

Aviation in the EU Emission Trading System

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Conference on carbon pricing and
aviation taxes
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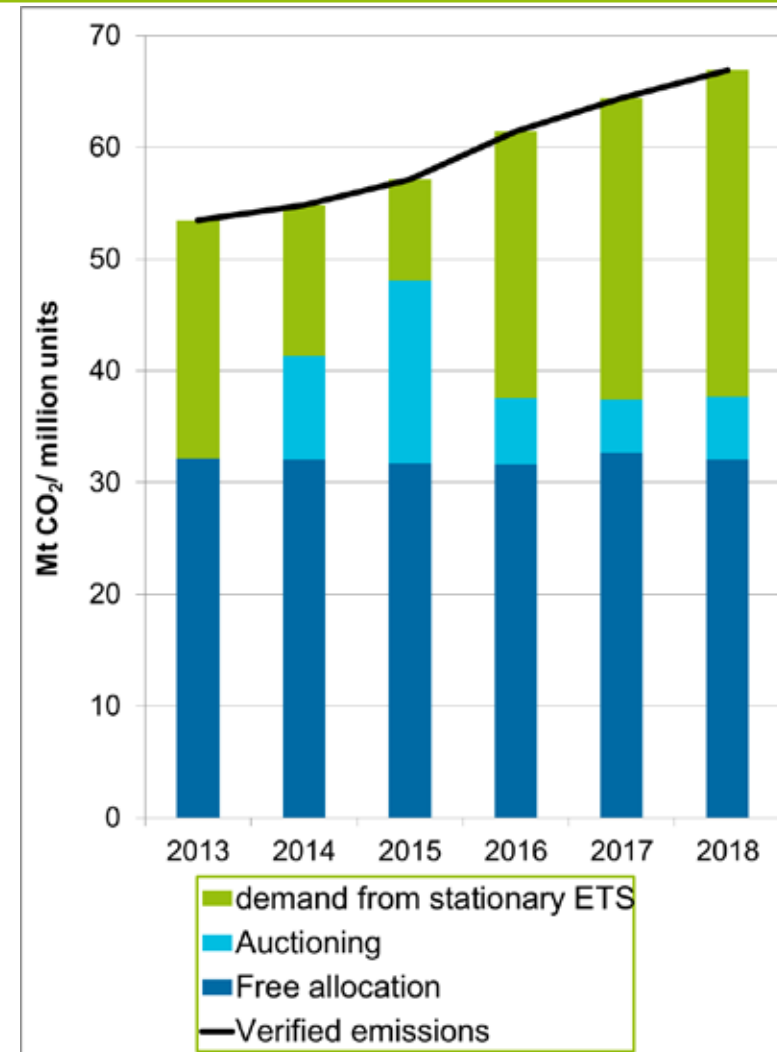


Aviation in the EU ETS

- Geographic coverage
 - all flights **starting and/or landing** in the European Economic Area (EEA - EU + Norway, Island and Liechtenstein)
 - Since 2013 (temporary) „Stop the clock“-scope: all flights **starting and landing** in the EEA
 - Some exclusions (de-Minimis, military flights, ...)
- Cap
 - 2013-2020: constant 95% of the average emissions 2004-2006 (intra-EEA scope)
 - 2021-2030: linear reduction of 2.2% per year
- Semi-open system: aviation operators can use allowances from stationary ETS

