

HM Treasury: Consultation on aviation tax reform

Material submitted by Dr Sally Cairns and Dr Milena Buchs, University of Leeds, June 2021, as part of the Transport & Mobility theme led by Prof Jillian Anable.

Acknowledgements: The authors gratefully acknowledge support from UK Research and Innovation through the Centre for Research into Energy Demand Solutions, grant reference number EP/R 035288/1. Whilst any views expressed here are those of the authors, they are very grateful for information and other inputs from other members of the CREDS centre.

Summary of submission

This submission provides some brief thoughts on three issues raised in this consultation. These are:

- 1) Should the domestic rate of APD be reduced, and what would be the environmental impacts? (Q1, 7, 8, 10 and 15)
- 2) What would be the environmental impact of changing the banding system for APD on international air travel? (Q20)
- 3) Are there alternative tax measures which could further align the aviation tax framework with government's environmental objectives? (Q25)

Relevant question numbers from the consultation document are given in brackets. (Responses to the first point are not easily classified by question but have relevance to a number of the questions asked.)

Appendix A provides details of research work being undertaken at CREDS to understand the distributional impacts of different aviation tax regimes.

1. Should the domestic rate of APD be reduced, and what would be the environmental impacts?

Relevant consultation questions:

1 Do you agree with the government's initial policy position that the effective rate of domestic APD should be reduced? In your view, what would be the positive and negative effects of such a change, particularly in light of the government's objectives for aviation tax?

7 What could the environmental impact of reducing the effective domestic rate of APD be? How could any negative impacts be mitigated?

8 What could the impact of reducing the effective domestic rate of APD be on other modes of transport (e.g. road/rail)?

10 Is there an alternative approach to reducing the effective rate of APD on domestic flights, that you think would be more appropriate than either of the options identified?

15 Are there any particular considerations around the application of a return leg exemption to business jets, in light of how business jets are operated?

In our opinion, **because of likely environmental impacts, reducing the effective rate of domestic APD would be a negative change, since it would increase the attractiveness of air travel on domestic routes.** In doing so, it would undercut rail and coach travel (which typically have lower emissions per kilometre). The environmental consequences would be particularly negative if the changes applied to business jets, given their very high emissions per passenger kilometre.

In terms of **comparing air travel with the use of other modes**, the BEIS Greenhouse Gas conversion factors for reporting¹ estimate that typical **emissions, in gCO₂e per passenger km, are 245 for a domestic flight; about 170 for a car with 1 person; 35 for rail and 26 for coach.** 2021 values do not appear to be adjusted for changed passenger loadings since the pandemic, meaning that comparison between air travel and other modes could be even less favourable.

The effect of reducing the rate of APD would not only be on mode choice. It could also encourage longer distance travel more generally, including the adoption of living and working patterns which rely on the availability of long distance travel. When Flybe collapsed, there were stories in the media of people who relied on it to commute between, for

¹ BEIS (2021) [Greenhouse gas reporting: conversion factors 2021 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/94444/greenhouse_gas_reporting_conversion_factors_2021.pdf)

example, London and the South West², or for frequent business travel. If aiming for a low carbon future, regular long distance travel should not be encouraged - and this may be particularly relevant post-pandemic, when working patterns may become more flexible, with people considering moving further from work as a result of needing to be at their workplace less often. (Obviously, this is only relevant for certain types of jobs, however these tend to be the better paid, more flexible jobs where people would be more likely to be able to undertake an 'aviation commute'). The improved availability and adoption of virtual meetings may also make such travel less necessary.

The logic set out in the document for making such a change appears to be weak. For example, paragraph 1.6 highlights importance of the domestic air network for connecting Great Britain and Northern Ireland, and for connecting the Scottish Highlands and Islands with the mainland. Surely, this implies that these routes should (continue to) benefit from exemptions, rather than that domestic APD needs to change more generally?

The arguments for 'regional economic benefits' from encouraging domestic air travel are often stated, but rarely balanced or well-substantiated. For example, regional airports do not just bring in tourism, but also encourage residents to make tourism trips abroad (rather than holidaying in this country). What proportion of current domestic flights are simply channelling UK holidaymakers to international flights at hub airports? Do the benefits of cutting taxes for aviation really outweigh the benefits of investing the same amount of money in other local transport improvements?

