

# A FREQUENT FLYING LEVY IN EUROPE THE MORAL, ECONOMIC, AND LEGAL CASE

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# **EXECUTIVE SUMMARY**

uropean air traffic presents one of the continent's largest obstacles to halting climate breakdown and achieving the climate goals subscribed to in international and European law. Before the Covid-19 pandemic, the sector's impact was rising rapidly. All indications suggest this trend is now resuming. Additional climate damage arising from the growth in air traffic has out-stripped modest reductions delivered through technological advancements. A wide range of expert bodies has advised that technological solutions and alternative fuels are limited and a sole reliance on these will not be sufficient to align the sector with internationally agreed climate commitments. EU and national government policy to date has been inadequate compared with the scale of the challenge and does not guarantee emissions reductions on behalf of society.

Stronger policy is needed, but Europe has already begun to experience the backlash which can develop if climate action does not *deliver fair* and *feel fair*. If we are to secure a rapid global transition to avoid climate breakdown, European policymakers must have a clear view of two key dimensions of the unfairness of aviation's climate damage: first, the inequity between those nations responsible for emissions (largely in Europe and North America) versus those experiencing the most acute climate-driven loss and damage (largely in the Global South); and second, the inequity within nations between the minority who fly frequently (typically the wealthiest groups) and the majority who fly rarely or not at all.

Globally, 1% of the world's population produces 50% of aviation emissions, while approximately 80% have never set foot on a plane.¹ Within western Europe, our analysis shows that the highest-income households (over £/€100,000 per year) are at least six times more likely to take three or more return flights per year than those

on the lowest incomes (under £/€20,000 per year). Meanwhile, among the lowest-income group, almost 70% of households do not fly in any given year, compared with just over 20% among the highest-income households.

Current policy sees air traffic exempted from most standard forms of taxation (eg fuel duty and VAT). Not only does this reduce state revenues, it means that the polluter does not pay and leaves the industry with insufficient incentive to cut emissions. Applying a fuel duty on kerosene, or another form of comprehensive carbon tax, on flights must be an urgent priority. In its absence, governments should also explore implementing meaningful distance surcharges on ticket taxes. However, as the price effect of any such measures will create a much larger relative barrier for those on low incomes compared to those on high incomes, we advocate supplementing fuel tax and regulatory measures with a frequent flying levy (FFL). Indeed, we see an FFL as a key tool for ensuring the public perceives climate action as fair and averting a backlash against politicians and the wider green transition.

Under an FFL a ticket tax is applied to each single flight taken by an individual. The tax rate rises incrementally after every two single flights taken (ie after every return flight). It can support the green transition in three key ways:

- 1. Help to significantly cut aviation emissions in the short to medium term, delivering the necessary savings that technological developments cannot. Our tested policy design, if implemented in the example year 2028, is calculated to be able to deliver a 21% drop in European aviation carbon emissions.
- Protect access to flying for infrequent, lowerincome passengers while managing overall air traffic levels and making polluters pay.

The levy results in no change to the taxes paid by 72% of the population in western Europe. Households earning over £/ $\epsilon$ 100,000 per year are four times more likely to pay the levy than households earning under £/ $\epsilon$ 20,000. Instead, the majority (54%) of savings come from individuals who would otherwise have taken four or more return flights per year, a group representing just 4.5% of the western European population.

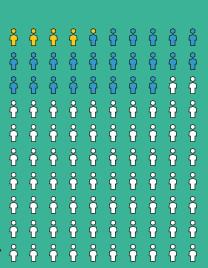
3. Raise significant funds for use in accelerating Europe's transition to a fairer, greener **economy.** These can recompense those nations least responsible for the climate crisis for damages experienced, and support workers and communities with jobs or local businesses directly in, or heavily reliant on, air travel. Our tested policy design raises €63.6bn in additional tax revenues across Europe.

In this report, we evidence the effectiveness of the FFL policy based on analysis grounded in an economic assessment by CE Delft, using the widely recognised AERO MS model, as well as a New Economics Foundation (NEF) analysis of recent polling by More in Common. We also set out a potential roadmap to the implementation of such a policy, assessing the feasibility and how legal obstacles might be overcome, grounded in a legal analysis by AdaStone Law. An FFL offers a fair, feasible, fast route to getting emissions for European aviation on track. The levy works best if combined with other policy measures aimed at cutting emissions, including a kerosene/carbon tax on all flights departing European airports.

## A QUICK GUIDE TO A FREQUENT FLYING LEVY IN EUROPE

### WHO PAYS?

- The majority (54%) of the reduction in flying will come from just 4.5% of the western **European population** that fly the most.
- $\tilde{n}$  72% of the population in western Europe, those who fly the least, will pay no FFL charges.



**Reductions in flying are** secured overwhelmingly from higher-income social groups.



of households of households with income < £/€20,000 pay the levy



with income > £/€100,000 pay the levy

### **HOW MUCH IS RAISED?**

The additional taxes paid through the FFL deliver a €63.6bn increase (607%) in net tax revenues.



### **HOW MUCH IS SAVED?**

There is a 21% carbon emissions reduction (by introducing the FFL in the example year 2028).



### I. INTRODUCTION

Global governments face a rapidly closing window during which they must implement the policy solutions which are required to limit global heating to as close to 1.5°C above preindustrial levels as possible. Despite the escalating gravity of the climate threat, currently, committed action will fall well short of creating a safe and stable climate. New research shows climate damages already outweigh the costs of mitigation efforts, which makes rapid and wide-reaching climate action common sense.

Different sectors of the European economy have made varying rates of progress in cutting their emissions over recent years. Notably, transport, agriculture, and construction have delivered no material overall emissions reduction over the past decade. Air transport has been a particularly poor performer. Before the Covid-19 pandemic, carbon emissions from EU air departures were rising rapidly, from 120 MtCO2 in 2015 to 150 MtCO2 in 2019. Small efficiency gains made by the industry were immediately eaten up by further growth. Add to this the non-carbon impacts of air traffic, which have tripled the net climate damage of the industry, and air traffic emerges as Europe's biggest obstacle to cutting its climate damage.

