
Climate Deposit for materials

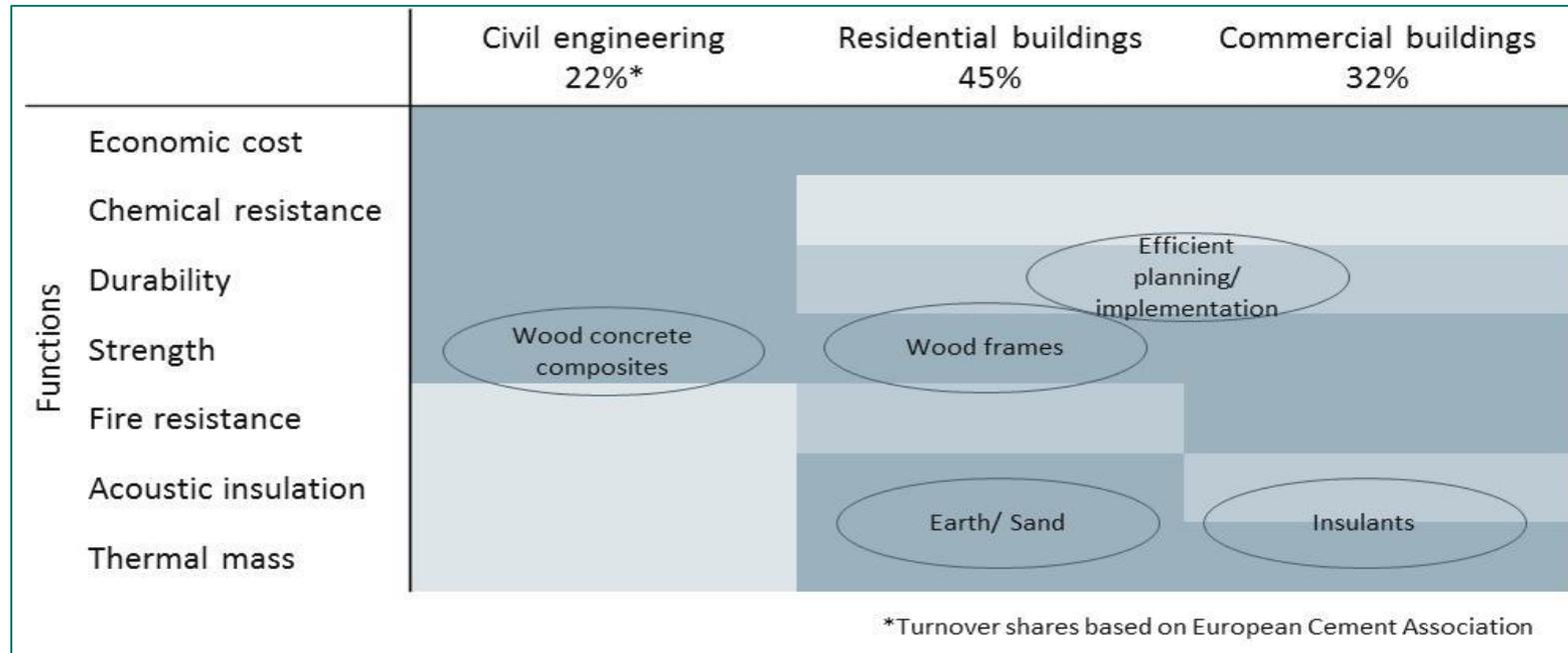
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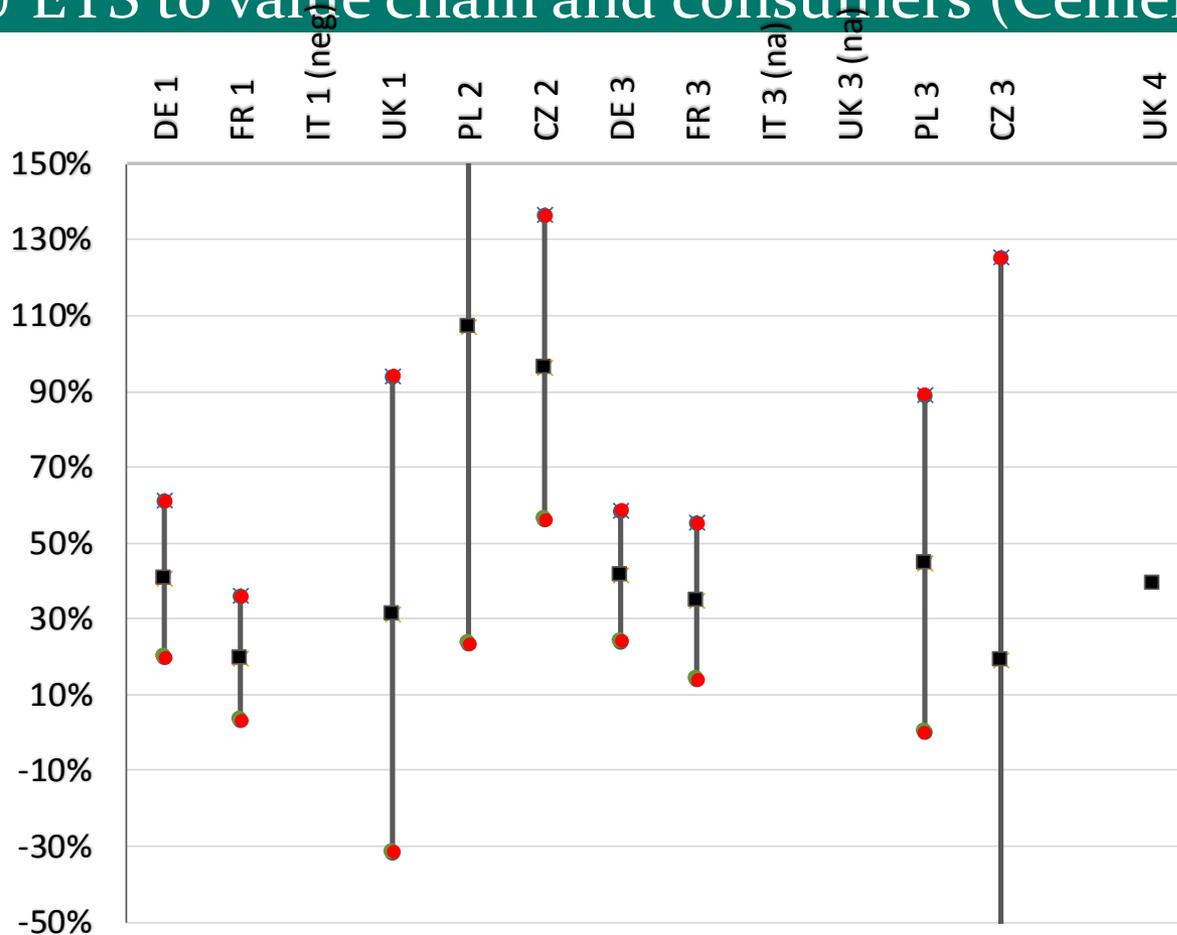
Does price matter for material choice?



