Climate Conundrums at High Altitude

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About the Author

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Abstract

The European Union (EU) was the frontrunner for the establishment of the world’s first multinational emissions trading scheme (ETS). Committed to combating climate change, the EU sought to overcome the multilateral paralysis within the International Civil Aviation Organization (ICAO) to mitigate aviation emissions. Unsuccessful in pushing for a global market-based measure (MBM) within the organisation, the EU was ready for take-off to include the sector in the EU emissions trading system (EU ETS). The geographical scope, however, including all flights from and to Europe in their entire trajectory, caused frictions with the international community about sovereignty issues. Ultimately, Climate Commissioner Connie Hedegaard announced a ‘stop-the-clock’ for international flights, a temporary derogation until the 2013 ICAO Assembly in order to find a global agreement.

The ‘stop-the-clock’ initiative provides ample opportunity to analyse EU leadership in curbing aviation emissions based on an analytical framework specifying different types of leadership. Its shows the global challenge to the EU’s claim of structural leadership on various levels in and beyond ICAO. The paper aims to analyse to what extent the EU is a global leader in mitigating aviation emissions and to identify the kind of EU leadership according to a threefold analytical framework. In addition, it will factor in the ‘stop-the-clock’ initiative and to what extent it altered the perception of EU leadership in the field.

The paper comes to the conclusion that EU leadership in mitigating aviation emissions is not stalling. On the contrary, the EU, by pursuing the extension of the EU ETS, has put aviation emissions on everybody’s radar – and thus showed idea-based leadership. Proving the scheme’s feasibility further underlined EU leadership, in the form of directional leadership. The ‘stop-the-clock’ decision, however, already indicated what was later on confirmed in the 38th ICAO Assembly: Unilateral structural leadership of the EU in the field of aviation emissions is not credible at the moment.
Introduction: The ‘stop-the-clock’ decision of November 2012

“In order create a positive atmosphere around these [ICAO] negotiations, I’ve just recommended […] that the EU ‘stops the clock’ when it comes to enforcement of the inclusion of aviation in the EU ETS to and from non-European countries until after the ICAO General Assembly next autumn. But let me be very clear: if this exercise does not deliver – and I hope it does, then needless to say we are back to where we are today with the EU ETS. Automatically.”¹ The statement of EU Commissioner for Climate Action Connie Hedegaard marked a turning point in the ongoing dispute about the mitigation of aviation emissions within the EU Emissions Trading Scheme (EU ETS). Fierce global opposition, on both a legal and diplomatic level, preceded it. China, the United States and India were among the most vocal states, rejecting the EU ETS particularly because it was to cover, in their entirety, all flights to or from Europe, regardless of their origin. Moreover, developing countries claimed that the EU ETS did not respect the principle of common but differentiated responsibilities (CBDR), a centrepiece of the global climate change regime. Despite the global opposition, the EU decided to stay firm in its decision and pursued the inclusion of aviation into the EU ETS – until it stopped the clock in November 2012.

The European Commission itself, Member States, media and academia all endorsed the notion of EU leadership in combating climate change.² Yet, the announcement to stop the clock raised questions regarding the EU’s leadership. The aim of the ‘stop-the-clock’ decision was “[t]o provide further momentum to the international discussions and continue EU leadership in this process”.³ Yet, in the light of recent developments, EU leadership in the field of combating aviation emissions should be re-assessed. This paper analyses the EU’s leadership in climate change in the case of the inclusion of aviation emissions into the EU ETS. Is the EU after stopping the clock

¹ European Commission, “Stopping the clock of ETS and aviation emissions following last week’s ICAO Council”, MEMO/12/854, Brussels, 12 November 2012.
still a global leader in this field? If so, what kind of leadership does the EU assume and how can the ‘stop-the-clock’ decision be read in that context? Given the global nature of civil aviation and the scope of the EU ETS, the analysis will emphasise the external perception of EU leadership. Special focus will be attached to the EU's credibility in its solutions, actions and in its threat to ‘restart’ the clock in case of no agreement in the ICAO Assembly.

It is argued that, although the EU ETS has been heavily challenged, the EU remains a leader in the mitigation of aviation emissions: First, within the multilateral framework of ICAO the EU showed idea-based leadership when stressing the issue. Second, faced with a paralysed ICAO and no credible outlook for a global solution coming from within the organisation, it pursued the inclusion of aviation emissions into the EU ETS, thus showing directional leadership. Third, by defining a wide geographical scope for the EU ETS and against global opposition, the EU aimed for structural leadership. The decision to ‘stop-the-clock’ and the 38th ICAO Assembly, however, put things back into perspective and showed that the EU's structural leadership ambitions lack credibility, particularly from a global perspective. Moreover, I argue that the special nature of civil aviation causes further constraints to EU leadership. Developments in the field of aviation are driven by diverging preferences of actors, from protectionist to liberal governments, from state-owned to privatised and loss-making to expansionist airlines and a whole aviation value chain which includes, for example, aircraft producers. These differing agendas and interests make it hard for the EU to find common denominators for a global solution to mitigate aviation emissions. The progress in that respect suffers from contradictory principles of international law, namely the principle of CBDR, originating from the United Nations Framework Convention on Climate Change (UNFCCC), and the principle of non-discrimination, firmly rooted in ICAO. The interest of not creating a precedent over these principles paired with commercial interests of airlines has led to the strong opposition to the unilateral inclusion of aviation into the EU ETS.

"Leadership can be defined as an asymmetrical relationship of influence in which one actor guides or directs the behavior of others toward a certain goal over a certain period of time." The concept has been used and advanced by various

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scholars and notwithstanding differing typologies, most conceptualisations are done in a similar, threefold way. This paper adopts the typology of Parker and Karlsson which uses structural, directional and idea-based leadership:

- **Structural leadership** is based on the availability of power resources, which allow for incentives or coercive action to be taken. It forces or stimulates other actors to act in the way the respective leader wishes. Both ‘sticks’ and ‘carrots’ require credibility, otherwise “a would-be leader’s [...] bid for structural leadership will be seriously attenuated”.

- **Directional leadership** denotes unilateral “leading by example”, proving thereby the feasibility of a given policy. This type of leadership is based on the attractiveness of a leader’s model to other actors. Being the first-mover, the credibility of a directional leader will be assessed on the basis of his performance, making it crucial for success.

- **Idea-based leadership** includes “agenda-setting efforts”, “problem naming and framing and the promotion of particular policy solutions”. Credibility is equally important but in a different way as it “relies on the force of the better argument and the entrepreneurial skill to bring new information and solutions to the table”.

These three notions will form the analytical framework to assess the EU’s leadership in reducing aviation emissions. After defining the parameters to assess leadership for the purpose of this paper, the first part will focus on the evolution of EU leadership in the field of aviation and emissions trading. The second part will emphasise the global opposition against the EU ETS, differentiating between economically and politically motivated opposition and giving an overview of retaliatory measures against the EU. An outlook beyond the 38th ICAO Assembly that took place in September and October 2013 will be followed by a concluding part summarising the main findings of the paper. Before going into detail of leadership in mitigating aviation emissions, the following part provides an overview of the impact of aviation emissions on climate change.

