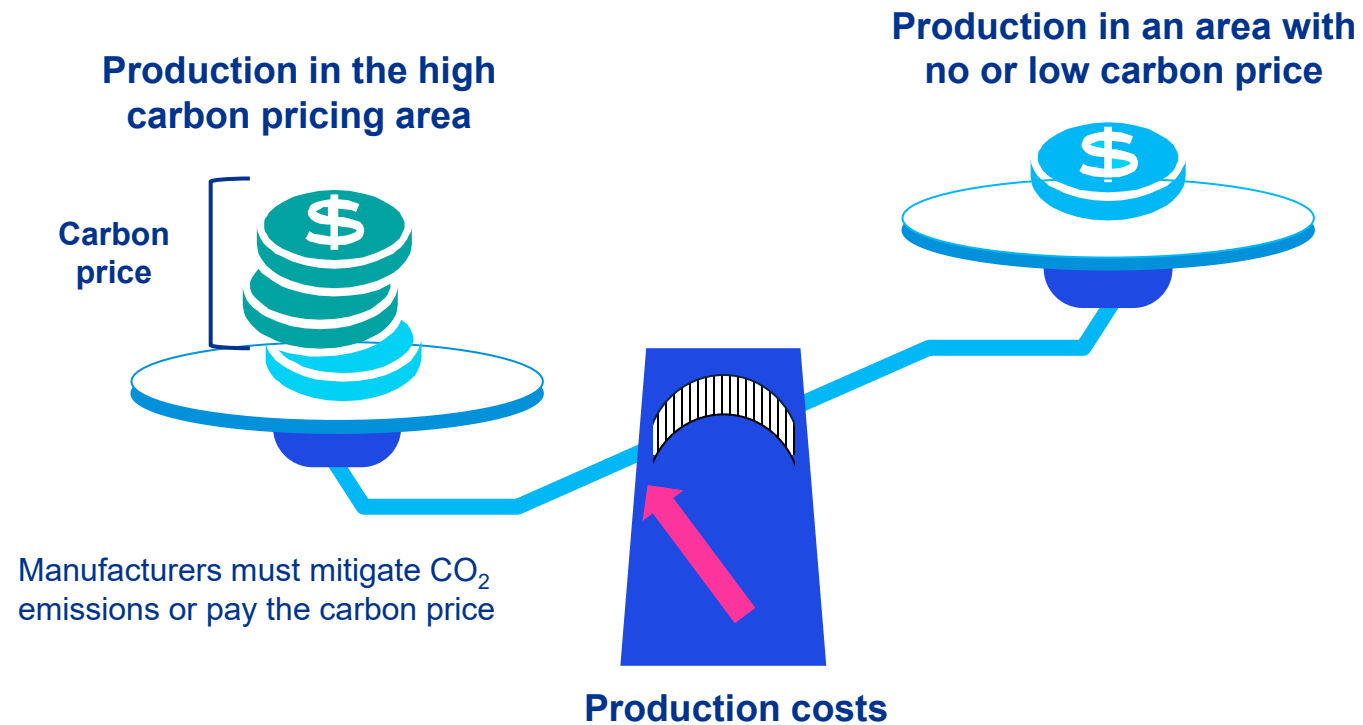


A little



Quite a lot

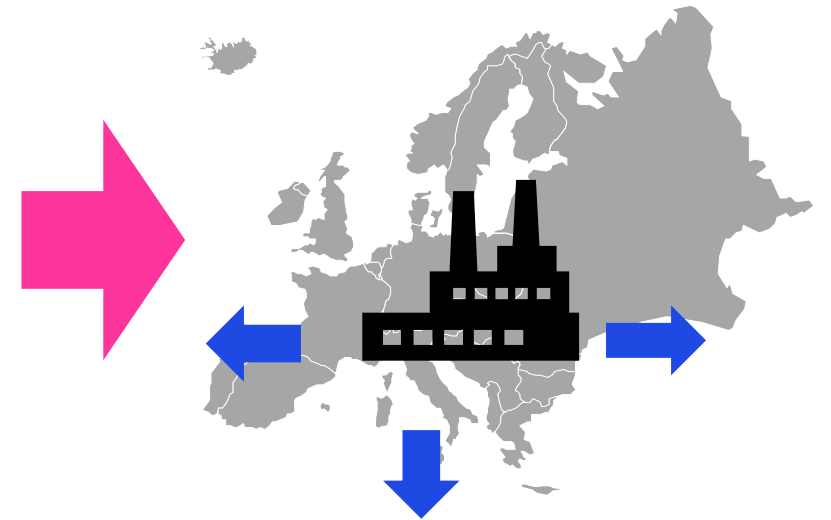
What is carbon leakage?