Primary customer demands:

1. Proven long-term product quality, adapted to application;
2. Price

Estimated Carbon cost pass-through rates from EU ETS to value chain and consumers (Cement)

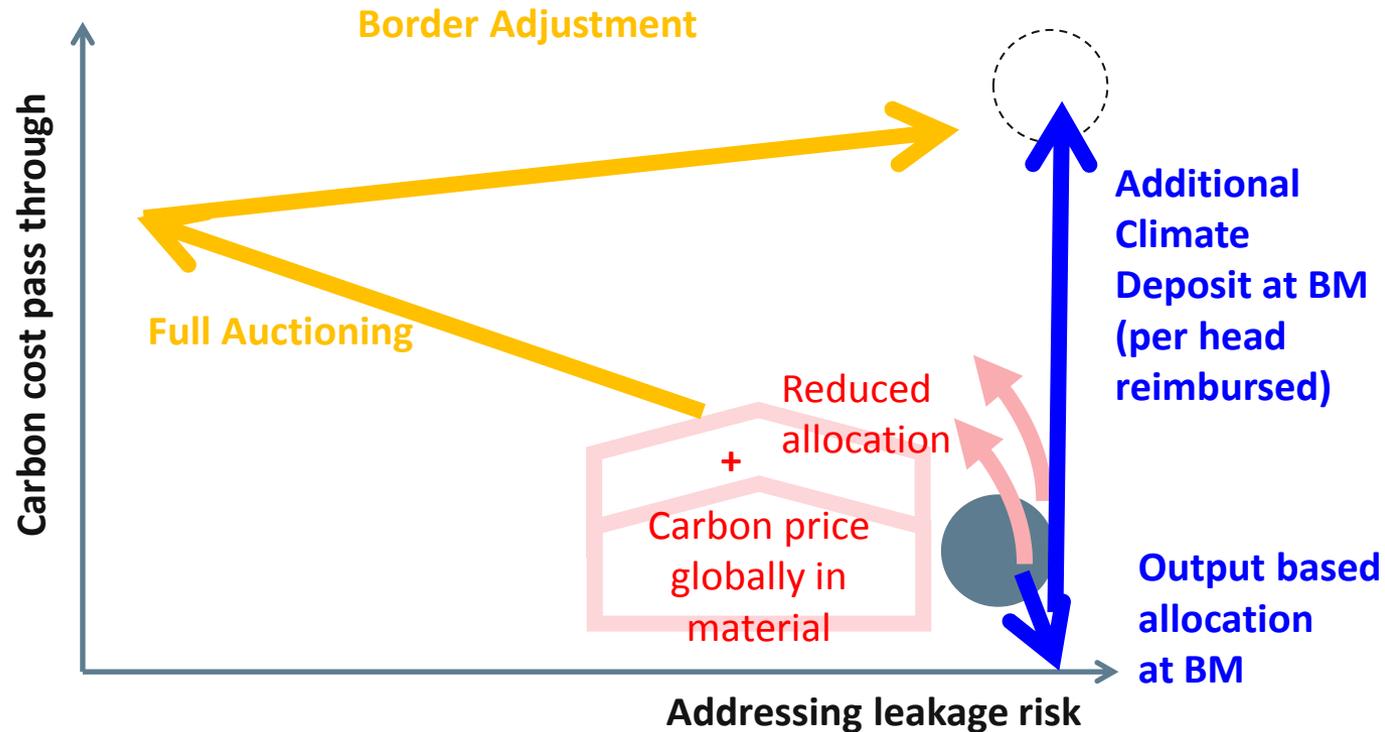


Empirical evidence: only partial degree and uncertain cost pass-through.

Notes:

- The limits form 95% confidence intervals for the pass-through rate (DIW calculations)
- 1 represents total cement, 2 represents Portland Cement, 3 represents Clinker (all CE Delft) UK 4 represents (gas) energy pass-through rate for ceramic bricks from Oberndorfer et al (2010).
- All estimates use time-series methodology, (neg) indicates that estimates were negative and unreported, and (na) indicates that the data series did not pass tests for further analyses.

3 Three strategies to deliver full carbon cost pass through



Basic options for leakage protection in post Paris world of differentiated carbon prices:

0. Iterative increase of carbon price in traded materials with reduction of free allocation
1. Full auctioning for incentives backed by Border Adjustment for leakage protection
2. Output based allocation for leakage protection & Climate deposit for incentives

Policy makers need to implement one strategy to give clarity for clean investments.

Finding from technical reports on integrating climate deposit in EU ETS

- Pricing Carbon Consumption: Synthesizing an Emerging Trend (Munnings C., Acworth, W., Sartor, O., Kim, Y.-G., Neuhoff, Climate Policy)
- Quantifying Impacts of Consumption Based Charge for Carbon Intensive Materials (Pauliuk, Neuhoff, Owen, Wood, DIW Discussion paper)
- Inclusion of Consumption into Emissions Trading Systems: Legal Design and Practical Administration (Ismer/Haussner, Neuhoff, Acworth)
- Benchmarks for Emissions Trading – General Principles for Emissions Scope (Zipperer, Sato, Neuhoff, *DIW Discussion Papers*)
- Inclusion of Consumption into the EU ETS: The Legal Basis under European Union Law (Ismer/Haussner, RECIEL)

Design ensures compatibility with administrative processes and WTO & EU rules.

<https://climatestrategies.org/projects/inclusion-of-consumption-in-emissions-trading/>

- National scale allows for faster implementation and create lead markets for innovative technologies/business models
- Legal background