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6 Parker & Karlsson, op.cit., p. 927.
7 Ibid.
8 Ibid., p. 926.
9 Ibid., p. 927.
10 Ibid.
11 Ibid., p. 928.
The evolution of EU leadership in aviation emissions

The notion of climate change scientifically and politically evolved in the 1980s, leading to the creation of the Intergovernmental Panel on Climate Change (IPCC) to improve the knowledge about it.\textsuperscript{12} David Lee from the University of Manchester shares the opinion that global climate change is caused by anthropogenic greenhouse gas (GHG) emissions, of which 50% remain in the atmosphere for about 30 years, 30% for hundreds and 20% for thousands of years.\textsuperscript{13} Aircraft pollute beyond the emission of CO\textsubscript{2}, account for 2\%\textendash{}2.5\% of global carbon emissions and contribute around 3.5\%\textendash{}4.9\% to climate change.\textsuperscript{14} The sector's total impact on climate change might be between two and four times bigger than the one of carbon emissions only.\textsuperscript{15} This share is likely to increase with the steady growth rates of global commercial aviation, especially in emerging economies, such as India or China. Additionally, the number of commercial aircraft is projected to double by 2031.\textsuperscript{16} Hence, emissions in the aviation sector are likely to continue to grow.\textsuperscript{17}

Such growth rates will offset efficiency gains of aviation and increase the impact on the climate in a business-as-usual projection. Despite self-imposed measures, there remains a considerable gap between the maximum combined effect of measures and the target of emission reduction.\textsuperscript{18} Two particularities of aviation emissions are to be pointed out, as they have a considerable effect on their mitigation. First, 62\% of all aviation emissions are emitted on international flights and 52\% in international airspace (outside of national airspaces).\textsuperscript{19} Second, due to long aircraft life cycles of around 25 to 35 years, there is no quick and easy technical solution available.\textsuperscript{20}

\begin{thebibliography}{9}
\bibitem{13} D. Lee, "Aviation’s climate impacts and the gap between aviation emissions and international climate goals", presentation, Brussels, 24 April 2013.
\bibitem{15} R. Wit et al., Giving wings to emission trading: Inclusion of aviation under the European emission trading system (ETS): design and impacts, Delft, CE, 2005, p. 1.
\bibitem{16} Airbus, Global Market Forecast 2012-2031, Blagnac, 2012, p. 11.
\bibitem{17} Wit et al., op.cit., p. 1.
\bibitem{18} Dalton Research Institute, Department of Environmental and Geographical Sciences, "Bridging the aviation CO\textsubscript{2} emissions gap: why emissions trading is needed", Manchester Metropolitan University, 2013.
\bibitem{19} Ibid.
\bibitem{20} IPCC, op.cit., p. 224.
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Aviation emissions from UNFCCC to ICAO

Neither the UNFCCC nor the Kyoto Protocol covered transport emissions because of a political deadlock in the negotiations.\(^{21}\) However, Article 2.2 of the Kyoto Protocol requests the respective UN specialised agencies, ICAO and the International Maritime Organisation (IMO), to work towards emissions reductions in their fields.\(^{22}\)

Unlike its Member States, the EU only has observer status at ICAO which is regarded “unsuitable […] given the weight and leadership […] in aviation matters”.\(^{23}\) Hence, the EU’s role is limited to following the activities of ICAO through its representative in Montreal and to coordinating the positions of EU Members States.\(^{24}\)

Without the right to fully participate in sessions, meetings and working groups and lacking access to all the documents, the EU is rather dependent on its Member States. On the other hand, there is a strong degree of coordination within the EU institutions, but also in the European Civil Aviation Conference (ECAC), the European regional equivalent to ICAO. This coordination takes place in joint working groups of ECAC and the European Commission, where the common positions are prepared. Once reached, they usually are entirely respected by the Member States.\(^{25}\)

ICAO’s efforts to curb emissions

While climate change is not among the organisation’s core objectives, environmental standards have been adopted at ICAO, but the organisation’s actions “have not gone beyond ‘symbolic’” for a long time.\(^{26}\)

Hence, the triennial ICAO Assemblies of 1998 and 2001 did not bring particular progress in climate change.

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\(^{22}\) Ibid., pp. 61-62.


\(^{25}\) Interview with official 1, Ministry for Transport of an EU Member State, via telephone, 26 April 2013.

At the 2004 Assembly, market-based measures were discussed intensively, yet the international community was divided: On the one hand, Russia opposed further efforts claiming insufficient scientific evidence and warned to act prematurely. Canada, Mexico and the US were concerned about cost effectiveness and the legal, political and economic implications but did not oppose voluntary agreements if they were based on reciprocity. African and Latin American countries sought respect for the principle of CBDR, and the International Air Transport Association (IATA) urged countries not to pursue any unilateral steps. On the other hand, a common position of ECAC states, including all EU Member States, defended the need for MBMs to respect the ‘polluter-pays’ principle and the precautionary principle. While ultimately not adopting a global approach, ICAO Resolution A35/5 "endorsed the incorporation of international aviation into states’ existing emissions trading systems", thus providing the legal ground to include aviation into the EU ETS.

In 2007, ICAO set up a first working group on climate change. During the 2007 Assembly, the EU's determination to work within ICAO was reiterated. Moreover, the EU working paper also stressed the inclination to tackle emissions while accommodating developing countries by providing "[t]echnological cooperation [and] technical assistance". Despite establishing "aspirational goals" for fuel efficiency (+2% p.a.) and encouraging states to submit “Action Plans”, ICAO’s efforts came late and remained voluntary and stood as such in contrast to the legally binding commitments advocated by the EU.

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28 Ibid., p. 9.
33 Ibid., p. 7.
The EU ETS as an alternative to a paralysed ICAO

Guided by the notion of appropriateness, the EU decided to react to this deadlock. Already the 6th Community Environment Action Programme of 2002 had set the year 2002 as a deadline for progress in ICAO and Resolution A/35/5 finally triggered action at the Union level. Yet, there were additional motivations at the time: for instance, the uncertainty whether the Kyoto commitments could be met without covering aviation, the public support for the fight against climate change, and the fact that the EU had a potential tool at hand – the new EU ETS which was launched in 2005. As this paper focuses on the extension of the EU ETS to the field of civil aviation, EU ETS will serve as an abbreviation of this extension and not for the emissions trading scheme in its entirety.

In 2005 the Commission initiated a public consultation with individuals, non-governmental organisations (NGOs), industry representatives and interest groups from the aviation and other sectors as well as national ministries and aviation authorities. The policy objective to mitigate aviation emissions was overwhelmingly supported.

When organisations, such as NGOs, industry representatives or companies, were asked about the most suitable MBM to achieve this objective, they indicated aircraft fuel taxes as their preferred option, followed by the EU ETS, en-route charges or taxes on aircraft emissions, departure/arrival taxes and a value added tax on air transport. Moreover, additional non-MBMs, such as consumer awareness raising, air traffic management (ATM) and infrastructure improvement, research and development or more efficient flying techniques such as the continuous decent approach were discussed.

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38 Ibid., pp. 3, 20.
40 Ibid., p. 37.
Regarding the geographical scope of an MBM, 71.7% of the consulted organisations were in favour of covering both intra-EU traffic and flights to and from third countries. The positive aspects clearly outweighed the rather isolated assessment of possible political risks regarding the scope: “It was suggested that it could give a good example [...] and it would be ‘a mechanism for forcing the recalcitrant Annex I countries (US/Australia) to engage, whether they liked it or not’ into the concept of polluter pays.”

Another advantage of this scope was the perspective of maintaining a ‘level-playing-field’. The warning about “significant political and legal obstacles” did not feature prominently in the report. Interestingly, the opinion considering the “EU to be strong enough to take action on its own” was underlined by referring to it both in the summary and in the body. Given that fuel taxes were opposed by the industry, emissions trading was supported by the United Kingdom (UK) and France as well as by representatives of the aviation value chain (airlines, manufacturers and airports), whereas NGOs “cautiously accepted” the compromise.

In order to take into account the nature of civil aviation, which considerably differed from the installations covered by the EU ETS, the Commission followed up the consultations and commissioned from CE Delft a study about technicalities, such as the type of emissions subject to the scheme, its geographical scope, administrative details, the level of the cap and the method of the allocation of allowances.

The geographical scope of the scheme was given paramount importance as it determines both the environmental impact and the degree to which third countries are affected. Regarding possible legal constraints, the study concluded “that international provisions such as the Chicago Convention on International Civil Aviation of 1944 and bilateral agreements contain no obstacles to including aviation’s climate change impact in the EU ETS.”