Result:

The production of products with a high carbon footprint can be moved to countries with less restrictive policies

Imported products can have a price advantage at the expense of the environment



Is Carbon Leakage a Reality?

- **There is little empirical evidence**

OECD Paper: Climate Policy Leadership in an Interconnected World: What Role for Border Carbon Adjustments?

“Overall, the ex-post empirical literature finds, if any, only a small effect of climate policies on carbon leakage and competitiveness...Moreover, the impacts tend to be concentrated on a subset of sectors for which environmental and energy regulatory costs are significant The OECD paper quotes Ellis, Nachtigall and Venmans (2019) for a review of relevant papers.”

- **Various research papers and modeling suggest it is a reality**

2021 UNCTAD Paper

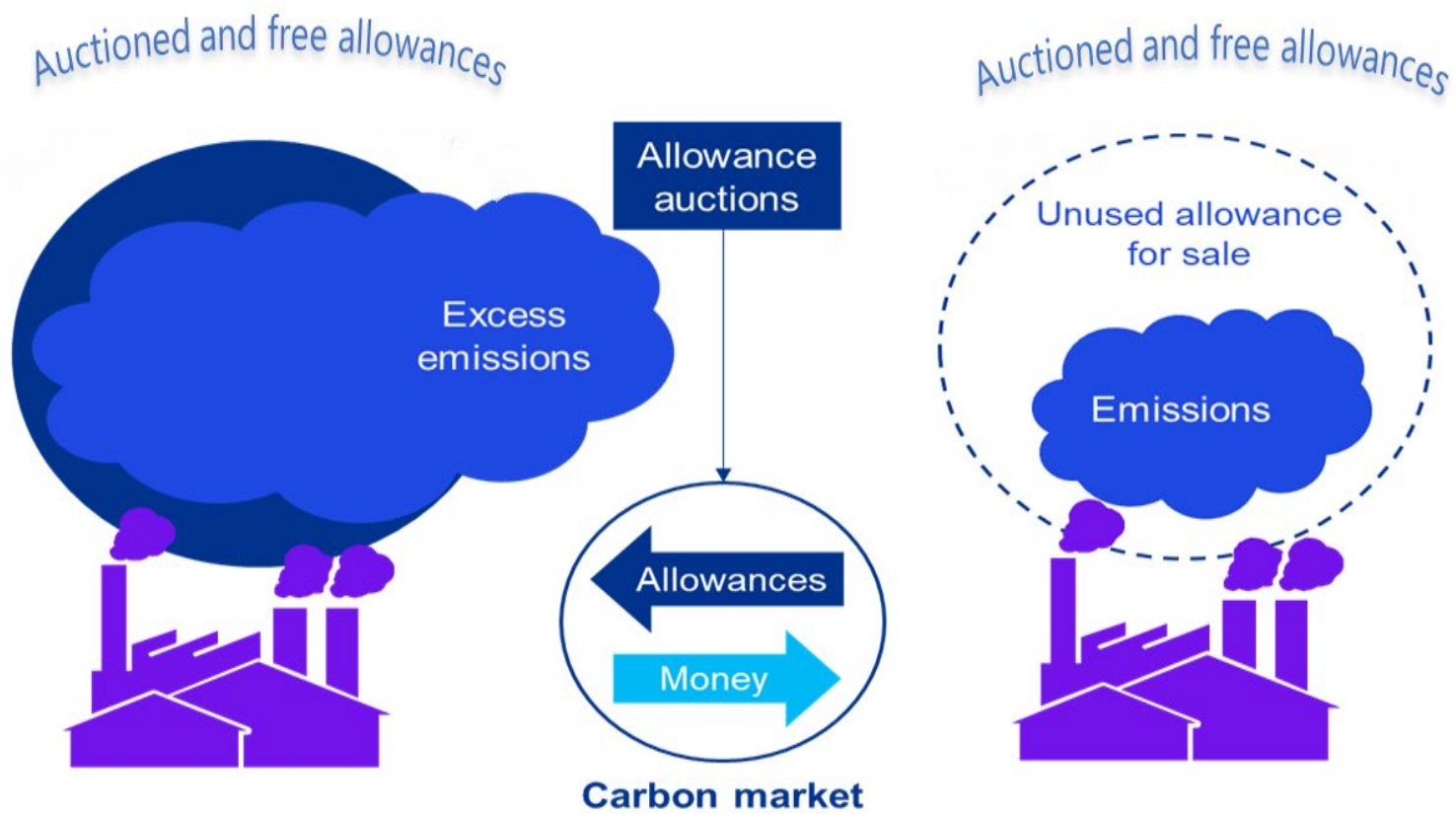
“With the imposition of carbon taxes, the magnitude of emissions reductions and production losses are significant in the European Union, and without synchronous implementation of a CBAM, the European Union would experience substantial carbon leakage and export declines.”

