



10 August 2012

EU Emissions: Update on Aviation and the EU-ETS

Commodities Special

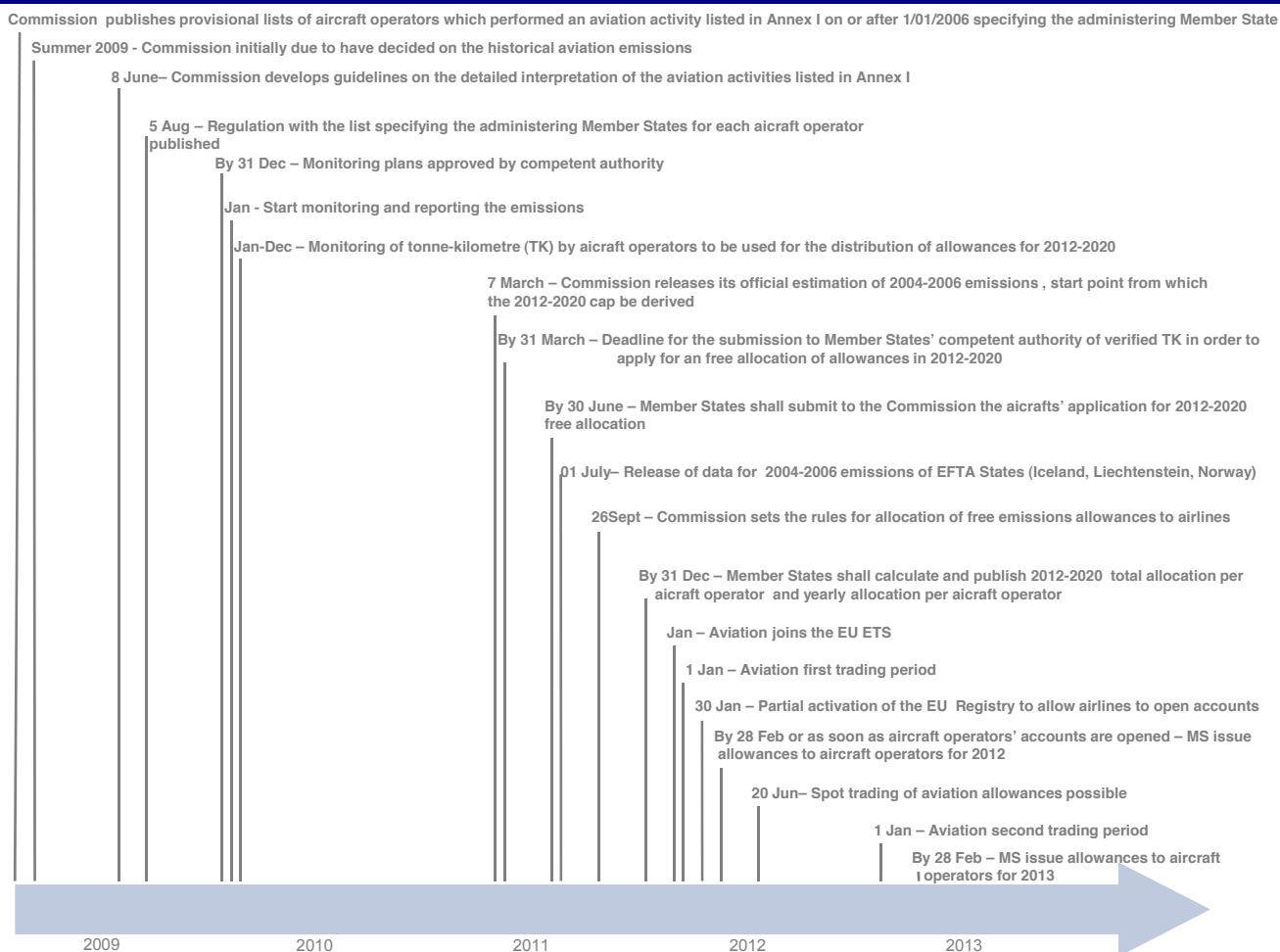
- Last week, the United States Senate Commerce Committee supported a bi-partisan proposal that would allow the Secretary of Transportation to prevent US airlines from complying with the EU-ETS.
- If approved in a forthcoming plenary vote in the US Senate, this would put the US directly at odds with the EU, although the Senate proposal also states that the US government should work at the international level to achieve a global solution to the challenge of rising emissions from aviation, something the EU very much supports.
- Against this backdrop and in line with a 2010 Resolution of the International Civil Aviation Organization (ICAO), ICAO Parties are in ongoing discussions over data submission and the potential measures to be adopted in order to address this issue. However, reaching an agreement in ICAO is likely to take a long time, and the inclusion of aviation in the EU-ETS has already been effective since 1 January 2012.
- The threat of fresh action in the US Congress (the House of Representatives already passed similar legislation in October 2011) comes against the backdrop of resistance to the EU legislation in other countries as well, most notably China and India. Indeed, whereas a number of non-EU countries (including the US) have so far used diplomacy to protest against the EU's inclusion of third-countries' airlines in the EU-ETS whilst their airlines themselves complied with EU reporting requirements, a number of Chinese and Indian airlines have not so far submitted their 2011 verified emission data as required by EU Law.
- So far, the European Commission has held firm and for the moment our base-case scenario remains that unless and until there is an alternative global scheme in place (or other major countries make equivalent efforts of their own to those of the EU), the EU will continue with the currently mandated scope of inclusion of third countries' airlines within the EU-ETS.