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41 Ibid., p. 24.
42 Ibid., p. 38.
43 Ibid., pp. 6, 17.
44 Ibid., pp. 6, 39.
46 Ibid., pp. 4-5.
47 Barton (Tackling), op.cit., p. 319.
48 Ibid., p. 319.
49 Ibid., p. 7.
On an economic level, the study showed that the proposed policy options would not have a large impact on the industry. Since all options covered all carriers regardless of their origin, an equal treatment was guaranteed, unlike in other sectors of the EU ETS. The overall negative effect on the whole sector – with calculations based on a significantly higher carbon price than is currently the case (€10-30) – was estimated to be between a minimum of 0.1% and a maximum of 1.4%.50

The Aviation Directive 2008/101/EC

Based on the findings of the CE Delft study, the European Commission published a Communication calling for the mitigation of aviation emissions.51 While reaffirming its support for a multilateral solution, the Commission also acknowledged that “it is not realistic to expect ICAO to take global decisions on uniform, specific measures to be implemented by all nations”, as developing countries refused binding agreements and the US did not assume responsibility.52 Developing countries might, however, “commit themselves to more demanding policies [if...] they see clear leadership from industrialised countries”.53 The European Council, the Council and the European Parliament welcomed this Communication and agreed that an extension of the EU ETS is the best strategy forward.54 The December 2005 Environment Council Conclusions “urged the Commission to urgently put forward a legislative proposal”.55

Moreover, the Commission created an Aviation Working Group with stakeholders from EU Member States, aviation regulators, industry and civil society to prepare the extension of the EU ETS. Possible infractions of third countries’ sovereignty did not figure prominently in the minutes of the meetings, but the Commission was reminded to carefully re-assess the legal situation as “operators from third countries [...] may seek to challenge the approach”.56 In late 2006, the Commission finally proposed a

50 Ibid., pp. 15-16.
52 Ibid., p. 5.
53 Ibid.
56 Ibid., Annex 1, p. 8.
directive “to provide a model for aviation emissions trading that can be a point of reference in the EU’s contacts with key international partners and to promote the development of similar systems worldwide”.57 This proposal was further altered in the legislative procedure and adopted as Directive 2008/101/EC in November 2008.58

The geographical scope covered intra-EU flights as well as all arriving and departing flights. Corresponding to the existing EU ETS, the Directive covered CO₂ emissions only and assigned the duties of compliance, monitoring and reporting to aircraft operators. The state of registration determined the administrative authority for the European operators, whereas the third countries’ operators were assigned authorities in the EU Member State they had the closest link to, by means of air service frequencies.59 The 2012 cap of 97% of the sector’s average 2004-2006 emissions would be lowered to 95% from 2013 onwards and be subject to further review.60 The Directive further entailed an initial auctioning of 15% of allowances and a free allocation of 85% of a baseline year’s historic emissions, subject to a benchmark methodology.61 While the Directive endorsed the use of revenues created by the ETS for climate change efforts, a binding earmarking could not be agreed on.62 A contentious issue during the negotiations and a side battle regarding the “distribution of powers between the EU and its Member States”, resulted in revenues being independently allocated.63 The Directive also had an external dimension by reiterating the EU’s support for a global regime and by enabling the use of Kyoto credits to surrender allowances. Finally, Article 25 provides the legal basis to exempt operators if their country of origin adopts equivalent measures.64

60 Ibid.; Barton (Including), op.cit., p. 191.
63 Kulovesi, op.cit., p. 555.
Expanding the ETS – enhancing leadership?

As the inclusion of aviation has shown, the EU aimed for leadership, reiterated that in multiple documents and exercised it in various forms. The EU’s actions were guided by the conviction that aviation, outpacing other sectors’ carbon emission growth and the second largest sector within the EU ETS, must be held accountable according to the ‘polluter-pays’ principle.65

Within ICAO, the EU advocated a reduction of emissions and engaged in “problem definition, agenda setting, goal setting and promoting policy solutions”.66 Unsuccessful in this regard, the EU shifted its idea-based leadership to the Union level. It entered a phase of consultations to first determine its preferred policy measure. After the decision to amend the EU ETS was taken, various designs were assessed in the CE Delft study. Hence, further characteristics of idea-based leadership such as “suggesting innovative solutions” can be identified.67 As a pioneer in establishing a substantial ETS, the EU deepened the global policy makers’ knowledge about the applicability of emissions trading for aviation while preparing the Directive. Moreover, as the consultation showed, the aviation industry shared the Commission’s opinion about the need to take action. Consciousness-raising as well as using knowledge, information and innovation in a convincing way are further attributes of idea-based leadership.68 Moreover, the EU ETS has built in innovations such as the standing commitment to a multilateral solution, the integration of emissions not covered by the Kyoto Protocol into a shared carbon market, or the possibility to exempt states provided they take equivalent measures.

Yet, the credibility of idea-based leadership is dependent on ‘the force of the better argument’, which might have suffered in three respects.69 First, the absence of earmarking revenues gives the impression of a “de-facto tax” and thus undermines environmental innovation.70 Second, both NGOs and the aviation industry criticised EU regulators for not pursuing the creation of the Single European Sky (SES), which

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65 Interview with Bill Hemmings, NGO Transport & Environment, via telephone, 30 April 2013.
66 Ibid., p. 931.
67 Parker & Karlsson, op.cit., p. 927.
68 Ibid., pp. 927-928.
69 Ibid., p. 928.
70 Middle Eastern Airline official, op.cit.
would result in further emission (and fuel) savings.\textsuperscript{71} Having adopted the SES together with the ETS through a comprehensive approach would have probably benefitted the environmental integrity of the policy and the credibility of the EU’s idea-based leadership. Third, the assessment of different options regarding the geographical scope of the ETS seems based on predominantly environmental and legal considerations. A certain lack of analysis of the potential political impact of an ETS, which global actors perceive as an infringement of their sovereignty, seems to be on hand. Aviation is a global industry which still is very much rooted in bilateral air service agreements between states which the Commission considers to be ripe for modernisation in its communication on developing the EU’s external aviation policy of 2005.\textsuperscript{72} The follow-up Communication of 2012 even calls the structures of global aviation “archaic” in terms of ownership and control rules of airlines.\textsuperscript{73} Despite liberalisation, the governance and structure of international aviation remains largely oriented according to these traditional rules – causing a much higher political and diplomatic sensitivity than in other global industries.\textsuperscript{74}

Notwithstanding the legal situation, the political dimension of such an externalisation of the ETS apparently has not been addressed sufficiently to meet international concerns adequately with the ‘force of the better argument’. Both the environmental cause and international law might be with the EU, but idea-based leadership rests on “[b]uilding consensual knowledge [...] or convincing [others] to accept new solutions”.\textsuperscript{75} For that reason, a more thorough consideration of the implications regarding the sovereignty of third actors would have been advantageous for the EU’s credibility. In addition, establishing the first ETS for aviation emissions with the underlying conviction to create “a model for the use of emissions trading worldwide” demonstrated directional leadership.\textsuperscript{76} As a first mover, the EU


\textsuperscript{75} Parker & Karlsson, op.cit., p. 928.

went beyond rhetorical commitments, underlined its seriousness to act and furthermore proved the technical feasibility. Moreover, the geographical scope of the ETS covers the operations of European airlines almost in their entirety which shows that the EU does not shy away from taking responsibility that might come at a cost for EU industry. Yet, this commitment also suffers from the absence of earmarking revenues as mentioned above. Additionally, due to the low carbon price caused by the economic and financial crisis, also the credibility of directional leadership might, as well, be challenged by doubtful environmental effectiveness. This could affect the attractiveness of the model for others.

