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Developing policies for green and sustainable finance for the airline industry

The EU Taxonomy Regulation

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Introduction

The application of green and sustainable lending principles to the aviation industry has long been a source of controversy and confusion. At the heart of the matter is whether lending to an airline can ever be considered truly "green" and if not, then whether aviation could be considered a transitioning industry with lending practices supporting the move towards lower emissions. The lack of definitive criteria as to what constitutes green or sustainable financing in the context of aviation has led to the inability of airlines and lessors to access this kind of financing. This article considers whether the inclusion of aviation in the EU's Taxonomy Regulation[1] will facilitate the availability of green and sustainable finance products for the finance and leasing of aircraft.

Impact of aviation on emissions

There is no doubt that aviation as an industry contributes significantly to world carbon dioxide emissions. In 2018, the International Council on Clean Transportation estimated that carbon dioxide emissions from aviation accounted for 2.4% of the world's global emissions from fossil fuel use and that this represented a 32% increase over the previous five year period (2019 Graver, Zhang and Rutherford)[2]. In addition while efforts towards reducing the environmental impact of aviation have focused primarily on measures to reduce carbon dioxide emissions, it has become increasingly apparent that non-carbon dioxide aviation emissions such as nitrogen oxides and non-volatile particulate matter have a negative environmental impact and that unlike carbon dioxide emissions, these may not directly correlate to the amount of fuel burned[3].

Past use of green and sustainable finance for aviation

Green and sustainable finance products have previously been used to finance the acquisition of new aircraft. In December 2019, Singapore-based lessor Avation acquired three ATR 72-600s to be leased to Braathens Regional Airlines on the basis of financing by Deutsche Bank which was stated to be the first ever commercial aircraft financed with a green loan. Vigeo Eiris, the ESG ratings agency which acted on the transaction, confirmed that replacing ageing regional jets with new ATR 72-600 aircraft was aligned with the LMA's Green Loan Principles, on the basis that ATR 72-600s aircraft create significantly less environmental impact than other jets and turboprops, emitting 40% less carbon dioxide than a comparable regional jet.

1 Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088

2 2019 Graver B., Zhang, K. and Rutherford D, 'CO2 Emissions from Commercial Aviation 2018', Available at https://theicct.org/sites/default/files/publications/ICCT_CO2-commercl-aviation-2018_20190918.pdf

3 2020 European Commission, 'Updated report on the non-CO2 climate impacts of aviation and potential policy measures pursuant to EU Emissions Trading System Directive Article 30(4), Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:747:FIN

However, bearing in mind the overall negative environmental impact of aviation, banks and other financial institutions are understandably cautious about potential accusations of "green washing" in the development and marketing of green and sustainable financial products for airlines and lessors.

Nonetheless, as a famously capital intensive industry, there is a recognition that private finance has a significant role to play in transitioning aviation towards a more sustainable future.

The EU Taxonomy Regulation – What is it?

The EU Taxonomy Regulation was borne out of a recognition that private capital would need to be mobilised and incentivised to support transition to a low carbon economy. To encourage investor confidence that investments will have the desired positive environmental impact, the EU Taxonomy Regulation establishes a classification system for environmentally sustainable activities.

It does this by setting out in Article 9 of the EU Taxonomy Regulation a number of environmental objectives. These are:

- Climate change mitigation
- Climate change adaptation
- The sustainable use and protection of water and marine resources
- The transition to a circular economy
- Pollution prevention and control
- The protection and restoration of biodiversity and ecosystems.

It then provides that economic activities can be included within the EU Taxonomy if they (a) make a substantial contribution to one or more of these environmental objectives, (b) do no significant harm to any of the other environmental objectives, (c) are carried on in compliance with certain safeguards (such as compliance with certain international human rights and labour standards) and (d) comply with the technical screening criteria set out in delegated legislation pursuant to the EU Taxonomy Regulation.

The Impact of the EU Taxonomy

In addition to providing greater clarity as to what projects can be described as sustainable, the EU Taxonomy also performs a regulatory function. Pursuant to the directive in annual financial statements, consolidated financial statements and related reports of certain types of undertakings[4], certain financial institutions (including companies listed in the EU and EU asset managers) are under an obligation to disclose certain non-financial information. Pursuant to the EU Taxonomy Regulation and as part of their non-financial reporting, those financial institutions will be required to disclose (a) the proportion of their turnover derived from products or services associated with economic activities that qualify as environmentally sustainable; and (b) the proportion of their capital expenditure and the proportion of their operating expenditure, in each case related to assets or processes associated with economic activities that qualify as environmentally sustainable. The European Banking Authority (EBA) is aiming to encourage financial institutions to finance sustainable activities through a Green Asset Ratio (GAR). In its technical advice to the European Commission, the EBA proposed that financial institutions should disclose their GAR to show the extent to which the financing activities in their banking book (including loans and advances, debt securities and equity instruments) are associated with the sustainable economic activities aligned with the EU Taxonomy. The GAR may have the effect of encouraging financial institutions to tighten credit supply and increase loan rates offered to companies involved in activities that are not taxonomy-aligned.

