

## Research for TRAN Committee – The aviation and maritime sectors and the EU ETS: challenges and impacts

### KEY FINDINGS

- The forthcoming revision of the EU Emission Trading System (EU ETS) is likely to include maritime shipping and to strengthen the existing scope and rules for aviation – also considering its interplay with the ‘Carbon offsetting and reduction scheme for international aviation’ (CORSIA). Key design options of a revised EU ETS with impacts on the competitive situation of EU carriers and vessels include the scheme’s geographical scope, baseline year(s), cap and allocation of allowances, and – for aviation – the relationship with CORSIA.
- The heterogeneity of the maritime shipping sector and the fluctuation of ships’ annual emissions within the potential scope of the EU ETS can be a challenge for certain design elements. The design of the EU Monitoring, Reporting and Verification (EU MRV) system and the data provided by the system play an important role in this context.
- Aviation activities so far covered by the EU ETS are intra-EEA flights, with only limited impacts on competition. The situation is different on extra-EEA routes: after the Pandemic, CORSIA will require the airline sector to purchase offsets for its emissions exceeding 2019 levels on international routes and between participating states. The CORSIA baseline (2019) is less ambitious than the EU ETS baseline (2004-06). Hence, routings from, to or via the EEA would have a competitive disadvantage compared to routes via non-EEA airports, especially if the EU ETS was extended to extra-EEA flights.

The present document is the executive summary of the study on “The aviation and maritime sectors and the EU Emission Trading System: challenges and impacts”. The full study, which is available in English can be downloaded at: <https://bit.ly/3dTT8B1>



The forthcoming revision of the EU Emission Trading System (EU ETS) is likely to include maritime shipping and to strengthen the existing scope and rules for aviation – also considering its interplay with the Carbon offsetting and reduction scheme for international aviation (CORSIA).

This overview briefing provides initial background information on the two sectors, the EU ETS and its revision process, and on other international

Greenhouse gas (GHG) regulation of relevance as well as first considerations on the eventual full integration of the two sectors into the EU ETS. This shall help Members of the European Parliament to systematically assess the upcoming Commission proposal for a revised EU ETS.

## The EU-ETS

The EU ETS is a policy instrument where for each tonne of CO<sub>2</sub> emitted, an emission allowance has to be submitted at the end of a compliance period. The total number of allowances issued is limited in accordance with a politically set emissions cap, the environmental goal. If a participating entity needs more allowances than initially received/bought, it may purchase them from other entities which manage to reduce their emissions more quickly or more cheaply, for example by investing into emission reducing technologies. Advantages of an ETS are its environmental effectiveness (the environmental goal, i.e. the cap, is definitely achieved) and its economic efficiency (emissions are first reduced where it is most cost-effective to do so).

## The maritime shipping sector

- State of play

Since maritime shipping is currently not included in the EU ETS, various design options have to be considered when the sector is included in the system. The impact on the sector's compliance costs and the associated economic and social impacts will thereby have to be weighed against the benefits. The heterogeneity of the sector and the fluctuation of ships' annual emissions within the potential scope of the EU ETS can be a challenge for certain design elements. The design of the EU MRV system, which requires ships to monitor and report different parameters like their fuel consumption and CO<sub>2</sub> emissions, and the data provided by the system play an important role in this context.

- Perspectives

The integration of maritime shipping into the EU ETS can have different economic and social impacts. Due to the compliance costs associated with the EU ETS, the costs of maritime transport/activities on routes within the scope of the EU ETS can be expected to increase. Some actor in the value chain will have to carry the additional costs and since the EU ETS is a regional and not global measure, it entails the risk of market distortions.

A potential shift from sea to road, rail or air transport due to EU ETS has to be considered too. A modal shift to other transport modes is, from a social perspective, however, only an issue if the other modes of transport are subject to no or to a less strict environmental regulation.

As the International Maritime Organization (IMO) has not yet started to consider global market-based measures to address GHG emissions from ships, in line with its so-called [Initial Strategy](#), there is at present no need to align the EU ETS with a global measure.

### **The aviation sector**

- State of play

The EEA aviation sector can roughly be divided into the liberalized intra-EEA market and various extra-EEA markets. Within the EEA, direct point-to-point flights by pan-European, ‘homeless’ low cost carriers operating between airports all across Europe compete with network carriers which have a strong market presence on flights to and from their hubs, usually the European capitals. Between the EEA and third countries, European hub carriers compete with direct or indirect routes offered by extra-EEA carriers. Key hubs outside the EEA through which these carriers route their traffic are London or Zürich in Europe, North American gateways like New York or Atlanta, and Middle Eastern hubs like Dubai, Doha and Abu Dhabi. Also, Turkish Airlines or Aeroflot have strongly increased their presence in the EEA from where they route passengers through Istanbul and Moscow, respectively.

- Perspectives

Key design options of a revised ETS with impacts on the competitive situation of EU carriers and on carbon leakage include the scheme’s geographical scope (routes covered), the baseline year(s), cap and allocation of allowances, and the relationship with CORSIA.

- International dimension

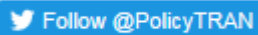
So far, the EU ETS only covers intra-EEA flights. Its competitive effects are limited as all intra-EEA routings, both by low cost and network carriers, fall under the scheme. On flights from and to extra-EEA countries, the situation is different: CORSIA requires airlines to purchase offsets for their emissions exceeding 2019 levels on international routes. As the CORSIA baseline (2019) is less ambitious than the EU ETS baseline (2004-06), routings from, to or via the EEA would have a competitive disadvantage compared to routes via non-EEA airports, especially if the EU ETS was extended to extra-EEA flights.

This overview briefing is part of an ongoing larger research project aimed at analysing the implementation and socio-economic effects and perspectives related to the eventual inclusion of aviation and maritime in the EU ETS. The full analysis and assessment of the Commission’s proposal is expected to follow in fall 2021.

## Further information

This executive summary will be available in the following languages: English, French, German, Italian and Spanish. The study, which is available in English, and the summaries can be downloaded at: <https://bit.ly/3dTT8B1>

More information on Policy Department research for TRAN: <https://research4committees.blog/tran/>



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