Structural leadership stems from the fact that the EU ETS applies to carriers, regardless of their country of registration on the whole trajectory of flights to or from the EU. Hence, the EU aims to “alter the behaviour” of other actors in order to tackle a “collective problem” - the impact of aviation emissions on the climate. Scott and Rajamani argue that the Aviation Directive’s design claims to alter the system boundaries of the global climate change regime. Without a global regime in place, the scheme provides possibilities for a global departure rule or equivalent measures. In case the departure state insufficiently regulates aviation emissions, the EU ETS automatically covers the entire flight to Europe. The Directive departs from a production-based approach to a new understanding of the system boundaries of the global regime. Moreover, the EU recognises measures taken by a third state as being equivalent – or not. Hence, the final decision “to determine what is to count as ‘good enough’” remains in European hands. This could be perceived as a strong EU statement on global governance. Nevertheless, one also has to take into account the global nature of aviation that makes it difficult to regulate the sector differently. Limited to a national or regional level, an ETS would be detrimental to the global competitiveness of affected carriers and also fall short of the environmental goal. The credibility of the EU’s structural leadership is dependent on whether the threat or incentive is underpinned with actual power.

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77 Middle Eastern Airline official, op.cit.
78 Parker & Karlsson, op.cit., p. 927.
79 Ibid.
81 Ibid.
82 Ibid., pp. 475-476.
83 Parker & Karlsson, op.cit., p. 927.
**Constraints to EU leadership: the global opposition against the EU ETS**

The extension of the EU ETS caused protests on various levels, by different actors and for different reasons. Therefore, this part will first analyse the opposition by aviation industry stakeholders before examining the opposition by governments at ICAO and beyond.

Opposition on economic grounds

Today’s airline industry has been defined as a “cyclical and marginal industry”, facing risks beyond its control such as global economic conditions, weather events or the regulatory environment and at the same time bound to meet the challenge of balancing large financial turnovers with small margins.\(^\text{84}\) Despite these circumstances, aviation is a very successful industry: it experiences annual growth rates of 5% and beyond since decades.\(^\text{85}\) This success, however, comes with the environmental price tag of continuously growing GHG emissions, of which CO\(_2\) emissions were 78.3% above the 1990 levels in 2010.\(^\text{86}\)

The airline industry was once strictly a state-controlled sector. Since the 1980s, however, it has been subject to liberalisation, namely in the US and the EU. Yet, in many parts of the world traditional ownership structures prevail and many flag-carriers are still entirely or by majority owned by states.\(^\text{87}\) These airlines do naturally have closer ties to their respective governments, which also results in higher accordance of the airline’s policies with the country’s policies.\(^\text{88}\) Interest groups, such as most notably IATA, represent airlines on both global and regional levels.\(^\text{89}\) Operating globally in international and sovereign airspace, aviation is dependent on regulations and traditionally maintains well-established and close links to the regulators.\(^\text{90}\) Regarding the regulatory environment, climate change policy is rather seen as a “further […] threat to the airline industry”.\(^\text{91}\)

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\(^{84}\) Doganis, op.cit., p. 4.


\(^{86}\) Ibid.

\(^{87}\) Doganis, op.cit., pp. 223-225.

\(^{88}\) Interview with a European airline official, via telephone, 1 May 2013.


Already the 2005 CE Delft study analysed the potential economic effects on competition, transport volume and competitiveness of EU airlines in comparison with non-EU ones. While the study is based on a very different carbon price, the main findings might still be relevant to understand the economic impact of the ETS. The enhancing of environmental efficiency will also increase the economic efficiency of airlines. Recognising that “there will clearly be winners and losers”, the report found that by gradually phasing in the ETS, possible shocks could be absorbed.\(^{92}\) Also, there were no findings about notable distortions linked to the competition of EU and non-EU airlines since aviation – despite its international operations – is less prone to carbon leakage when compared to other sectors in the EU ETS. This can be explained by the geographical determinants of air transport services: “An increase in the cost of European flights will not lead a Frenchman with business in Denmark, say, to buy a ticket from Los Angeles to Washington instead.”\(^{93}\)

This finding was challenged by a 2010 case study of the economic impact on EU and non-EU countries, based on a comparison between Continental Airlines and Lufthansa.\(^{94}\) Both airlines are network airlines operating their services from hubs where they provide connections to many destinations, including long-haul ones, which serve as end points of the respective networks. Short-haul flights thereby feed into the more profitable long-haul services which usually use larger aircraft. Lufthansa’s additional costs were estimated to be higher as it had to operate such a short-haul feeder network entirely under the scope of the EU ETS. As a general conclusion, the authors found that the EU ETS might lead to a competitive disadvantage of “all European network carriers competing with non-EU network carriers on markets for long-haul air services”.\(^{95}\) These findings were also used to explain why European airlines advocate a global framework that would prevent market distortions. Yet, the precise disadvantage remains difficult to quantify.\(^{96}\)

The EU ETS is not the only financial measure targeting commercial aviation, as multiple countries impose taxes or charges that are levied on operators. For example, since 1994 outbound flights leaving the UK are subject to the UK Air

\(^{92}\) Wit et al., op.cit., p. 154.

\(^{93}\) Ibid., p. 156.

\(^{94}\) J. Scheelhaase, W. Grimme & M. Schaefer, "The inclusion of aviation into the EU emission trading scheme - Impacts on competition between European and non-European network airlines", Transportation Research, 2010, p. 22.

\(^{95}\) Ibid.

\(^{96}\) Interview with a IATA official, Geneva, 8 March 2013.
Passenger Duty, being recently described as “the highest tax of its type in the world by some considerable margin”. Similar but lower - departure taxes are currently levied in Germany, Austria, Greece, France, Italy, Ireland, Sweden, Belgium and outside of the EU in Australia, the US, or Canada amongst others. Additionally, the US imposes a fee of USD 13.40 for both international arrivals and departures directly to the passengers. India too levies a departure tax, which might be included in an airline’s ticket price. However, having multiple fees in place which all claim to be environmental measures, an overlap of similar fees which claim to serve the purpose of environmental protection might undermine the credibility of the EU’s leadership, as the EU ETS might seem to be just another financial burden.

The industry’s position

The global airline industry represented by IATA opposed the extension of the EU ETS and lobbied heavily against it, both within ICAO and through governments. These actions had, however, “surprisingly little success”. On the contrary, the seriousness of the European regulators caused the airline industry to intensify their efforts in reducing carbon emissions. At IATA, Lufthansa’s four-pillar strategy was essentially adopted in 2009 and hereafter lobbied for. Besides the intention to help shaping the character of a future global regulatory framework and thus prevent unwanted scenarios, this move also created welcome publicity. The paramount importance for the industry thereby was to avoid a regulatory patchwork.

European airlines

European airlines generally supported both efforts to reduce carbon emissions and marked-based measures as an instrument. Motaal suggests that “they had a somewhat different reference point in mind” compared to non-EU carriers, being conscious that their sector might end up as a “free-rider” within Europe with no

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98 Ibid., pp. 5-6.
99 US Department of State, "Airport Taxes and Fees Update".
100 Australian High Commission India, "General Information for Australian travellers in India".
101 Interview with official 2, Ministry of Transport of an EU Member State, via e-Mail, 2 May 2013.
102 Staniland, op.cit., p. 1016.
103 The four pillars as endorsed by Lufthansa and the Association of European Airlines are technical progress (e.g. fleet modernisation), improved infrastructure (e.g. Single European Sky), efficiency-raising measures (e.g. optimising flight operations) and the inclusion of global air transport in a comprehensive ETS implemented through ICAO. Lufthansa, op.cit., p. 31.
104 European airline official, op.cit.
105 Staniland, op.cit., p. 1016.
regulation in place regarding its carbon emissions.106 Regarding the extension of the EU ETS, British Airways stood out as "the only major airline involved in emissions trading" and lobbied for an inclusion of aviation into the scheme.107 This original engagement can be explained by a combination of a long-standing British debate about the impact of climate change and the interest of enhancing the industry's environmental profile to enable future growth, especially regarding the expansion of London-Heathrow.108 Pressured by Scandinavian civil societies, traditionally in favour of climate protection, also SAS pushed for additional efforts regarding emissions.109 Most European airlines were able to live with this idea because the geographical scope of the ETS was not limited to intra-EU flights. Thus the competitive disadvantage compared to foreign airlines operating on routes to and from the EU was reduced.110 Moreover, a potentially distortive effect among EU carriers was decreased as an intra-EU scope favours EU carriers with more flights not covered by the ETS.111 Scheelhaase illustrates the latter by projecting that an intra-EU ETS would cover 97.5% of Ryanair flights but only 28% of Lufthansa flights.112