Methods to address carbon leakage

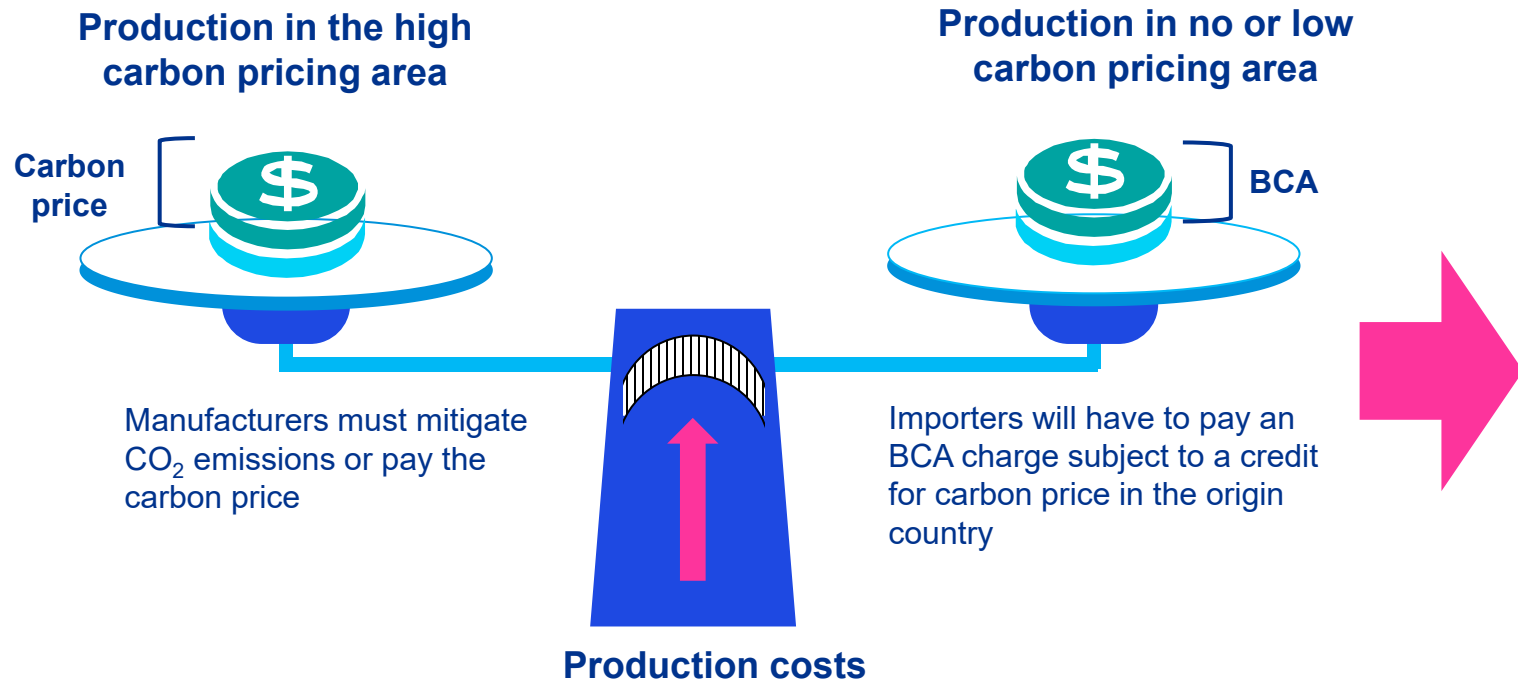
1. Free allowances under an Emissions Trading System (ETS)
2. Reduced carbon tax
3. Output based pricing systems
4. Carbon Clubs
 - Original proposals (William Nordhaus)
 - G7 Initiative
 - OECD Inclusive Forum on Carbon Mitigation Approaches
5. Border Carbon Adjustments

Emissions Trading System (ETS)

An ETS is generally a cap and trade system that places a market-based price on carbon emissions of specified goods in certain covered sectors.



What is a BCA's intended impact on carbon leakage?

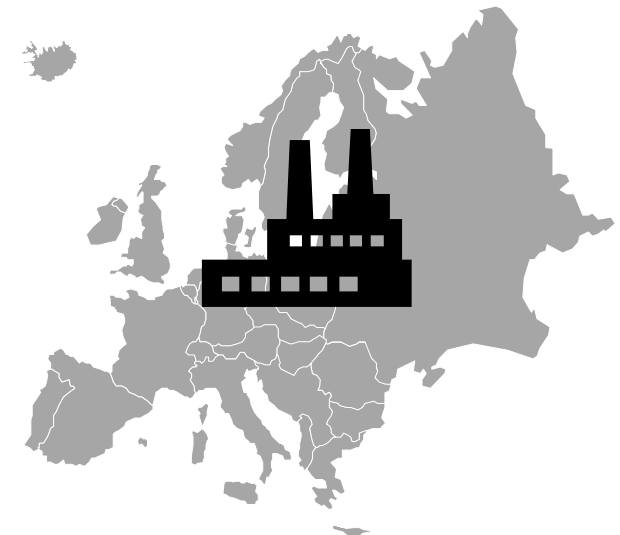


Result:

