The aviation and maritime sectors and the EU Emission Trading System (EU ETS): challenges and impacts

The EU ETS is a policy instrument where for each tonne of CO₂ 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).

Main observations

The forthcoming revision of the 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 system (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-European Economic Area (EU-27+ Iceland, Norway and Liechtenstein) flights (EEA), 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.

Conclusions and policy recommendations

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, the measure entails the risk of market distortions.
Key aviation activities so far covered by the EU ETS are intra-EEA flights. The socio-economic and competitive effects of the existing ETS are limited as all intra-EEA routings, both by low cost and network carriers, fall under the scheme. Moreover, a switch to non-EEA carriers usually makes no sense as detours would become too long.

Based on the Commission proposal expected for this summer 2021, the final study - to be published in October 2021 - shall provide:

- An analytic overview of the revised ETS legislative framework and an analysis and evaluation of the relevance and appropriateness of the market indicators considered;
- The identification of implementation issues, challenges and obstacles and the associated impacts/trade-offs and solutions;
- An assessment of the consequences of the inclusion of the sectors into the EU ETS on competitiveness and employment, considering environmental policies in force among extra-EU top players;
- The identification of policy actions to counterbalance identified, unintended market effects leading to competitive disadvantages and detailing the way forward for strengthening the EU players.

Figure: Schematic overview of CORSIA.

References: Assembly Resolution A293-P, Paragraphs 10/11/12; ICAO CORSIA website (“CORSIA States for Chapter 3 State Pairs”)

Source: Study’s Authors’ own illustration, based on Maertens et al. (2019)