During the stakeholder consultations prior to the Commission’s proposal, it also was the airlines’ main aim to avoid market distortions.113 Lufthansa, on the other hand, always argued for a different approach, putting technical progress, improvement of the infrastructure, operational measures and the creation of the Single European Sky at the centre of emissions reductions, whereas MBMs should come last.114 NGOs and regulators report that the airline was strongly advocating its cause, also with respect to Switzerland’s participation in the scheme.115 Others, however, reject this claim as part of the normal dialogue between aviation industry and governments which regularly takes place. Moreover, having Switzerland outside the scope of the EU ETS

106 Motaal, op.cit., p. 17.
108 Middle Eastern airline official, op.cit.
109 Ibid.
110 Motaal, op. cit., p. 17.
111 Ibid.
113 Commission of the European Communities, Directorate-General Environment, Public consultation, op.cit.
115 Hemmings, op.cit.; Member State official 1, op.cit.
would not alter operations regarding the congested situation at Zürich-Kloten and the strict night-flight bans in place.\footnote{116 European airline official, op.cit.}

In addition to the impact of the global economic crisis, European airlines also started to experience retaliatory measures by opposing governments. For example, Russia renounced visas for crews and China did only reluctantly grant landing permits. During respective airline negotiations with non-EU authorities, the EU ETS was repeatedly stated as the reason for administrative burdens, and airlines were urged to stop this measure.\footnote{117 Ibid.}

This rationale changed the general stance of the European industry on EU ETS. In an open letter Air Berlin, Air France, British Airways, Iberia, Lufthansa and Virgin Atlantic, together with the aircraft manufacturer Airbus, publicly called for a halt of the EU ETS.\footnote{118 Airbus, "Stop ETS trade conflict", Press Release, 12 March 2012, retrieved 20 April 2013, http://www.airbus.com/presscentre/pressreleases/press-release-detail/detail/stop-ets-trade-conflict.} Besides criticising the "intolerable [situation] for the European aviation industry", they reiterated the general support of emissions trading, when applied on a global level.\footnote{119 Ibid.} Hence, all major network airlines are now in line with the official IATA position, pushing for a global solution in ICAO.\footnote{120 International Airlines Group, (Annual Report)\footnote{op.cit.} p. 5.} Regional and Charter airlines as well as low-cost carriers have a different position and "reiterate their support for a European ETS, provided it applies to all flights".\footnote{121 I. Smets, "European airlines not enthusiastic over ETS freeze for international flights", Europolitics, 13 November 2012.} Yet, further dividing lines exist according to airlines’ financial situations, with the general tendency that large airlines are able to invest more in new technologies and hence are leading in emission reduction activities.\footnote{122 Interview with an AEA official, via telephone, 26 April 2013.} \footnote{123 IATA official, op.cit.}

Non-European airlines

Global airlines did not welcome the EU ETS, because “it was an additional cost and airlines have one obsession that is to reduce cost”.\footnote{124 Middle Eastern airline official, op.cit.; Korean Air, Sustainability Report 2008, p. 63; Singapore Airlines, Singapore Airlines Annual Report 2010-2011, p. 23.} Airlines, such as the Emirates, Korean Air or Singapore Airlines preferred a global regime to the EU ETS.\footnote{124 Ibid.} South African Airways claimed a “more fair and transparent” scheme and protested...
against the ‘extraterritorial’ scope of the EU ETS. In general, airlines formally complied with the scheme but continued to challenge it, and only eight Chinese and two Indian carriers did not fulfil their administrative duties. Although China and India are “fairly active” in explaining to their governments what is best for their industry, they remain under governmental control. Chinese and Indian opposition will, hence, be elaborated when analysing the political opposition below.

US airlines responded to the adoption of the EU ETS in a very critical way. Fiercely fighting its geographical scope, US airlines denounced it as being a violation of sovereignty and of the Chicago Convention. The European Court of Justice, underlining the scheme’s legality, ultimately turned down a legal case prepared by Airlines for America (A4A), American Airlines, Continental and United Airlines. This legal defeat did not, however, keep the US airline industry from fighting the EU ETS, and A4A successively welcomed measures opposing the EU ETS. Despite viewing the scheme as a disguised tax and a “European attempt to govern the world”, US airlines have complied with all administrative requirements.

A low carbon price has contributed to calming the debate as the economic impact on airlines becomes less significant. However, the dispute shifted from an economic to a political conflict which became a matter of principle for states. Now the EU ETS is “seen as setting a precedent: it’s a sovereignty issue” – especially in states with a strong sensitivity regarding the principles of sovereignty and CBDR. NGOs see that the airline industry, especially the US industry, is aware of that and condemn airlines for playing on the rift between these principles.

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127 "CEO Interview: The Sky's No Limit in China", IATA, June 2012; Middle Eastern Airline official, op.cit.
128 Interview with a North American airline official, via telephone, 29 April 2013.
129 Case C-366/10, Air Transport Association of America and Others vs. Secretary of State for Energy and Climate Change, 2011.
131 North American airline official, op.cit.
132 Hemmings, op.cit.
133 North American airline official, op.cit.; European airline official, op.cit.; J. Chaffin, "China creates turbulence over EU aviation levies", Financial Times, Brussels, 6 February 2012.
134 Hemmings, op.cit.
Opposition on political grounds: sovereignty and CBDR

The political opposition against the EU ETS, fuelled by commercial interests, is grounded on a confluence of various highly debated issues regarding sovereignty and extraterritoriality, unilateral measures to protect the environment and the principle of CBDR.

As mentioned above, already the CE Delft study scrutinised potential friction points with the sovereignty of third countries and rejected it. It stated that the ETS scheme differed fundamentally from conventional regulatory acts, as it does not impose any rules on how to operate an aircraft. The EU ETS might incentivise a certain environmentally friendly behaviour but does not intervene directly and extraterritorially. Similarly, in her legal opinion Advocate General Kokott denied an infringement of sovereignty in the A4A case. The way carbon emissions are calculated, taking into account the whole trajectory of flights to or from Europe, does not stipulate a regulation beyond the European airspace. The Directive merely sets the methodology of calculating allowances and thus “does not contain any extraterritorial provisions”.

Regarding the question whether the EU ETS is of a coercive nature, Kulovesi agrees with the Advocate General that the penalty for non-compliance with the Directive does not constitute such a measure. When flying within the scope of the scheme, operators are free to conduct their business in whatever way they wish: they can decide whether they surrender allowances or not, whether they fly efficient aircraft or not, the only condition being that they eventually might have to pay a penalty.