The cost of embedded emissions of products produced in 3rd countries will be comparable to that within the high carbon price area

There is no incentive to move sourcing or production

There is no carbon leakage



An example of a BCA — EU CBAM

Climate neutrality

- CBAM is designed to function in parallel with the EU Emissions Trading System (EU ETS)

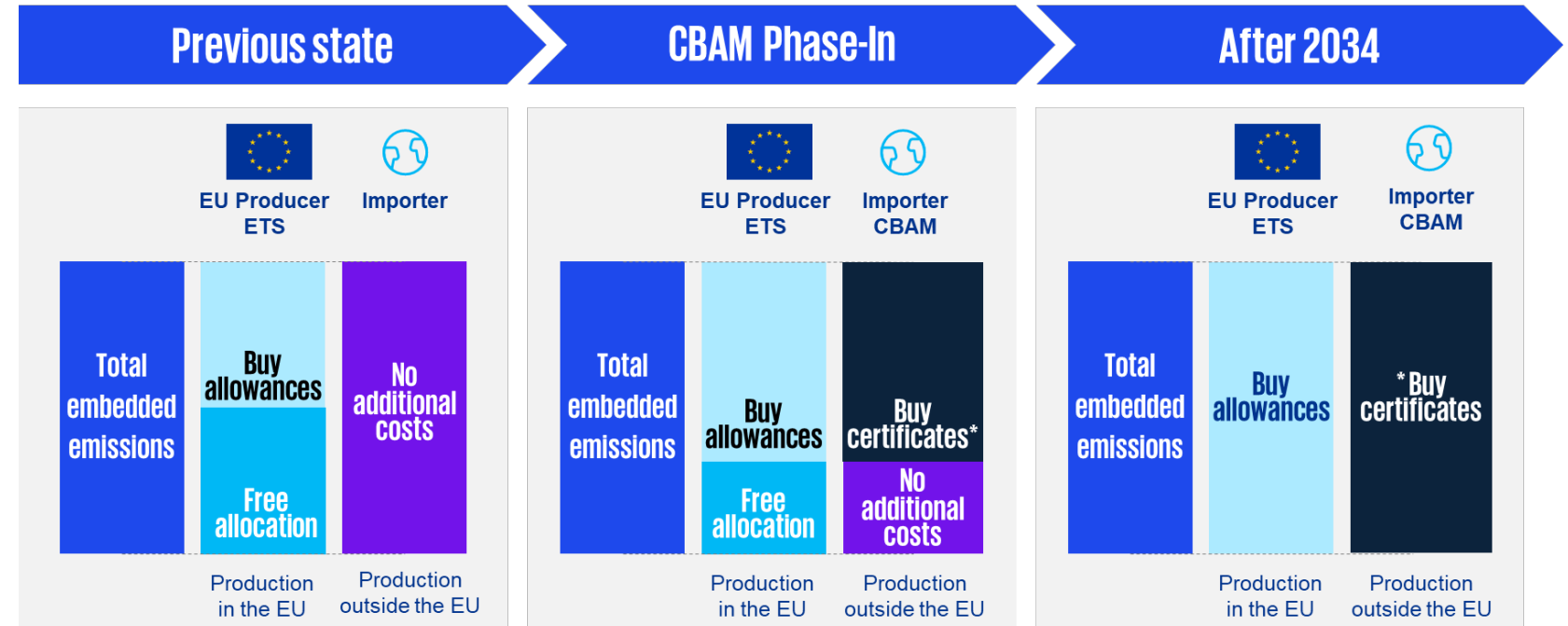
CBAM aim

- Counteract the risk of carbon leakage arising from the removal of the free ETS allowances.

CBAM design

- Importers have to purchase CBAM certificates to cover the embedded carbon content of certain goods upon their importation into the EU.
- The cost equals the ETS emissions certificate price.
- Adjustments are made to this charge to take into account any mandatory carbon prices paid in the exporting country*.