European air traffic is continuing to see rapid growth following the pandemic. But global society can ill-afford a return to the climate-damaging trend seen pre-Covid. Very significant growth is projected in aviation markets outside Europe, <sup>7</sup> in nations with historically lower per-person carbon emissions and air traffic. Europe, with its history of climate damage, has a responsibility to lead, not lag, when it comes to tackling aviation's contribution to the climate crisis.

The call to action on air traffic emissions presents broader opportunities. Beyond the aviation sector, there is a significant lack of international and European public investment<sup>8</sup> in transitioning economies to zero emissions and ensuring we are ready for escalating climate damage. New sources of revenues are urgently needed to invest in solutions including speeding up the deployment of renewables and energy efficiency; expanding public transport and rail and investing in adaptation; as well as diversifying economies reliant on high-carbon industries and mass air-travel-based tourism.

While some within the aviation sector place their faith solely in the development and roll-out of low-carbon technologies and alternative fuels, this confidence that technology and fuel change alone will fix the problem is not shared by a wide array of expert bodies. Independent assessments have consistently identified a need to manage levels of air traffic if climate targets are to be met. In particular, the International Energy Agency's Net Zero by 2050 scenario requires demand controls limiting longhaul air traffic to 2019 levels – a challenging task given current rates of growth. 10 This needs to be part of a wider effort to achieve substantial energy demand reductions, as meeting climate targets will be extremely difficult and expensive to achieve without reducing overall energy demand. 11 With the growth in demand for air traffic widespread, this is likely to require much more stringent and active public management of the air transport system. Concerns have also been raised about the viability and wider social and environmental costs of some of the proposed alternative lower-carbon fuels.<sup>12</sup>

## BUSINESS AS USUAL IN AIR TRAFFIC MEANS DEEP INEQUALITY

The Intergovernmental Panel on Climate Change (IPCC) has set out the remaining quantity of global carbon (and other gases) emissions which can be considered'compatible' with limiting warming to the level targeted by the Paris Climate Agreement of "well below 2 degrees". This remaining quantity can be considered our carbon budget. Depending on how this is calculated, if non-CO2 impacts are included, and how much aviation is considered a luxury or essential good, aviation's share of the budget can vary. However, it is clear that to avoid climate breakdown, air traffic must stay within ecological limits.

CE Delft calculated in its report<sup>†</sup> that at current rates of efficiency, without considering non-CO2 effects, and assuming the aviation sector's remaining

i CE Delft analysis assumes a constant emissions share for the aviation sector out to 2050 and targets a 50% chance of limiting warming to 1.5 degrees.

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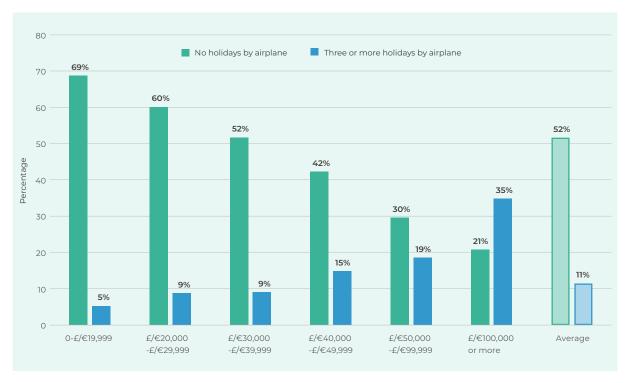
carbon budget is shared equally among all global citizens, every individual could take up to four economy short-haul return flights (eg Amsterdam to Barcelona), or one economy long-haul return flight (eg Amsterdam to Tokyo), in total over the next 26 years. If the current, unequal, distribution of aviation emissions between the global north and south was accepted, the share of each European citizen would rise to ten economy short-haul return flights or three economy long-haul return flights. In reality, a mix of short- and long-haul flights will likely be taken, meaning remaining allocations somewhere in between these two examples.

While the carbon efficiency of air traffic may improve over coming years and increase this allocation slightly (up to a highly unlikely theoretical maximum of 50%, eg 15 short-haul return trips or 4.5 long-haul) this small remaining allocation means a new policy is urgently required. Without action, the remaining budget will be consumed within a matter of a few years, primarily by a very small minority of frequent flyers.

This frequent flyer group comes overwhelmingly from Europe's highest-income households. Our analysis of More in Common polling  $^{14}$  shows that in western Europe, the highest-income households (over £/€100,000 per year) are at least six times more likely to take three or more flights per year (in this case for holiday purposes) than those on the lowest incomes (under £/€20,000 per year). Meanwhile, among the lowest income group, almost 70% of households do not fly in any given year, compared with just over 20% among the highest income households (Figure 1).

If current trends continue, an over-sized share of the remaining emissions budget for air traffic will be consumed by wealthier social groups who typically fly more frequently, longer cumulative distances, in more damaging ways (eg in a private jet or in business/first class where emissions shares per passenger are significantly higher). Failing to get to grips with aviation's large and growing climate damage also has consequences beyond the aviation sector. The larger the share of our remaining

FIGURE 1: PROPORTION OF RESPONDENTS FLYING AT DIFFERENT FREQUENCIES (LAST 12 MONTHS) GROUPED BY HOUSEHOLD INCOME AGGREGATED ACROSS THE UNITED KINGDOM, GERMANY, NETHERLANDS, BELGIUM, FRANCE, AND SPAIN



Source: NEF analysis of More in Common polling

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emissions budget consumed by air traffic, the smaller the share available to other essential parts of the economy, such as food and domestic heating. These areas also face carbon reduction challenges but represent services more critical to societal welfare than commercial aviation.