Rather than reducing APD, the government should consider introducing VAT and tax on aviation fuel for domestic air travel. VAT is already charged on domestic air tickets in many other European countries (including, for example, France and Germany)³ and the EU Treasury Ministers' Meeting in Lisbon a few weeks ago also expressed broad support for future proposals for a European-wide tax on kerosene jet fuel used in aircraft⁴. Introduction of such taxes by the UK would help to show environmental leadership. It should be noted that the

² "Freelance art director Sarah Ward, who divides her time between London and Cornwall, is another Flybe frequent flyer. She tweeted that she would have to move house if the airline ceased to exist." Quote taken from: [Why Flybe matters: 'Valuable connectivity' - BBC News](#)

"Kim Piner, who runs a recruitment company in Truro, Cornwall, regularly travels to London from Newquay and was due to catch the 07:15 GMT flight to meet her accountant."

"Allie Baglow, a financial advisor from Manchester, said she booked multiple flights a year with Flybe to Exeter... 'I'll probably have to switch to Skype and Facetime calls as it won't be feasible for me to get down that often'." Examples taken from [Flybe: 'I thought we would be saved but not this time' - BBC News](#)

³ CE Delft (2019) Taxes in the field of aviation and their impact. Report for the EC – see page 26. [Aviation-taxes.pdf \(politico.eu\)](#)

⁴ [EU to target aviation in revamp of fossil-fuel levy | Financial Times \(ft.com\)](#)

French National Assembly has already voted to ban internal flights with a 2.5 hour rail alternative⁵.

2. What would be the environmental impact of changing the banding system for APD on international air travel?

Relevant consultation question:

20 What could the impact on the environment of a change to the banding structure? How could any negative environmental impacts be mitigated?

In terms of environmental impact, **changes to the number of APD bands for international travel are less important than the amount charged within each**, and whether the cost of travel to particular destinations increases or decreases.

If the effect of increasing the number of bands is to increase the cost of travel to locations in the longest distance band, *without* reducing the costs of travel in the other bands, then environmental impacts should be positive, by encouraging some people to make fewer trips or to choose closer destinations.

However, if the effect of a new banding system is to reduce the costs of travel to particular destinations, such as the USA, there is likely to be some trip generation, with associated negative environmental effects.

It is impossible to assess the impacts of the proposals without more information on what the cost rates for the bands would be, and any firm proposal should include an impact assessment derived from past volumes of travel to different destinations, and taking into account the price elasticities of demand for those locations.

⁵ Haydock D and Smith K (15/421) [French parliament backs ban on short domestic flights that compete with rail | International Railway Journal \(railjournal.com\)](https://www.railjournal.com/news/2019/04/15/french-parliament-backs-ban-on-short-domestic-flights-that-compete-with-rail/)

3. Are there alternative tax measures which could further align the aviation tax framework with government's environmental objectives?

Relevant consultation question:

25 Do you agree with the government's assessment that APD should remain as the principal tax on the aviation sector? Would you propose any alternative tax measures which could further align the aviation tax framework with the government's environmental objectives?

It is disappointing to see the cursory treatment that has been given to the concept of a 'frequent flyer levy' in this document. Given its advocacy by the Committee on Climate Change and Climate Assembly UK, one might have thought that it merited more substantial treatment. In particular, the comment that 'passengers who fly more will, in effect, already pay more' because they pay APD more times suggests a fundamental misunderstanding of what is being suggested, i.e. a graduated tax depending on flight frequency, not a flat tax per flight.

CREDS research has been investigating the distributional impacts of different taxation mechanisms for aviation and demonstrates that the adoption of an alternative taxation regime could be socially progressive. More details are given in the appendix.

In terms of practicalities, **there are various ways in which a simplified version of a frequent flyer levy could be introduced which would overcome many of the issues raised in paragraph 4.16.**

For example, APD could be raised to a higher level for all passengers, and then passengers could apply for an 'exemption code', linked to their passport number, to use against the first flight taken each year (or every few years). In this instance, the government would not need information about individual flight patterns, only about the number of exemption codes given out per passport, and airlines would only need a way of ensuring that exemption codes used were valid.

If such a system were introduced, it would also be possible to provide certain categories of people (perhaps, for example, international students) with additional exemption codes if it was felt that their travel was sufficiently important that it merited such treatment.