CBAM evolution



CBAM initial scope



Goods impacted in phase 1, by CN* code



Cement

2507 00 80 – Kaolin and other kaolinic clays
2523 10 00 – Cement clinkers
2523 21 00 – White Portland cement
2523 29 00 – Other Portland cement
2523 30 00 – Aluminous cement
2523 90 00 – Other hydraulic cements



Steel and Iron

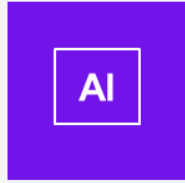
72 – Iron and steel, except: 7202 and 7204
7301- Sheet piling
7302 – Railway or tramway track construction material
7303 00 – Tubes, pipes and hollow profiles of cast iron
7304 – 7306- Tubes, pipes and hollow profiles
7307 – Tube or pipe fittings
7308 – Structures and parts of structures

7309 – Reservoirs, tanks, vats and similar containers
7310 – Tanks, casks, drums, cans, boxes and containers
7311 – Containers for compressed or liquefied gas
7318 – Screws, bolts, nuts and similar articles
7326 – Other articles of iron and steel
2601 12 00 – Agglomerated iron ores and concentrates



Fertilizers

2808 00 00 – Nitric acid; sulphonitric acids
2814 – Ammonia, anhydrous or in aqueous solution
2834 21 00 - Nitrates of potassium
3102 – Mineral or chemical fertilisers, nitrogenous
3105 – Mineral or chemical fertilisers containing nitrogen and/or phosphorus and/or potassium; other fertilisers; except: 3105 60 00



Aluminium

7601 – Unwrought aluminium
7603 – Aluminium powders and flakes
7604 – Aluminium bars, rods and profiles
7605 – Aluminium wire
7606 – Aluminium plates, sheets and strip
7607 – Aluminium foil
7608 – Aluminium tubes and pipes
7609 00 00 – Tube or pipe fittings
7610 – Structures and parts of structures, plates, rods, profiles, tubes
7611 00 00 – Reservoirs, tanks, vats and containers
7612 – Casks, drums, cans, boxes and containers
7613 00 00 – Containers for compressed or liquefied gas
7614 – Stranded wire, cables, plaited bands
7616 – Other articles of aluminium



Hydrogen

2804 10 000 – Hydrogen



Electricity

2716 00 00 – Electrical energy

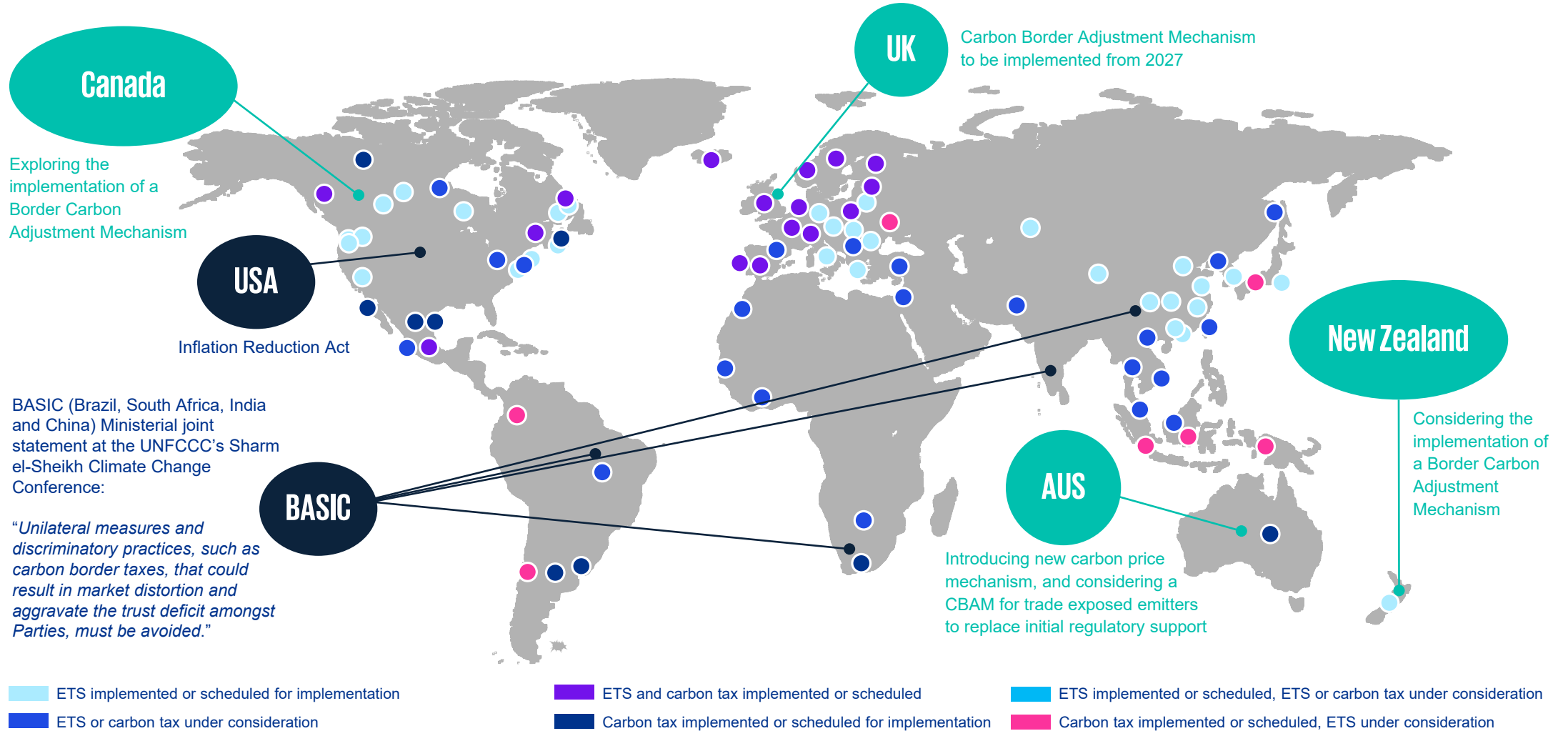
Administrative and legislative requirements: A Timeline