Contrary to the principle of non-discrimination that forms an integral part of the Chicago Convention, the principle of CBDR embodies a legal understanding alien to ICAO. Yet, the mandate of the Kyoto Protocol resulted in a spillover of CBDR into the rather technical domain of ICAO. In other words, “[t]he Achilles heel of climate negotiations was transferred to ICAO”, where it paralysed further progress. The EU

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135 Wit et al., op.cit., pp. 175-183.
136 Ibid., p. 177.
137 Ibid., pp. 173-175.
139 Ibid.
140 Kulovesi, op.cit., p. 549.
141 Ibid.
142 Motaal, op.cit., pp. 5-7.
143 Ibid., p. 7.
ETS, while exempting operators falling short of a given threshold, generally rejects the notion of CBDR. The reason put forward is that while operators are subject to the scheme, they cannot be subject to CBDR, which exclusively applies to states.\textsuperscript{144} This notion caused Scott and Rajamani to criticise shortcomings regarding CBDR and to suggest amending the Aviation Directive in that respect.\textsuperscript{145} The equivalent measures clause should be differentiated according to whether a country is a developing country or not, with less demanding measures required for the latter. Moreover, the clause calls for a further differentiation among developing countries to reflect their varying capabilities. However, the authors further suggest taking a route-based approach rather than a nationality-based one.\textsuperscript{146} Hence, all flights from a developing country, regardless of the airline’s country of registration would count as a ‘developing-country-flight’. Such a differentiation would not discriminate against airlines on the basis of nationality and therefore be consistent with the Chicago Convention.\textsuperscript{147} Another proposed measure concerning CBDR is to earmark all revenues from developing country flights to finance a climate fund, which exclusively redistributes the money for projects in these countries.\textsuperscript{148}

While the legality of the EU ETS is given or at least plausibly defendable, political implications remain: states have never been keen on having another state telling them how emissions should be managed over their sovereign airspace.\textsuperscript{149} The legal argument that the EU ETS is actually not regulating does little to overcome this fundamental issue. Opposing states expressed their views within ICAO, in groupings of like-minded states and unilaterally, through retaliatory measures.

Opposition at ICAO

At the 37\textsuperscript{th} ICAO Assembly in 2010, the EU ETS was one of the main issues. Opposing states such as China, South Africa or Russia but also the US, Canada or Mexico criticised the EU’s unilateral action and stressed the precondition of a global or mutual agreement on market-based measures. Developing countries furthermore

\textsuperscript{144} Kulovesi, \textit{op.cit.}, pp. 551-552.
\textsuperscript{145} Scott & Rajamani, \textit{op.cit.}, pp. 487-490.
\textsuperscript{146} Ibid.
\textsuperscript{147} Ibid.
\textsuperscript{148} Ibid., pp. 492-493.
\textsuperscript{149} IATA official, \textit{op.cit.}. 
aimed to enhance the importance of CBDR in dealing with aviation emissions. This opposition persisted and was mirrored in the very outcome of the Assembly. In its very first substantive operative clause, the adopted Resolution A37-19 “[r]equests the Council to [...] ensure that ICAO exercise continuous leadership on environmental issues relating to international civil aviation, including GHG emissions”. Yet, this continuous leadership is not reflected in ambitious or binding targets. The “collective medium-term global aspirational goal of keeping the global net carbon emissions from international aviation from 2020 at the same level” essentially adopted IATA’s ‘carbon-neutral growth’ approach. The following subclauses, however, stressed the importance of CBDR, referring to historical emissions and to the “maturity of aviation markets”. Most importantly, a de minimis threshold of 1% of total global air traffic was introduced, exempting operators from states whose share falls short of this 1% from MBMs. Finally, it “strongly recommended” using revenues from an MBM to improve the environmental performance of aircraft engines and to assist developing countries.

The de minimis exemption “was essentially a caving-in by ICAO to the CBDR principle” and, if applied, would exempt countries such as Italy, New Zealand, Saudi Arabia, Brazil, Mexico, South Africa or Portugal from any MBM. Interestingly, a Commission press release sought to sell the Resolution as a “breakthrough”, underlining the EU’s “instrumental role in securing this agreement” and its leadership regarding the extension of the EU ETS.


151 ICAO, RES A37/19, Consolidated statement of continuing ICAO policies and practices related to environmental protection — Climate change, p. I-69 [emphasis added].


155 Motaal, op.cit., pp. 9-10.

156 European Commission, "Breakthrough in Climate Change talks at UN Aviation Body", MEMO/10/482, 9 October 2010.
At ICAO, however, the EU Member States, together with the other ECAC states, formally placed reservations on the document. The aspirational goals were considered too weak, and the stipulation of a mutual agreement not deemed necessary as it was already mirrored in the Directive's openness to a multilateral agreement or bilateral exemptions via the equivalent measures clause. Finally, the EU and ECAC states objected the resolution's de minimis exemptions on the grounds of potential market distortions and an increased likelihood of carbon leakage. Contrary to the already incorporated de minimis provisions of the Directive, an application of A37/19 would exclude operators from more than 160 countries from an MBM.

We can group the states according to their reaction at the 37th Assembly. Essentially all states outside Europe opposed the unilateral path the EU was taking. Also, the rupture between developing and developed states became apparent, with states such as Canada, the US, Australia or the UAE opposing the de minimis provisions. The developing countries, on the other hand, stressed the importance of the de minimis clauses and, moreover, requested further exemptions going beyond the ones already granted to developing countries. First references to retaliatory measures and ‘futile consequences’ appeared as strong signs that the EU leadership was being challenged.

The ‘coalition of the unwilling’

The so-called ‘coalition of the unwilling’ is closely linked to the lawsuit of US airlines and to their pressure imposed on the US government when the legal defeat became apparent. Exemplary for the tight cooperation between the US government and US aviation industry is the fact that senior airline executives joined the US Federal Aviation Administration (FAA). Sources also suggest that the FAA was the driving force and drafter of the ‘New Delhi Joint Declaration’ of unwilling states adopted shortly thereafter. Additionally, Chinese aviation officials threatened “counter-measures […] triggering [a] ‘trade confrontation’, which none of us would like to

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158 For all reservations see ICAO, Reservations to Resolution A37/19 (17/2).
159 Ibid.
160 European airline official; Middle Eastern airline official.
161 Motaal, op.cit.
162 "Briefing: ICAO Council discussion on including aviation in the EU-ETS", Transport & Environment, November 2011; Argentina et al., "Joint Declaration", New Delhi, 30 September 2011.
see".163 In late September 2011, Argentina, Brazil, Chile, China, Colombia, Cuba, Egypt, India, Japan, the Republic of Korea, Malaysia, Mexico, Nigeria, Paraguay, Qatar, Russia, Saudi Arabia, Singapore, South Africa, the USA and the UAE met in New Delhi and adopted the New Delhi Joint Declaration.164 The signatory states urged the EU to alter the scheme’s geographical scope and to collaborate with ICAO. All other ICAO Council Members, except for the European states, Australia, Burkina Faso, Cameroon, Canada, Guatemala, Peru, Swaziland and Uganda, were among the signatories. Canada, for its part, attended the meeting but did not sign the declaration.165 Shortly after the legal opinion was published on 6 October 2011, the dispute heated up during the ICAO Council meeting, where the Delhi signatories, and all but the European members, Australia and Canada, co-sponsored a Council Decision entirely based on the ‘Delhi Declaration’.166 The European states formally placed a reservation to the “disappointing” Council Decision, which in their view was based on a misinterpretation of the Chicago Convention’s provisions on sovereignty.167 They were joined by Australia and Canada, which, on the other hand, also reiterated their opposition to European unilateralism.168

This Council meeting again showed the “unity of purpose in opposition to the unilateral imposition of the EU ETS on non-EU States and their operators”, to use the words of the US representative.169

From opposition to retaliation

In January 2012, the Delhi signatories reconvened in Moscow to adopt a declaration, tabling a basket of potential actions against the EU.170 These included:

- Using existing or new state legislation, regulations, or other legal mechanism to prohibit airlines/aircraft operators of that state from participating in the EU ETS;

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163 W. Zhenzhong, Director General of Chinese Air Transport Association (CATA), “Greener Skies and Low-Carbon Flights Go All-Out to Build Higher Ability in Meeting Climate Change”, speech, Hong Kong, Fourth Greener Skies Aviation and Environment Conference, 27 September 2011.