For most people, the exemption total could be a fixed amount, that equated to the increase in the cost of APD on a flight of less than 2000 miles, regardless of destination. For example, if APD for all flights was increased, with the tax on a European flight increasing from £13 to £39, the exemption amount for all flights could be £26. This would perhaps be more

environmentally wise than specifying the exemption as a percentage of the flight tax, which would mean that people making longer journeys would receive a greater benefit.

This proposal would not solve the problem of people with multiple passports, however it is unclear how substantial this problem is and/or whether these are typically people with strong family links in other countries who might justifiably be given a higher level of exemption anyway. For certain businesses, additional exemptions might also be appropriate, which should be possible since only a small proportion of international air travel is for business purposes anyway.

This is only one suggestion. However, if the government is seriously committed to managing the demand for aviation travel, which will be necessary in order to meet the UK's net zero commitment, there needs to be substantially more attention given to devising and evaluating new ideas. CREDS would be happy to provide support where possible.

Appendix A: The distributional impacts of different potential aviation tax regimes

Work led by Milena Buchs of CREDS has been investigating the distributional impacts of different taxation regimes for aviation. This work is still being developed, however initial results suggest that either:

- 1) a tax based on flight emissions (with the first flight exempt), or
- 2) a tax based on both flight emissions and flight frequency, with the first flight exempt (derived from work by Fouquet and O'Garra, 2020⁶)

would both be socially progressive policies.

Further information can be supplied if of interest.

Methodology

The analysis is based on the Living Costs and Food Survey Secure Access datasets, combining the years 2014-2017/8⁷. The total sample size for 2014-2017/8 is 20,502 households.

The estimation of flight distance and flight emissions per flight and per household is based on the flight destination variables from the "raw household" files and the DEFRA conversion factor for flights which includes radiative forcing (in kg CO₂e per passenger km).

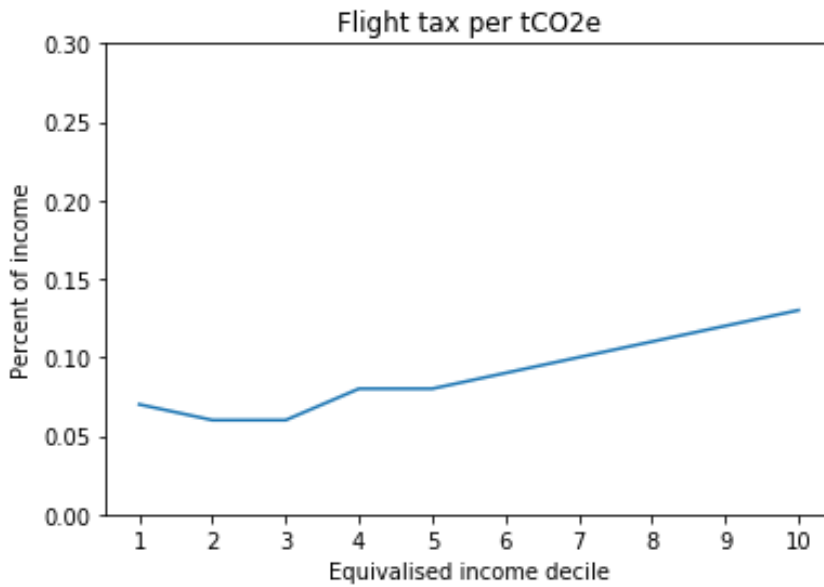
Results

Graphs showing the main findings from the modelling work are given on the next page.

⁶ Fouquet, R. and T. O'Garra (2020). [The Behavioural, Welfare and Environmental Effects of Air Travel Reductions During and Beyond COVID-19, Centre for Climate Change Economics and Policy Working Paper No. 372](#) , Grantham Research Institute on Climate Change and the Environment Working Paper No. 342.

⁷ Department for Environment, Food and Rural Affairs, Office of National Statistics, 2019, [Living Costs and Food Survey, 2006-2018: Secure Access](#) [data collection], 13th Edition. UK Data Service, SN: 7047.

Model 1: Flight tax of £50 per tonne of CO₂e, excluding the first return flight per household



Model 2: combining a flight tax per tonne of CO₂e and number of flights: £50 per tonne of CO₂e, plus an additional £50 per t CO₂e for every additional number of flight. 1st return flight is excluded.