4 DIRECTIVE 2013/34/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC, as amended by Directive 2014/95/EU (the Non-Financial Reporting Directive).

There is also the possibility of the GAR evolving in future to require financial institutions to hold additional capital against exposures to non-green activities to take account of the sustainability risks.

It should also be noted that 37% of the EU's COVID-19 Recovery Fund will be allocated to the financing of activities that contribute to the EU's green transition, while 100% of financing will need to comply with the 'do not significant harm' principle. The airline industry, which was hit particularly hard by the COVID-19 pandemic, has been calling on governments for financial support. The COVID-19 Recovery Fund may be deployed to encourage airlines to decarbonise their services through investment in greener technologies, and in turn facilitate a "green recovery" of the industry.

The Steer Report

Although certain economic activities relating to transport are covered by the EU Taxonomy Regulation, most aspects of aviation have thus far been omitted. The EU Commission is now considering the expansion of the economic activities included within Taxonomy Regulation to cover aviation. It is hoped that the establishment of more definitive criteria for the application of green and sustainable finance to the aviation industry will allow banks and other financial institutions to develop a better understanding of what transactions can be marketed in this way and therefore enable airlines and lessors to access this source of funding.

However, there are undoubted challenges to the inclusion of aviation within the EU Taxonomy. Firstly, what aviation-related economic activities have the potential to be classified as sustainable? Secondly where such aviation-related economic activities can be identified, what technical standards should those activities meet in order to be considered as sustainable? This challenge is particularly acute with respect to the potential inclusion of the leasing and by extension, financing of aircraft as sustainable economic activities, bearing in mind that the scope for technological change to reduce aviation's dependency on fossil fuels is at present limited. Although manufacturers have done much over the years to produce more fuel-efficient engines, aircraft remain powered by kerosene jet-fuel and this is likely to remain the case for some time to come – particularly for the vast majority of commercial widebody aircraft. In this context, what does "sustainable" really mean?

To inform its decision making surrounding these issues the EU Commission commissioned consultants Steer to perform a study to assess what aviation-related economic activities could be included in the EU Taxonomy and what the technical criteria for those economic activities might look like. Their report was published in February 2021[5].

Aircraft finance and leasing and the Steer Report

Of the environmental objectives set out in Article 9 of the EU Taxonomy Regulation, Steer identified climate change mitigation as being the most relevant to aviation given the scope for making substantial reductions in future aviation emissions.

Steer then went on to consider how economic activities in the aviation sector could "make a substantial contribution to climate change mitigation". To do this, they examined the provisions of Article 10 of the EU Taxonomy Regulation, which establishes criteria within which activities may be either low carbon activities pursuant to Article 10.1 or transition activities pursuant to Article 10.2 and Article 16. Steer concluded that in view of the current state of aircraft technology, it would not be possible to classify aviation leasing as a low carbon activity although this could change in future if there is sufficient progress in reducing aviation emissions. For example, the lease of an aircraft powered by electric batteries or possibly advanced biofuels or electrofuels could constitute a low carbon activity.

Based on the current state of technology, Steer advised that in order to be sustainable, aircraft leasing would need to satisfy the criteria for transition activities set out in Article 10.2 and Article 16 of the EU Taxonomy Regulation.

5 2021, Steer and Kestrel Verifiers, 'Sustainable finance taxonomy for the aviation sector. Final Report. Study Contract MOVE/E1/2020-2026, Available at Sustainable finance taxonomy for the aviation sector – Publications Office of the EU (europa.eu)

What is a transition activity?

Economic activities in sectors such as aviation where low carbon alternative technology is not yet economically feasible may still be considered as making a substantial contribution to climate change mitigation for the purposes of the EU Taxonomy Regulation provided that the activity (a) has greenhouse gas emissions levels which correspond to the best performance in the sector (b) does not hamper the development and deployment of low carbon alternatives and (c) does not lead to a lock in of carbon intensive assets over the economic lifetime of those assets. In general, the economic activity concerned must be something which supports transition to a climate neutral economy and the phasing out of the use of fossil fuels consistent with the overall Paris Agreement goal of limiting the temperature increase to 1.5% of pre-industrial levels.