164 Argentina et al., op.cit.

165 ICAO, C-MIN 194/2, Council - 194th Session: Summary Minutes of the Second Meeting, 18 November 2011, pp. 1, 16.

166 Ibid., appendix.

167 European ICAO Council Members, Reservation.


169 Ibid., p. 22.

170 Armenia et al., Joint Declaration of the Moscow Meeting on Inclusion of International Civil Aviation in the EU-ETS, Moscow, 22 February 2012.
- Filing an application under Article 84 of the Chicago Convention for resolution of the dispute according to the ICAO Rules for the Settlement of Differences (Doc 7782/2);

- Holding meetings with the EU carriers and/or aviation-related enterprises in their respective states and apprise them about the concerns arising out of the EU-ETS and the possibility of reciprocal measures that could be adopted by the state, which may adversely affect those airlines and/or entities. Mandating EU carriers to submit flight details and other data;

- Assessing whether the EU ETS is consistent with the WTO Agreements and taking appropriate action;

- Reviewing Bilateral Air Services Agreements, including Open Skies with individual EU Member States, and reconsidering the implementation or negotiation of the ‘Horizontal Agreement’ with the EU;

- Suspending current and future discussions and/or negotiations to enhance operating rights for EU airlines/aircraft operators;

- Imposing additional levies/charges on EU carriers/aircraft operators as a form of counterm easure.

The signatories’ intention to ‘raise the stakes in the battle’ made a rather little impression on the European Commission as the Moscow Declaration was seen as a mere re-iteration of concerns already voiced before. However, China, India, Russia and the US took further action, regarding non-compliance with the EU ETS and retaliatory measures targeted to European airlines and industry. Russia threatened to violate an agreement regulating Siberian overflights and additionally denied visas to European airline crews. However, the Commission did not consider the latter uniquely as a reaction to the EU ETS but also as caused by a long-standing dispute between Finland and Russia.

Introduced in the summer of 2011, a law prohibiting US airlines to participate in the EU ETS was adopted in the House of Representatives. Besides criticising the scheme as a violation of the Chicago Convention and calling on the EU to work with ICAO, this bill also pointed out that the revenue from the ETS was not earmarked. During the Senate hearing Secretary of Transport Ray LaHood heavily criticised the EU ETS as violation of international law and attacked the way it was pursued by defining it as

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171 Motaal, op.cit., p. 21; "Moscow declaration 'contains nothing new' - Commission", Europolitics, 24 February 2012.
172 Hemmings, op.cit.
173 Commission official, op.cit.
being arbitrary and “a bad way to treat [...] friends”.\textsuperscript{175} During the Senate hearing, John Kerry, today US Secretary of State, commented that regarding climate change his country had been “procrastinating” and “foot-dragging” for decades.\textsuperscript{176} However, it is worth noting that Kerry too did not agree with the way the EU handled the issue and considered it a violation of the Chicago Convention. According to him, the argument that the EU was “not bound by it, is absolutely ridiculous”.\textsuperscript{177} After this debate, the US Senate passed the final ETS prohibition bill of 7 December 2011 which gave flexibility to the US Secretary of Transportation to prohibit the participation of US airlines, in case such action was in the “public interest”, regarding consumers, operators and the potential impact on US foreign relations.\textsuperscript{178} A subsection, however, referred to the need to “conduct international negotiations to pursue a worldwide approach to address aircraft emissions”.\textsuperscript{179}

This US position did come as a surprise to many actors in the EU, which expected more support from the transatlantic partner.\textsuperscript{180} Within DG CLIMA the opposition was denounced as being “totally over-proportionate”, and Bill Hemmings, programme manager at the sustainable transport NGO ‘Transport & Environment’, said with respect to the US: “[a] monster has been created, and the US will regret that”, referring to the fact that the initial fierce US opposition, fuelled by A4A’s lobbying, actually animated China and India to resort to new and stronger forms of protest.\textsuperscript{181} China, followed by India, formally prohibited their airlines to cooperate with the EU ETS, thus becoming the only non-compliant countries.\textsuperscript{182} Moreover, both countries impaired the operations of European airlines regarding landing permits. When airlines confronted the respective authorities of China and India, they were sent to lobby “their European governments” in order to stop the EU ETS.\textsuperscript{183} Moreover, China used its commercial leverage vis-à-vis Airbus in the dispute. Confirming that the decision to

\textsuperscript{176} Ibid.
\textsuperscript{177} Ibid.
\textsuperscript{179} Ibid.
\textsuperscript{180} Hemmings, op.cit.; Member State official 2, op.cit., European airline official, op.cit., interview with a Commission official, Directorate-General for Climate Action, via telephone, 29 April 2013.
\textsuperscript{181} Hemmings, op.cit.
\textsuperscript{182} Leggett, Elias & Shedd, op.cit., p. 29.
\textsuperscript{183} European airline official, op.cit.
cancel an order of 35 Airbus A330 wide-body aircraft was “influenced by the view of the [Chinese] government on the ETS”, the Chinese Ambassador to Belgium also pointed out a potential cancellation of ten Airbus A380 ordered by Hong Kong Airlines. This cancellation, however, might have not been a retaliatory measure but a commercial consequence of Hong Kong Airlines’ mismanaged growth strategy. Also, the projected demand of aircraft in China and the duopolistic market for large civil aircraft make a Chinese boycott of Airbus highly unlikely as doing so would surrender the country to a Boeing monopoly. However, the threat was real in the sense that even the postponing of orders and a slight reduction of them compared to the American competitor has considerable effects on Airbus’ production and staff planning and consequently on the labour market of Airbus’ production sites. This provoked the above-mentioned reaction from Airbus that called for a truce and finally brought the Commission to a point where resistance against the global opposition could no longer be upheld.

‘Stop-the-clock’: evaluation and outlook

In view of the possibility of a trade war and of further deterioration of global aviation relations, the Commission finally proposed to ‘stop-the clock’, resorting to a measure suggested by the South African Minister of Tourism. Main European network airlines were already pushing and hoping for some kind of signal by the Commission to reconsider the EU ETS given the global opposition. Yet, when Commissioner Hedegaard finally announced the proposal, it still came as a surprise to some. Others seemed to be better informed and knew already since the summer of 2012 that the Commission was planning something and was merely waiting for the right moment to act. This right moment was the setting up of an ICAO High-Level Group in Climate Change (HGCC), the task of which was to resolve the most disputed matters regarding MBMs, namely the geographical scope, the requirement of a

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186 Chinese diplomat, op.cit.; Airbus, op.cit. (Forecast); Boeing, Current Market Outlook 2012-2031.
187 Middle Eastern airline official, op.cit.; Hemmings, op.cit.
189 Official (AEA), op.cit.; Member State official 1, op.cit.; Member State official 2, op.cit.; North American airline official, op.cit.
190 European airline official, op.cit.
mutual agreement, a potential framework agreement and CBDR. As this ‘stop-the-clock’ initiative signifies a departure from the EU’s previous strategy to force or stimulate compliance with the EU’s approach to mitigate aviation emissions, it will now be analysed in the light of leadership.

Is the ‘stop-the-clock’ initiative structural leadership?

Unlike directional or idea-based leadership, structural leadership is based on the availability of power resources. This conceptualisation of leadership will be used to assess the initiative as it calls for an appraisal of the EU’s power resources. Structural leadership, according to Parker and Karlsson, rests upon the credible use of ‘carrots’ and ‘sticks’, whereas a lack of credibility would “seriously attenuate” structural leadership.

The ‘stop-the-clock’ decision might be seen as a combination of ‘carrots’ and ‘sticks’ and, if credible, indeed, a sign of continued structural leadership. Commissioner Hedegaard announced the temporary derogation as an act of good will in light of significant progress within ICAO and a positive momentum for a global agreement. However, in case ICAO would not deliver in the 38th ICAO Assembly, the EU ETS would snap back to where it was before November 2012.

Yet, a closer look at the credibility of the positive momentum in ICAO which motivated the EU to take the ‘stop-the-clock’ initiative, shows that little progress was in fact evident. The HGCC met three times before the 38th ICAO Assembly took place in September and October 2013 and a spill-over of sovereignty issues into the HGCC impeded a constructive atmosphere. Among the members of the HGCC no consensus could be reached on the most crucial issues mentioned above, except for “[l]ittle progress” that was made regarding the principle of CBDR.