- Under our base-case scenario, the aviation sector faces a cumulative net shortfall of EUAs/CERs/ERUs of -385m out to 2020, against a cumulative surplus for the EU-ETS as a whole of +1,264m.
- However, given the continuing diplomatic and political pressure being applied to the EU by third countries, we here consider two hypothetical scenarios to see what the potential impact on our EU-ETS supply-demand balance would be of a change to the scope of coverage of aviation within the scheme.
- The first scenario we look at is what the impact on the supply-demand balance in the EU-ETS might be if the EU excluded incoming flights to the EU from third countries from the scope of coverage. Under this scenario, we calculate a cumulative deficit for the aviation sector by 2020 of -291m, or 94m less than the -385m in our base case, and hence a notional overall EU-ETS cumulative surplus by 2020 of +1,358m compared with the +1,264m we currently have in our model.
- The second scenario we look at is what the impact might be if the EU were to exclude both all incoming *and* all outgoing flights to and from third countries. Under this scenario, we calculate a cumulative deficit for the aviation sector by 2020 of -168m, or 217m less than the -385m in our base case, and hence a notional EU-ETS cumulative surplus by 2020 of +1,481m compared with the +1,264m we currently have in our model.
- The politics and diplomacy around the inclusion of flights between the EU and third countries will likely continue for many months, with the moment of truth coming next 30 April 2013 when EU and non-EU airlines alike have for the first time to surrender EUAs and/or CERs/ERUs against their emissions.
- In the meantime, we think market attention will continue to focus on the outlook for changing the auctioning profile of Phase-3 EUAs, with news due in the autumn on the quantity of allowances that the Commission proposes to back-end load.