EU companies engaged in international trade importing covered products: Reporting and financial obligations

Countries and territories outside of the customs territory of the EU, with the exception of Iceland, Norway, Switzerland, Liechtenstein and 5 other minor territories: Implement carbon accounting; emissions MRV obligations

Global reaction to the EU's CBAM



Source: Carbon pricing dashboard, World Bank, Accessed 05/07/2022, https://carbonpricingdashboard.worldbank.org/map_data
 Note: Australia was added to take into account recent AUS announcements

Polling question

Q2: What is your view on BCAs?

A.

**They are green
protectionism**

B.

**They are a
legitimate tool to
stop carbon
leakage**

Studies on the impact of BCA's on developing countries

Limited studies

- There are a limited number of studies which are publicly available.
- These studies are based on assumptions about the EU CBAM and were undertaken before CBAM was finalized
- Nevertheless they provide some useful indicative indications

Studies referred to in the draft UN paper

- The United Nations Conference on Trade and Development (UNCTAD) paper in July 2021 called “A European Carbon Border Adjustment Mechanism: Implications for Developing Countries”
- A 2022 Study by the French Development Agency entitled “Impact of CBAM on EU trade partners: consequences for developing countries”
- The African Climate Foundation and London School of Economics, Firoz Lalji Institute for Africa, study called “Implications for African Countries of a Carbon Border Adjustment Mechanism in the EU”
- Task Force on Climate Development and the IMF: “The Global Impact of a Carbon Border Adjustment Mechanism, A Quantitative Assessment” March 2022

How to estimate the impact of a BCA

The draft UN Tax Committee paper refers to various potential steps in quantifying the impact of a BCA:

- To what goods does the BCA apply?
- What is the level of exports of covered goods to the BCA area?
- What percentage do those BCA goods make up of total exports and what is the contribution which such exports make to total gross domestic product (GDP)?
- What is the carbon intensity of the goods?
- What is the carbon price in the BCA area?
- What is the potential BCA charge on the particular goods?
- Does the exporting country have carbon pricing which will be offset against the BCA charge?
- What is the implied tariff (ad valorem charge on the goods) represented by the BCA?
- What is the price elasticity of the goods?
- Given the above factors, what is likely impact on exports of the BCA goods and what will the impact be on the local GDP?