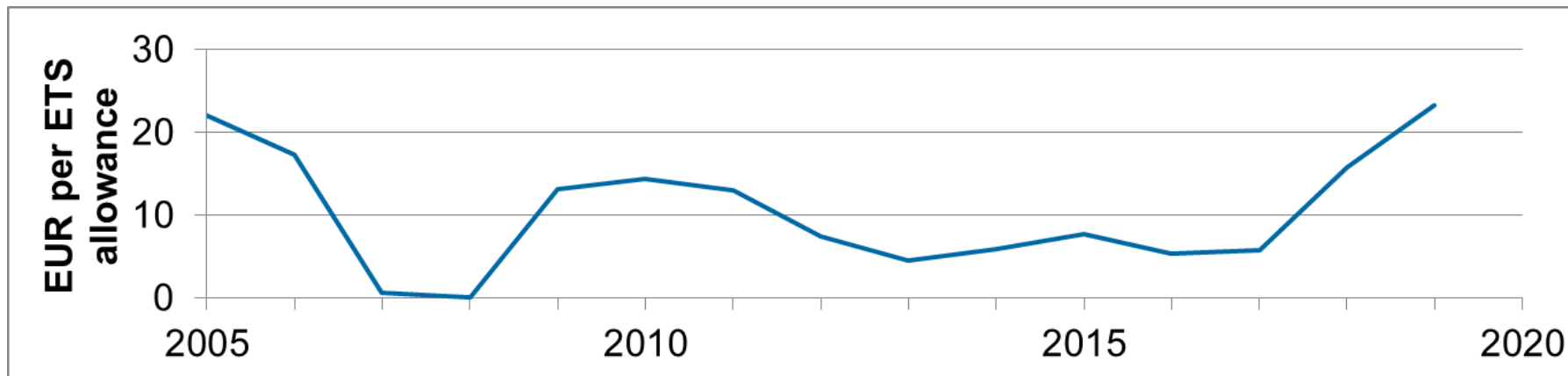
Allocation, supply & demand

- Allocation
 - 82% for free through benchmark
 - 15% auctioned
 - 3% for free for new entrants
 - Operators receive $\approx 50\%$ of required allowances for free (2013-2020)
 - Stationary ETS
 - Massive oversupply
 - 25 times higher emissions
 - “unlimited” supply for aviation
- So far no real cap & low prices
- Minimal impact on emissions



Reform of the EU ETS for Phase IV (2021-2030)

- Faster declining cap
- Market Stability Reserve (MSR)
 - withdraws surplus allowances from market
 - Size is limited to auction volume of previous year
 - emits units if market is not liquid enough and allowances in MSR
- EUA-price has recovered since adoption of reform



EU ETS and kerosene tax

- Kerosene tax and ETS directly increase cost of fossil fuels
- EU ETS price
 - likely to remain (well) below 40 EUR/t CO₂ until 2030
 - Too low to trigger decarbonisation in aviation sector
- EU Energy Directive:
 - minimum kerosene tax of 33 ct/litre (equals 105 EUR/t CO₂)
 - 25 EUR/t CO₂ equals a tax of 8 ct/l kerosene
- Impact on costs

		London - Paris	Amsterdam - Rome	Frankfurt - Las Palmas
Distance	km	400	1 350	3 300
CO ₂ -emissions	kg/PAX (economy)	46	125	252
Carbon costs [EUR/PAX one way]	5 EUR/t CO ₂	0.23 €	0.63 €	1.26 €
	25 EUR/t CO ₂	1.15 €	3.13 €	6.30 €
	33 ct/l kerosene	4.82 €	13.10 €	26.40 €

Parallel tax and ETS

- Stationary ETS:
 - Standard case: energy taxes and ETS in parallel
 - Very limited exemptions for industries at high risk of carbon leakage
- No or very limited waterbed effect
 - Waterbed effect: reduced demand from one ETS sector leads to higher emissions in other ETS sectors
 - MSR removes any new surplus from the market and cancels allowances
 - Aviation ETS too small to drive price for stationary ETS
 - Future reforms of the ETS can take any reduced demand from aviation into account

Key messages

- Unique and questionable privileges for (int.) aviation :
 - no energy tax
 - no VAT
 - 50% free allocation in EU ETS
- Aviation in the EU ETS
 - So far little impact on emissions due to low price and oversupply
 - With reformed ETS aviation demand might trigger faster decarbonisation in stationary ETS
- Kerosene tax in parallel to ETS
 - necessary to speed up transformation of aviation sector
 - No waterbed effect due to MSR and future ETS reforms
 - Default approach for all other sectors
- CORSIA not an adequate substitute for ETS or tax

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