International opposition to the EU scheme

Last week, the US Senate Commerce Committee supported a proposal that would allow the Secretary of Transportation to prevent US airlines from complying with the EU-ETS.

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Figure 1: Timeframe for aviation joining the EU-ETS

Source: Deutsche Bank

The Transportation Committee of the US House of Representatives introduced a similar bill in July 2011 into Congress which passed on the House of Representatives' floor in October 2011, but did not pass in the Senate. Last week's Senate-committee proposal is an important new step in the sense that it is this time a bi-partisan proposal and should therefore receive broader support on the floor of the Senate in the plenary vote later this year. If passed into Law, this proposal would directly oppose EU legislation, creating an awkward legal and political situation.

Interestingly, the Senate-committee proposal would also incentivize the US government to work at the international level to achieve a global solution to the problem of aviation emissions, and this is something that, in and of itself, the EU would strongly support. This is because international aviation emissions have been rising very sharply over the last two decades but have not been subject to any restrictions under any international treaties.

Indeed, it is precisely for this reason that the EU decided unilaterally to include both emissions from flights within the EU *and* flights between the EU and third countries under the scope of the EU-ETS from 2012 via the Aviation Directive (Figure 1 shows the evolution of EU legislation in this regard).

However, the European Aviation Directive encountered increasing resistance from outside the EU as the entry into force of its provisions drew nearer. Many non-EU countries argued – and continue to argue – that the EU scheme goes beyond the EU's jurisdictional prerogative in covering all international emissions of flights entering and leaving the EU. In accordance with such arguments, the US Air Transport Association (ATA, now renamed Airlines for America or A4A), together with three US airlines, filed a lawsuit against the UK Government in 2009 on the transposition of the EU Directive into UK Law. Other airlines threatened to follow suit but never did so, apparently waiting for the outcome of the ATA and US airlines' case.

The UK Court referred the case to the European Court of Justice, which in December of last year found in favour of the EU concerning the legality of the Aviation Directive's provisions.

Despite the legal setback to the US plaintiffs in this case, the US and other non-EU countries opposed to the inclusion of flights leaving and entering the EU continue to argue that the EU Aviation Directive contradicts international law in a number of areas, three of which have been emphasized variously by non-EU countries: (i) many countries have objected that it contravenes the Chicago Convention (under the aegis of the ICAO, this is the agreement governing the international rules for the aviation industry); (ii) the US contends that it contravenes the EU/US "Open-Skies Agreement"; (iii) many countries have argued that it contradicts the principle of "common but differentiated responsibilities" as set out in the Kyoto Protocol.

As things stand at the moment, however, the EU has not acceded to pressure from third countries regarding the entry into force of the Aviation Directive's provisions, whether in the form of (i) unilateral initiatives from third-party countries requesting that the EU exempt their carriers from the EU-ETS and/or implementing explicit measures to exclude their carriers from the provisions of the EU scheme; or (ii) pressure via the ICAO; or (iii) pressure from a group of countries (comprising the US, China, India, Russia and others) opposed to the scheme that have held a number of meetings to see how they could prevail upon the EU to reconsider.

So, where are we now?

With regard to the three sources of pressure just listed above, the most tangible so far are unilateral efforts by certain large countries such as the US, China, and India to remove their carriers from the scope of the EU scheme.

Clearly, the recent initiative in the US Senate discussed above has the potential greatly to intensify the political pressure on the EU should it be passed in a full vote in the Senate later this year. The US government – along with that of China – had already requested that its carriers be exempted, so the Senate initiative can in one sense be seen as a reaction to the EU's continuing insistence that all flights covered by the Aviation Directive as it currently stands remain subject to the Directive's provisions as of 1 January 2012.

For their part, China and India have been publicly critical of the EU's stance on this matter for a long time now, and what is more, Chinese and Indian airlines have so far systematically refused to comply with the data-reporting obligations foreseen by the EU's Aviation Directive for 2011 despite having complied on this point for previous years (by contrast, the US airlines, along with those of all

other third countries, remain in complete conformity with all data-reporting obligations to date).

The Chinese and Indian governments have also publicly stated that their carriers must not and will not comply with the obligation to surrender allowances or credits against their emissions.

On the second pressure point mentioned above, many countries have stated that it would be better to address the challenge of rising aviation emissions through collective international action at the level of the ICAO rather than partially via regional initiatives such as the EU-ETS.

