



# Border Carbon Adjustments and Industrial Competitiveness in a European Green Deal

**Robert A. Ritz**

Assistant Director, Energy Policy Research Group (EPRG)  
Judge Business School, Cambridge University

*Based on joint work with Michael Mehling (MIT CEEPR) and  
Stuart Evans & Paul Sammon (Vivid Economics)*

**EPRG 2020 Spring Seminar**

Virtually anywhere, 6 May 2020

# Centennial of Pigou (1920)



## **Arthur Cecil Pigou**

Professor of Political Economy,  
University of Cambridge

### ***The Economics of Welfare (1920)***

- Introduces concept of “externality”
- Creates intellectual antecedent for idea of carbon pricing

# Border carbon adjustments in EU Green Deal

---

**European Green Deal:** Climate-neutral EU by 2050 as flagship policy of Commission President von der Leyen

**“New” tool:** Border carbon adjustment on imports

- Industrial decarbonization + competitiveness
- Incentives for trade partners to price carbon

**Current policy:** Free EU ETS allowances to emissions-intensive & trade-exposed (EITE) sectors

- Carbon price signal?
- Polluter pays principle?
- Compatibility with net zero?

# Key points made in this paper

---

- ① **Economics:** Free allocation can give more holistic competitiveness support than (import-only) BCA
- ② **Policy:** Introduction of BCA does not necessarily make redundant free allocation to EITE sectors
- ③ **Law:** BCA for exports unlikely to be WTO-compatible; import-only BCA with free allocation “should work”

# BCA on imports: Objectives & design

## EU Inception Impact Analysis (March 2020)

*“Carbon leakage occurs when production is transferred from the EU to other countries with lower ambition for emission reduction, or when EU products are replaced by more carbon-intensive imports... a carbon border adjustment mechanism would ensure that the price of imports reflects more accurately their carbon content.”*