The social inequity of aviation emissions can be seen within European countries, between income groups, and between countries. In particular, the Global South contributes significantly less to global aviation emissions but is expected to experience a disproportionate share of climate-driven loss and damage. For example, one study has suggested that despite Africa being home to 15% of the global population, African residents are responsible for just 2% of global aviation emissions. Meanwhile, in 2018, Europe's aviation emissions were almost three times greater than the emissions of Africa and Latin America combined.<sup>15</sup>

### POLICYMAKERS MUST SECURE PUBLIC BUY-IN TO THE GREEN TRANSITION

For a successful, ethical, and rapid transition to a zero-carbon economy, governments must deliver climate policy in a way that is fair in both design and communication. In other words, policies must be fair, and they must feel fair. To date, governments across Europe have struggled to build confidence in the public, and particularly affected industries, that the transition to a zero-carbon economy is in their interests.

Controlling levels of air traffic is essential but also entails risks. While air travel is disproportionately enjoyed by wealthier frequent flyers, policy to cut its climate impact may restrict access to air travel for a larger group of less well-off, infrequent, passengers. Indeed there is an argument that progressive tax and spend measures are needed alongside already-legislated EU policy measures such as the Emissions Trading System and ReFuelEU in order not to exclusively price out lower-income households from flying. If the policy is regressive or is perceived as unfair, there is a risk of losing commitment from this group to the common goal of decarbonisation.

#### **THIS BRIEFING**

This briefing looks at the potential role of an FFL, a proposal which sees the relative tax paid incrementally increase as more flights are taken. The policy acts across three core objectives:

- 1. Cutting overall traffic, and hence emissions, such that the aviation sector is on track for net zero, and consuming a globally fair share of remaining emissions.
- 2. Recognising the need for a basic minimum of international travel and encouraging its distribution in a fair way.
- 3. Raising funds to recompense nations, particularly the least well-off and least-responsible, for climate-driven loss and damage they experience.

It seeks to understand the proposed FFL from the basis of (i) its impact in the EU across areas such as emissions, demand for flying, and different social groups; and (ii) how it might be implemented and any relevant legal considerations. Supporting this briefing across these two areas (i and ii) are two commissioned reports:

- A model-based exercise looking at the economic dynamics of an FFL applied to European air traffic, underpinned by the widely regarded AERO-MS forecast model. CE Delft, 2024<sup>16</sup> referred to henceforth as analysis by CE Delft.
- A legal feasibility assessment looking at the alignment of an FFL with existing EU legislation and any regulatory changes that might be required. *AdaStone Law*, 2024 referred to henceforth as the legal assessment.

# II. EXISTING POLICIES TO TACKLE AVIATION EMISSIONS

### FUTURE EMISSIONS FROM EUROPEAN AVIATION AND REFUELEU

Strong regulation will be crucial to drive aviation towards climate compatibility. The centrepiece of the EU's legislation in this regard is ReFuelEU, a new law under the European Green Deal package which mandates that 70% of aviation fuel be sourced from fuel substitutes or (so-called sustainable aviation fuels (SAFs)) by 2050. By 2030, the goal is 6%, and by 2035 it is 20%. Before the adoption of ReFuelEU, modelling by the European Union Aviation Safety Agency projected minimal change in European aviation emissions all the way out to 2050. 17 Modelling by the European Commission for the ReFuelEU policy process argues that the policy could reduce the sector's emissions by up to 60% against the pre-policy implementation forecast.<sup>18</sup>

While ReFuelEU is likely to drive some emissions reductions, they will not happen in the short term (when they are most needed), and the size of the reduction remains uncertain. The aviation sector has missed all but one of 50 climate targets set in the 21st century. 19 Progress will depend on the industry's success in developing and scaling up the fuels the policy seeks to promote, and proving their ability to deliver true, long-term, emissions reduction. While the legislation includes provisions to encourage sourcing of fossil fuel substitutes from advanced biofuels and e-kerosene - variants of so-called SAFs – with purportedly more sustainable credentials, doubts remain regarding the net environmental impact of even the most promising variants of so-called SAF, as well as the trade-offs these fuels create (eg the loss of land and energy available for other uses such as food, heating, and local transport).

ReFuelEU will likely drive up prices for air travel but provides no guaranteed level of overall emissions reduction. Indeed, with no direct demand management policies in the ReFuelEU package, it is conceivable (though unlikely) that emissions could increase. Rising demand fuelling more trips and longer distances travelled, alongside the poor performance of alternative fuels in cutting net carbon emissions, could continue to out-strip emissions reduction progress. Meanwhile, noncarbon emissions, which are not addressed by ReFuelEU, could continue to deliver the majority of aviation's climate damage.

Analysis by CE Delft suggests that the best-case impact of the ReFuelEU policy on emissions still means an insufficient reduction in climate damage. This is particularly the case when considering what might represent a fair European share of the remaining global emissions budget. As shown in CE Delft analysis, an assumption underpins most forecasts for European aviation carbon reduction that Europe can continue consuming a disproportionate share of the remaining carbon budget. If the budget were uniformly distributed across global citizens, Europe's share would equate to around 6.4%. This would require Europe to deliver a rate of carbon reduction far faster than implied by ReFuelEU. Even if Europe's share is taken as 16.4%, based on its socioeconomic development status, ReFuelEU still does not deliver decarbonisation fast enough, and leaves Europe heavily dependent on carbon removal technologies, which do not yet exist at scale and are likely to be costly both in financial and energy terms.

### THE ROLE OF CARBON AND FUEL TAXES

Carbon charges and offsetting obligations are also part of the climate policy mix for European aviation. While air traffic has been in the scope of the Emissions Trading Scheme (ETS) for some time, airlines initially received significant protection through the allocation of free emissions allowances. While those allowances are now being rolled back, exposing airlines to the full market price of ETS carbon emissions permits, the market price remains relatively low, with little impact on ticket prices and demand for air traffic.