Clearly, this would be the ideal solution and the objective of a global agreement to regulate aviation emissions at the international level is strongly supported by the EU itself (the EU would revise its scheme if a satisfactory international agreement were to be reached). Indeed, the European Commission, which is an observer rather than a member of the ICAO, has mandated two delegates to help achieve a satisfactory international agreement via the ICAO. However, discussions and negotiations at the ICAO will be a long and difficult process, and we would note that according to newswire reports (*GreenAir*) "a senior US official" highlighted only last week that such an agreement could not be expected by the next Assembly gathering of all the ICAO Parties in 2013. As a result, it is highly unlikely in our view that progress via the ICAO will be sufficient to enable the EU to change its position on the current scope of the Aviation Directive before the first compliance deadline for airlines on 30 April 2013.

Finally, there is a third source of pressure arising from a coalition of non-EU countries that oppose the provisions of the EU Aviation Directive in so far as it relates to flights between the EU and third countries. This coalition comprises a number of large and powerful countries (notably the US, China, India, and Russia) and has held at least three meetings so far to discuss ways in which they can convince the EU to reconsider.

According to press reports at the time, the February 2012 meeting of these countries in Moscow debated a range of possible counter-measures that could be applied to the EU, including a systematic denial of new routes to EU airlines, bringing international negotiations on aviation at the ICAO to a standstill, and re-opening trade agreements in other sectors. According to the most recent press reports, however, last week's meeting in Washington seems to have been conducted in a less confrontational tone, with the participating countries reiterating their opposition to the EU scheme whilst agreeing to continue work on a multi-lateral basis.

In short, there is legal, diplomatic, and political pressure being applied to the EU on numerous fronts by various third countries, and in our view this poses a major risk to the EU's ability to maintain its current stance on this issue.

That said, and despite these ongoing efforts by various non-EU countries, both the EU Council (consisting of representatives from the 27 EU Member States) and the EU Parliament reiterated in March of this year their support for the Commission's stance.

Accordingly, and for the time being at least, our base-case scenario for the supply-demand balance in the EU-ETS out to 2020 remains based on the assumption that all flights entering and leaving the EU will remain covered by the scheme over the entire Phase-3 trading period.

At the same time, though, we think it prudent to consider the downside risk to our existing forecasts were the external pressure on the EU ultimately to reach a point such that it deemed a change to the scope of coverage for flights between the EU and third countries necessary.

Accordingly, it is to a brief discussion of two alternative scenarios for the scope of aviation coverage over 2012-20 that we now turn.

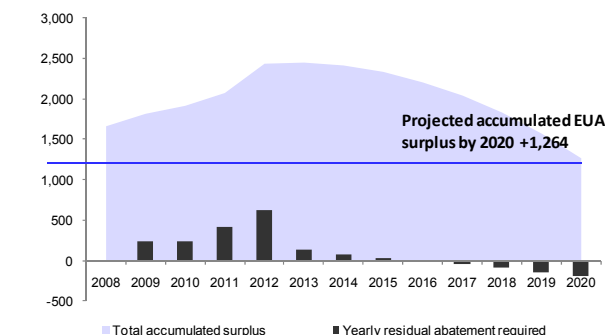
Sensitivity analysis of hypothetical scenarios

Figure 2 shows our current base-case scenario for the EU-ETS supply-demand balance out to 2020, which assumes the scope of coverage for aviation emissions as currently provided for in the Aviation Directive. In total, we project an accumulated EUA surplus of +1,264m for the system overall, comprising a net deficit for generators of -1,436m, a net deficit for the aviation sector of -385m, and a net surplus for all the other industries covered by the scheme of in excess of +2.5bn (for the detailed background on our modeling of this see our report *ETS Reform Should Not Be Set Aside*, 12 April 2012).

Given all of the uncertainties surrounding the ongoing political stand-off between the EU and certain large and powerful third countries outside the EU that we have just discussed above, it is clear that any attempt to model alternative scenarios for the scope of coverage of airline emissions against our base case can at this stage only be hypothetical.

