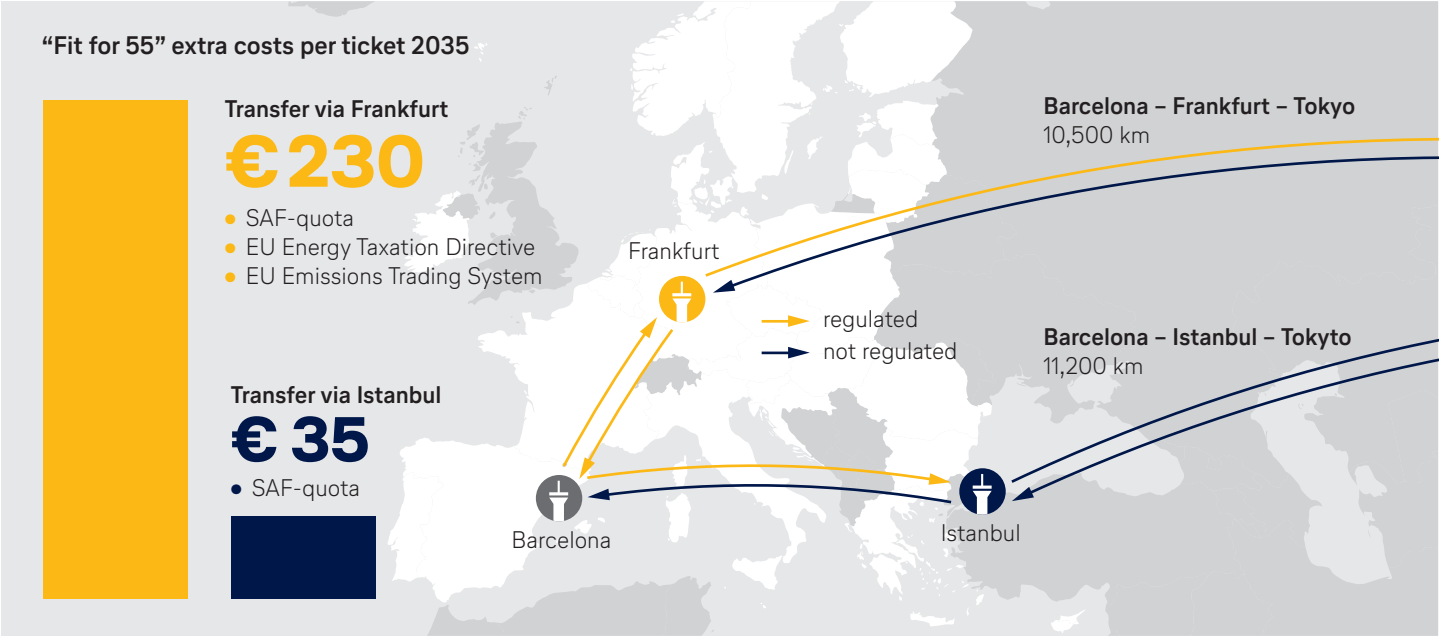
Sustainable fuels

THESIS ON FALLING COSTS IS THIN

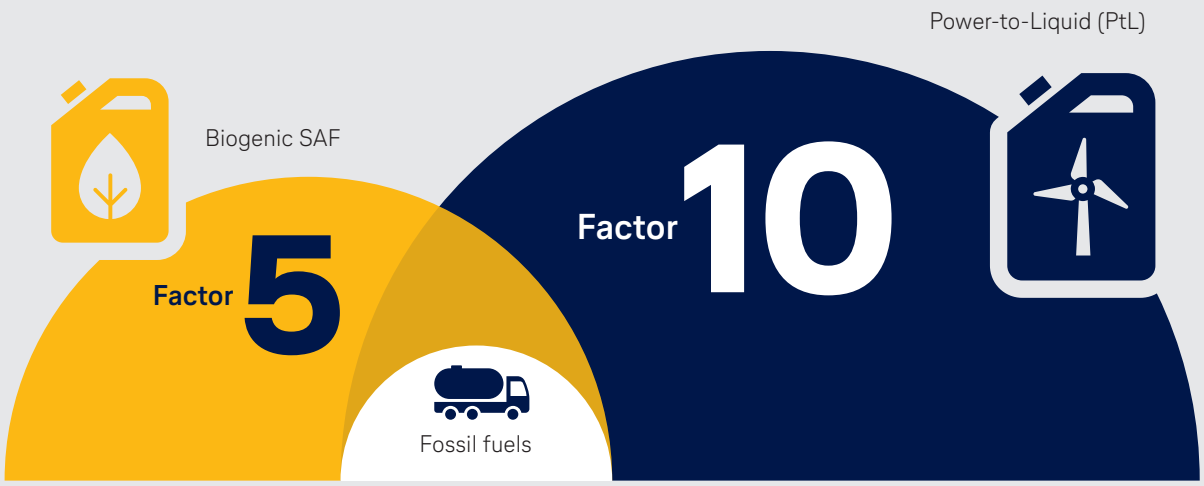
Proposals to tighten the Emissions Trading System (ETS) and a blending quota for Sustainable Aviation Fuels (SAF) were adopted for the aviation sector as part of the "Fit for 55" climate protection package. Given the projected scarcity and high cost of sustainable aviation fuels, the quota must ensure a level playing field for airlines in the EU vis-à-vis non-European competitors. Additionally, it is crucial to establish a dedicated SAF funding program.