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A key limitation to the effectiveness of the ETS is that it currently only applies to flights within Europe, meaning long-haul traffic outside of Europe incurs no charge. In the international arena, negotiations have established the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) mechanism. CORSIA places an obligation on airlines to purchase approved emission offsets for emissions arising above a historic baseline. This design feature means that the majority of existing air traffic is effectively exempt from the CORSIA mechanism. In addition, offset obligations can currently be purchased at an extremely low price, and there is concern regarding the true effectiveness of the offsets in reducing emissions. Offsetting projects also have a very poor record when it comes to the protection of human rights and ecosystem integrity. iii The EU has committed to reviewing the effectiveness of CORSIA in 2026, and will consider expanding the ETS to cover non-EU destinations should CORSIA be deemed ineffective at reducing emissions.

A privilege of the European aviation sector is its broad exemption from fuel taxes and VAT. In other industries such taxes are common and create an added incentive for individuals and businesses to switch to alternative fuels or reduce demand. Despite long-running diplomatic efforts in the EU, a fuel tax has yet to be extended to aviation. The proposal is, however, part of the EU's Fit for 55 plans. In October 2023, it was rumoured that such a tax was still under serious consideration, but with a decision deferred until after the 2024 elections.<sup>20</sup>

Some states levy a departure tax or duty on air travel tickets. Some tax short-haul flights higher, as the journeys can easily be shifted to ground transport; others tax long-haul higher, as they are most emission intensive. The relative value of these taxes is low when compared with the value of other tax exemptions and is highly variable between nations. For further information see Transport and Environment (2023) who estimate that by 2025, European governments will be missing out on €47bn in potential revenue from aviation.<sup>21</sup>

### THE POLICY GAP

Overall, sufficient measures are not currently in place to guarantee that the emissions reductions required from aviation are achieved. Analysis of carbon budgets against existing policy by CE Delft shows that the current trajectory will lead to either an overshoot of internationally agreed global warming targets or extremely costly and disruptive future emergency action to belatedly cut emissions using technologies that may or may not ultimately materialise.

Whether through the tightening of existing measures, or the introduction of new measures, it seems inevitable that the cost of flying is going to rise. Without action, this increase will impact poorer groups who fly infrequently relatively more than it affects wealthy frequent flyers. This poses a risk to public acceptance of the measures required, and potentially also to public support for the wider climate transition at the speed and scale required.

There is a very strong case for a new policy measure which will control air traffic emissions in the short-to-medium term, and possibly also for the long term. The idea of a new aviation tax mechanism, grounded in international solidarity, is not new. In 2005, nine countries, including France, implemented a solidarity tax on air tickets. Since its introduction, hundreds of millions of euro have been raised for Unitaid and its work diagnosing and treating diseases such as malaria and HIV/ AIDS. While aviation umbrella groups such as the International Air Transport Association (IATA) have strongly protested the tax, its ultimate impact on the sector is suggested to have been minimal both in terms of ticket price impacts and competition between taxed and un-taxed countries.<sup>22</sup> Neither is it a new idea to vary the relative tax rates applied to air tickets according to the social merits of the flight in question. For many years, governments across Europe have provided tax relief on air routes to remote locations for social as well as economic objectives. The ETS operates similarly for a social purpose, levying a charge aimed at supporting the common goal of carbon emissions reduction.

# III. FREQUENT FLYING LEVY

#### **MODELLED LEVY DESIGN**

Our analysis is illustrative, demonstrating the potential impacts and effectiveness of a levy. Our core design replaces existing ticket taxes with a single common European approach but imitates many typical features of existing national ticket taxes. In line with the German and French ticket taxes, the tax rises for longer-distance journeys. This feature might be removed if the EU were to successfully deliver an effective aviation fuel duty. In line with the UK government's ticket tax, an additional surcharge is applied to flights made in business and first class. Also in line with the UK government's approach to ticket taxes, a double rate is applied to tickets for flights departing the implementing zone (in our case Europe) and no tax is levied on flights entering the zone.

In CE Delft's modelling, no distinction was made between those passengers flying for business purposes (typically 10%–20%) and those travelling for leisure (including holidays and visiting friends and family). However, other studies looking at the design of an FFL have suggested that corporate travel could be subject to a separate levy scheme.<sup>23</sup>

Alternatively, employers might compensate employees for levies incurred for private journeys because of previous professional trips.

The setting of the tariffs within the FFL can also be conducted in a range of different ways. Our initial position was that the tariffs should be set according to the climate need, ie tariffs should be set at a level high enough to deliver all of the traffic reduction required to put aviation on a fast and fair transition. However, it became apparent from our initial tests that aviation's climate problem is so great, and its overshoot of a reasonable emissions trajectory so large, that this would require an extraordinarily high tax rate that is unlikely to be politically feasible. A suite of policy measures would be required. As such, our subsequent analysis is based on our subjective judgement of what might represent a politically feasible tariff that also delivers meaningful emissions reduction fairly. The FFL tariff levels tested by CE Delft are shown in Table 1.

CE Delft's analysis looks at different ways of calculating a fair remaining carbon budget for European aviation. Their work arrives at a range of levels of emissions reduction required in the immediate short term of between -25% and -82%. The lower-end estimate involves aviation's share of emissions in Europe increasing considerably over the coming decades. Given the largely non-essential nature of most air traffic and the other important areas of the economy also facing major carbon reduction challenges, we regard a fair short-term emissions reduction to be at least -45%.

