A comparison between CORSIA and the EU ETS for Aviation
European Parliament, 8 March 2017
CE Delft

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Outline

1. Aim and scope of the study
2. Emissions and offsetting obligations under CORSIA
3. Emissions and allowance surrendering obligations under EU ETS
4. Comparison of CORSIA and EU ETS
Aim and scope of the study

Aim:
• Analyse the emissions covered in CORSIA and the EU ETS between 2021 and 2035
• Analyse the amount of emissions to be offset under CORSIA and the amount of emissions to be mitigated in the EU ETS between 2021 and 2035

Scope:
• Analysis of the difference between the emissions cap and the projected emissions (Not an analysis of environmental effectiveness)
• Time period 2021 - 2035 (in line with CORSIA)

Method:
• Modelling with AERO-MS
• ICAO CAEP/9 most likely growth scenario
CORSIA

- Agreed in 2016 in ICAO
- Aviation sector surrenders offsets for emissions above the 2019-2020 baseline
- Three phases
  1. Pilot phase (voluntary participation) 2021-2023
  2. First phase (voluntary participation) 2024-2027
  3. Second phase (mandatory participation for qualifying countries) 2028-2035
- Cumulative offsets: 2,711 Mt (81% of projected increase of emissions)
- Most offsets in second phase (longest period, most countries, highest projected emissions)
EU ETS

Six scenarios
• Original scope
• 50% of emissions on departing and arriving flights
• Stop the clock (current scope)
• Either with or without Linear Reduction Factor of 2.2% from 2021

Results
• Cumulative demand for allowances in original scope 3,800 - 3,800 Mt
• In stop the clock scope, demand for allowances 800 - 1,000 Mt
Comparison of CORSIA and EU ETS

CORSIA: more emissions
EU ETS: lower cap

At least 20% more emissions to be offset/mitigated under EU ETS original scope than under CORSIA

Mitigation obligation in intra-EEA+ scope about 30% of CORSIA

It takes 2-15 years for CORSIA to overtake EU ETS

<table>
<thead>
<tr>
<th>Scope</th>
<th>Annual emissions</th>
<th>Cumulative emissions from 2021 onwards</th>
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<tbody>
<tr>
<td>Cap: 95% of 2004-2006</td>
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<tr>
<td>Intra EEA+</td>
<td>2022</td>
<td>2023</td>
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<tr>
<td>50/50 - 100% Intra EEA+ and 50% intercontinental</td>
<td>2027</td>
<td>2030</td>
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<tr>
<td>Original scope - all departing and arriving</td>
<td>2032</td>
<td>Not in 2021-2035</td>
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<tr>
<td>Cap: LRF of 2.2% per year</td>
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Thank you for your attention

Jasper Faber
faber@ce.nl