Nevertheless, we think there are two broad scenarios that can be envisaged – with multiple possible permutations within and between these scenarios – and below we offer a brief analysis of the potential impact on the EU-ETS supply-demand balance of these two scenarios.

Figure 2: DB base case for ETS supply-demand balance out to 2020 under Phase-3 scope (mEUAs/mCERs/mERUs/Mt)



Source: Deutsche Bank

These two broad scenarios are:

- (i) A scenario under which the EU exempts all incoming flights from outside the EU from the scope of the EU-ETS, but continues to include all outgoing flights from the EU;
- (ii) A scenario under which the EU exempts all flights between the EU and third countries, both incoming and outgoing, such that only EU Member-State domestic and intra-EU flights are covered by the scheme.

Recital 17 of the Aviation Directive (Directive 2008/101/EC, which amended the original ETS Directive 2003/87/EC) provides for a revision of the scheme if a third country were to adopt equivalent measures to the EU-ETS.

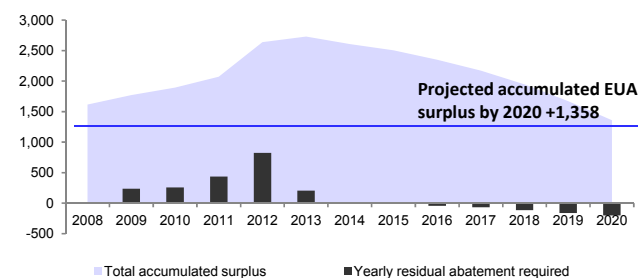
Article 25a of the revised EU-ETS Directive confirms this by saying that the Commission may consider when necessary excluding flights arriving from a third country adopting measures for reducing the climate-change impact or any other amendments to the scope of aviation activities covered by the scheme agreed with the European Parliament and the Council.

The criteria that would make a country eligible for the exemption have not yet been finalized, but in a paper published in February 2012 the Commission considered the possibility for third countries to take equivalent measures to reduce the climate-change impact of aviation, and estimated the impact on the aviation cap of excluding all flights arriving from outside the EU.

It concluded that adjusting the aviation cap in order to account only for intra-EU flights and departing flights from the EU would give an annual Phase-3 cap of 143m EUAs (versus 210m currently).

Extrapolating the Commission's estimate of the aviation sector's 2004-2006 emissions under this scope of coverage, we calculate a cumulative deficit for the aviation sector by 2020 of -291m, or 94m less than the -385m deficit we calculate under our base-case scenario. As a result, we estimate that excluding incoming flights from the EU-ETS would increase the EU-ETS surplus to +1,358m EUAs (Figure 3) from the +1,264m we currently have in our model.

Figure 3: ETS supply-demand balance out to 2020 if flights from third countries excluded from EU-ETS (mEUAs/mCERs/mERUs/Mt)

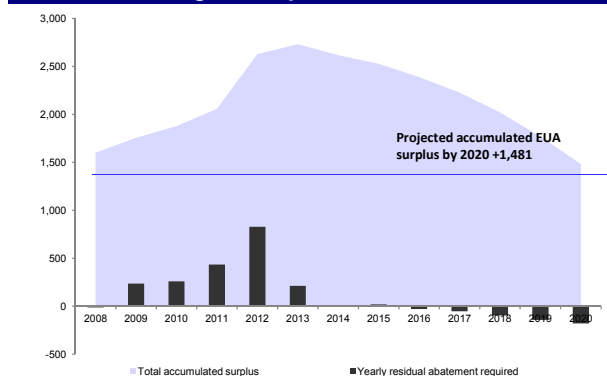


Source: Deutsche Bank

Figure 4 then shows the second of our two broad scenarios, under which all flights between the EU and third countries were excluded and the scheme was therefore reduced to covering only domestic and intra-EU flights (i.e. flights within and between EU Member States only).