TABLE 1: THE FFL PRICING SCHEDULE TESTED BY CE DELFT, SHOWING CHARGES APPLIED PER SINGLE FLIGHT RISING EVERY TWO FLIGHTS, AND ADDITIONAL SURCHARGES FOR LONGER DISTANCES AND COMFORT CLASSES

Flight count within a 12-month period	General FFL per flight	Surcharge medium haul per flight	Surcharge long haul per flight	Surcharge business/first class per flight
1&2	0	€50	€100	€100
3 & 4	€50	€50	€100	€100
5 & 6	€100	€50	€100	€100
7 & 8	€200	€50	€100	€100
9 or more	€400	€50	€100	€100

TABLE 2: CORE IMPACTS OF AN FFL IMPLEMENTED IN 2028 AGAINST A BASELINE, NO-FFL-POLICY SCENARIO

	Baseline scenario 2028	FFL scenario 2028	% change
Passenger journeys	1137mn	844mn	-26%
Carbon emissions	188.5 Mt	148.6 Mt	-21%
Taxation revenues	€10.5bn	€74.1bn	607%

Targeting a short-term reduction of -45% our proposed tax can deliver approximately half of the necessary emissions reduction in aviation. Further measures would therefore be necessary. These could include caps on the number of flights, such as at Amsterdam's Schiphol airport, slot reduction policies, and limits on especially problematic flights such as routes possible to travel by train, night flights, or private jets and limits on the more damaging comfort classes of travel (e.g. business class passengers have significantly higher emissions per-seat). Meaningful European and international kerosene taxes would also be important, in which case the FFL could be reduced to its core idea of a progressive tax, without the distance surcharges. Any measures, including an FFL, which reduce demand for flying are likely to deliver benefits also in reducing aviation's non-carbon emissions and their climate impacts. However, as these likely make up the majority of the damage to the climate caused by air traffic, further specific policies will also be needed in this area.

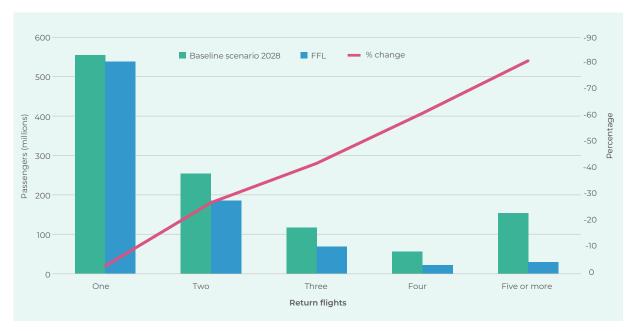
The model developed by CE Delft tests the impact of the FFL in 2028 against the baseline forecast without an FFL policy. CE Delft has also provided additional sensitivity analysis exploring the impact of some of the assumptions in the policy design. CE Delft's model of the FFL takes as its air traffic forecast input data from the Aviation Emissions and evaluation of Reduction Options Modelling System (AERO-MS). This model is the favoured model of the European Commission and is owned by the European Union Aviation Safety Agency (EASA). Price elasticities are used to simulate the passenger demand response resulting from future changes in ticket prices due to the implementation of an FFL. Full details on the modelling assumptions can be found in CE Delft's report.24

#### **RESULTS**

The FFL proves highly effective as an instrument for bringing down emissions and raising revenue. The tested levy design delivers a 26% reduction in passengers in 2028 which leads to a 21% reduction in carbon emissions (Table 2). A similar reduction in non-carbon emissions impacts on the climate is likely but has not been modelled explicitly by CE Delft. The additional taxes paid through the FFL deliver a  ${\in}63.6$ bn increase (607%) in net tax revenues. By using the tax revenues to invest to advance emission reductions, climate adaptation and nature restoration the positive impact of the FFL would be even bigger.

The majority (54%) of these savings are secured from passengers who would otherwise have flown four or more return flights per year (Figure 2) – a group which constitutes just 4.5% of the population in western Europe. Individuals taking just one return flight per year are minimally affected, especially if flying short-haul. This is because, in our modelling, the first two single flights (i.e. the first return flight) are exempt from the FFL (although a distance/class surcharge and/or carbon tax would still be paid). This also means those customers flying from countries with existing ticket taxes could see a reduction in price on their first flight. Using polling data provided by More in Common, we can see that in most western European countries around 70% of the population would be unaffected by the FFL, as they either do not fly at all, or they take only one return flight per year.25

FIGURE 2: PASSENGER DEMAND GROUPED BY THE NUMBER OF RETURN FLIGHTS TAKEN PER YEAR IN THE WITH- AND WITHOUT-FFL SCENARIOS

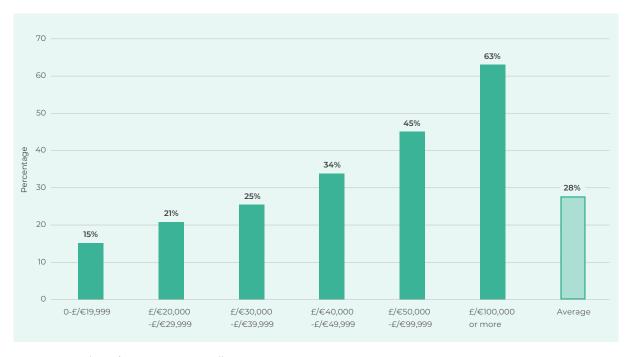


Source: CE Delft, 2024

Reductions in flying are secured overwhelmingly from higher-income social groups. In western Europe, the highest-income households (eg households earning over £/€100,000) are more than four times more likely to pay any charge under the

FFL (not considering distance/class surcharges) than households on the lowest incomes. Just 28% of households pay any charge, falling to 15% among households earning under £/€20,000 per year (Figure 3).