The inclusion of aircraft leasing as a transition activity would therefore be dependent on an analysis of the current state of technology to determine which aircraft types might fulfil the above criteria and how their environmental impact might be measured. This task is difficult. First, it is difficult to identify and assess what constitutes leading edge technology bearing in mind that this is also likely to change over time. In addition, the rate of change from jet fuel kerosene to alternative forms of fuel is likely to occur within different aircraft types at different rates. It is much more likely for example, that smaller aircraft will be developed using electric battery technology than larger commercial aircraft. Secondly, the average lifecycle of a commercial aircraft is around 20 years although this has reduced in recent years. There is therefore a danger that supporting the purchase or lease of a more polluting aircraft now could inadvertently act as an incentive to delay a subsequent purchase of a less polluting aircraft in the future when that technology becomes available. This could lead to a danger of "locking in" carbon intensive assets and reduce the incentive to invest in less polluting technology.

To address these issues, Steer reviewed a number of reports to determine challenging but realistic targets for the reduction of emissions based on four main aircraft types; business aircraft, regional aircraft, short to medium range aircraft and long range aircraft.

They suggested that any aircraft using electric, hybrid-electric and hydrogen powered fuel cells or engines should automatically be included within the taxonomy. In fact the leasing of aircraft powered by those sources should be capable of inclusion as a low carbon activity rather than a transition activity.

However, for aircraft powered by conventional fuel and having regard to the current estimates for the development of low carbon alternatives, Steer concluded that only the leasing of those aircraft at the leading edge of conventional fuel emissions should be included as a transition activity and that this should only be the case until 2037 (at which point it is expected that alternative low carbon alternatives should have been developed). They also concluded that the leasing of small aircraft (of under 20 seats, including helicopters) should not be a transition activity at all bearing in mind the greater likelihood that small aircraft would be able to transition to other fuel sources at an earlier stage and their higher fuel consumption per passenger kilometre and available tonne kilometre.

In order to determine the level of emissions from aircraft, Steer recommended the use of the ICAO aeroplane CO2 emissions standard metric.[6] This establishes a regulatory limit for a level of acceptable aircraft CO2 emissions for new aircraft type designs and designs already in production. It has applied to new aircraft types since January 1, 2020, and will be applicable to all in-production aircraft types from January 1, 2028. Although a technically complex measure, it has the advantage of being a method of assessing emissions that is independent of the operation of the aircraft. This would therefore enable a lessor or financier to easily assess the potential for the aircraft in question to benefit from sustainable finance. For example, a lessor could check the certification or validation by EASA against the ICAO aeroplane CO2 emissions standard for the relevant aircraft type.[7]

6 Annex 16 to the International Convention on International Civil Aviation, Volume III, Aeroplane C02 Emissions
7 EASA Aeroplane CO2 Emissions Database | EASA (europa.eu)

Steer further recommended that to identify aircraft at the leading edge of emissions reduction, the baseline for the inclusion of an aircraft type should be set at a margin below the regulatory limit imposed by the ICAO aeroplane CO2 emissions standard. In addition, Steer concluded that the margin (and therefore the level of improvement in emissions reduction as compared to the regulatory limit) should increase further over time in line with projections as to the likelihood of further technological advances. Steer believed that this would create a "downward pressure" on emissions (and should cease to apply entirely when low carbon alternatives become available for the particular aircraft category in question).

The draft technical screening criteria

On August 3, 2021, the Technical Working Group of the Platform on Sustainable Finance (which is a group of experts established by the European Commission pursuant to Article 20 of the EU Taxonomy Regulation) published draft technical screening criteria (the **Draft Technical Screening Criteria**)[8] which included aviation for the first time – including the manufacture of aircraft and the leasing of aircraft. The draft is clearly informed by the principles and methodology set out in the Steer Report.

Low carbon activity

The Draft Technical Screening Criteria unsurprisingly provide that the leasing of a zero exhaust CO2 emission aircraft such as an electric or green hydrogen powered aircraft will constitute a low carbon activity within the ambit of Section 10.1 of the EU Taxonomy Regulation. However, the leasing of other aircraft will only be considered a sustainable activity if it qualifies as a transition activity pursuant to Section 10.2 of the EU Taxonomy Regulation.

Transition activity

The Draft Technical Screening Criteria sets out a series of options in order for aircraft leasing to be considered sustainable. Unfortunately, it is not clear in all cases how these relate to each other.