 - National charges possible, if no formalities for EU trade: soft drinks (NL), coffee (D), aggregates (DK, UK) (Art 1.3 of 2008/118/EC Excise Duty Directive)
 - For excisable goods: common framework & national charge level: alcohol, tobacco, fuel
- National programmes offer learning & create familiarity for EU (UK and NL blueprint for EU ETS, Tokyo and Chinese provincial ET systems)
- Revenue can fund decarbonisation (e.g. project based contracts for difference) and thus ensure sufficient scale funding + acceptance
- Remaining revenue reimbursed per head to protect poor.

Climate deposit at national scale possible and economically and politically valuable.

National programs would likely have to focus on information provided about product at point of sale (weight of steel, cement, plastic)

Climate deposit for material delivered to construction site

- Commercial sales of material to final users gives rise to liability
- Commercial delivery of material to construction site gives rise to liability

Importing firms need to report immediately (e.g. 24h) to national authorities about delivery to construction site if threshold exceeded

Climate deposit for new cars registered

- Final sale for registration in country gives rise to liability
- Based on information by car producer on weight of steel, plastic, glass in car
- For private car imports (EU): deposit payable upon registration of new cars (see VAT)

Making use of sector specific circumstances can accelerate implementation.

- Half of carbon intensive materials are imported into EU (direct and in products)
- This reduces carbon price pass-through, motivates exemptions, limits incentives
- Ensure full carbon price incentives for all decision makers with Climate Deposit
- At EU level
 - Simple administration following value chain (like other consumption charges)
 - WTO-compatible, already envisaged for 2023 review in EU ETS Directive
- At national level
 - Based on reported weight of materials in product and benchmark factors
 - Tailor to product categories to integration with administrative procedures
 - Creates learning experience for subsequent EU level implementation

Inclusion of Consumption of Carbon Intensive Materials in Emission Trading

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