FIGURE 3: THE PROPORTION OF HOUSEHOLDS IMPACTED BY THE FREQUENT FLYING LEVY CHARGES BROKEN DOWN BY INCOME GROUP AGGREGATED ACROSS THE UNITED KINGDOM, GERMANY, NETHERLANDS, BELGIUM, FRANCE, AND SPAIN



Source: NEF analysis of More in Common polling

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### **NATIONAL LEVEL IMPACTS**

The general trends at the national level are consistent between European nations. Frequent flying activity is reduced, primarily through cuts to the flights of wealthier social groups. The primary driver of differences between nations depends on

their share of transfer passengers. As transfer flights are not charged an additional levy, countries with a larger share of transfer passengers (Netherlands and UK) see a lower proportionate decline in air traffic. As shown in Table 3, very significant new revenues accrue to all governments.

TABLE 3: KEY DATA ON FREQUENT FLYING AND THE IMPACT OF AN FFL IN SIX EUROPEAN COUNTRIES (WHERE DETAILED DATA WAS AVAILABLE)

Country	Proportion of the population flying more than three times per year	Proportion of the population paying at least one FFL charge	Change in passenger journeys in the FFL scenario	Change in national aviation emissions in the FFL scenario	Additional revenue raised in FFL scenario
Belgium	5.8%	34.0%	-33%	-28%	€1664m
France	2.7%	20.5%	-33%	-25%	€9899m
Germany	6.4%	26.5%	-20%	-17%	€8328m
Netherlands	5.5%	36.5%	-12%	-12%	€3018m
Spain	4.8%	26.6%	-33%	-28%	€8097m
United Kingdom	4.7%	25.3%	-22%	-17%	€9108m

# IV. FEASIBILITY CONSIDERATIONS

n FFL is legally possible at the EU level and the national level. On the fundamental matter of pan-European aviation taxes in general, a 2005 European Commission analysis<sup>26</sup> of the voluntary participation of member states in an international scheme introducing a mandatory levy for passengers at the national level argued that the Commission said:"no specific legal constraints would prohibit the implementation of such a scheme". Indeed, there are several national examples of airline taxes, including an eco-contribution<sup>iv</sup> on French flights, that demonstrate governments' power and interest in creating novel air ticket taxes.

From a legal perspective, the Principle of Subsidiarity (Treaty on European Union, Article 5(3)), which defines the circumstances in which it is preferable for action to be taken at the EU level rather than by member states, suggests that both environment and transport represent areas where competence is shared.

Today, the EU operates common environmental and climate policies. The EU environment policy notably adheres to the polluter pays principle, which mandates that the emitter of pollutants must cover the costs associated with combating pollution.<sup>27</sup> This approach ensures a partial internalisation of costs, enabling the imposition of taxes or charges on polluters rather than burdening the entire community. However, some argue that this principle is not being effectively implemented in the aviation industry due to the sector's prolonged under-taxation and over-subsidisation, leading to artificially low prices for air travel.<sup>28</sup> Both the EU Emissions Trading Scheme and European Plastic Contribution are relevant examples of coordinated regulation for environmental aims that enshrine the polluter pays principle, and despite neither representing taxation measures in the most technical sense both are similar in effect.

Taxes are also in scope. EU-level taxes can be implemented for environmental reasons and where necessary to strengthen the single market. It seems likely that the FFL would qualify in both categories as it is primarily an environmental tax and harmonising air ticket taxes would strengthen the single market. At present, national air ticket taxes are inconsistent across Europe. Given the international, cross-border, dynamics of air traffic, and the freedom of movement of passengers to access departure airports across intra-EU borders, there is a strong case for moving towards a consistent framework for air ticket taxation across Europe. This would support the delivery of a level playing field and the integrity of the Single Market.

The example of the Solidarity Tax implemented by France and a selection of non-European nations shows that it is not essential for all nations in Europe to sign up to such a tax. Nonetheless, there should be a pan-European approach, particularly for a tax with the features of the FFL (ie requiring a degree of tracking of individual travel).

A challenge in this regard will be the need for unanimity among member states for the implementation of a new EU taxation measure. Despite the unanimity rule, there are examples where tax progress has been made. Member states agreed to a Council Directive that establishes a global minimum level of taxation for multinational enterprise groups and large-scale domestic groups that was adopted under the special legislative procedure. Nevertheless, tax issues are controversial and, for example, the revision of the Energy Taxation Directive continues to be stuck.<sup>29</sup> Some politicians are arguing for institutional reforms that could see more topics, potentially including tax, be decided through qualified majority voting.30 However, in case unanimity was needed and would not be achieved in the relevant time frame, single countries or an alliance of the willing should be the first step for implementing the FFL.

The legal advice we have commissioned from AdaStone Law assesses the legal feasibility of the implementation of some form of FFL in Europe. The main challenges to consider are the following:

## GDPR (GENERAL DATA PROTECTION REGULATION)

At the EU level, the EUDPR<sup>31</sup> lays down rules on how EU institutions, bodies, offices, and agencies should treat the personal data they hold on individuals. The implementation of an FFL will require either the tracking of an individual's flight data or at least the ability of a tax authority to investigate an individual's flight data to ensure adherence to tax rules. The main challenge will be ensuring that the FFL complies with the subsidiarity/proportionality test, ie to justify why the imposition of a tax for environmental and social purposes takes precedence over the right to privacy over movement data, therefore justifying the establishment of a database of passengers. While data is, in fact, already tracked for security purposes, such security objectives are protected by a stronger position in the proportionality test. Our legal advice suggests that securing a GDPR-compatible FFL design should be possible, conditional on the EU establishing a sound legal basis that there is a public interest in individual travel data being tracked and that this interest passes the proportionality test when considering an individual's right to privacy.

### **IDENTIFYING INDIVIDUALS**

As regards intra-EU flights, EU nationals have the right to fly with either a valid passport or an identity card. This adds a layer of complexity to tracking the flight behaviour of an individual. Given this limitation, and the GDPR concerns, our analysis suggests that the most efficient implementation approach would be through the creation of a unique passenger identifier number. This number would be the link to a centrally managed database tracking flight numbers which would be accessed by the ticket seller during the final stages of the sales process. The use of such traveller numbers is increasingly common. In the USA, some 27 million individuals have a Known Traveller Number. This government-managed identifier is principally designed to speed up the processing of traveller security information.