Save as outlined in paragraph (a) below, the Draft Technical Screening Criteria have generally adopted the Steer Report recommendation that the appropriate measure for determining whether the leasing of a commercial aircraft could be a transition activity is for the aircraft concerned to be certified at a margin below the regulatory limit established by the ICAO aeroplane CO2 emissions standard (a **Conforming Aircraft**). In fact, for aircraft other than regional aircraft, the recommended margins in the Draft Technical Screening Criteria are less stringent than those set out in the Steer Report. From 2028 onwards until 2032, narrowbody and widebody aircraft meeting the above margin below the ICAO aeroplane CO2 emissions standard would also need to be certified to run on 100% sustainable aviation fuel.

From 2022 onwards

a. The Draft Technical Screening Criteria provide that as from 2022, the leasing of aircraft using at least 5% sustainable aviation fuel (then rising by 2% per annum) would constitute a sustainable transitional activity. It is not entirely clear whether the relevant aircraft would also need to be Conforming Aircraft. We note that in its feedback the Aviation Working Group (AWG)[9], a group of manufacturers, leasing companies and financial institutions, has assumed that the aircraft would not need to be a Conforming Aircraft but has sought confirmation of this.

Now until 2030

b. The Draft Technical Screening Criteria then provide that until 2030, the leasing of a Conforming Aircraft would constitute a transitional activity provided that an aircraft which does not conform with the ICAO aeroplane CO2 emissions standard and which has at least 80% of the maximum take-off weight of the Conforming Aircraft is then decommissioned within six months of the delivery of the Conforming Aircraft (the **Decommissioning Requirement**). This appears to be an alternative criteria to the use of sustainable aviation fuel outlined above.

8 https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/210803-sustainable-finance-platform-report-technical-screening-criteria-taxonomy-annex_en.pdf
9 2021, AWG, http://awg.aero/wp-content/uploads/2021/09/AWG-Letter-to-EC-re-EU-Taxonomy-Aviation-22-September-2021.pdf

From 2030 onwards

c. From 2030 onwards, the Draft Technical Screening Criteria propose that in addition to the aircraft needing to be a Conforming Aircraft and to compliance with the Decommissioning Requirement, the Conforming Aircraft would also need to use at least 10% sustainable aviation fuel, increasing by 2% annually in order for the leasing of such aircraft to constitute a transition activity.

Between 2024 and 2026

d. Finally the Draft Technical Screening Criteria include a provision that between 2024 and 2026 (although the exact period is yet to be finalised) the relevant aviation activity must be performed by Conforming Aircraft representing a proportion of the fleet equivalent to the proportion of [retired aircraft/delivered aircraft] averaged over the last 10 years (as evidenced by publicly available data from sources such as Cirium) (the **Proportion Requirement**). The AWG in its response has assumed that this criteria applies to a corporate financing rather than the leasing of individual aircraft but again this is not clear in the Draft Technical Screening Criteria. It is also unclear whether the ratio of retired to delivered aircraft is to be determined by reference to the global fleet in general (as appears to be the case in the equivalent criteria for manufacturing) as opposed to the global fleet of the airline or lessor however the explanatory notes indicate that this should be the global fleet in general.

The Steer Report recommendations provide for a review of the technical screening criteria in line with then existing technological developments. As such from 2033 onwards the technical screening criteria would be subject to further revision.

Likely reaction

The expansion of the EU Taxonomy to aviation is to be welcomed. However, for it to be useful, more work needs to be done to create technical screening criteria which are clear and workable for the aviation industry. We set out some of the issues below:

- The use of the ICAO aeroplane CO2 emissions standard methodology for determining aircraft emissions is sensible as it is easy to verify. More controversial is the inclusion of a level of margin below the regulatory limit for a conventionally powered aircraft to be considered at the leading edge of emissions reduction. The limits suggested by Steer are ambitious and although the Draft Technical Screening Criteria have reduced the suggested margin for certain aircraft types, the AWG argues in its feedback that aircraft which conform to the regulatory limit should be sufficient and that no margin below this limit should be required.
- In its letter of February 2021 the AWG also requested that an aircraft re-fleeting exercise which would result in an overall net reduction in emissions for the airline concerned but which may not solely involve new aircraft should be considered as a potential transition activity. However, this request was always going to be controversial given concerns regarding the potential "lock in" of carbon emitting assets bearing in mind the economic lifecycle of aircraft. The Draft Technical Screening Criteria do not include such a requirement although there is an acknowledgement in certain of the suggested criteria that leasing may still constitute a transition activity even if not all aircraft within the relevant fleet are Conforming Aircraft.
- Steer highlighted in their report that one disadvantage of the use of the ICAO aeroplane CO2 emissions standard metric to determine emissions is that this does not take into account whether or not sustainable aviation fuel (**SAF**) is used. As such, they suggested that some kind of allowance could be made to reduce the value of the metric by the percentage of SAF used. This idea has been developed to some extent in the Draft Technical Screening Criteria. However, it is currently unclear in the Draft Technical Screening Criteria whether the leasing of an aircraft which would otherwise not fall within the limits established by EU Taxonomy could be deemed to constitute a transition activity as a result of the use of sustainable aviation fuel. This appears to be the case for at least one of the criteria but it would be helpful for this to be confirmed.