Both the reform of the ETS and the quota for sustainable aviation fuels create unfair competitive conditions as they primarily affect European airlines. In particular, the design of the SAF quota has a distorting effect on competition, as it unilaterally increases the costs of connecting flights through European hub airports. Airlines with hubs at the gateways of Europe, such as Istanbul or Doha, benefit from this situation as they can offer long-haul connections at a significantly lower price. This quota is detrimental in terms of both industrial and climate policy, as it merely shifts emissions instead of reducing transport-related CO_2 emissions (carbon leakage).

The following example illustrates the extent of the competitive disadvantage created by the "Fit for 55" measures: According to current predictions, a Lufthansa flight from Barcelona to Tokyo with a layover in Frankfurt and a return trip will cost approximately 230 euros extra per ticket in 2035. A flight via Istanbul with a competitor, on the other hand, will only cost about 35 euros extra per ticket. The decisive factor here is the SAF quota. Most of these additional costs, more than 170 euros per ticket, are due to the high price of sustainable kerosene. The SAF costs alone for the Lufthansa Group are enormous: around 4.6 billion euros per year from 2035. In comparison, Lufthansa Group's profit averaged around 1.2 billion euros during the successful period between 2010 and 2019. In addition, Lufthansa invests billions every year in climate protection measures, regardless of any regulatory requirements. In addition to its commitment to SAF, these investments primarily focus on new aircraft.

Massive price difference between fossil fuels and sustainable fuels



Price development for SAF is uncertain

Currently, biogenic SAF is about five times more expensive than fossil kerosene, while electricity-based fuels (Power-to-Liquid = PtL) are even up ten times more expensive. Proponents of high quotas argue that the SAF market ramp-up will lead to lower prices. However, there is no evidence to suggest that such a reduction is happening anytime soon. A recent study conducted by the consulting firm Bain supports this notion, stating that the limited availability of biomass will likely keep the costs of SAF high. Even beyond 2050, forecasts indicate that SAF will remain approximately two to four times more expensive than traditional kerosene.

Completely uncertain is the future price and production capacity of electricity-based fuels. Currently they are only available from test facilities. The consequences of the pandemic, war, inflation and supply chain disruptions are hindering production. Nevertheless, the EU has adopted a PtL sub-quota, which will start at 1.2 percent in 2030 and rise to 35 percent by 2050. All member states are expected to comply with this EU-wide requirement to avoid distorting competition within the EU. As things stand today, it is unlikely that there will be sufficient electricity-based fuel in order to meet the PtL quotas.

If the fuel blending requirements increase in the EU over the years without a decrease of SAF prices, the gap between competitors will continue to widen. Price adjustments are necessary:

- **Germany:** The German government must take account of the EU harmonization of PtL quotas and refrain from unilateral national initiatives before 2030. Incentive systems for SAF and PtL must promote production and use of sustainable aviation fuels. Effective funding mechanisms, primarily for initial cost-intensive large scale projects, need to be implemented unbureaucratically. This is the only way SAF and PtL quotas can be met.

- **EU:** The review process outlined in ReFuelEU must be used to correct the design of the SAF quota. Equal treatment of airlines and hubs in Europe vis-à-vis non-European competitors is necessary. One possible solution would be a European climate protection levy that would be charged to all airlines depending on the destination of travel (using the German air traffic tax as a model). In addition, an EU-wide SAF funding program is necessary. EU aviation agreements with third countries must focus more intensely on the market ramp-up for SAF.

- **Globally:** As an international climate protection instrument, CORSIA must be systematically implemented and further developed. A global SAF quota would be the right instrument to ensure fair international competition and accelerate market development.