#### PRICE TRANSPARENCY

Another challenge is to take into account the obligation provided by Article 23 of Regulation 1008/2008 stating that all unavoidable and foreseeable taxes must be included in the first and final price for the ticket presented to the customer. This requires that ticket sellers be somehow'aware' of an individual's FFL status (ie the number of flights previously taken in the year) at the point of presenting the ticket price. Ideally, the European Commission and Council would grant either an amendment to this legislation or a re-interpretation which would allow additional flexibility for sellers. The idea that ticket sellers would contact the flight tracking database before the sales process seems onerous. With a small amount of flexibility, it might be possible that the individual would voluntarily enter into the ticket search box (when adding their destination, dates, etc.) their number of flights within the past tax year to obtain an initial quoted price inclusive of their estimated FFL tax. Once the individual had selected their flight, and proceeded through the booking confirmation process, formal contact would be made with the passenger database to confirm the accuracy of their self-declared data.

### **V. REVENUES**

he global transition demands a substantial increase in capital investment, estimated at around \$3.5tn annually until 2050. While a portion of this investment will be reduced by decreased spending on fossil fuels, the net investment gap still equates to \$3tn annually, equivalent to 1.3% of the anticipated average annual global GDP over the next three decades. The biggest challenge lies in directing investments toward middle- and lowincome countries. It is estimated that a fourfold increase from current levels to approximately \$900bn per year by 2030 is required.<sup>32</sup> Moreover, the UN says there is an annual financing shortfall for adaptation of \$194bn to \$366bn.33 Loss and damage in the Global South are estimated at \$425bn in 2020 and \$671bn in 2030.34 Some of the investment to cover these costs will come from private investors, but a significant increase in public investment will be needed to transition our economies, protect people and livelihoods from the growing climate impacts, and rebuild following loss and damage.

In Europe, governments will need to boost public investments by at least €260bn per year³⁵ to fulfil their climate commitments, while an additional €192bn³⁶ is needed to meet social (eg schools, hospitals, and housing) investment gaps. A recent analysis by NEF and the European Trade Union Confederation³⊓ found that under new EU fiscal rules – rules governing national borrowing and spending – only three member states would have sufficient public spending capacity to meet these investment gaps. Additional financing will be needed to invest in protecting the EU from rapidly growing climate risks.³8

To overcome the global and EU investment gaps, governments will need, first, to allow more safe borrowing to invest in quality public services and the green transition. Such investments will pay for themselves as they have high multiplier effects,<sup>39</sup> reduce future costs to public coffers from preventable environmental damage (including health),<sup>40</sup> build more resilient economies and societies, as well as contribute to debt sustainability.

Second, governments need to increase progressive taxation. There is a need to increase both taxes on polluting activities, such as frequent flying, as well as taxation of the wealthiest to ensure they contribute their fair share towards necessary public investments.

The FFL will be an important component of a strategy to finance both European and Global South mitigation and adaptation efforts. Our analysis shows that an FFL could generate €74.1bn annually for the 31 European countries analysed and €56.4bn for the EU27. This would be a €63.6bn increase in tax revenue for 31 European countries and a €50.9bn increase for the EU27 relative to existing ticket taxes. For context, this budget is similar to the EU's spending on the Common Agricultural Policy (CAP) which cost €55.7bn in 2021.41 These additional tax revenues could pay for expanding our public transport systems, bike infrastructure, renewable energy production, and energy efficiency and contribute to the EU paying its fair share of global climate finance and loss and damage.

Our proposal for generating tax revenue from an aviation levy originates from a long-lasting call from Least Developing Countries in 2008 to introduce an International Air Passenger Adaptation Levy (IAPAL) to raise revenue from aviation to provide more adequate funding for adaptation activities. Also in COP28, using an aviation tax has again been discussed for the grossly underfunded Loss & Damage Fund.

Another proposal was made by the ICCT in its 2022 report, stating that raising \$121bn in revenue in 2019 would have been possible with an FFL starting at \$9 for a person's second flight to \$177 for their twentieth flight within the same year.44 They propose that the revenues would be given to the industry for decarbonisation, in other words, for technological development. We argue for not using the revenues collected from frequent flying for direct support to the industry, as they are profitoriented rather than public interest organisations, have waited decades to proceed with the needed technological advancements, have received billions in bailout money during Covid, and continue to be further subsidised. Revenues raised should therefore be directly used for building alternatives to aviation and taking on responsibility for the historic and current climate debt.

There is also a need to recognise that there will be some communities, in Europe and globally, that are dependent on tourism that will be negatively affected by an FFL. Also, the Covid-19 pandemic drastically showed what happens to regions solely dependent on tourism. Some of the funds generated should therefore be used to support communities that have grown dependent on mass tourism and related services to build links through more sustainable transport modes, particularly ground-based public transport, and to diversify their economies in a self-determined and sustainable way.

### HOW AN FFL COULD FINANCE THE EUROPEAN GREEN TRANSITION

New EU fiscal rules limit the scope for additional national public investments to achieve climate and energy targets, as they require debt and deficit reductions, meaning 16 member states will have to make budget cuts, 45 rather than incentivise green public investment. This means the EU will need to raise taxes nationally or at the EU level and create new common European debt to secure the necessary public investments in climate mitigation and adaptation in the EU. This increase in public spending could go towards expanding and upgrading Europe's rail system, expanding public transport in cities and rural communities and making them more accessible and affordable, expanding renewable energy production, retrofitting homes, and delivering a targeted and conditional industrial policy. Such investments not only reduce emissions but also are essential to ensure a socially fair transition as well as improve the productive capacity of Europe's economy.

