

Carbon Leakage and Competitiveness – what have we learned so far?

European Commission

**First Stakeholder Meeting on post-2020 Leakage Provisions for
the EU Emissions Trading System**

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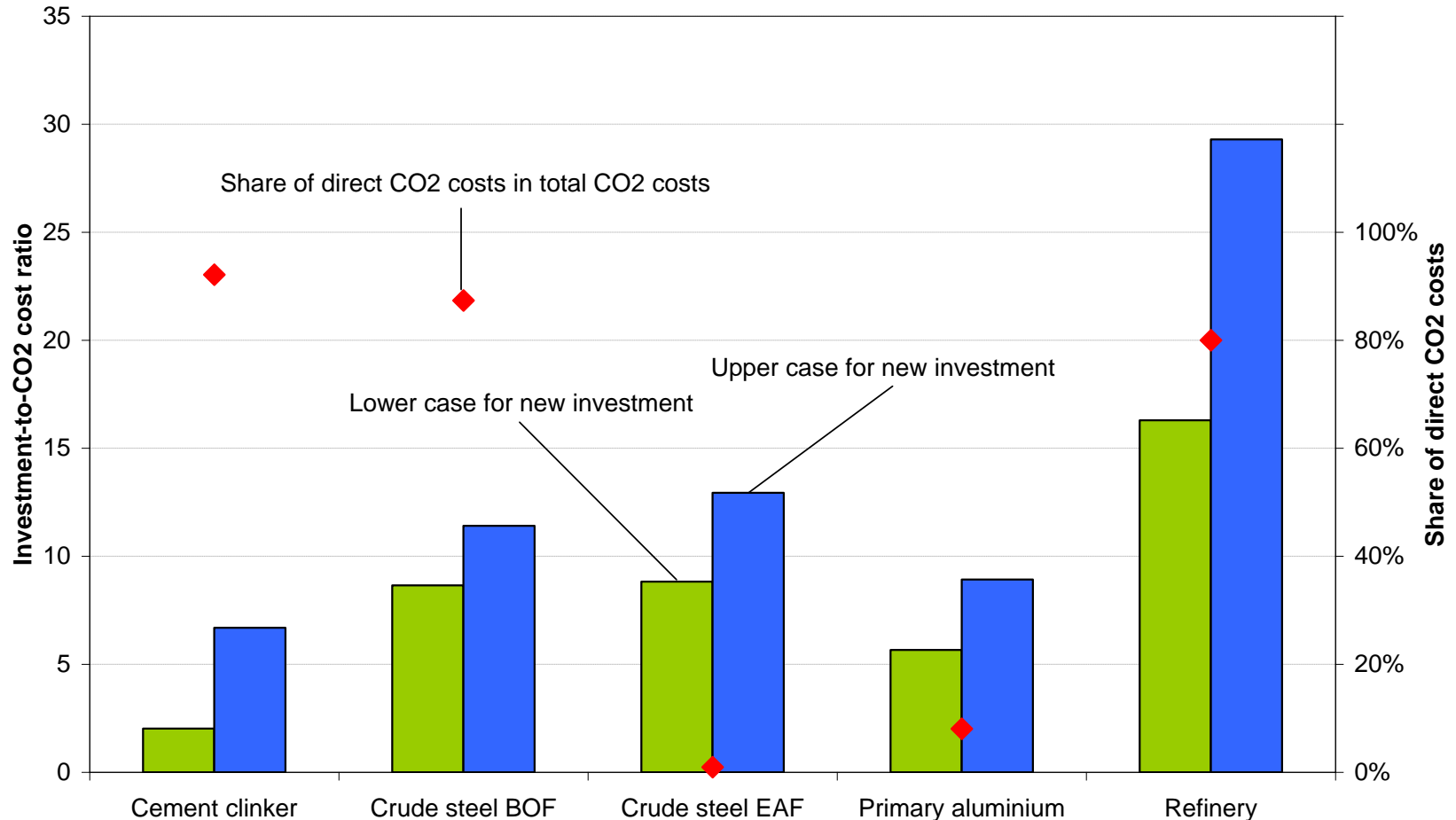
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- **Ex post perspective: No significant EU ETS-triggered Carbon Leakage observed**
 - Challenge of carbon leakage overstated?
 - CO₂ prices too low (or too volatile) to trigger leakage?
 - Effective countermeasures to prevent carbon leakage (direct and indirect carbon costs)?
 - Time period for observations too short (i.e. production leakage vs. investment leakage)?
 - Uncertainties on carbon pricing in (some) other jurisdictions too high?
- **Ex ante perspective: Predictions on carbon leakage**
 - Broad diversity in modelling results
 - Many key assumptions in question (“In Search of the Armington Elasticity”)
 - Real world representation (of countermeasures etc.) in question
- **The way forward: Building empirical evidence and learning by doing**

- **Two main routes: Free allocation (for non-electricity) & compensation of indirect costs**
- **Free allocation**
 - Key mechanism for industrial emissions
 - 97% of industrial emissions qualify for allocation under the carbon leakage provisions (of that 70% combined criteria, 20% carbon cost criterion, 9% trade intensity criterion, 1% qualitative assessments)
 - Impact of the system-wide adjustment factor to be stronger in future
 - Some unrealistic assumptions for compilation of the leakage list
 - Carbon price within the EU ETS
 - (Implicit) carbon prices outside the EU: US (regions), China (provinces, nation-wide to come), South Africa (carbon tax) etc.
 - Could new (price elasticity etc.) or company-specific indicators be suitable and feasible ?
 - Effective with regard to production leakage but effectiveness for investment leakage in question

Carbon Leakage & EU ETS countermeasures

Narrowing the focus (2)



- **Incentives for operational and investment leakage are very different!**
- **Taylor-made approaches suitable (allocation & investment support)?**

Carbon Leakage & EU ETS Countermeasures

Offsets between allocation & price distortions

CO ₂ price signal creates incentives for			Optimal level of		Optimal intensity for		
			demand/ product innovation	production	CO ₂ (energy, fuel, other inputs)	Energy	
Incentivized optimization is			System-wide		Plant-specific		
Distortion of CO ₂ price signal = loss of economic efficiency = higher allowance prices in future			Comprehen- sive price signal. Least distortion	Price signal for optimal production at given demand	Price signal for optimal specific CO2 emissions at plant level	Price signal for optimal energy efficiency at plant level	
Auctioning			X*	X	X	X	
Free Allocation	No updating	Historic emissions		(X)	X	X	X
		Benchmarks based on	All parameters (products, technology, inputs and/or fuels)		(X)	X	X
	Capacity only		(X)	(X)	X	X	
	Product-specific only		O	(X)	X	X	
	Product- and technology-specific		O	O	(X)	X	
	Product-, technology- and input-/fuel- specific		O	O	O	X	
	Updating (incl. new entrant allocation)		Historic emissions		O	O	O
O - not ensured. X - ensured. (X) - ensured in general, but depends also from other factors. X* - ensured in general, if no carbon leakage can be assumed							

Thank you very much
非常感谢! 欢迎指教!

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