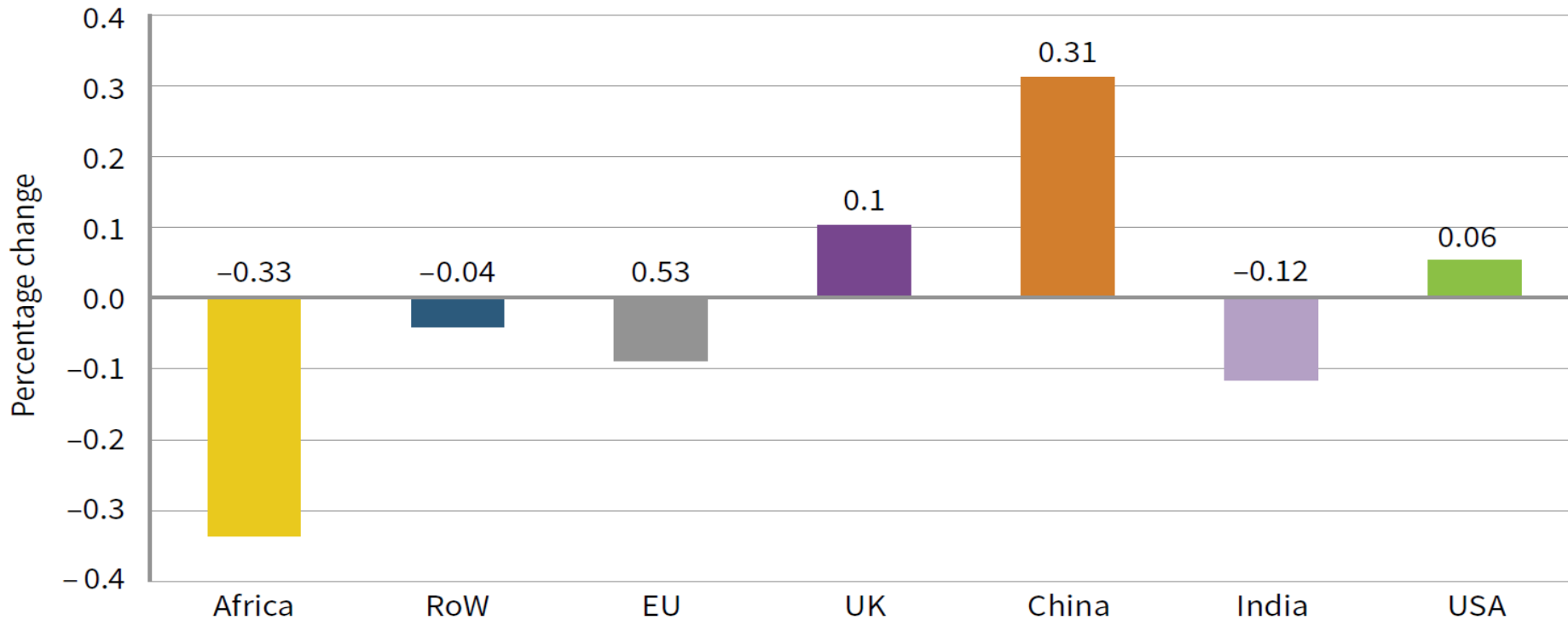
Other factors which will be relevant in determining the impact could include:

- The level of employment within the impacted sector.
- The availability of affordable decarbonization technology to reduce the carbon intensity of covered goods.
- The precise rules and complexity of the BCA and the number of BCA regimes to which a country is exporting.
- Whether affected enterprises have the capacity to calculate embedded emissions in line with the BCA or whether they will be forced to use default calculations.
- The possibility and ease of finding alternative viable export markets.

Implied Tariff of a BCA €87 per ton of CO2

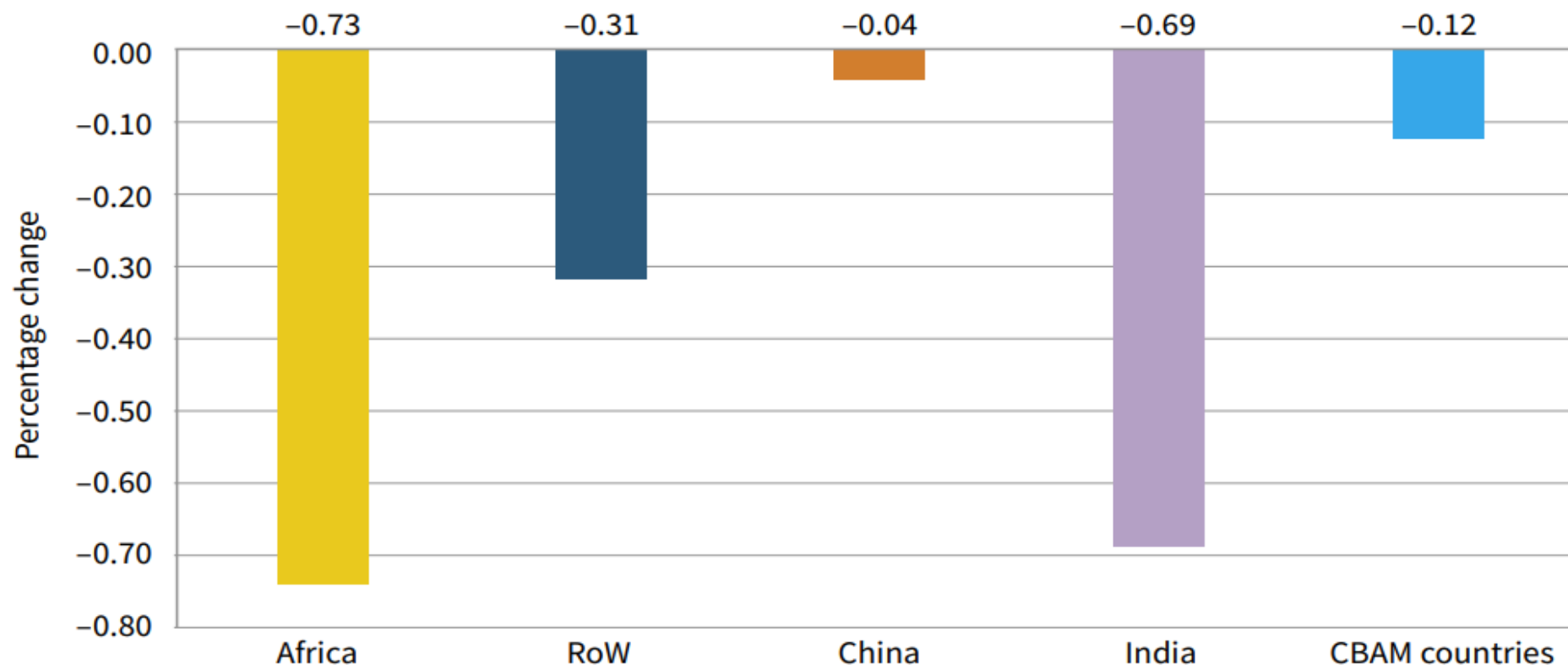
	Africa	China	India	USA	RoW
Agriculture	0.9	2.8	4.1	1.5	
Fertilizer	6.3	4.6	3	1.1	5.4
Electricity					
Iron and Steel	11.3	6.3	7.6	1.7	7.8
Aluminium	8.5	3.7	8	1.3	3
Cement	13.5	7.2	10.7	5.2	10.2
Energy	4.8	7.2	3.9	2.4	1.5
Manufacturing	1.7	4.6	3	1.3	0.7

