

Emission trade in the Aviation Industry
European Union Emission Trading Scheme (EU-ETS)
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Introduction and interpretation of the legislation

On the 19th of November 2008, the European Parliament and Council passed legislation regarding airline emissions, with the following content:

“1. For the period from 1 January 2012 [...] the total quantity of allowances to be allocated to aircraft operators shall be equivalent to 97 % of the historical aviation emissions.

2. For the period referred to in Article 11(2) beginning on 1 January 2013, and, in the absence of any amendments following the review referred to in Article 30(4), for each subsequent period, the total quantity of allowances to be allocated to aircraft operators shall be equivalent to 95 % of the historical aviation emissions multiplied by the number of years in the period.

3. A Regulation shall be adopted containing detailed provisions for the auctioning by Member States of allowances not required to be issued free of charge in accordance with paragraphs 1 and 2 of this Article or Article 3f(8). The number of allowances to be auctioned in each period by each Member State shall be proportionate to its share of the total attributed aviation emissions for all Member States for the reference year reported pursuant to Article 14(3) and verified pursuant to Article 15. For the period referred to in Article 3c(1), the reference year shall be 2010 and for each subsequent period referred to in Article 3c the reference year shall be the calendar year ending 24 months before the start of the period to which the auction relates.”¹

Before the legislation was enacted, international agencies, governments, and individuals had discussed the links between climate change and aviation for many decades. Moreover, the International Civil Aviation Organization (ICAO), of which most countries were members, and the International Air Transport Association (IATA) (to which most of the world’s airlines belong) are the natural bodies for discussing such initiatives. Even so, they had not taken any

¹ <http://tinyurl.com/AJS201410142359>

significant measures. Given that nothing much had happened as the new millennium dawned, the EU decided it would regulate the market on its own.

Background Information – The global community’s struggle to regulate aviation pollution

From 1990 to 2000, the Earth’s average surface temperature has risen by 0.6 degrees Celsius and it is predicted to rise by another 5 degrees Celsius by the end of the twenty-first century (IPCC, 2013). Today’s scientific community generally sees carbon dioxide and greenhouse gases as being responsible for a rise in global temperatures and for a change in the world’s climate (Lund, 2007).

Climate change has severe impacts on the Earth’s ecosystems as well as on society in general. Even though the international community recognises this tremendous challenge, so far agreements and outcomes that might trigger major changes have not been forthcoming. The Kyoto protocol in 2005 came into force, setting binding emission targets for countries. Such attempts focus on the goal of reducing CO₂ emissions by 8% compared to 1990 levels. For this purpose, the EU established the European Union Emission Trading Scheme (EU ETS, 2013).

The EU ETS follows the premise of a cap-and-trade system. The governing body of the EU sets an upper limit for CO₂ emissions and gives certificates to every company, the amounts being calculated on a baseline year. Afterwards, the amount of emission certificates is reduced year by year, forcing companies to cut their CO₂ emissions. If companies do not cut these emissions (or fail to reduce them to the amount required) they can buy more certificates. These certificates, in turn, will be made available when they are sold by companies that reduced below the required amount. The system follows private market rules: Companies that offer certificates can set the price for them.

The European Union determined three phases for the introduction of certificates, mostly based on which industry is tackled when, and how much individual EU member countries could charge per certificate. In the first phase, from 2005 to 2007, member countries had to give 95% of their certificates out for free and were able to set a price for 5% of them (Ahmann *et. al.*). Only certain industries were included. Phase 2 lasted from 2008 to 2012, and Phase 3 is currently running until 2020.

The EU planned to include the aviation industry in the second phase. Since 2012, airlines have been included in the trading scheme. The EU wanted to introduce a system based on each flight that arrives in and departs from the European Union, thus including EU and non-EU airlines alike. The entire flight distance was taken as the basis for calculation.