Under this scenario, we assume a further incremental reduction in the scope for aviation-emissions coverage equivalent to the one in our first scenario above, as it can be fairly assumed that incoming and out-coming flights into and out of the EU have the same weight in the scheme.

Figure 4: ETS supply-demand balance out to 2020 with intra-EU flights only (mEUAs/mCERs/mERUs/Mt)



Source: Deutsche Bank

This would reduce their demand for EUAs, by 217m versus our base-case scenario, and hence increase the overall EU-ETS surplus to +1,481m.

This 217m difference between our calculated residual abatement required under this scenario (-168m) and the residual abatement required under our base-case scenario (-385m) is more than twice the 94m difference between the residual abatement as required under our base-case scenario (-385m) and our first alternative scenario above (-291m). This is because the CER/ERU quota for the aviation scope is calculated on the basis of the verified emissions, and this is significantly lower in our second scenario here than in the first.

In conclusion, we would emphasize again that it is impossible to say at this stage exactly how the political stand-off on this issue between the EU and third countries will play out, but absent any resolution in the near future the real crunch will come Q2 of next year, as the first compliance deadline for airlines for surrendering allowances against their emissions covered under the scheme is 30 April 2013.

Nonetheless, it is clear from our sensitivity analysis that any dilution of the scope of aviation-emissions coverage has the potential to add significantly to the accumulated EUA surplus by 2020 of +1,264m that we are currently projecting under our base-case scenario.

Finally, we would also emphasize that between the extremes of these two broad scenarios an ultimate potential compromise might be for the EU to include all emissions from flights entering and leaving the EU to the extent that the emissions from these flights occur within EU airspace while excluding from the scope of coverage the emissions of these same flights that occur outside EU airspace.

Auctioning profile remains key for prices in Q4

As highlighted in the piece we published in the *DB Commodities Weekly* of 3 August, the decision-making process on the amendment to the Auction Regulation to back-end load allowances remains uncertain at this point in time, depending as it does on the political will and/or legal possibility to have a vote in the Climate-Change Committee on the definitive proposal to amend the Auction Regulation before a vote on the Decision to amend the Directive to clarify the Commission's power in changing the auction calendar takes place (the Commission is expected to publish the definitive proposal in September).

This is because a vote on the amendment to the Directive cannot take place before the end of the year/January 2013 at the earliest. As such if the vote on the Auction Regulation were not to take place before this, it would delay the entry into force of the amendment to the Auction Regulation to at least the end of Q1 2013 given that the Comitology procedure with scrutiny requires three months for the European Parliament and the Council to have a look at any proposed law voted in the Climate-Change Committee.

As a result, we remain of the view that the outlook for EUA prices is now more than ever a function of political optionality. We see EUAs trading in a range of €6-8 until the definitive proposal for an amendment to the Auction Regulation – including the all-important number for the volume to be back-end loaded – is published in the autumn.

Thereafter, price action will be driven by the market's perception of whether the proposed number of allowances to be back-end loaded is high enough to provide for sufficient scarcity at the beginning of Phase-3 and so drive up prices.

So far, the Commission has given three possible orders of magnitude for the quantity of allowances to be withheld, (i) 400m, (ii) 900m, and (iii) 1,200m.

In our view, a number around 400m would be a disappointment to the market and would risk seeing prices trade lower than current levels, while a number close to 900m or 1,200m should in our view be enough to push prices back towards €15/t or higher over the second half of 2013 (see our report *ETS Reform Should Not be Set Aside* for a detailed analysis on this point).

However, we remain of the view that a temporary set-aside of allowances of the kind being considered under the proposal to re-profile the auctioning would in and of itself have only a temporary impact on prices.

As a result, we think the medium to longer-term outlook for EUA prices continues to depend on the Commission's finding a permanent solution to the over-supply in the EU-ETS (again, see *ETS Reform Should Not Be Set Aside* for a more detailed account of our argument on this point).

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Appendix 1

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