Instead of building upon real progress within ICAO, the Commission, forced to make a move, sought to use the creation of the HGCC in an attempt to overcome the impasse created by moving ahead with the inclusion of aviation into the EU ETS. The real (and only reason) for doing so was intra-EU pressure, coming from the

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191 European Commission, (MEMO/12/854), op.cit.; “ICAO HGCC and the EU ETS: Has progress been made so far?”, Transport & Environment, 24 April 2013.
192 Parker & Karlsson, op. cit., p. 927.
193 Ibid.
194 European airline official, op.cit.; official 2, op.cit.
195 Transport & Environment, op.cit. (ICAO HGCC), Middle Eastern airline official, op.cit.
196 Official, Ministry, op.cit.; European airline official, op.cit.
Ministers of Airbus countries, who were alerted by the risk of losing jobs in the aircraft manufacturing industries.197

Outlook: ICAO 2013 – and beyond

Credibility is a key determinant in the assessment of the various forms of leadership according to Parker and Karlsson’s typology of idea-based (agenda setting, providing information and solutions), directional (leading by example) and structural (power-based) leadership.198

This leads to the question of assessing the credibility of an automatic ‘snap back’ into the EU ETS. The official stance was that the derogation lasts until the 38th ICAO Assembly ended and not longer. At DG CLIMA preparations were, however, already made for any outcome.199 Also Member State officials were talking more openly about a possible extension of the ‘stop-the-clock’ prior to the ICAO Assembly and were rather worried by the hard line taken by the European Parliament regarding such an initiative.200 The airline industry, in general, expected an extension.201 Outside Europe, the general opinion was that the clock has stopped forever, at least for international flights within the EU ETS.202

During the 38th ICAO Assembly, the EU faced opposition from the ‘coalition of the unwilling’, which managed to gain the support from the majority of states.203 Yet, the Assembly committed itself to create a global MBM from 2020 onwards, which will be designed in detail during the upcoming 39th ICAO Assembly in 2016. The EU was not successful, however, in finding supportive language for the EU ETS to be applied as intended in the meantime. Regarding CBDR, the 38th ICAO Assembly re-affirmed the de minimis exemption and the fact that “different circumstances, respective capabilities and contribution of developing and developed States[...] will determine

197 Hemmings, op.cit.; official 1, op.cit.
198 Parker & Karlsson, op.cit., p. 927.
200 Official, Ministry, op.cit.
201 European airline official, op.cit.
how each State may voluntarily contribute to achieving the global aspirational goals”.204

Hence, the EU’s structural leadership is dwindling; without followers, one cannot be a leader. Yet, one can argue that the EU successfully leads the block of ECAC states, which are altogether more than 40. Still, as climate change is the global problem per se, being a leader in Europe is not enough. For the moment, the EU is no structural leader in combating climate change, as the outcome of the 2013 ICAO Assembly proved: even though the EU drew a roadmap for a decision on a global MBM to be signed in 2016 and entering into force in 2020, the application of the EU ETS on international routes and aircraft from third countries was successfully torpedoed by the Assembly, with a “big blow to Europe’s prestige”.205 Regarding the future of the ‘stop-the-clock’ decision, Hedegaard said that “progress was made overall and we will now factor this in when […] we decide on the way forward with the EU ETS”.206

On 16 October 2013, the Commission made a legislative proposal to reduce the geographical scope of the EU ETS for aviation to the EU and EEA airspace, yet including non-EU carriers.207 Non-EU states did not receive this proposal very well, and France, Germany and the United Kingdom appear to favour a full exemption of non-EU airlines from a geographically reduced EU ETS due to political pressure by the US, China, India and Russia.208 It seems highly unlikely that the EU ETS will ‘snap back’, even in a ‘light’ version, as it would undermine the credibility of the EU’s structural leadership.

This flawed structural leadership, however, does not undermine EU leadership in aviation emissions in general. The EU was able to show strong idea-based leadership by keeping the issue as high on ICAO’s agenda as never before, by setting a timeframe until the 38th ICAO Assembly, by naming the problem, by proposing a solution and continuing the efforts for the proposed regional EU ETS. Moreover, if the EU came up with innovative policy solutions, simultaneously taking into account sovereignty and CBDR, it would further improve the record. Finally, the inclusion of

204 Ibid., pp. 11-12.
205 “ICAO States reach agreement on roadmap towards a global MBM but Europe suffers defeat over EU ETS”, Greenaironline, 4 October 2013.
206 European Commission, op.cit., IP/13/918.
208 "Prospects of the ETS survival weakened by pressure against it from UK, Germany and France", airportwatch, 4 December 2013.
avgeering into the EU ETS, thereby proving the feasibility, has been a pioneering act and certainly an important step in the right direction. By continuing the ETS on an intra-EU level, the EU will further provide directional leadership and expertise to other states wishing to adopt such a scheme.

**Conclusion**

This paper scrutinised the EU’s leadership in mitigating aviation emissions in order to assess to what extent the EU is a leader in this field. The EU has shown long-standing idea-based leadership in ICAO by naming the problem and suggesting a policy solution, namely MBMs. Driven by aviation growth rates and the lack of progress in ICAO, the EU included the sector’s emissions into the EU ETS. Prior to that, the Union had made considerable efforts to make sure that the special nature of aviation is adequately reflected in the scheme’s design. Following the environmental rationale - and the support of the stakeholders heard during the consultation process - the geographical scope of the EU ETS was designed to cover not only all intra-EU flights but also all flights from and to Europe. Earmarking the revenues of the EU ETS to climate change purposes and realising the potential climate change benefits of a Single European Sky could have further enhanced the existing credibility of the EU’s idea-based leadership. By committing to a global MBM by 2020, however, the 38th ICAO Assembly adhered to the policy solution suggested and lobbied for by the EU. This underlines the EU’s idea-based leadership in curbing aviation emissions.

Also, the EU took on credible directional leadership when proving the technical feasibility of emissions trading in the field of air transport and moving ahead with the inclusion of the sector into the EU ETS. Official EU documents also give the impression that, by including aviation into the EU ETS, the EU aimed to provide a global role model for the mitigation of aviation emissions. A better functioning of the EU ETS in general could further enhance the existing credibility of the EU as a leader by example, given the plummeting of the EU’s carbon market due to the economic crisis since 2008. The future of the EU’s directional leadership will also be measured according to the EU’s continued commitment to mitigate aviation emissions after the 38th ICAO Assembly.

The EU’s structural leadership was heavily challenged both for political and economic reasons. Unity in diversity best describes the coalition of actors, bringing together developed and developing states, and the global aviation industry in their
opposition to the EU ETS. Initial support from some European airlines for the inclusion of aviation into the EU ETS waned as these airlines faced retaliatory measures from China, Russia or India. The EU ETS dispute lead the aviation industry, however, to adopt a more favourable approach towards MBMs and actively push for a global solution in the run up to the 38th ICAO Assembly.

When Commissioner Hedegaard announced to temporarily exempt international flights from compliance, the implicit threat to let the scheme ‘snap back’ was not considered credible, especially not beyond the borders of Europe. The failure to secure supportive language for the EU ETS during the 38th ICAO Assembly and the negative reaction to an EU ETS reduced to European airspace showed that the credibility of EU structural leadership suffered.

Aviation emissions in general are a challenging field for the EU to aspire leadership, a minefield of interests, sensitive issues and national pride. For a long time ICAO showed little interest to respond to the challenge of aviation emissions, and the emergence of the global economic crisis just after the scheme had been adopted did not contribute to an easy solution. However, there is room and need for EU leadership, as the past record in aviation emissions has shown. The EU ETS dispute is not amounting to a decline of EU leadership, but it highlights the need to navigate differently through the bumpy skies of aviation diplomacy. The bid for structural leadership might be lost. Aviation emissions on the other hand – more than ever – are on the radar of every decision maker today.
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