New EU-level taxes could also make the creation of an EU investment vehicle more likely. An EU investment vehicle, which means EU borrowing on capital markets to create a public investment fund, could allow the EU to frontload crucial green and social investments allowing cost-sharing between generations, meaning the cost of public investment is spread over time. The EU's Recovery and Resilience Facility, which was implemented as a response to economic and social repercussions of the Covid-19 pandemic and the Russian invasion of Ukraine, serves as a model for such a European investment drive. There are several options to

ensure repayment. First, the EU can introduce additional 'own resources', the EU's term for tax incomes. Second, the EU budget could see cuts in spending. Third, member states could increase their contributions to the EU budget – which is the default option. The preferable option would be to implement new EU-level taxes or own resources to finance debt repayments.

A pilot programme in several member states could also be envisioned with participating member states using the revenues to advance the domestic transition, as well as increasing their contributions to global loss and damage and climate mitigation.

# HOW AN FFL COULD PROVIDE FINANCE FOR THE GLOBAL SOUTH AND SUPPORT UN CLIMATE FINANCE INSTITUTIONS

On the global level, how to finance the green transition is emerging as the single most important issue. 46 Current financing falls far short of what is required. Global North governments must urgently increase their contributions to loss and damage and global climate mitigation and adaptation. While upwards of \$1tn in financing for adaptation and mitigation is estimated to be needed by 2030, 47 there is also the matter of compensation for loss and damage, which should take the form of a direct transfer rather than a financing arrangement. While estimates vary, one study has suggested loss and damage worth \$580bn could be incurred in 2030. 48

Implementing an FFL in Europe would generate sufficient financial resources to allocate a share to Global South adaptation and mitigation financing and/or loss and damage compensation. To have a real impact, on top of pledges already made by some national governments, consistent and longterm revenues are needed that are truly additional above existing foreign aid spending. There is growing international acceptance that new taxes are required to support mitigation and adaptation efforts in the Global South. This is reflected, for example, in the 2023 launch of a new taskforce, initiated by France and Kenya, to push for new taxes and levies that raise funds for the transition.49 New kinds of taxes are also covered within United Nations Framework Convention on Climate Change (UNFCCC) documents under the heading "innovative sources of finance".50

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Allocating a share of the FFL revenues to international development funds has precedent. Since 2006, several countries have adopted a solidarity levy on airline tickets, following the 2005 UN Declaration on Innovative Sources of Financing for Development. This could provide a blueprint of repeating using revenues from taxing aviation, largely enjoyed by wealthier people in the Global North, to support the Global South.

A significant portion of the revenues from an FFL should be earmarked to finance both mitigation efforts and support loss and damage. One way to achieve this would be for FFL revenues to feed into an international public investment fund, to finance mitigation efforts worldwide and create an ongoing stream of proceeds for climate grants in the Global South, and potentially for cash dividends for people facing climate risk. Some 'cap and share' proposals offer structures of this kind and have the potential to unify income streams from various sources such as an FFL and other taxes including an international fossil fuel extraction charge.<sup>51</sup> This way global climate mitigation and loss and damage funds can have a consistent and long-term revenue stream.

## HOW AN FFL COULD SUPPORT WORKERS AND HELP DELIVER A JUST TRANSITION

CE Delft's modelling, presented in this briefing, analyses the full implementation of an FFL in the example year of 2028. As urgent action is required, an earlier implementation is preferred but could be approached as a phased roll-out to give workers and the industry time to adapt to the demand reduction. It is key to protect the livelihoods of workers in a well-planned just transition, where social dialogue with workers, communities, and unions is fundamental at all stages and all levels.

Previous discussions and papers produced in collaboration with aviation sector unions have identified several important measures, <sup>52</sup>, <sup>53</sup> such as (i) promoting the creation of alternative employment, particularly in the most affected regions, preferably decent secure jobs in sectors that build climate resilience; (ii) Investing in skills development and re-training as needed; (iii) union-negotiated limits on redundancy; (iv) salary replacement for a fixed period during which workers are supported to upskill and reskill for new green industries; and (v) using the natural workforce turnover to smooth the transition.

# VI. CONCLUSIONS AND INITIAL RECOMMENDATIONS

Aviation emissions represent a major threat to our ability to deliver a global transition to a stable climate. Policy to date has been insufficient in scope to address this impact; it is overly reliant on technologies that are not proven at scale and are not truly sustainable. Furthermore, approaches currently in the political frame do not do enough to address the issues of inequality and social acceptability inherent in the aviation climate problem. Most of the world's population does not fly at all. A tiny minority of frequent flyers are consuming the lion's share of the remaining carbon budget. A fairer, bolder, and faster policy is urgently required.

#### **RECOMMENDATIONS**

A. Implementation of a Frequent Flying Levy (FFL) at the pan-European level with tariffs priced to materially cut air traffic emissions in the short to medium term. Key design features could include the following:

- In the absence of an effective kerosene/ carbon tax, the FFL should include distancelinked price bands akin to those seen in some national ticket taxes.
- The FFL could replace national ticket taxes, but recycle equivalent revenues to all national governments such that no government loses out from lost ticket tax revenues.
- The FFL should greatly increase the price of the most climate-damaging classes (premium, business, first) of travel.

# B. Distribution of the significant revenues generated by the levy to the following destinations:

- EU own resources for investment into green infrastructure and supporting low-income groups with access to renewable energy, energy efficiency, public transport and trains.
- Resources supporting EU or national government policy to deliver a just transition for any workers affected by the policy and its impact on demand.
- Resources for investment specifically in the local economies in parts of Europe with a high dependency on inbound air travel (including rail and other sustainable travel to such destinations).
- Resources are transferred either to climatevulnerable countries and regions dependent on aviation-related tourism, or to an international Global-South-led fund to compensate for loss and damage and support climate mitigation and just transition efforts.

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