The new directive / legislation in detail

The Environmental Protection Agency explains how the new system will work: all aircraft weighing over 5,700 kilograms “which fly to, from or within EU countries will participate in the EU Emissions Trading Scheme starting in 2012 [...]”²

The key idea of this regulation has been to charge a fee to every airline that departs from and arrives at an EU airport. This fee is based on the entire distance the plane has flown. Depending on the type of aviation and distance flown, different fees apply. The fee not only covers the whole flight distance — not just that flown in EU airspace. Thus, the price for a route from Singapore to Frankfurt has a high fee, while a route flown from Singapore via Istanbul to Frankfurt will have a relatively small fee since the distance from Singapore to Istanbul is not included in the fee.

Response of governments and the international community

After the legislation was announced by the European Commission, the global community voiced concern. Even though many nations, especially the US, supported the general idea of a cap-and-trade system, they opposed its implementation by the EU and feared that it put US Carriers at a disadvantage. “This is the wrong way to pursue a right objective”—stated a US official regarding the EU’s implementation of an emission trading system for the aviation industry (Kramer, 2012).

Susan Kurlad, Assistant Transportation Secretary said, “The right way forward is a global solution built on strong domestic action rather than a system imposed on us from outside” (Kramer, 2012). She argues that the EU’s unilateral approach is unlawful because it indirectly infringes nations’ territorial rights, since airlines have to pay a fee for pollution that does not take place in European airspace. Many countries argued that the EU solution tackles the right

² <http://tinyurl.com/AJS20141015021>

problem but does so using unfair means (Tunteng, 2010). They maintained that the ICAO is the only body that can decide on these measures, since it has a mandate from the UN to do so (as a result of the Kyoto Protocol). Since 1997, the ICAO had been delegated the issue of CO₂ emissions in the airline industry.

Moscow Meeting. Some non-EU countries felt they were being put at a disadvantage, since the regulation is not based on any of their policies, only on EU law (Scheelhase, Grimmer, & Schäfer, 2010). Still, aviation law always tries to balance the rules of departure and arrival countries, which in this case did not happen. Russia, China, the US, and twenty other countries met in Moscow in February 2012 to discuss how to proceed against the EU aviation fee³. They all signed what became known as the “Joint Declaration of the Moscow Meeting on Inclusion of International Civil Aviation in the EU-ETS” which states that the EU trading scheme in the aviation industry “leads to serious market distortions and unfair competition”⁴

Moreover, several countries threatened the EU by outlining possible countermeasures, should the legislation not be repealed. The International Institute for Sustainable Development points out that “The Moscow Joint Declaration also consists of an amendment outlining measures that could be taken by countries. These measures include initiating proceedings under Article 84 (settlement of disputes) of the Chicago Convention; barring participation of airlines and aircraft operators in the EU ETS; assessing whether the EU ETS is consistent with the World Trade Organization (WTO) Agreements; and imposing additional levies on EU carriers and aircraft operators as a countermeasure.”⁵

The EU always responds to such threats in a similar way. Thus, as the BBC reported, when China tried to put pressure on the EU, Commission spokesman Isaac Valore responded: “We don't work on the basis of threats but on discussions”⁶.

Response of the of the Aviation Industry

The International Air Transport Association (IATA) serves as an umbrella organisation of all airlines. It describes itself as “the trade association of airlines”⁷ and its 240 members make up about 84% of all air traffic. IATA’s statements are in many ways in line with the international

³ <http://tinyurl.com/AJS201410160908>

⁴ <http://tinyurl.com/AJS201410160908>

⁵ <http://tinyurl.com/AJS201410160908>

⁶ <http://www.bbc.co.uk/news/business-14325571>

⁷ <http://www.iata.org/Pages/default.aspx>

community's response regarding the EU aviation trading emission scheme. On the one hand, Paul Steele, IATA director for Aviation Environment, said that "The European Union should be congratulated for pushing for environmental mitigation and making it a primary concern for the aviation industry."⁸ On the other hand, he argued that "The model they [the EU member states] have adopted has become a major distraction. It is time to bring some clarity to the debate."