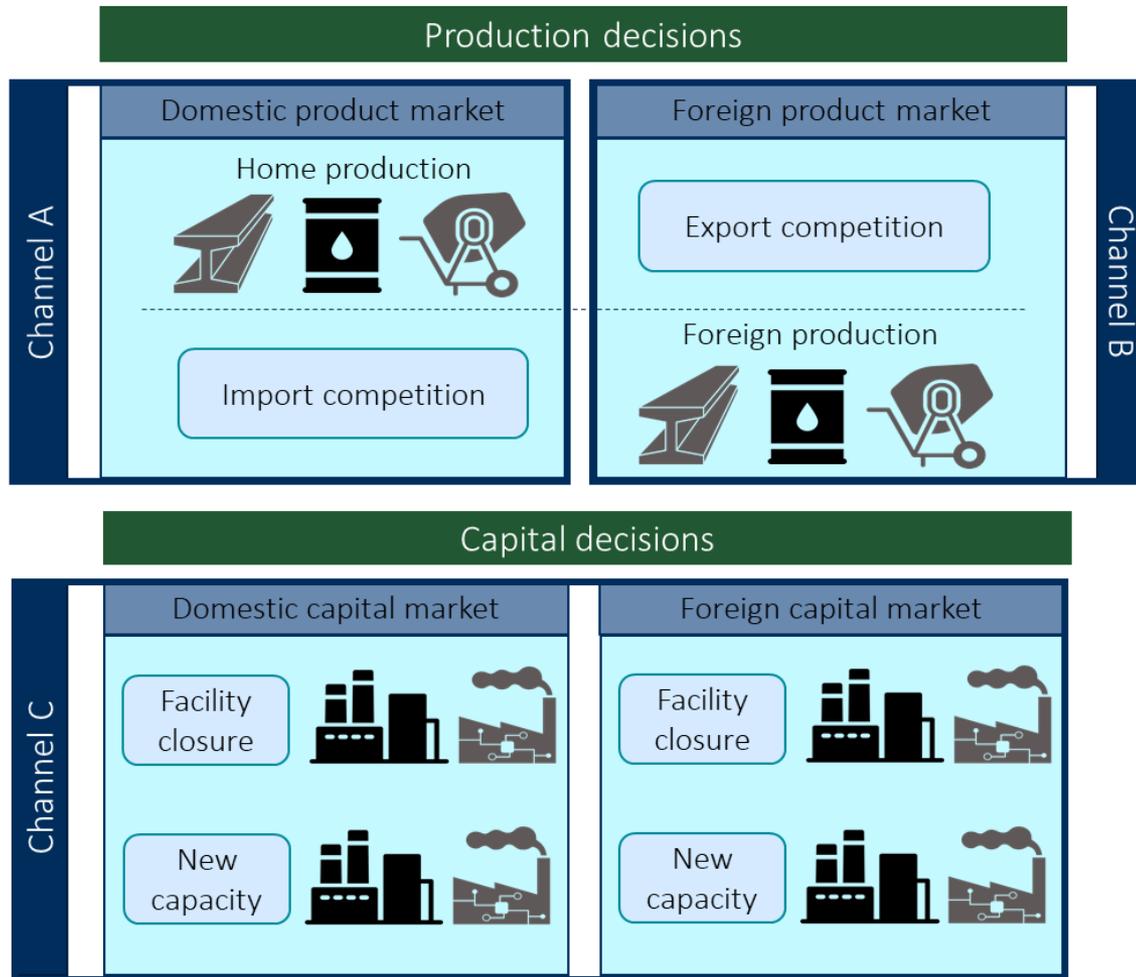
## BCA design options

- ① EU ETS extended to cover imports
- ② New carbon tax on products sold (domestic & imports)
- ③ New custom duty or tax on imports

⇒ *EU policy shifting from free allocation to BCA on imports...*

# Competitiveness channels & free allocation

## ABC FRAMEWORK



## FREE ALLOCATION

**Grandfathering**  
Channel C  
( $\approx$  Lump sum transfer)

**Output-based**  
Channels ABC  
( $\approx$  Output subsidy)

**EU ETS hybrid**  
Channels ABC  
(GF + OBA + benchmarking to top companies)

# Competitiveness support: Local vs global

## Local perspective: Competition within EU markets

- Free allocation levels playing field by diluting EU carbon price
- Import-BCA instead raises non-EU carbon price at border  
⇒ Either policy instrument can address Channel A

## Global perspective: Competition in markets outside EU

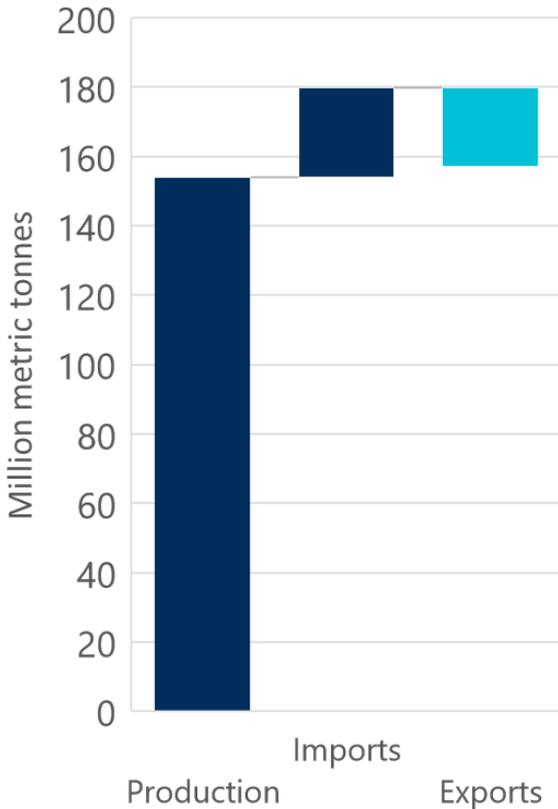
- Free allocation, in effect, provides subsidy to exports
- Import-only BCA gives no such support...  
⇒ Free allocation can address Channel B but BCA cannot

+ Short-run distortions affect long-run investment (Channel C)

⇒ *Free allocation can provide more holistic competitiveness support than an import-only BCA*

# Trade exposure & carbon pricing: Case of steel

EU steel trade



Top 10 export destinations



Countries with a broad-based carbon price

⇒ *Extent of trade exposure (Channel B) varies by EITE sector*

Note: Each flag represents 1% of EU exports to Top 10 receiving countries

# Legal perspective on BCAs

## BCA on exports

In principle, BCA could also cover exports to non-EU countries

- Exemption or compensation

Risk of violating international law:

1. Less likely to be considered necessary for **environmental protection** (GATT)
2. Likely to be considered a subsidy due to **forgone government revenue** (WTO)
3. Contingency on export performance challenged as **prohibited subsidy**

## Import-BCA + free allocation

Risk of legal challenge can be lowered under certain conditions:

1. Protecting competitiveness against **non-EU products with higher CO<sub>2</sub> intensity**
2. Free allocation can still provide **dynamic incentives via benchmarking** to top companies
3. **Full auctioning** for products sold into domestic EU market + **free allocation for exports**

# Conclusions & policy implications

**Introduction of EU BCA on imports does not necessarily make redundant free allocation to EITE sectors**

⇒ Free allocation could gradually decline alongside import-BCA while climate policy outside EU ramps up

**More generally, policymakers in EU (in future, also in other jurisdictions) need to navigate complex trade-off**

- ***Free allocation***: Broader competitiveness support
- ***BCA***: Stronger carbon price signal + extra fiscal revenue

⇒ Trade-off may resolve differently across EITE sectors (export reliance, value of stronger abatement incentive)