- Imposing and monitoring the required percentage use of sustainable aviation fuel could be challenging – particularly where the requirement is to show a percentage of SAF used in a particular aircraft rather than on a fleet basis. Presumably, this would need to be achieved contractually via the lease covenants. The AWG in its open letter of 22 February 2021 had argued that the use of sustainable aviation fuel was an "operator choice that should not be used in any determinations that might impact lessors or financiers".

  From an airline perspective, the introduction of operational factors could result in greater cost in terms of administrative burden and monitoring, reporting and verification requirements. However with the EU intending to legislate to mandate the use of SAF and given the technical challenges of moving towards alternative green fuel sources, it is not surprising that a requirement to use SAF has been included in the Draft Technical Screening Criteria. Airlines operating to and from the EU may need to come to terms with requirements to report their use of SAF as part of the EU's proposed Regulation on ensuring a level playing field for sustainable air transport (the Proposed SAF Regulation)[10]. It might therefore be helpful if any reporting requirements for the use of SAF were aligned to the information that airlines would be required to provide in the Proposed SAF Regulation (although the percentage use of SAF in the Draft Technical Screening Criteria is deliberately set at a level above the proposed mandated use of SAF in the Proposed SAF Regulation). In their response to the Draft Technical Screening Criteria, the AWG criticize the proposed requirement for SAF on a per aircraft basis rather than across the relevant fleet. In addition they have argued that the requirement for SAF should be benchmarked by reference to the percentage of SAF used in the preceding year by the aviation industry more generally rather than the establishment of a fixed set percentage. They argue that any such requirement needs to reflect the fact that SAF may not be readily available on commercially reasonable terms to facilitate use in the percentages envisaged by the Draft Technical Screening Criteria.

- The Decommissioning Requirement is also controversial. The AWG notes that in circumstances where an airline or lessor has a fleet of new fuel efficient aircraft and wishes to access sustainable finance, it could be required to acquire aircraft which are non-compliant in order to fulfil the requirement that a non-compliant aircraft is then decommissioned within six months of the delivery of the Conforming Aircraft.
- Steer indicated in their report that the use of the ICAO aeroplane CO2 emissions metric may not correctly account for the fuel performance of hybrid aircraft which may use conventional propulsion during the take-off and climb phase but then other means of propulsion (such as electric batteries) during the cruise phase of the flight. This type of aircraft is not specifically contemplated in the Draft Technical Screening Criteria save to the extent it would otherwise satisfy the criteria for a Conforming Aircraft.
- Overall, lack of clarity is one of the main issues with the Draft Technical Screening Criteria. It is assumed that the criteria are intended to be alternative options however this is not made clear and it is also unclear how the Proportion Requirement is intended to work in the context of aircraft leasing. The EU Taxonomy Regulation provides that the technical screening criteria should be "easy to use and be set in a manner that facilitates the verification of their compliance". This aim has not yet been achieved.

10 Proposed Regulation on ensuring a level playing field for sustainable air transport available at https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12303-Sustainable-aviation-fuels-ReFuelEU-Aviation_en

Conclusion

The potential expansion of the EU Taxonomy Regulation to cover aviation is an important step to facilitate the use of private capital to support the transition of the aviation industry to the low carbon economy. Greater certainty for lessors, financiers and airlines as to what constitutes a sustainable investment in the sector is to be welcomed.

However, a delicate balance needs to be struck between establishing sufficiently stringent targets to avoid accusations of "greenwashing" and ensuring that those targets are achievable and workable in view of the technological constraints of the sector.

The consultation on the Draft Technical Screening Criteria has now closed, however the EU Commission has stressed that, at present, this is a working document which does not bind its future decision making. The responses to the consultation will inform the final report to be presented by the Platform on Sustainable Finance to the EU Commission in November 2021. Following that final report the EU Commission is then expected to present a Delegated Act to expand the technical screening criteria in the first quarter of 2022.

As such, there is still time for the industry to input into the drafting and application of the Draft Technical Screening Criteria. This is important because the resulting criteria and technical standards are likely to inform sustainable finance and reporting policies for the aviation sector within the EU and beyond and may influence the pricing and availability of finance for the industry in future.

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