Opposition from European Airlines - Lufthansa

The strongest counterargument regarding the introduction of the fee relates to the system of calculating the fee. In general, CO₂ emissions can be decreased by pooling passengers at so-called hubs. Feeder flights transport passengers to such a hub, from which the passengers then fly to another hub, and from there may connect to another flight.

To grasp this idea, consider a passenger who would like to travel from Berlin, Germany to Kuala Lumpur, Malaysia. This passenger has two options. He could fly with Lufthansa to Frankfurt and board an A380—a fairly eco-friendly aircraft—and fly from Frankfurt to Kuala Lumpur. The flight from Berlin to Frankfurt is short, while the second leg of the flight lasts fourteen hours. On both flights, the passenger would have to pay the CO₂ fee for the entire distance, since both flights depart from an EU airport (Hein, 2002). However, the passenger also has the option to fly with Turkish Airlines from Berlin to Istanbul and from Istanbul to Kuala Lumpur. The first flight lasts about three hours, while the second lasts ten hours. On this route, the passenger would only pay the tax for the flight from Berlin to Istanbul and not for the flight from Istanbul to Kuala Lumpur, since neither Istanbul nor Kuala Lumpur airports are within the EU. Thus, even though the Lufthansa routing is the most environmentally friendly (given that an A380 is flown) Lufthansa would have to pay a much higher fee than Turkish Airlines. Since the margins in the airline industry are below 5%, this can have a tremendous impact on airlines' profit.

⁸ <http://airlines.iata.org/analysis/eu-emissions-trading-scheme-a-world-of-difference>

EU hubs at a disadvantage

Network carriers bundle passengers at their hubs to be able to serve long-haul routes efficiently. Emissions trading systematically makes flights via major EU airports more expensive:



<http://tinyurl.com/AJS201410150035>

The EU Court of Justice rules the European Directive is legal

As a response to International protests, the Court of Justice of the European Union ruled in December 2011 that EU activities were legal:

“The Directive including aviation activities in the EU’s emissions trading scheme is valid Application of the emissions trading scheme to aviation infringes neither the principles of customary international law at issue nor the Open Skies Agreement.”⁹

As was to be expected, responses to the ruling differed widely. While EU institutions welcomed the ruling, Tony Tyler, Director General and CEO of IATA said that “[The] decision is a disappointment but not a surprise. It does not bring us any closer to a much-needed global approach to economic measures to account for aviation’s international emissions. Unilateral, extra-territorial and market-distorting initiatives such as the EU ETS are not the way forward. What is needed is a global approach agreed through the International Civil Aviation Organization (ICAO)”.¹⁰

⁹ <http://tinyurl.com/AJS201410150030>

¹⁰ <http://tinyurl.com/AJS20141015027>

The European Union reacts

The harsh criticism from the international community led to the EU suspending enforcement of EU ETS requirements for flights to and from non-EU countries (Scheelhase, Grimmer, & Schäfer, 2010). The rule was only established for airlines flying within the EU, and thus never leaving EU airspace. This step has also been welcomed by the IATA, which published the following statement: "...the decision gives governments an invaluable window of opportunity to agree a comprehensive international framework to address aviation's CO2 emissions and resolve the increasingly contentious issue of how to apply market-based measures (MBMs) to international aviation. ..."¹¹

Global measures are agreed upon

This initiative put pressure on the International Civil Aviation Organization (ICAO) to suggest international legislation regarding airline emissions. For over fifteen years, this body had been discussing international aviation pollution rights, with almost nothing to show for it. In its session in October 2013, the body agreed to work until 2016 to develop a global market-based mechanism, which is scheduled to be applied by 2020. It also agreed on what individual countries or groups of countries, such as the EU, may require in the meantime.

The EU puts interim measures in place

Starting in 2014, it decided that flights will only be charged for the distance they travel within European airspace. Moreover, this regulation excludes countries with a share of less than 1% of international aviation activity, which often includes the least developed countries (LDCs). This list currently includes 70 countries. Flights between these countries and EU airports are completely exempt from the tax.

¹¹ <http://airlines.iata.org/analysis/emissions-trading-scheme-time-stands-still>