Impact of the CBAM at €40 on GDP with removal of free allowances (% change)



1. Source: African Climate Foundation and London School of Economics, Firoz Lalji Institute for Africa, *Implications for African Countries of a Carbon Border Adjustment Mechanism in the EU*, page 21. Note the paper has an error re the EU

Impact of a BCA at €40 applied by EU, UK, Canada, US and Japan on GDP (% change)



1. Source: African Climate Foundation and London School of Economics, Firoz Lalji Institute for Africa, Implications for African Countries of a Carbon Border Adjustment Mechanism in the EU, page 21. Note the paper has an error re the EU

Tentative conclusions from the various studies

- The impacts of CBAM are not evenly distributed with developed countries not as affected as developing countries and, in some cases, benefiting from CBAM.
- The countries most negatively affected are those which are more dependent on exports of CBAM goods to the EU, especially where their exports are comparatively carbon intensive in comparison with other countries.
- Generally, the most vulnerable countries are Least Developed Countries and Low Income Countries in Africa or developing countries neighboring the EU.
- Several studies single out Mozambique, Zimbabwe, Ukraine, Bosnia and Herzegovina, and Serbia as the most impacted. Other countries mentioned include Moldova, Macedonia, Montenegro, Bahrain, Albania, São Tome and Principe, Armenia Georgia, and Türkiye.
- A key conclusion is that if the CBAM charge is around €87 and applied only to the initial category of goods — iron and steel, aluminum, cement, fertilizer, electricity — the impact is moderate
- If, however, other developed countries (US, UK, Japan, Canada) also introduced a BCA the impact would be significantly greater. According to the ACF/LSE modeling, at €40/ton Africa as a whole could see a 0.73% drop in GDP.
- If hypothetically, the EU CBAM was extended to significantly all products the impact on developing countries could also be substantial. However, that is an extreme example and not one which is currently under consideration in the EU or elsewhere.

Polling question

Q3: How do you think BCAs will impact African countries?



**Negative impact
on trade**



Neutral



**An opportunity
to decarbonize
faster**

Potential policy measures to address the impact of BCAs

- 1) Introduce an explicit carbon price
- 2) Convert existing implicit carbon pricing into explicit pricing
- 3) Apply a carbon tax on carbon intensive exports
- 4) Redirect impacted exports to other jurisdictions
- 5) International cooperation
 - Exemptions for LDCs
 - Use revenues to compensate developing countries
 - Increase climate related finance
 - Bi-lateral/multi-lateral agreements to minimize trade barriers
- 6) Leverage cleaner technologies, potentially using the Trade Related Aspects of Intellectual Property Rights Agreement (TRIPS)

Some administrative considerations

Potential actions for impacted facilities

- Determine if the reporting applies only the particular goods being produced or also to embedded emissions in precursor goods used in the process;
- Understand the scope of the emissions covered;
- Understand whether there is a required method or methods for calculating embedded emissions and if there is a choice, which will be the most convenient to apply;
- Put in place procedures to apply the relevant calculation measure
- Work with importers to ensure they have the information in the required form

Potential actions for impacted Governments

- Disseminate knowledge and best practice
- Ensure that accredited verifiers can operate in their country
- Work with the BCA region to facilitate the development of domestic verifiers

Polling question

Q4: How should African countries address BCAs?

A.

Do nothing

B.

**Challenge them
at the WTO**

C.

**Introduce some
form of carbon
price to keep the
revenues.**



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